

# State Route 1 Centerline Rumble Strip Project



## **DRAFT Initial Study with Proposed Negative Declaration**

SONOMA COUNTY, CALIFORNIA  
DISTRICT 4 – SON – 1 (PM 0.00-58.58)  
04-4G780/0413000178

**Prepared by the  
State of California, Department of Transportation**

**January 2023**





## General Information about this Document

### What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study with Proposed Negative Declaration (IS/ND) for the State Route (SR) 1 Centerline Rumble Strip Project (Project). Caltrans proposes to widen the existing shoulder to 6 feet at 50 spot locations and install four segments of centerline rumble strips between post miles (PMs) 0.00 and 58.58 on SR 1 in Sonoma County. Additional Project information is provided in Chapter 2.

Caltrans is the lead agency under the California Environmental Quality Act (CEQA). This IS/ND describes why Caltrans proposes the Project, how the existing environment could be affected by the Project, potential environmental impacts, and the Project features and avoidance and minimization measures that would reduce, avoid and/or minimize, or mitigate Project impacts to a less than significant level.

### What you should do:

- Please read this IS/ND.
- This IS/ND, maps, and Project information are available to download at the [District 4 Environmental Documents by County](https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs) website (<https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs>). Additionally, a hard copy of this IS/ND will be made available at the following locations in the vicinity of the Project:
  - Sonoma County Regional Library  
755 West Napa Street  
Sonoma, CA 95476
  - Guerneville Regional Library  
14107 Armstrong Woods Road  
Guerneville, CA 95446
  - Rohnert Park – Cotati Regional Library  
6250 Lynne Conde Way  
Rohnert Park, CA 94928
- We would like to hear what you think. Send comments by the deadline of February 15, 2023 to:

- Caltrans, District 4  
ATTN: Arnica MacCarthy, Senior Environmental Planner  
P.O. Box 23660, MS-8B  
Oakland, CA 94623-0660; or
  
- The Project email address: [son1centerlinerrumblestrip@dot.ca.gov](mailto:son1centerlinerrumblestrip@dot.ca.gov)

### **What happens next:**

Per CEQA Section 15073, Caltrans will circulate this IS/ND for review for 30 days from January 17, 2023, to February 15, 2023. During the 30-day public review period, the general public and responsible and trustee agencies can submit comments on this IS/ND to Caltrans. Caltrans will consider the comments and will respond to the comments after the 30-day public review period.

After comments have been received from the general public and responsible and trustee agencies, Caltrans may:

1. Grant environmental approval to the Project.
2. Conduct additional environmental studies.
3. Abandon the Project.

If the Project is granted environmental approval and funding is obtained, Caltrans could design and construct all or part of the Project.

### **Alternative Formats:**

For individuals with sensory disabilities, this IS/ND can be made available in Braille, in large print, on audiocassette, or on computer disk by writing to the Caltrans District 4 mailing or email address or by calling **California Relay Service** at **(800) 735-2929 (TTY)**, **(800) 735-2922 (Voice)**, or **711**.

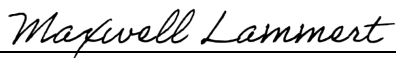
An accessible electronic copy of this IS/ND is available to download at the [District 4 Environmental Documents by County](https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs) website (<https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs>).

## DRAFT Initial Study with Proposed Negative Declaration

<b>04-SON-1</b>	<b>0.00-58.58</b>	<b>04-4G780</b>
Dist. – Co. – Rte.	PM	E.A.

Project title:	SR 1 Centerline Rumble Strip Project
Lead agency name and address:	California Department of Transportation 111 Grand Avenue, Oakland, CA 94612
Contact person and phone number:	Arnica MacCarthy, Senior Environmental Planner (510) 506-0481
Project location:	Sonoma County
General plan description:	Highway
Zoning:	Transportation Corridor
Other public agencies whose approval is required (e.g., permits, financial approval, or participation agreements)	California Coastal Commission or Sonoma County California Department of Fish and Wildlife California Transportation Commission California Department of Parks and Recreation North Coast Regional Water Quality Control Board U.S. Army Corps of Engineers U.S. Fish and Wildlife Service

This IS/ND, maps, and Project information are available to download at the [District 4 Environmental Documents by County](https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs) website (<https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs>).

 <hr style="border: 0; border-top: 1px solid black; margin: 0;"/> Maxwell Lammert Acting Chief, Office of Environmental Analysis California Department of Transportation, District 4	01/11/2023 <hr style="border: 0; border-top: 1px solid black; margin: 0;"/> Date
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To obtain a copy in Braille, in large print, on audiocassette, or on computer disk, please mail Caltrans, District 4, ATTN: Arnica MacCarthy, Senior Environmental Planner, P.O. Box 23660, MS-8B, Oakland, CA 94623-0660; email [mailto: son1centerlinerulestrip@dot.ca.gov](mailto:son1centerlinerulestrip@dot.ca.gov); or call **California Relay Service** at **(800) 735-2929 (TTY)**, **(800) 735-2922 (Voice)**, or **711**.



# Proposed Negative Declaration

## Project Description

The California Department of Transportation (Caltrans) has prepared this Initial Study with Proposed Negative Declaration (IS/ND) for the State Route (SR) 1 Centerline Rumble Strip Project (Project). Caltrans proposes to widen the existing shoulder to 6 feet at 50 spot locations and install four segments of centerline rumble strips between post miles (PMs) 0.00 and 58.58 on SR 1 in Sonoma County. Additional Project information is provided in Chapter 2.

## Determination

This Proposed Negative Declaration (ND) is included to notify the general public, responsible agencies, and trustee agencies that Caltrans intends to adopt a ND for the Project. This ND is subject to change based on comments received from the general public, responsible agencies, and trustee agencies.

Caltrans has prepared this IS/ND for the Project and, pending public review, expects to determine from this study that the Project would not have a significant effect on the environment for the following reasons:

- The Project would have no impacts on agriculture and forest resources, mineral resources, population and housing, public services, and recreation.
- The Project would have less than significant impacts on aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, transportation, Tribal cultural resources, utilities and service systems, and wildfire.

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Melanie Brent  
Deputy District Director  
Environmental Planning and Engineering  
California Department of Transportation, District 4

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Date





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### **Appendix C** List of Technical Studies and References

## List of Abbreviated Terms

<b>Abbreviation</b>	<b>Definition</b>
AB	Assembly Bill
AMM	avoidance and/or minimization measure
ADI	Area of Direct Impact
APE	area of potential effects
BSA	Biological Study Area
BSB	Behren's silverspot butterfly
BMP	best management practice
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCA	California Coastal Act of 1976
CCC	California Coastal Commission
CCT	California Coastal Trail
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CGS	California giant salamander
CH <sub>4</sub>	methane
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
CRLF	California red-legged frog
CWA	Clean Water Act
dB	decibels

<b>Abbreviation</b>	<b>Definition</b>
dba	A-weighted decibels
DP	Director's Policy
ESA	environmentally sensitive area
ESHA	environmentally sensitive habitat areas
FHWA	Federal Highway Administration
FYLF	foothill yellow-legged frog
GHG	greenhouse gases
Graton Rancheria	Federated Indians of Graton Rancheria
Guidelines	Final Sonoma Route 1 Repair Guidelines
GWP	global warming potential
IS/ND	Initial Study/Negative Declaration
Kashia Pomo	Kashia Band of Pomo Indians of the Stewarts Point Rancheria
LCP	Local Coastal Plan
L <sub>max</sub>	maximum hourly noise level
MAMU	marbled murrelet
MLD	Most Likely Descendent
mph	miles per hour
MRZ	Mineral Resource Zone
MSB	Myrtle's silverspot butterfly
N <sub>2</sub> O	nitrous oxide
NAHC	Native American Heritage Commission
NB	northbound
ND	Negative Declaration
NOAA Fisheries	National Oceanographic and Atmospheric Administration Fisheries Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places

<b>Abbreviation</b>	<b>Definition</b>
NSO	northern spotted owl
OCRS	Office of Cultural Resources Studies
PA	Programmatic Agreement
PF	Project Feature
PG&E	Pacific Gas and Electric Company
PM	post mile
PM <sub>10</sub>	particulate matter with aerodynamic diameter equal to or less than 10 micrometers
PM <sub>2.5</sub>	particulate matter with aerodynamic diameter equal to or less than 2.5 micrometers
PQS	Professionally Qualified Staff
PS&E	Plans, Specifications, and Estimates
RBN	red-bellied newt
RCEM	Road Construction Emissions Model
ROW	right of way
SB	southbound
SCTA	Sonoma County Transportation Authority
SLF	Sacred Lands File
SNPL	western snowy plover
SR	State Route
SSC	Species of Special Concern
SSP	Standard Special Provision
State Parks	California Department of Parks and Recreation
STV	Sonoma tree vole
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
THPO	Tribal Historic Preservation Officer

*List of Abbreviated Terms*

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<b>Abbreviation</b>	<b>Definition</b>
TMP	Traffic Management Plan
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled
WEF	wildlife exclusion fencing
WPT	western pond turtle

# Chapter 1 Proposed Project

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## 1.1 Introduction

The California Department of Transportation (Caltrans), as the California Environmental Quality Act (CEQA) lead agency and sponsor for the proposed State Route (SR) 1 Centerline Rumble Strip Project (Project), has prepared this Initial Study with Proposed Negative Declaration (IS/ND) for the Project.

The Project would occur along SR 1 between Post Mile (PM) 0.00 and PM 58.58 in Sonoma County (Figures 1-1 and 1-2; figures are presented in Appendix A). Caltrans proposes to install ground-in centerline rumble strip, install wet-night visibility striping, and widen the shoulders at 50 spot locations on SR 1 (Figure 1-3). The approximately 58.58-mile stretch along SR 1 between the Marin County line and the Mendocino County line is referred to hereafter as the “Project corridor.”

The Project would be funded by the State Highway Operation and Protection Program (SHOPP) under program code 201.010 (Safety Improvements) for the 2023/2024 program year. The SHOPP is California’s “fix-it-first” program, which funds the repair and preservation of the State Highway System, safety improvements, and some highway operational improvements. It has been determined that the Project would be eligible for Federal-aid funding. The Project total cost estimate, including capital and support costs, is approximately \$22,682,000.

## 1.2 Purpose and Need

The purpose of the Project is to reduce the number and severity of head-on, cross-centerline, and run-off-road collisions in order to provide safe traffic operations on SR 1 and also to provide refuge areas for bicyclists to use when being passed by motorists on this stretch of the highway.

The current Two-and-Three-Lane Safety Monitoring Program has identified several head-on collisions, sideswipe collisions, and fatal collisions on SR 1 in Sonoma County. The 2012 California Roadway Departure Safety Implementation Plan (CA-RDSIP) (FHWA 2012) also identified SR 1 in Sonoma County as having fatalities from run-off-road accidents that meet the threshold for countermeasures. CA-RDSIP promotes the implementation of centerline rumble strips on two-lane undivided rural highways with a pavement width of at least 20 feet when thresholds have been met.

### 1.3 Existing Conditions

Within the Project limits, SR 1 extends from the Marin County line to the Mendocino County line for a distance of 58.58 miles. Within this stretch of SR 1 the highway is a two-lane rural conventional highway with 10-foot to 12-foot-wide travel lanes, with no centerline rumble strips, and shoulders varying from 0 to 8 feet wide. Within Sonoma County, SR 1 also serves as the only link to several small coastal communities and does not provide High Occupancy Vehicle (HOV) lanes. Due to SR 1 being a narrow and winding road, it is subject to head-on and sideswipe collisions.

Table 1-1 depicts the existing shoulder conditions at the 50 shoulder widening spot locations.

After further review of detailed survey data and field visits, it was determined that formerly considered shoulder widening locations northbound (NB) #01 (Location 1), NB #03 (Location 4), NB #05 (Location 7), southbound (SB) #06 (Location 12), and SB #07 (Location 14) have existing 6-foot shoulders, and these locations were therefore removed from the scope of work. In addition, shoulder widening locations NB #06 (Location 8), SB #09 (Location 16), SB #14 (Location 21), NB #08 (Location 22), NB #13 (Location 39), and SB #27 (Location 40) were removed from the scope of work due to environmental constraints. Therefore, there is no further discussion of these 11 former shoulder widening locations in this IS/ND.

**Table 1-1. Existing Conditions**

Location Number	Location Name	Begin Post Mile	End Post Mile	Existing Shoulder
1	NB #02 (Location 2)	0.21	0.25	Paved, Dirt
2	SB #01 (Location 3)	0.61	0.65	Dirt
3	NB #04 (Location 5)	1.38	1.43	Paved, Dirt
4	SB #02 (Location 6)	2.34	2.41	Paved, Dirt
5	SB #03 (Location 9)	7.13	7.18	Paved
6	SB #04 (Location 10)	7.39	7.42	Paved, Gravel
7	SB #05 (Location 11)	7.60	7.68	Paved, Gravel
8	NB #07 (Location 13)	12.10	12.15	Dirt
9	SB #08 (Location 15)	12.93	13.11	Paved, Dirt
10	SB #10 (Location 17)	13.78	13.84	Paved, Gravel
11	SB #11 (Location 18)	14.25	14.30	Paved, Gravel



Location Number	Location Name	Begin Post Mile	End Post Mile	Existing Shoulder
12	SB #12 (Location 19)	15.80	15.84	Paved, Dirt
13	SB #13 (Location 20)	15.95	16.01	Paved, Dirt
14	SB #15 (Location 23)	20.49	20.52	Gravel, Dirt
15	SB #16 (Location 24)	21.00	21.13	Paved, Dirt
16	SB #17 (Location 25)	23.61	23.68	Gravel, Dirt
17	SB #18 (Location 26)	23.82	23.88	Gravel, Dirt
18	SB #19 (Location 27)	26.03	26.08	Gravel, Dirt
19	NB #09 (Location 28)	27.25	27.32	Paved, Dirt
20	NB #10 (Location 29)	27.67	27.72	Gravel
21	SB #20 (Location 30)	27.67	27.78	Gravel
22	NB #11 (Location 31)	27.98	28.01	Gravel
23	SB #21 (Location 32)	28.42	28.47	Gravel, Dirt
24	SB #22 (Location 33)	29.63	29.77	Paved, Gravel
25	SB #23 (Location 34)	30.99	31.01	Gravel, Dirt
26	SB #24 (Location 35)	31.99	32.01	Gravel, Dirt
27	SB #25 (Location 36)	32.25	32.29	Gravel, Dirt
28	SB #26 (Location 37)	33.62	33.67	Gravel, Dirt
29	NB #12 (Location 38)	34.00	34.05	Paved, Dirt
30	SB #28 (Location 41)	39.09	39.15	Gravel
31	SB #29 (Location 42)	39.23	39.28	Gravel
32	SB #30 (Location 43)	39.35	39.39	Gravel
33	NB #14 (Location 44)	40.00	40.03	Gravel, Dirt
34	SB #31 (Location 45)	40.49	40.52	Gravel
35	NB #15 (Location 46)	40.78	40.82	Gravel, Dirt
36	SB #32 (Location 47)	41.74	41.81	Gravel, Dirt
37	SB #33 (Location 48)	42.24	42.30	Gravel, Dirt
38	SB #34 (Location 49)	43.03	43.06	Gravel
39	SB #35 (Location 50)	43.22	43.30	Gravel, Dirt
40	NB #16 (Location 51)	R43.90	R43.96	Gravel, Dirt
41	SB #36 (Location 52)	44.53	44.57	Gravel
42	SB #37 (Location 53)	44.99	45.09	Dirt
43	SB #38 (Location 54)	R45.18	45.28	Gravel, Dirt
44	SB #39 (Location 55)	46.06	46.12	Gravel, Dirt
45	SB #40 (Location 56)	47.61	47.69	Gravel, Dirt
46	SB #41 (Location 57)	49.18	49.23	Gravel, Dirt
47	SB #42 (Location 58)	54.30	54.34	Gravel, Dirt

Location Number	Location Name	Begin Post Mile	End Post Mile	Existing Shoulder
48	SB #43 (Location 59)	55.89	55.93	Dirt
49	NB #17 (Location 60)	56.08	56.14	Gravel
50	SB #44 (Location 61)	57.11	57.16	Gravel, Dirt

Notes:

NB = northbound

SB = southbound

# Chapter 2 Project Description

## 2.1 Introduction

Caltrans proposes to install ground-in centerline rumble strip, install wet-night visibility striping, and widen the shoulders at 50 spot locations on SR 1 (Figures 1-1 through 1-3). The ground-in centerline rumble strip segments are explained in Section 2.2.1. The shoulder widening locations are described in Section 2.2.2. Due to the length of the Project corridor, and for the purposes of environmental analyses, the Project limits have been divided into Sub-Areas 1 through 4 (Table 2-1, Figure 1-2). The Project footprint would encompass the maximum extent of construction-related activities, including staging and disturbed areas, and would be approximately 161.03 acres (Figure 1-3).

**Table 2-1. Project Sub-Areas**

Sub-Area Name	Sub-Area Begin Post Mile	Sub-Area End Post Mile	Shoulder Widening Location <sup>[1]</sup>	Centerline Rumble Strip Segment <sup>[2]</sup>
Sub-Area 1	0.00	11.00	NB #02 (Location 2)	N/A
Sub-Area 1	0.00	11.00	SB #01 (Location 3)	N/A
Sub-Area 1	0.00	11.00	NB #04 (Location 5)	N/A
Sub-Area 1	0.00	11.00	SB #02 (Location 6)	Segment 1
Sub-Area 1	0.00	11.00	SB #03 (Location 9)	Segment 1
Sub-Area 1	0.00	11.00	SB #04 (Location 10)	Segment 1
Sub-Area 1	0.00	11.00	SB #05 (Location 11)	Segment 1
Sub-Area 2	11.00	22.00	NB #07 (Location 13)	Segment 2
Sub-Area 2	11.00	22.00	SB #08 (Location 15)	Segment 2
Sub-Area 2	11.00	22.00	SB #10 (Location 17)	Segment 2
Sub-Area 2	11.00	22.00	SB #11 (Location 18)	Segment 2
Sub-Area 2	11.00	22.00	SB #12 (Location 19)	Segment 2
Sub-Area 2	11.00	22.00	SB #13 (Location 20)	Segment 2
Sub-Area 2	11.00	22.00	SB #15 (Location 23)	Segment 2
Sub-Area 2	11.00	22.00	SB #16 (Location 24)	Segment 2
Sub-Area 3	22.00	32.00	SB #17 (Location 25)	Segment 3
Sub-Area 3	22.00	32.00	SB #18 (Location 26)	Segment 3
Sub-Area 3	22.00	32.00	SB #19 (Location 27)	Segment 3
Sub-Area 3	22.00	32.00	NB #09 (Location 28)	Segment 3
Sub-Area 3	22.00	32.00	NB #10 (Location 29)	Segment 3

Sub-Area Name	Sub-Area Begin Post Mile	Sub-Area End Post Mile	Shoulder Widening Location <sup>[1]</sup>	Centerline Rumble Strip Segment <sup>[2]</sup>
Sub-Area 3	22.00	32.00	SB #20 (Location 30)	Segment 3
Sub-Area 3	22.00	32.00	NB #11 (Location 31)	Segment 3
Sub-Area 3	22.00	32.00	SB #21 (Location 32)	Segment 3
Sub-Area 3	22.00	32.00	SB #22 (Location 33)	Segment 3
Sub-Area 3	22.00	32.00	SB #23 (Location 34)	N/A
Sub-Area 3	22.00	32.00	SB #24 (Location 35)	Segment 4
Sub-Area 4	32.00	58.58	SB #25 (Location 36)	Segment 4
Sub-Area 4	32.00	58.58	SB #26 (Location 37)	Segment 4
Sub-Area 4	32.00	58.58	NB #12 (Location 38)	Segment 4
Sub-Area 4	32.00	58.58	SB #28 (Location 41)	Segment 4
Sub-Area 4	32.00	58.58	SB #29 (Location 42)	Segment 4
Sub-Area 4	32.00	58.58	SB #30 (Location 43)	Segment 4
Sub-Area 4	32.00	58.58	NB #14 (Location 44)	Segment 4
Sub-Area 4	32.00	58.58	SB #31 (Location 45)	Segment 4
Sub-Area 4	32.00	58.58	NB #15 (Location 46)	Segment 4
Sub-Area 4	32.00	58.58	SB #32 (Location 47)	Segment 4
Sub-Area 4	32.00	58.58	SB #33 (Location 48)	Segment 4
Sub-Area 4	32.00	58.58	SB #34 (Location 49)	Segment 4
Sub-Area 4	32.00	58.58	SB #35 (Location 50)	Segment 4
Sub-Area 4	32.00	58.58	NB #16 (Location 51)	Segment 4
Sub-Area 4	32.00	58.58	SB #36 (Location 52)	Segment 4
Sub-Area 4	32.00	58.58	SB #37 (Location 53)	Segment 4
Sub-Area 4	32.00	58.58	SB #38 (Location 54)	Segment 4
Sub-Area 4	32.00	58.58	SB #39 (Location 55)	Segment 4
Sub-Area 4	32.00	58.58	SB #40 (Location 56)	Segment 4
Sub-Area 4	32.00	58.58	SB #41 (Location 57)	Segment 4
Sub-Area 4	32.00	58.58	SB #42 (Location 58)	Segment 4
Sub-Area 4	32.00	58.58	SB #43 (Location 59)	Segment 4
Sub-Area 4	32.00	58.58	NB #17 (Location 60)	Segment 4
Sub-Area 4	32.00	58.58	SB #44 (Location 61)	Segment 4

Notes:

<sup>[1]</sup> Shoulder widening locations are defined in Table 2-3.

<sup>[2]</sup> Centerline rumble strip segments are defined in Table 2-2.

NB = northbound

SB = southbound

N/A = Not applicable

## 2.2 Project Components

The following sections describe the Project components, which are also depicted in Figure 1-3 in Appendix A.

### 2.2.1 Install Centerline Rumble Strip

The Project proposes to install incongruous sections of ground-in centerline rumble strips on SR 1. The centerline rumble strips would be discontinued where the speed limit is equal to or less than 35 miles per hour (mph). These locations include a minimum of 25 feet in advance of highway intersections, pedestrian crossings, cattle guards, commercial or town centers, and left-turn lane openings. Table 2-2 provides the locations in which centerline rumble strips are proposed.

**Table 2-2. Centerline Rumble Strip Installation Locations**

Segment Name	Begin Post Mile	End Post Mile
Segment 1	2.05	9.40
Segment 2	11.50	21.15
Segment 3	22.00	30.60
Segment 4	31.95	58.58

To ensure the Project supports safe mobility for all users, a previous Caltrans centerline rumble strip project was analyzed. Centerline rumble strips were installed on SR 1 in Marin County, and collision data from before and after Project completion was analyzed. In conclusion, after the installation of centerline rumble strips, the percentage of bicycle-related collisions, head-on, and fatal collisions, have all decreased. Therefore, centerline rumble strip has been proven to increase the overall, multi-modal safety for all users.

### 2.2.2 Widen Shoulders

The Project would widen the existing shoulder to 6 feet at 50 spot locations (Table 2-3) where there is an existing width of shoulder that is relatively flat or on an uphill grade that would not require extensive embankment creation, excavation, or retaining structures to construct the shoulder widening. The depth of excavation at the shoulder widening locations would be 1.8 feet, and the total new impervious surface (NIS) due to the shoulder widening would be 4.05-acres. Currently, the 50 locations include 11 east of the northbound lane and 39 west of the southbound lane. These locations were selected considering their expected benefit to cyclists, limited

environmental impact, and limited right of way (ROW) concerns. The Project would provide sufficient shoulder width to accommodate bicyclists where off-road bicycle facilities are not feasible. The 50 spot locations of shoulder widening would serve as refuge areas for bicyclists when being passed by motorists. This would increase bicyclists' safety as these shoulder widening locations would provide bicyclists with more areas for safe passage by motor vehicles.

**Table 2-3. Shoulder Widening Locations**

Location Number	Location Name	Begin Post Mile	End Post Mile	Proposed Paving Length (feet)
1	NB #02 (Location 2)	0.21	0.25	262
2	SB #01 (Location 3)	0.61	0.65	383
3	NB #04 (Location 5)	1.38	1.43	417
4	SB #02 (Location 6)	2.34	2.41	431
5	SB #03 (Location 9)	7.13	7.18	458
6	SB #04 (Location 10)	7.39	7.42	337
7	SB #05 (Location 11)	7.60	7.68	447
8	NB #07 (Location 13)	12.10	12.15	234
9	SB #08 (Location 15)	12.93	13.11	954
10	SB #10 (Location 17)	13.78	13.84	324
11	SB #11 (Location 18)	14.25	14.30	247
12	SB #12 (Location 19)	15.80	15.84	406
13	SB #13 (Location 20)	15.95	16.01	445
14	SB #15 (Location 23)	20.49	20.52	382
15	SB #16 (Location 24)	21.00	21.13	953
16	SB #17 (Location 25)	23.61	23.68	419
17	SB #18 (Location 26)	23.82	23.88	487
18	SB #19 (Location 27)	26.03	26.08	407
19	NB #09 (Location 28)	27.25	27.32	376
20	NB #10 (Location 29)	27.67	27.72	272
21	SB #20 (Location 30)	27.67	27.78	522
22	NB #11 (Location 31)	27.98	28.01	160
23	SB #21 (Location 32)	28.42	28.47	490
24	SB #22 (Location 33)	29.63	29.77	713
25	SB #23 (Location 34)	30.99	31.01	674
26	SB #24 (Location 35)	31.99	32.01	306
27	SB #25 (Location 36)	32.25	32.29	185
28	SB #26 (Location 37)	33.62	33.67	344

Location Number	Location Name	Begin Post Mile	End Post Mile	Proposed Paving Length (feet)
29	NB #12 (Location 38)	34.00	34.05	252
30	SB #28 (Location 41)	39.09	39.15	312
31	SB #29 (Location 42)	39.23	39.28	234
32	SB #30 (Location 43)	39.35	39.39	197
33	NB #14 (Location 44)	40.00	40.03	141
34	SB #31 (Location 45)	40.49	40.52	223
35	NB #15 (Location 46)	40.78	40.82	211
36	SB #32 (Location 47)	41.74	41.81	395
37	SB #33 (Location 48)	42.24	42.30	638
38	SB #34 (Location 49)	43.03	43.06	216
39	SB #35 (Location 50)	43.22	43.30	189
40	NB #16 (Location 51)	R43.90	R43.96	229
41	SB #36 (Location 52)	44.53	44.57	456
42	SB #37 (Location 53)	44.99	45.09	379
43	SB #38 (Location 54)	R45.18	45.28	375
44	SB #39 (Location 55)	46.06	46.12	489
45	SB #40 (Location 56)	47.61	47.69	449
46	SB #41 (Location 57)	49.18	49.23	153
47	SB #42 (Location 58)	54.30	54.34	203
48	SB #43 (Location 59)	55.89	55.93	234
49	NB #17 (Location 60)	56.08	56.14	325
50	SB #44 (Location 61)	57.11	57.16	265

Notes:

NB = northbound  
 SB = southbound

### 2.2.3 Drainage Systems

The new impervious areas created by the shoulder widening would increase runoff; however, it is expected that the existing drainage facilities, such as cross culverts and roadside ditches, have the capacity to handle this slight increase.

In some locations, the widened shoulder would cause the embankment slope to encroach into the existing roadside ditch, thereby reducing its capacity. To minimize this impact, design strategies such as reducing the proposed 3-foot choker and/or steepening the side slope to 2:1 ratio would be considered to avoid or minimize encroachment. The choker is the area between the outside edge of the shoulder and the top of the embankment slope, and its purpose is to drain runoff away from the

highway, towards the embankment. Any existing ditches or swales impacted by the Project would need to be reestablished.

It is unclear at this stage of the Project whether excavation required for the Project would impact any culverts. Concrete backfill would be required along the portion of a culvert with less than 2 feet of material above the top of the culvert. For any drainage inlets that would be impacted, either the frames and grates or the inlet tops would be adjusted to grade. Any existing drainage pattern that would be affected, would need to be reestablished as part of the Project.

## **2.3 Construction Methodologies**

This section discusses the anticipated methodology for construction staging, schedule, construction-related equipment, utilities, and ROW for the Project.

### **2.3.1 Construction Strategy**

Prior to the beginning of construction-related activities, construction area signs; environmentally sensitive area (ESA) fencing; and construction site, water pollution control, and erosion control best management practices (BMPs) would be installed. ESA fencing would delineate the limits of the work area and protect vegetation, trees, and archaeologically sensitive areas from construction-related activities.

For the installation of the ground-in centerline rumble strip and shoulder widening, rolling one-lane shoulder and lane closures (also known as a pacing operation, or traffic pacing, which is a highway traffic control technique used to temporarily slow or stop traffic upstream or downstream of construction-related activities) are anticipated due to construction equipment and highway geometric constraints. A grinder truck would grind the existing striping from the centerline, and grind in the centerline rumble strip. The highway surface would be cleaned immediately after with a vacuum truck, and then application of the new 6-inch-wide wet-night visibility striping would be completed with a striping truck, within the same closure limits.

Widening and paving of the 6-foot shoulders from the existing edge of travel way (ETW) would be completed separately from the rumble strip and restriping operation and would not be constrained by the moving closure. However, shoulder closures are anticipated during construction of the shoulder widening, due to construction equipment and highway geometric constraints. A temporary barrier system would be placed along the ETW with end treatments at both ends, where shoulder closures occur.



Some of the shoulder widening locations would require clearing and grubbing of vegetation. Vegetation removal would not occur within the typical bird nesting season (February 1 to September 30) unless pre-construction surveys are completed for nesting birds. Vegetation control may differ for California Department of Parks and Recreation (State Parks) areas due to State Parks jurisdiction adjacent to the Project corridor. Vegetation control and revegetation efforts would be finalized during the design phase in consultation with State Parks.

As construction of the centerline rumble strip segments and shoulder widening locations concludes, all construction-related items would be removed. This includes removing the temporary erosion control, construction site, and water pollution control BMPs; ESA fencing; temporary barrier systems; temporary end treatments; and construction area signs.

### **2.3.2 Construction Schedule**

The overall construction period for the Project is anticipated to be 15 months, or 250 working days, and occur between January 2025 and April 2026. Construction-related activities would be limited to daytime hours. Construction schedule would be finalized during the design phase.

Prior to ground-disturbing activities, the Project would develop temporary BMPs in compliance with Standard Specification 13-3.01C(3) and develop and deploy appropriate BMPs consistent with the Rain Event Action Plan at least 48 hours in advance of a forecasted storm that has a 50% probability of rainfall within 72 hours.

### **2.3.3 Staging Areas**

Staging areas for the overnight storage of construction equipment and materials would be limited to areas within the Caltrans ROW, such as shoulder widening locations or shoulder areas near the shoulder widening locations that would not require the removal of vegetation (Figure 1-3). Staging areas would be finalized during the design phase.

### **2.3.4 Construction Equipment**

Construction equipment may include, but is not limited to, utility trucks, backhoes, excavators, dump trucks, jack hammers, saw cutters, generators, vacuum trucks, water trucks, street sweepers, air compressors, grinders, asphalt pavers, thermoplastic striping trucks, augers, compactors, concrete pumps, and hydraulic pumps.

### 2.3.5 Utilities

Utility verification (i.e., potholing) would occur during the design phase to confirm the need for utility relocations. It is anticipated that existing utility poles for AT&T and PG&E overhead utilities will need to be relocated at some of the shoulder widening locations. There is an existing optical fiber conduit running under some sections of SR 1, which is close to the centerline of the highway within the Project limits. It is assumed that this optical fiber conduit will be protected in place from construction-related activities. In addition, it is anticipated that water lines are also present within the Project corridor but would be protected in place to the extent feasible. If needed, utility relocations would occur prior to the beginning of construction and in consultation with utility providers. Section 3.3.19 provides more detail on utilities and service systems.

### 2.3.6 Right of Way

Construction-related activities, including staging areas, would occur within Caltrans ROW. The Project would not require ROW acquisition for purposes of temporary construction easements.

## 2.4 Permits, Licenses, Agreements, Certifications, and Approvals Required

Table 2-4 lists the permits, licenses, agreements, and certifications that are anticipated to be required for Project construction.

**Table 2-4. Permits, Licenses, Agreements, Certifications, and Approvals Required**

Agency	Permits, Licenses, Agreements, Certifications, and/or Approval	Status
California Coastal Commission or Sonoma County	Coastal Development Permit	Application to be submitted during the design phase
California Department of Fish and Wildlife	Section 1602 Lake and Streambed Alteration Agreement	Application to be submitted during the design phase
California Transportation Commission	Financial Approval	Targeting to receive by June 4, 2024, and application to be submitted prior to the beginning of construction
North Coast Regional Water Quality Control Board	Section 401 Water Quality Certification	Application to be submitted during the design phase
U.S. Army Corps of Engineers	Section 404 Permit	Application to be submitted during the design phase

Agency	Permits, Licenses, Agreements, Certifications, and/or Approval	Status
U.S. Fish and Wildlife Service	Biological Opinion	Targeting to receive by March 31, 2023



# Chapter 3 California Environmental Quality Act Evaluation

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The following discussions evaluate potential environmental impacts of the Project related to the CEQA checklist to comply with state CEQA Guidelines (Title 14 California Code of Regulations Division 6, Chapter 3, Section 15091).

## 3.1 Environmental Factors Potentially Affected

As part of the scoping and environmental analysis carried out for the Project, the following environmental factors were considered, but no impacts were identified: agriculture and forest resources, and mineral resources. The environmental factors marked with an “X” would be potentially impacted by the Project. Further analysis of these environmental factors is discussed in the subsections that follow.

X	Aesthetics		Agriculture and Forestry	X	Air Quality
X	Biological Resources	X	Cultural Resources	X	Energy
X	Geology/Soils	X	Greenhouse Gas Emissions	X	Hazards and Hazardous Materials
X	Hydrology/Water Quality	X	Land Use/Planning		Mineral Resources
X	Noise		Population/Housing		Public Services
	Recreation	X	Transportation/Traffic	X	Tribal Cultural Resources
X	Utilities/Service Systems	X	Wildfire	X	Mandatory Findings of Significance

### 3.2 Determination

On the basis of this initial evaluation:

<b>X</b>	I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.		
	I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.		
	I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.		
	I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.		
	I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.		
<b>Signature:</b>		<b>Date:</b>	
<i>Maxwell Lammert</i>		01/11/2023	
<b>Printed Name: Maxwell Lammert</b>		<b>For:</b>	

### 3.3 CEQA Environmental Checklist

The CEQA Environmental Checklist identifies physical, biological, social, and economic factors that might be affected by the Project. In many cases, background studies performed in connection with projects will indicate that there are no impacts to a particular resource. A “No Impact” answer in the “CEQA Determination” column of the impact summary tables at the beginning of each resource category section in this chapter reflects this determination. The words "significant" and "significance" used throughout this IS/ND are related to CEQA, not National Environmental Policy Act, impacts. The questions in each impact summary table are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features (PFs) are measures incorporated into Caltrans projects to reduce environmental impacts that can include both design components of the Project and standardized measures that are applied to most, if not all Caltrans projects, such as construction site BMPs and measures included in the Caltrans Standard Plans and Standard Specifications or as Standard Special Provisions, and are considered to be an integral part of the Project and have been considered prior to any significance determinations documented in this chapter. Avoidance and minimization measures (AMMs) are additional measures to avoid and/or minimize a project’s environmental impacts but are more specifically tailored to a given project’s particular impacts. The PFs and AMMs incorporated into the Project are described in this chapter and are compiled in Appendix B.

Sections 3.3.1 through 3.3.20 present the CEQA determinations under Appendix G of the CEQA Guidelines. The CEQA determinations depend on the level of potential environmental impact that would result from the Project. The level of significance determinations is defined as follows:

- No Impact: Indicates no physical environmental change from existing conditions.
- Less Than Significant Impact: Indicates the potential for an environmental impact that is not significant with or without the implementation of PFs/AMMs.
- Less Than Significant Impact with Mitigation Incorporated: Indicates the potential for a significant environmental impact that would be mitigated with the implementation of mitigation measures (MMs) to a level of less than significant.

- Potentially Significant Impact: Indicates the potential for a significant and unavoidable environmental impact.



### 3.3.1 Aesthetics

Except as provided in Public Resources Code Section 21099, would the Project:

Question	CEQA Determination
a) Have a substantial adverse effect on a scenic vista?	Less Than Significant Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Less Than Significant Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less Than Significant Impact

#### CEQA SIGNIFICANCE DETERMINATIONS FOR AESTHETICS

A *Visual Impact Assessment and Scenic Resources Evaluation* memorandum (Caltrans 2022c) was prepared by Caltrans for the Project, and a summary of the findings is presented in this section.

SR 1 throughout unincorporated Sonoma County is a narrow and winding two-lane conventional highway. The highway is travelled relatively lightly, yet consistently, used by daily commuters, vacationers, bicyclists, and others. Existing shoulders within the Project corridor vary from 0 feet to a maximum of 8-feet-wide. Metal beam guardrail exists at limited locations, as does cable safety railing. There are no traffic signals, there is only one stop sign just north of the Russian River, and the speed limit ranges from 25 to 55 mph. There are no bicycle lanes, and pedestrians cross the highway at various locations, although the highway is not commonly used as a walking route (Caltrans 2022c).

The entirety of SR 1 in Sonoma County is listed as Eligible for designation as a State Scenic Highway. It traverses terrain of extremely high scenic value, with few elements detracting from that high-quality visual landscape. The regional landscape within the Project limits is characterized by rolling hillsides of open grasses, rocky outcroppings, extensive stretches of native coastal sage scrub, and wooded groves that, when along the coastline, meet dramatic bluffs providing vistas of the Pacific Ocean. The linear and curvilinear stretches of the highway are bordered by sporadic commercial and residential developments on both sides of the highway. The character of the highway and surrounding lands is rural, with park properties adjacent to the

highway at some locations. The Russian River, Salmon Creek, the Gualala River, and smaller streams cross the highway, adding to its scenic quality.

The Project is located within the California Coastal Zone, and although not strictly subject to the *Final Sonoma Route 1 Repair Guidelines* (Guidelines) (Caltrans 2019), would still comply where feasible. These Guidelines were produced by Caltrans with local and state agencies and other collaborating stakeholders. The Guidelines stress the value and importance of the use of specific project components for inclusion in highway projects along SR 1. Further, the Guidelines encourage the use of project components often not included on highway construction projects elsewhere, including nonstandard design features requiring special approval which can be supported by referencing the Guidelines.

Additionally, the Project would comply with Director's Policy (DP) 22 "Context Sensitive Solutions" (Caltrans 2001). The solutions set forth in DP 22 use innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals. The Guidelines and DP 22 include the use of project components that contribute to visual consistency and continuity, and constructed features that are visually appropriate to the area. The project components reflect the recognition of the importance of the visual quality of the highway and are reflected in the early-stage design of the Project. Context-sensitive Project components would be finalized during the design phase and in consultation with regulatory agencies.

It is possible that the removal of a small number of trees would be necessary; tree removal/replacement ratios would be finalized during the design phase and in consultation with permitting agencies. Because the scope of the construction work is limited and the impacts modest overall, measures dependent on that determination would not significantly alter the visual impact brought about by construction. Whatever planting may be required would only serve to further minimize changes to the visual environment. The assumption is that seeding with a commercially available, locally appropriate native seed mix, applied to all areas of disturbed soil, will be needed. The visual nature of the planting would be consistent with the surrounding native vegetation as existed pre-construction. Post-construction seeding with a commercially available, locally appropriate native seed mix, coupled with the moist coastal environment, would help ensure that native plants are quickly reestablished, thereby largely and quickly erasing the minor and temporary visual impacts of the Project.

Opportunities to use materials and Project components consistent with those noted in the Guidelines would be pursued as appropriate to further reduce Project impacts, although the limited scope of work minimizes the need for such adaptations. Additionally, implementation of the PFs and AMMs presented at the end of this section would help limit impacts to vegetation and other visual resources.

**a, b, and d) Less Than Significant Impact**

The Project would not adversely affect any Designated Scenic Resource (such as a rock outcropping, tree grouping, historic property, etc.) as defined by CEQA statutes or guidelines, or by Caltrans policies. Existing vegetation removal is expected to be minimal, and no adverse visual impacts are anticipated. Existing scenic vistas are expected to remain as per current conditions. The Project components would not substantially affect the appearance of the highway corridor and would be visually consistent with the character of the surrounding area.

The Project would not result in new substantial light or glare that would adversely affect nighttime views. Construction lighting would be limited to occurring within the Project footprints for construction-related activities, and light trespass to adjacent residences and to the traveling public would be minimized with the use of directional lighting, shielding, and other measures as needed.

The Project, with implementation of PF-AES-1, PF-AES-2, and AMM-AES-1 through AMM-AES-3, would result in only modest visual impacts. The dominance of the views beyond the highway would remain and would not be degraded by Project construction. Post construction seeding would minimize the appearance of disturbance and any additional planting, if determined to be necessary, would further minimize visual impacts. Impacts to scenic resources in the Project corridor would be less than significant.

**c) No Impact**

The Project would not conflict with applicable zoning and other regulations governing scenic quality; therefore, there would be no impact.

**PROJECT FEATURES**

Caltrans would incorporate the following PFs into the Project to reduce potential impacts to visual resources:

- **PF-AES-1, Minimize Vegetation Impacts:** Minimize impacts to vegetation to the greatest extent possible. Vegetation to remain would be protected from construction-related activities by temporary fencing when vegetation is close to construction work or staging areas.
- **PF-AES-2, Reseeding Disturbed Areas:** Apply erosion control seeding and similar measures to all areas of disturbed soil.

#### **AVOIDANCE AND MINIMIZATION MEASURES**

Caltrans would incorporate the following AMMs into the Project to avoid and/or minimize potential impacts to visual resources:

- **AMM-AES-1, Selection of Staging Areas:** Ensure that the establishment of staging areas would not require the removal of any but weedy nonnative vegetation or cause the compaction of any tree roots. Staging areas would be located such that they do not block views of the ocean whenever feasible.
- **AMM-AES-2, Comply with Sonoma State Route 1 Repair Guidelines:** The design and construction of the Project would comply with all applicable provisions of the Guidelines, as confirmed by the Office of Landscape Architecture and the Office of Environmental Analysis.
- **AMM-AES-3, Selection of Materials:** In conjunction with the Office of Landscape Architecture, select materials and Project components appropriate for the visual character of the location and to maintain corridor consistency.

### 3.3.2 Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:

Question	CEQA Determination
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	No Impact

#### CEQA SIGNIFICANCE DETERMINATIONS FOR AGRICULTURE AND FOREST RESOURCES

The Project is located along previously disturbed portions of SR 1 (Figure 1-3). The Project footprint is not located within any forestland or timberland, nor is it located within any Sonoma County Parcels which are under a Williamson Act Contract. The Project sub-areas fall within multiple different zones (Table 3-1).

**Table 3-1. Sub-Area Zoning**

Sub-Area	Zoning
Sub-Area 1	Grazing Land, Other Land, Farmland of Local Importance
Sub-Area 2	Grazing Land, Other Land, Urban/Built-Up Land, Farmland of Local Importance
Sub-Area 3	Grazing Land, Other Land
Sub-Area 4	Grazing Land, Other Land, Urban/Built-Up Land, Farmland of Local Importance

Source: California Department of Conservation 2016 and 2019

**a, b, c, d, and e) No Impact**

The Project would not affect agricultural land, would not convert farmland to a non-agricultural use, and is not located within any Sonoma County APNs under a Williamson Act Contract. The Project would not conflict with existing zoning for forest land or timberland, or convert forest land to non-forest use land, as there are no forest lands or timberlands within the Project footprints. The Project would not involve other changes in the existing environment that would result in conversion of forest or agricultural land. Therefore, there would be no impact.

### 3.3.3 Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the Project:

Question	CEQA Determination
a) Conflict with or obstruct implementation of the applicable air quality plan?	No Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non- attainment under an applicable federal or state ambient air quality standard?	Less Than Significant Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	Less Than Significant Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less Than Significant Impact

#### CEQA SIGNIFICANCE DETERMINATIONS FOR AIR QUALITY

The Project is located in Sonoma County within the San Francisco Bay Area Air Basin under the jurisdiction of the Bay Area Air Quality Management District. Sonoma County is designated as nonattainment for ozone and particulate matter with aerodynamic diameter equal to or less than 2.5 micrometers (PM<sub>2.5</sub>) under national ambient air quality standards (U.S. Environmental Protection Agency [USEPA] 2022), and nonattainment for ozone, PM<sub>2.5</sub>, and particulate matter with aerodynamic diameter equal to or less than 10 micrometers (PM<sub>10</sub>) under state air quality standards (CARB 2019). It is in attainment or unclassified for other federal and state air quality standards.

#### a) No Impact

The Project would have temporary construction emissions and construction-related activities would comply with state and local regulations and policies. Emission reduction measures would be implemented as discussed under PF-AQ-1 through PF-AQ-3 (presented at the end of this section) to reduce construction emissions. The Project would not affect vehicle operation on SR 1 or nearby roadways when construction is complete. Long-term emission increases and adverse impacts from the Project are not anticipated. Therefore, the Project would not conflict with the region’s air quality plans. There would be no impact to the air quality plans.

### **b, c, and d) Less Than Significant Impact**

The proposed installation of the ground-in centerline rumble strip, widening the shoulders, and installation of wet-night visibility striping would not alter characteristics of SR 1 or local roadways, increase SR 1 transportation capacity, or change the horizontal or vertical alignments of SR 1. No long-term impacts to air quality would occur.

Construction-generated air pollutants are expected to be short-term. Construction-generated air pollutants include emissions resulting from material processing by onsite construction equipment, workers commuting to and from the Project, and traffic delays due to construction. The emissions would be produced at different rates throughout the Project depending on the construction-related activities occurring at that time. Potential impacts to air quality, including emissions of air pollutants, odors affecting nearby sensitive receptors, and exposure of sensitive receptors to pollutants, would be less than significant based on the temporary nature of the Project construction-related activities.

During construction, the Project would comply with Caltrans Standard Specification 14-9, Air Quality, which requires compliance with applicable air-pollution control rules, regulations, ordinances, and statutes. In addition, the Project would implement the construction site BMPs described in PF-AQ-1 through PF-AQ-3 to further reduce air quality impacts.

The Project would have no long-term impacts on air quality and temporary construction-related impacts would be less than significant.

### **PROJECT FEATURES**

Caltrans would incorporate the following standard PFs into the Project to reduce potential impacts to air quality:

- **PF-AQ-1, Dust Control Measures:** Implement dust control measures to minimize airborne dust and soil particles generated from construction-related activities, including watering or applying dust palliative to disturbed areas, preventing and promptly removing trackouts on SR 1 and other public roadways affected by construction traffic, and covering soils or construction materials or providing adequate freeboard (space from the top of the material to the top of the truck) during transport.



- **PF-AQ-2, Construction Vehicles and Equipment:** Maintain and tune the construction vehicles and equipment in accordance with manufacturer's specifications.
- **PF-AQ-3, Limit Idling:** Limit idling times either by shutting construction equipment off when not in use or reducing the maximum idling time to 5 minutes.

### 3.3.4 Biological Resources

Would the Project:

Question	CEQA Determination
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service, or NOAA Fisheries?	Less Than Significant Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Less Than Significant Impact
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Less Than Significant Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact

#### CEQA SIGNIFICANCE DETERMINATIONS FOR BIOLOGICAL RESOURCES

The Caltrans Office of Biological Sciences and Permits prepared a Natural Environment Study (NES) to evaluate the effects of the Project on biological resources, including sensitive plants and wildlife species (Caltrans 2022j). A summary of the findings is presented here.

The Biological Study Area (BSA), which is defined as the entire area of potential direct and indirect Project impacts includes a 15-foot buffer surrounding the 50 shoulder widening locations and staging areas and is approximately 20.08 acres. The BSA contains portions of the highway prism, potential waters of the U.S., and 27 vegetation types, consisting primarily of coastal scrub, grassland, forest/woodland, riparian habitat, and ruderal (disturbed) areas adjacent to the highway. The BSA excluded the areas of centerline rumble strip that are not adjacent to shoulder widening locations. This is due to the project footprint of the centerline rumble strip occurring entirely within the existing paved highway. Thus, the total project footprint is approximately 161.03 acres while the BSA is approximately 20.08 acres.

Areas outside of the BSA, but adjacent to the Project footprint, were also assessed using literature, aerial images, satellite imagery, and database searches to identify potential wildlife dispersal corridors.

A regional list of special-status wildlife and plant species was compiled using databases to evaluate the potential impacts that could occur to sensitive biological resources as a result of the Project. The database search included the California Natural Diversity Database (CNDDDB) (California Department of Fish and Wildlife [CDFW] 2022), the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation Database (USFWS 2022), the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2022), and the National Oceanographic and Atmospheric Administration Fisheries Service (NOAA Fisheries) database (NOAA Fisheries 2022). The special-status wildlife and plant species on the regional lists were evaluated to determine their potential to occur within the BSA.

Various field studies were conducted within the BSA to assess existing natural resources. Field studies used in the preparation of the NES include:

- Biological reconnaissance-level survey and habitat assessment
- Aquatic resource delineation
- Vegetation characterization and rare plant habitat assessment and tree survey

**a) Less Than Significant Impact**

With implementation of PF-BIO-1 through PF-BIO-11 and AMM-BIO-1 through AMM-BIO-19 as described in this section and summarized in Appendix B, the Project would have a less than significant impact, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW, USFWS, or NOAA Fisheries.

Special-status species that are potentially present within or adjacent to the BSA are discussed here.

***Plants***

The potential for special-status plant species to occur in the BSA was assessed based on the vegetation types present, the degree of disturbance, the results of the database queries, and whether suitable habitat for each special-status plant species was

observed within the BSA. Protocol-level rare plant surveys were conducted on April 21 and 28, June 20 and 21, and July 15 and 20, 2022. Four special-status plant species were observed and documented within the BSA: coast lily (*Lilium maritimum*, List 1B.1), coastal bluff morning-glory (*Calystegia purpurata* ssp. *saxicola*, List 1B.2), harlequin lotus (*Hosackia gracilis*, List 4.2), and purple-stemmed checkerbloom (*Sidalcea malviflora* ssp. *purpurea*, List 1B.2). No federally listed or state-listed plant species were observed during the surveys.

Implementation of PF-BIO-3, PF-BIO-8, PF-BIO-10, PF-BIO-11, AMM-BIO-1, and AMM-BIO-2 would reduce, avoid, or minimize impacts to special-status plant species and their habitat. The impact would be less than significant.

### **Wildlife**

#### **California Red-Legged Frog**

The California red-legged frog (CRLF; *Rana draytonii*) is a federally threatened species and a California Species of Special Concern (SSC). The BSA does not include any critical habitat or any designated recovery units. Suitable breeding habitat was not identified within the BSA; however, the BSA has the potential to provide suitable non-breeding aquatic and upland dispersal habitat. The BSA is within the current known range of CRLF, and there are 20 CNDDDB occurrences within 2 miles of the BSA. The nearest recorded observation of CRLF is from 2008 when two adult CRLFs were discovered in a small channel that flows into Miwok Beach, approximately 0.13-mile northeast of Location 15 (CDFW 2022).

Numerous aquatic resources (e.g., drainages, streams, creeks, and ponds) are located within 2 miles of the BSA (i.e., the known dispersal range of CRLF). Ponds and other water bodies that hold water for at least 11 to 20 weeks during the frog's breeding season (November to April timeframe) can provide suitable breeding habitat for the species (Stebbins 1951). There is a potential that CRLF individuals could disperse into the BSA, particularly if these nearby aquatic resources support breeding populations of CRLF.

Potential Project impacts include loss of individuals during vegetation removal and shoulder widening construction. The Project would result in direct temporary effects on both suitable upland dispersal and aquatic non-breeding habitats for CRLF. A total of about 1.045 acres of potential upland dispersal habitat and 0.002 acre of suitable aquatic non-breeding habitat would be temporarily impacted by construction activities including staging, access, and shoulder widening over the 58.58 miles of the Project limits. A total of about 1.081 acre of suitable upland dispersal habitat and less

than 0.001 acre of suitable aquatic non-breeding habitat would be permanently affected by Project activities over the 58.58 miles of the Project limits. All areas of temporary disturbance will be restored to pre-Project conditions following construction.

Implementation of PF-BIO-1, PF-BIO-2, PF-BIO-3, PF-BIO-4, and PF-BIO-7, as well as AMM-BIO-3 through AMM-BIO-5, as summarized in Appendix B, would reduce, avoid, or minimize impacts to CRLF and its habitat. The impact would be less than significant.

#### Foothill Yellow-Legged Frog

The foothill yellow-legged frog (FYLF; *Rana boylei*) is listed as a California SSC. FYLF is known to occur in several creeks in the vicinity of the Project, and suitable non-breeding FYLF habitat is present throughout the BSA. There are 11 CNDDDB occurrences of FYLF within 2 miles of the BSA, most of which are located toward the northern end of the Project limits. The closest CNDDDB occurrence of FYLF was documented in July 1954 (two adult FYLF observed [CDFW 2022]), and is only 0.02 mile from Location 49, where aerial imagery shows a channel associated with Chinese Gulch flowing through a cross culvert under SR 1.

It is unlikely that FYLF will be encountered within the BSA given the generally marginal habitat onsite, planned timing of construction avoiding rain events, and implementation of the PFs and AMMs proposed to avoid impacts to CRLF, which will reduce the potential for Project-related impacts to the FYLF. Therefore, the Project is not expected to result in any impacts to FYLF or its habitat. The impact would be less than significant.

#### Northern Spotted Owl

The northern spotted owl (NSO; *Strix occidentalis caurina*) is a federally and state listed threatened species. There is suitable NSO roosting, nesting, and foraging habitat within the BSA and within the vicinity of the BSA. No NSO individuals or nests were detected by surveyors during the NSO habitat assessment. The BSA is located outside of designated critical habitat for NSO.

Based on the CNDDDB/Spotted Owl Viewer, there are over 200 positive detections of NSO within 5 miles of the BSA, with most of the detections occurring in the northern portion of the Project footprint. There are seven NSO Activity Centers (denoting the detection of a territorial pair located at or near a nest site) within 5 miles of the BSA.

The closest Activity Center is associated with six detections of NSO ranging from 0.33 mile to 1.07 miles away from Location 33.

The removal of vegetation within an approximately 0.107-acre (temporary) and 0.071-acre (permanent) area of suitable NSO forest habitat (Douglas fir [*Pseudotsuga menziesii*] forest, redwood [*Sequoia sempervirens*] forest, or bishop pine [*Pinus muricata*] forest) across all 50 shoulder widening locations and staging locations would constitute a minor loss of potential habitat for NSO. Indirect impacts could include those caused by auditory or visual disturbance and would include all rumble strip and shoulder widening activities.

Implementation of PF-BIO-9, as well as AMM-BIO-6 and AMM-BIO-7, as summarized in Appendix B, would reduce, avoid, or minimize impacts to NSO and its habitat. The impact would be less than significant.

#### Marbled Murrelet

The marbled murrelet (MAMU; *Brachyramphus marmoratus*) is listed as a federally threatened species. Salt Point State Park is designated critical habitat for MAMU and overlaps with portions of the BSA from PM 38.7 to PM 44.7 (Locations 41 to 52). There is suitable MAMU roosting, nesting, and foraging habitat within the BSA and the vicinity of the BSA, particularly in areas north of the Russian River. No MAMU individuals or nests were detected by surveyors during the MAMU habitat assessment. There is only one CNDDDB occurrence of MAMU within Sonoma County. This occurrence is within 2 miles of the BSA, located approximately 1.5 miles east of Location 56 and includes four MAMU canopy detections in 1999 (CDFW 2022). MAMU nests in California are found at a mean distance of 8 miles from the coast, and the absence of nests close to the coast is likely due to increased nest predation from corvids and gulls (Miller and Ralph 1995). Therefore, it is unlikely that MAMU nests would be present in the Project footprint, which is about 0.5 mile from the coastline.

The removal of vegetation within an approximately 0.107-acre (temporary) and 0.071-acre (permanent) area of forest habitat (Douglas fir forest, redwood forest, or bishop pine forest) across all locations within and outside of the critical habitat unit for the shoulder widening work would constitute a minor loss of potential habitat for MAMU. Because vegetation removal would occur along or adjacent to the highway embankment that is subject to regular traffic disturbance, the loss of this potential habitat is not likely to adversely affect the local population. Indirect impacts to

MAMU could include those caused by auditory or visual disturbance and would include all rumble strip and shoulder widening work activities.

Implementation of PF-BIO-6 and PF-BIO-9, as well as AMM-BIO-8 and AMM-BIO-9, as summarized in Appendix B, would reduce, avoid, or minimize impacts to MAMU and its habitat. The impact would be less than significant.

#### Western Snowy Plover

The western snowy plover (SNPL; *Charadrius alexandrinus nivosus*) is a federally threatened species and a California SSC. There is no designated critical habitat for SNPL in the BSA. There is potentially suitable nesting habitat present west of Location 15 at North Salmon Creek Beach and South Salmon Creek Beach. There are two CNDDDB occurrences of this species within 2 miles of the BSA, both of which are in the vicinity of Bodega Bay. However, one occurrence is considered a localized extinction. The existing occurrence is located within North Salmon Creek Beach, adjacent to and west of Location 15. One nest was observed at this location in 1978 (CDFW 2022). SNPL are known to winter at this location.

Although the BSA does not contain suitable SNPL habitat, it is in the vicinity of SNPL habitat near Location 15, rumble strip segment 2, and staging area E, and the Project could result in auditory or visual impacts on SNPL. Based on scientific literature, wintering (non-nesting) SNPL may be disturbed when humans encroach to within 130 feet (40 meters), while during the nesting season, SNPL may be disturbed by humans more than 330 feet (100 meters) away (USFWS 2007). Work will not occur during the nesting season (February 1 through September 30) at Location 15, staging area E, or rumble strip segment 2, which are adjacent to suitable SNPL habitat.

Implementation of PF-BIO-6 and PF-BIO-9, as well as AMM-BIO-10 and AMM-BIO-11, as summarized in Appendix B, would reduce, avoid, or minimize impacts to SNPL. The impact would be less than significant.

#### Myrtle's Silverspot Butterfly and Behren's Silverspot Butterfly

The Myrtle's silverspot butterfly (MSB; *Speyeria zerene myrtleae*) and Behren's silverspot butterfly (BSB; *Speyeria zerene behrensii*) are both listed as federally endangered species. There is no federally designated critical habitat for either species within the BSA. Suitable habitat for *Viola adunca*, the larval host plant for MSB and BSB, occurs within portions of the Project footprint, including mesic grasslands and evergreen forest types observed during the vegetation characterization surveys. The

larval host plant was not observed within the BSA during reconnaissance surveys. The BSA may also provide suitable foraging habitat for adult butterflies.

There are eight CNDDDB occurrences of MSB within 2 miles of the BSA; however, three of these occurrences are possibly localized extinctions. The nearest known existing MSB occurrence was observed in 1975 within the vicinity of SR 1, overlapping the BSA of Locations 10 and 11. For BSB, there are three CNDDDB occurrences within 2 miles of the BSA; however, one of these occurrences is considered possibly a localized extinction. The nearest known existing BSB occurrence includes observations of adult BSBs along SR 1 near Stewarts Point in 2005, about 0.75 mile south of Location 57.

Occurrence of MSB or BSB in the Project footprint is not expected but cannot be ruled out with complete certainty. Negative findings of the pre-construction survey for *Viola adunca* within the Project footprint will indicate that the footprint does not contain suitable breeding habitat for MSB or BSB. However, suitable foraging habitat may still be present and Project work, such as vegetation grubbing and clearing, may affect MSB and BSB habitat. PF-BIO-8, PF-BIO-10, and PF-BIO-11, as well as AMM-BIO-12, as summarized in Appendix B, would reduce, avoid, or minimize impacts to MSB and BSB and their habitat. The impact would be less than significant.

#### Western Pond Turtle

The western pond turtle (WPT; *Emys marmorata*) is listed as a California SSC. There is no WPT breeding habitat present within the BSA; however, adjacent stock ponds may provide suitable aquatic habitat along with the Estero Americano, Russian River, Salmon Creek, and other drainages within the vicinity of the BSA. There is a potential for this species to be found in upland grassland habitat, ditches, or drainages near and in the BSA.

There are nine CNDDDB occurrences of WPT within 2 miles of the BSA. The closest CNDDDB occurrence of WPT overlaps the BSA at Location 6, where four adult WPT were observed basking on a grassy bank adjacent to a perennial plunge pool at the outlet of a culvert beneath the SR 1 crossing of Ebabias Creek in 2008.

Potential Project impacts include loss of individuals during vegetation removal and shoulder widening. The Project would result in direct temporary effects on both suitable upland dispersal and aquatic non-breeding habitats for WPT. Approximately 1.045 acres of potential upland dispersal habitat and an additional 0.002 acre of suitable aquatic non-breeding habitat would be temporarily impacted by construction



activities including staging, access, and shoulder widening. Approximately 1.081 acre of suitable upland dispersal habitat and less than 0.001 acre of suitable aquatic non-breeding habitat would be permanently affected by Project activities. All areas of temporary disturbance will be restored to pre-Project conditions following construction.

Implementation of PF-BIO-1, PF-BIO-2, PF-BIO-3, PF-BIO-4, and PF-BIO-7, as well as AMM-BIO-13, as summarized in Appendix B, would reduce, avoid, or minimize impacts to WPT and its habitat. The impact would be less than significant.

**Special Status Bats (Pallid Bat, Western Red Bat, and Townsend's Big-Eared Bat)**  
The pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus blossevillii*), and Townsend's big-eared bat (*Corynorhinus townsendii*) are all listed as California SSC. There are no CNDDDB occurrences of pallid bat within 2 miles of the BSA but, potentially suitable structures for pallid bat roosting can be found adjacent to Locations 5, 6, 29, 30, 33, 50, 52, 53, and 61. There are no CNDDDB occurrences of western red bat within 2 miles of the BSA however, potentially suitable roosting trees exist within the riparian corridors adjacent to the Locations 3, 5, 23, 28, 29, 49, 55, 58, and 60. There are three CNDDDB occurrences of Townsend's big-eared bat within 2 miles of the BSA. The closest occurrence is located adjacent to Location 17 and includes the detection of a maternity roost of about 50 females and young observed in 2014 in an old ranch house attic. Potentially suitable structures, including hollows of redwood trees, abandoned structures, and bridges, for Townsend's big-eared bat roosting can be found adjacent to Locations 5, 6, 29, 30, 33, 50, 52, 53, and 61. No bats or bat roosts were detected by surveyors at any location during the bat habitat assessment.

Potential Project impacts include temporary loss of foraging habitat and temporary or permanent loss of potential roosting habitat as a result of tree removal activities. In addition, noise and visual disturbance could impact potential roosting via construction noise. No impact to individuals is expected as a result of this Project.

Implementation of PF-BIO-6, as well as AMM-BIO-14 and AMM-BIO-15, as summarized in Appendix B, would reduce, avoid, or minimize impacts to pallid bat, western red bat, and Townsend's big-eared bat and their habitat. The impact would be less than significant.

### Sonoma Tree Vole

The Sonoma tree vole (STV; *Arborimus pomo*) is listed as a California SSC. There is suitable habitat for STV within the BSA, including forest habitat (Douglas fir forest, redwood forest, or bishop pine forest). There are nine CNDDDB occurrences of STV within 2 miles of the BSA. The closest occurrence overlaps the BSA at Locations 44, 45, 46, and 47 and intersects SR 1 (CDFW 2022).

Ground-disturbing activities and tree removal could destroy STV nests or injure or kill STVs inhabiting nests if they occur within the Project work areas. STVs are nocturnal and might reside within nests during daytime construction activities. The Project also could disturb or displace STVs from nearby nests if they occur in proximity to construction activities.

The removal of the vegetation within an approximately 0.107-acre (temporary) and 0.071-acre (permanent) area of forested habitat for the shoulder widening work would constitute a minor loss of potential habitat for STV. Because it is a minor loss of forest habitat, the Project is unlikely to affect the local vole population.

Implementation of PF-BIO-6, as well as AMM-BIO-16, as summarized in Appendix B, would reduce, avoid, or minimize impacts to STV and its habitat. The impact would be less than significant.

### California Giant Salamander and Red-bellied Newt

The California giant salamander (CGS; *Dicamptodon ensatus*) and red-bellied newt (RBN; *Taricha rivularis*) are both listed as California SSC. There are 14 CNDDDB occurrences of CGS within 2 miles of the BSA. Additionally, surveyors discovered two juvenile CGS within a creek in the Caltrans ROW adjacent to Location 49. There are three CNDDDB occurrences of RBN within 2 miles of the BSA. Wetlands, waters, and riparian and forested areas within the BSA could provide suitable habitat for these species.

Potential impacts to forested aquatic, stream, and riparian habitat for CGS and RBN includes 0.277 acre of temporary impacts resulting from vegetation trimming and removal for access and staging and 0.102 acre of permanent impacts resulting from shoulder widening.

Implementation of PF-BIO-1, PF-BIO-3, PF-BIO-4, and PF-BIO-7, as well as AMM-BIO-3, as summarized in Appendix B, would reduce, avoid, or minimize impacts to CGS and RBN and their habitat. The impact would be less than significant.

**b) Less Than Significant Impact**

Section 30107.5 of the California Coastal Act (CCA) defines environmentally sensitive natural communities as “any areas in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.” Section 30240(a) of the CCA calls for the protection of environmentally sensitive habitat areas (ESHAs) and states that “ESHAs shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.”

***ESHAs***

There are two types of ESHAs within the BSA: terrestrial ESHAs and aquatic ESHAs. Terrestrial ESHAs include native vegetation alliances listed in CDFW’s California Sensitive Natural Communities List with ranks between S1 to S3 and excludes those that are either substantially disturbed or are co-dominated or dominated by non-native species. Aquatic ESHAs include all coastal streams, wetlands, and riparian areas and consist of waters of the U.S. and State, California Coastal Commission (CCC)-only jurisdictional wetlands, and CDFW jurisdiction riparian habitat. The Project would temporarily impact 0.172 acre and permanently impact 0.151 acre of terrestrial ESHAs. Temporary impacts to aquatic ESHAs include 0.033 acre of impact to wetlands and 0.016 acre of impact to riparian areas, totaling 0.049 acre of temporary impacts. Permanent impacts to aquatic ESHAs include 0.022 acre of impact to wetlands and 0.005 acre of impact to riparian areas, totaling 0.027 acre of permanent impacts. Project impacts to ESHAs will result from direct disturbance from shoulder widening and vegetation removal within the Project footprint.

All impacted habitats would be reseeded at the end of each construction season, and impacts would be reduced where feasible. Offsite and onsite opportunities to reduce impacts would be further assessed during the design phase. Impacted riparian and upland habitats would be revegetated with appropriate native species. Impacted trees would be replaced; therefore, there would be a less than significant impact on ESHAs.

Implementation of PF-BIO-5, PF-BIO-8, PF-BIO-10, PF-BIO-11, AMM-BIO-1, AMM-BIO-17, and AMM-BIO-18 would reduce, avoid, or minimize impacts to terrestrial and aquatic ESHAs, including riparian habitat. Impacts would be less than significant.

**c) Less Than Significant Impact**

The Project would have a less than significant impact on federally protected wetlands, as defined by Section 404 of the Clean Water Act (CWA), including, but not limited to, marsh, vernal pool, and coastal areas, through direct removal, filling, hydrological interruption, or other means with AMMs incorporated. The Project would also have a less than significant impact on state protected wetlands, defined under Section 30121 of the CCA as “lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens,” with AMMs incorporated.

A U.S. Army Corps of Engineers (USACE) aquatic resource delineation was conducted for federally protected wetlands and other waters and the BSA was found to support 0.206 acre (706 linear feet) of waters of the United States and State, including palustrine wetlands (0.152 acre), palustrine scrub-shrub wetlands (0.025 acres), other waters such as riverine (0.029 acre/330 linear feet), and culverted waters (376 linear feet). These impacts would be verified by USACE during the design phase. A CCC aquatic resources delineation report would be prepared, and verified by the CCC, during the design phase.

Approximately 0.0274 acre of potentially jurisdictional wetlands and approximately 0.002 acre of potentially jurisdictional other waters would be temporarily impacted by access and staging for the shoulder widening work. All temporarily impacted areas would be restored and revegetated to minimize impacts to habitat functionality. Approximately 0.022 acre of potentially jurisdictional wetlands and less than 0.001 acre of potentially jurisdictional other waters would be permanently impacted by shoulder widening. Specific compensation for permanent impacts will be determined through consultation with agencies during the permitting process.

Implementation of PF-BIO-1, PF-BIO-3, PF-BIO-5, PF-BIO-6, and AMM-BIO-19, as summarized in Appendix B, would reduce, avoid, or minimize impacts to aquatic resources. Therefore, impacts would be less than significant.

**d) No Impact**

The Project would not construct any new permanent barriers to wildlife movement, or otherwise interfere with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. There would be no impact.

**e) No Impact**

The Project would not conflict with any local policies or ordinances protecting biological resources; therefore, there would be no impact.

**f) No Impact**

The Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There would be no impact.

**PROJECT FEATURES**

Caltrans would incorporate the following standard PFs into the Project to reduce potential impacts to biological resources:

- **PF-BIO-1: Seasonal Avoidance.** The Project will develop temporary BMPs in compliance with Standard Specification 13-3.01C(3) and develop and deploy appropriate BMPs consistent with the Rain Event Action Plan at least 48 hours in advance of a forecasted storm that has a 50% probability of rainfall within 72 hours.
- **PF-BIO-2: Worker Environmental Awareness Training.** Prior to ground-disturbing activities, the Project Biologist will conduct an education program for all construction personnel. At a minimum, the training will include a description of special-status species, migratory birds, and their habitats, how the species might be encountered within the Project area, an explanation of the status of these species and protection under the federal and state regulations, the measures to be implemented to conserve listed species and their habitats as they relate to the work site, boundaries within which construction may occur, and how to best avoid the incidental take of listed species. The field meeting will include topics on species identification, life history, descriptions, and habitat requirements during various life stages. Emphasis will be placed on the importance of the habitat and life stage requirements within the context of Project maps showing areas where PFs/AMMs are to be implemented. The program will include an explanation of applicable federal and state laws protecting endangered species as well as the importance of compliance with Caltrans and various resource agency conditions.
- **PF-BIO-3: Environmentally Sensitive Area Fencing.** Before starting construction, environmentally sensitive area (ESAs) (defined as areas containing

sensitive habitats adjacent to or within construction work areas for which physical disturbance is not allowed) will be clearly delineated as needed using high visibility fencing. The ESA fencing will remain in place at each location until work at that location is complete and will prevent construction equipment or personnel from entering sensitive habitat areas. The ESA fencing also serves to delineate the Project footprint in which all construction activity is to occur. The final Project plans will depict the locations where ESA fencing will be installed and how it will be assembled/constructed. The special provisions in the bid solicitation package will clearly describe acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within ESAs. The ESA fencing will be removed at each location as necessary.

- **PF-BIO-4: Wildlife Exclusion Fencing.** Before starting construction, at the discretion of the Project Biologist, wildlife exclusion fencing (WEF) may be installed along the Project footprint perimeter in the areas where wildlife could enter the Project footprint. The final Project plans will depict the locations where WEF will be installed, and how it will be assembled/constructed. The special provisions in the bid solicitation package will clearly describe acceptable WEF fencing material and proper WEF installation and maintenance. The WEF will remain in place at each location until work at that location is complete and will be regularly inspected for stranded animals and fully maintained daily. The WEF will be removed following completion of construction activities.
  
- **PF-BIO-5: Stormwater Best Management Practices.** In accordance with Regional Water Quality Control Board requirements, a Stormwater Pollution Prevention Plan will be developed and erosion control BMPs implemented to minimize wind- or water-related erosion. The Caltrans Construction Site BMP Manual (Caltrans 2017) provides guidance for the inclusion of provisions in all construction contracts to protect sensitive areas and prevent and minimize stormwater and non-stormwater discharges. At a minimum, protective measures will include the following:
  - a. Prohibiting discharge of pollutants from vehicle and equipment cleaning into storm drains or watercourses.

- b. Servicing vehicles and construction equipment, including fueling, cleaning, and maintenance at least 50 feet from aquatic habitat, unless separated by topographic or engineered drainage barrier.
  - c. Collecting and disposing of concrete wastes and water from curing operations in appropriate washouts, located at least 50 feet from watercourses.
  - d. Maintaining spill containment kits onsite at all times during construction operations and/or staging or fueling of equipment.
  - e. Using water trucks and dust palliatives to control dust in unvegetated areas and covering temporary stockpiles when weather conditions require.
  - f. Installing coir rolls or straw wattles along or at the base of slopes during construction to capture sediment. To prevent wildlife from becoming entangled or trapped in erosion control materials, plastic monofilament netting such as erosion control matting or similar material will not be used. Acceptable substitutes would include coconut coir matting or tackifying hydroseeding compounds.
  - g. Protecting graded areas from erosion using a combination of silt fences, fiber rolls along toes of slopes or along edges of designated staging areas, and erosion control netting (jute or coir) as appropriate on sloped areas.
  - h. Establishing permanent erosion control measures such as bio-filtration strips and swales to receive storm water discharges from the highway or other impervious surfaces to the maximum extent practicable.
- **PF-BIO-6: Construction Site Management Practices.** The following site restrictions will be implemented to avoid or minimize potential effects on listed species and their habitats:
    - a. Enforcing a speed limit of 15 miles per hour in the Project footprint in unpaved and paved areas to reduce dust and excessive soil disturbance.
    - b. Locating construction access, staging, storage, and parking areas within the Project footprint outside any designated ESA. Access routes, staging and storage areas, and contractor parking will be limited to the minimum necessary to construct the proposed Project. Routes and boundaries of roadwork will be clearly marked before initiating construction or grading.

- c. Certifying, to the maximum extent practicable, borrow material is nontoxic and weed-free.
  - d. Enclosing food and food-related trash items in sealed trash containers and removing them from the site at the end of each day.
  - e. Prohibiting pets from entering the Project footprint during construction.
  - f. Prohibiting firearms within the Project site, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.
  - g. Maintaining equipment to prevent the leakage of vehicle fluids such as gasoline, oils, or solvents, and developing a Spill Response Plan. Hazardous materials such as fuels, oils, and solvents will be stored in sealable containers in a designated location that is at least 50 feet from aquatic habitats.
- **PF-BIO-7: Avoidance of Entrapment.** During construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day using plywood or similar materials or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Pipes, culverts, or similar structures stored in the BSA overnight will be inspected before they are subsequently moved, capped, or buried.
  - **PF-BIO-8: Vegetation Removal.** Vegetation that is growing in locations where shoulder widening will be placed will be cleared. Vegetation will be cleared only where necessary and will be cut above soil level, except in areas that will be permanently impacted or excavated. This will allow plants that reproduce vegetatively to resprout after construction. Clearing and grubbing of woody vegetation will occur by hand or using construction equipment such as mowers, backhoes, and excavators. If clearing and grubbing occurs between February 1 and September 30, the Project Biologist will survey for nesting birds within the areas to be disturbed (including a perimeter buffer of 50 feet for passerines/migratory birds and 300 feet for raptors) before clearing activities begin. All nest avoidance requirements of the Migratory Bird Treaty Act and CDFW Code will be observed, such as establishing appropriate protection buffers around active nests until young have fledged. Cleared vegetation will be removed from the Project footprint to prevent attracting animals to the Project footprint.



- **PF-BIO-9: Pre-construction Nesting Bird Surveys and Nest Avoidance.** During the nesting season (February 1 through September 30), pre-construction surveys for nesting birds will be conducted by the Project Biologist no more than 72 hours prior to the start of construction activities. If work is to occur within 300 feet of active raptor nests or 50 feet of active non-game bird nests, a non-disturbance buffer will be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the species' sensitivity to disturbance, and the intensity/type of potential disturbance. To minimize and avoid take of migratory birds, their nests, and their young, Caltrans will conduct vegetation and tree trimming outside of the bird nesting season, prior to construction. This work will be limited to vegetation and trees that are within the Project footprint. Additional bird nesting surveys will be required if work must occur during the nesting season.
- **PF-BIO-10: Replant, Reseed, and Restore Disturbed Areas.** Caltrans will restore temporarily disturbed areas to the maximum extent practicable. Exposed slopes and bare ground will be reseeded at the end of each construction season, with commercially available, locally appropriate native grass and shrub seeds to stabilize and prevent erosion. Where disturbance includes the removal of trees and woody shrubs, native species will be replanted.
- **PF-BIO-11: Reduce Spread of Invasive Species.** Caltrans will comply with Executive Order 13112. This order is provided to prevent the introduction of invasive species and provide for their control to minimize the economic, ecological, and human health effects. In the event that noxious weeds are disturbed or removed during construction-related activities, the contractor will be required to contain the plant material associated with these noxious weeds and dispose of it in a manner that will not promote the spread of the species. The contractor will be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance will be replanted with fast-growing native grasses or a native erosion control seed mixture. Where seeding is not practical, the target areas within the Project footprint will be covered to the extent practicable with heavy black plastic solarization material until the end of the Project construction.

## **AVOIDANCE AND MINIMIZATION MEASURES**

Caltrans would incorporate the following standard AMMs to avoid or minimize potential impacts to biological resources:

- **AMM-BIO-1: Restoration (Replant, Reseed, and Restore Disturbed Areas).** Restoration of temporary disturbance areas, including ESHA, will be accomplished through onsite revegetation. Restoration of temporary impact areas will occur within the same season they are disturbed so that the duration of disturbance at each location will not exceed 12 months through a non-standard edit to the Erosion Control General Specifications.

Restoration of temporarily disturbed areas will be performed at a 1:1 ratio. At the end of each construction season, exposed slopes and bare ground will be reseeded with native grasses and shrubs to stabilize and prevent erosion.

Native trees removed from riparian or other habitats or within the CDFW jurisdiction will be replanted following construction.

- **AMM-BIO-2: Designation of Special-status Plant Populations.** In conjunction with pre-construction survey AMMs, additional focused species checks and mapping of any observed populations of special-status plants within the BSA will be performed the season prior to construction to delineate the current limits of these populations prior to construction. These areas will be denoted as ESA and be avoided as feasible.

If avoidance of mapped populations within the Project footprint is not possible, the Caltrans Biologist will consult with appropriate agencies on suitable salvage, propagation, or relocation protocols. If avoidance is not possible, a special-status plant restoration plan will be prepared for agency review prior to special-status plant salvage or restoration. The special-status plant restoration plan will include information on performance criteria, monitoring requirements, and reporting.

- **AMM-BIO-3: Biological Monitoring.** The Caltrans biological monitor will be present during construction activities where take of a listed species could occur. Through communication with the Resident Engineer or designee, the biological monitor may stop work if deemed necessary for any reason to protect listed species and will advise the Resident Engineer or designee on how to proceed accordingly.

- **AMM-BIO-4: Pre-construction CRLF Surveys.** Visual encounter surveys will be conducted by the Caltrans biological monitor immediately before ground-disturbing activities. Suitable non-breeding aquatic and upland habitat within the Project footprint, including refugia habitat such as under shrubs, downed logs, small woody debris, and burrows will be inspected. If a CRLF is observed, the individual will be evaluated and relocated by the biological monitor in accordance with the observation and handling protocol outlined under Item 4. Fossorial mammal burrows will be inspected for signs of frog usage, to the extent practicable. If it is determined that a burrow may be occupied by a CRLF, the Resident Engineer and USFWS will be contacted, and work within the vicinity of the burrow will stopped.
- **AMM-BIO-5: Stop Work for CRLF Observation.** If the CRLF is encountered in the Project footprint, work within 50 feet of the animal will cease immediately and the Resident Engineer and approved biologist will be notified. Based on the professional judgment of the approved biologist, if Project activities can be conducted without harming or injuring the animal, it may be left at the location of discovery and monitored by the approved biologist. Project personnel will be notified of the finding, and at no time will work occur within 50 feet of the animal without an approved biologist present.
- **AMM-BIO-6: Pre-construction NSO Surveys.** A focused pre-construction non-protocol survey will be conducted during the NSO nesting season in areas of potential NSO habitat. The NSO-focused surveys will be conducted by a qualified biologist within 165 feet of suitable NSO habitat. This includes areas with observed suitable habitat and areas with proximal occurrence data, including widening Locations 27, 29, 30, 33, 35 to 38, and 41 to 61; associated staging areas; and rumble strip segments 3 and 4. If surveys are not completed, work at these un-surveyed locations would be restricted to between August 1 and February 28, unless surveys determine the suitable habitat or site is unoccupied or the owls are not nesting.

For Project work within 165 feet of a known nest site or nesting habitat that cannot be scheduled outside of the nesting season, and where the 165-foot buffer cannot be maintained, reduced buffers should be implemented based on “Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California” (USFWS 2006).

- **AMM-BIO-7: Occupied NSO Habitat.** If NSO surveys (using the USFWS’ 2012 survey protocol [USFWS 2012]) detect an active NSO nesting site within 165 feet of the Project footprint, or Caltrans biologist presumes spotted owl occupancy without conducting surveys, Caltrans Resident Engineer will adhere to the following measures:
  - a. The start of construction within 165 feet of the NSO nest will be delayed until the young have fledged. NSO young generally leave the nest (that is, fledge) in late May or June. The NSO nest will be monitored by a USFWS-approved biologist to document when the young have left the nest and construction can start.
  - b. To minimize noise and visual disturbances generated from the proposed Project to the degree possible, all construction equipment, fixed or mobile, will be fitted with properly operating and maintained mufflers consistent with manufacturers’ standards. Additionally:
    - i. No proposed activity generating sound levels 20 or more decibels (dB) above ambient sound levels or with maximum sound levels (ambient sound level plus activity-generated sound level) above 90 dB (excluding vehicle backup alarms) may occur within suitable NSO nesting or roosting habitat during most of the nesting season (February 1 to July 9) (USFWS 2014). These above-ambient sound level restrictions will be lifted after July 31, after which the USFWS considers the above-ambient sound levels as having “no effect” on nesting NSO and dependent young.
    - ii. No human activities will occur within a visual line of sight of 131 feet or less from any known NSO nest locations within the Project footprint (USFWS 2014).
- **AMM-BIO-8: Focused MAMU Surveys.** MAMU-focused non-protocol surveys will be conducted by a qualified biologist at all Project locations that are within 0.25 mile of suitable MAMU habitat (Locations 29, 30, 33, 41 through 44, 47, 49 through 55, and 58, and rumble strip segments 3 and 4). If surveys are not completed, work at these locations would be restricted to between August 1 and February 28. For Project work within 0.25 mile of a known MAMU nest site that cannot be scheduled outside of the nesting season, reduced buffers should be implemented based on “Estimating the Effects of Auditory and Visual

Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California” (USFWS 2006).

- **AMM-BIO-9: MAMU Habitat.** If MAMU surveys (using the USFWS’s survey protocol [USFWS 2014]) determine that the work area is occupied by nesting MAMU, or Project Biologist presumes MAMU occupancy without conducting surveys, Caltrans Resident Engineer will adhere to the following:
  - a. **Vegetation Removal or Alteration:**
    - i. No potential MAMU nest trees will be removed during the nesting season (March 24 to September 15),  
  
However, potential suitable MAMU habitat may be removed or altered outside the nesting season (September 16 to March 23).
    - ii. Caltrans Biologist shall coordinate with USFWS to determine whether proposed habitat removal within designated critical habitat would constitute an adverse impact during the design phase.
  - b. **Auditory or Visual Disturbance:**
    - i. No proposed activity generating sound levels 20 dB or more above ambient sound levels or with maximum sound levels (ambient sound level plus activity-generated sound level) above 90 dB (excluding vehicle backup alarms) may occur within 0.25 mile of suitable MAMU nesting habitat as determined by the Project Biologist from March 24 to August 5 (USFWS 2014).
    - ii. Between August 6 and September 30 (end of MAMU nesting season) of any year, Project activities adjacent to suitable nesting habitat that will generate sound levels equal to or greater than 10 dB above ambient sound levels will observe a daily work window beginning 2 hours after sunrise and ending 2 hours before sunset. However, preparation work that does not generate noise above ambient sound levels, including street sweeping and manual removal of pavement markers, can occur during all hours.
    - iii. No human activities will occur within the visual line of sight of 131 feet or less from an active MAMU nest from March to August (USFWS 2006).

If non-protocol surveys determine that all suitable MAMU nesting habitat within the Project footprint is considered unoccupied, suitable nesting habitat may be removed or altered without seasonal restrictions. The removal of a few small trees and shrubs would be exempt from this requirement.

- **AMM-BIO-10: SNPL Seasonal Avoidance.** At Location 15, staging area E, and rumble strip segment 2, which are near suitable habitat for the SNPL, no construction activities will be performed during the snowy plover nesting season, March 1 through September 14. A no-disturbance buffer of 130 feet from suitable habitat for SNPL will be implemented outside the nesting season, September 15 through February 28.
- **AMM-BIO-11: Pre-construction SNPL Surveys.** A USFWS-approved biologist will conduct pre-construction clearance surveys for snowy plover prior to work at Location 15 and staging area E. At least two surveys will be conducted at those locations: one survey will be between 14 and 3 calendar days prior to work starting, and another will be within 3 calendar days prior to work starting. Surveys will be conducted along the beach area (on foot within accessible areas or using binoculars) within a 500-foot radius of the Project footprint. Tidal phase, weather, wind speeds, and visibility will be recorded during each survey. Surveyors will document observations and banded birds but will not approach a bird on a nest or an adult with chicks, or female head-bobbing, a male tail-dragging, birds copulating, nest scraping, birds performing a broken wing display, or an adult with chicks. Positive identifications should be reported to USFWS and State Parks within 24 hours.
- **AMM-BIO-12: Pre-construction Survey for *Viola adunca*.** A pre-construction survey for *Viola adunca* will be conducted in the early spring (late February/early March), referencing phenology trends observed at Fort Ross or other nearby reference populations. If *Viola adunca* are found in the work area, they will be flagged for avoidance with ESA fencing in coordination with the Project Biologist and Resident Engineer.
- **AMM-BIO-13: Pre-construction WPT Surveys.** An approved biologist will conduct pre-construction surveys for WPT immediately before ground-disturbing activities in areas identified as suitable WPT habitat within the Project footprint. If WPT is found within the Project footprint and at risk of harm, then it will be relocated by an approved biologist outside of the Project footprint.

- **AMM-BIO-14: Pre-construction Surveys for Bats.** Prior to the start of work at each location, a qualified biologist will conduct a visual survey of the area for bat species. Any bats observed in the BSA should be allowed to leave on its own.
- **AMM-BIO-15: Bat Surveys Prior to Vegetation Removal.** A survey by a qualified bat biologist will be conducted prior to vegetation removal to determine if two-phase tree removal methods are appropriate for any trees scheduled for removal, or if a biological monitor should be required to be present during tree removal. The qualified biologist should inspect all trees marked for removal for bat roost habitat (e.g., crevice and foliage habitat types).
- **AMM-BIO-16: Pre-construction Surveys for Sonoma Tree Vole.** Before the start of construction, a qualified biologist will conduct a survey of the Project work areas and a 30-foot buffer beyond the Project footprint to determine the location of STV nests. Any nests detected during the surveys will be recorded and mapped in relation to the Project footprint. In addition, the biologist will evaluate any signs of current activity. A 30-foot equipment exclusion buffer will be established around nests that can be avoided; within such buffers, all vegetation will be retained, and nests will remain undisturbed.
- **AMM-BIO-17: Impacts to ESHAs.** Temporary impacts to ESHAs would be mitigated at a ratio of at least 1:1. Permanent impacts to ESHAs and aquatic resources would be mitigated at a ratio of at least 3:1. Impacts to ESHAs, mitigation ratios, and appropriate compensation would be confirmed with the appropriate agencies during the design phase.
- **AMM-BIO-18: Tree Replacements.** The trees removed for the Project would be replaced or compensated via an in-lieu fee. Appropriate tree replacement locations or in-lieu fee compensation would be determined during the design phase and in consultation with the appropriate agencies.
- **AMM-BIO-19: Impacts to Waters.** Temporarily impacted wetland and other waters would be restored and revegetated to mitigate impacts to habitat functionality. Permanent impacts would be mitigated at a ratio of at least 1:1. Impacts to waters, mitigation ratios, and appropriate compensation would be confirmed with the appropriate agencies during the permitting process.

### 3.3.5 Cultural Resources

Would the Project:

Question	CEQA Determination
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Less Than Significant Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	Less Than Significant Impact

#### CEQA SIGNIFICANCE DETERMINATIONS FOR CULTURAL RESOURCES

Caltrans’ Professionally Qualified Staff (PQS) conducted a cultural resources investigation for the Project in accordance with the *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, California State Historic Preservation Officer and the California Department of Transportation Regarding compliance with Section 106 of the National Historic Preservation Act as it Pertains to the Administration of Federal-Aid Highway Program in California* (PA) (FHWA 2014) and prepared a *Section 106 Closeout Memo for the Sonoma 1 Install Centerline Rumble Strip Project between Post Miles 0.00 and 58.58 on State Route 1, in Sonoma County* (Caltrans 2022g).

The area of potential effects (APE) for the Project was established in consultation with Caltrans’ PQS and the Project Manager on October 17, 2022. The archaeological and architectural history APE were established to include all areas of direct impact and the maximum extent of construction-related activities. Caltrans’ PQS reviewed Project information, the Caltrans Cultural Resource Database, as-built plans, aerial photographs, and historical maps to evaluate the Project’s potential to affect cultural resources in the APE. Thirty-six archaeological sites were identified and included in the archaeological APE. The vertical APE/Area of Direct Impact (ADI) is the maximum extent of ground disturbance from construction-related activities, which is anticipated to be 1.8 feet below ground surface (Caltrans 2022g).

On June 22, 2021, Caltrans contacted the Native American Heritage Commission (NAHC) and requested a review of their Sacred Lands File (SLF). The results of the SLF were positive and a list of Native American contacts with potential interest or information regarding the APE was provided. On September 21, 2021, under Assembly Bill (AB) 52 and as part of the Section 106 of the National Historic



Preservation Act process, Caltrans' Office of Cultural Resources Studies (OCRS) sent consultation initiation letters to all contacts provided by the NAHC (Caltrans 2022g).

On October 15, 2021, the Tribal Historic Preservation Officer (THPO) for the Federated Indians of Graton Rancheria (Graton Rancheria), Ms. McQuillen, responded and requested consultation on the Project. Project details were discussed with Ms. McQuillen at the OCRS quarterly meeting held with Graton Rancheria on February 17, 2022. At the meeting, Ms. McQuillen requested to continue receiving updates on the cultural resources studies as the Project moves forward. On August 5, 2022, an email was sent to Ms. McQuillen informing her of the scheduled pedestrian survey scheduled for August 15 and 16, 2022. Ms. McQuillen did not respond; however, at the August 25, 2022, quarterly meeting with Graton Rancheria, updates from the survey and the cultural compliance path, including avoidance measures for known sites, were discussed with Ms. McQuillen. Consultation with Graton Rancheria is ongoing and will continue throughout the life of the Project (Caltrans 2022g).

A follow-up consultation letter was sent to the Kashia Band of Pomo Indians of the Stewarts Point Rancheria (Kashia Pomo) THPO, Mr. Macias, on April 22, 2022. On July 26, 2022, an email was sent to Mr. Macias informing him of the pedestrian survey scheduled for August 15 and 16, 2022. Mr. Macias responded the same day requesting a copy of the site records for the Project locations. Site maps for each of the sites along the Project corridor were sent to Mr. Macias on August 12, 2022. He responded the same day noting that there are archaeological sites within the aboriginal territory of the Kashia Pomo and requested a site visit and monitoring for all ground disturbing work. On September 19, 2022, Caltrans Archaeology Branch Chief Kathryn Rose and Caltrans Archaeologist Althea Asaro met with two members of the Kashia Pomo to review site locations of importance. The Project was discussed, and all parties agreed that while all construction-related activities have been placed outside of known archaeological site boundaries, certain Project locations were adjacent to known resources; therefore, Environmentally Sensitive Areas (ESAs) would need to be established to protect these resources in addition to monitoring the ESAs to ensure compliance. Consultation with the Kashia Pomo will be ongoing throughout the life of the Project (Caltrans 2022g).

No built resources were identified in the APE. On August 15, 2022, Caltrans archaeologists conducted an intensive pedestrian survey of the entire APE. A total of 36 archaeological resources have been identified within the APE; however, none are

located in the ADI. Four of these sites were identified by local Tribes as significant, and avoidance measures in the form of ESAs were requested as a precaution to protect them. Only one of the four sites has been evaluated for inclusion in the National Register of Historic Places (NRHP), and it was determined eligible on February 13, 2002, with SHPO concurrence. The other three sites are considered eligible for inclusion in the NRHP for the purposes of this Project only because they would be protected in their entirety from any potential effects through the establishment of ESAs, in accordance with Stipulation VIII.C.3 of the PA.

Pursuant to the PA, Caltrans OCRS determined that a Finding of No Adverse Effect with Standard Conditions – ESA is appropriate for the Project. A Historic Property Survey Report, Archaeological Survey Report, and ESA Action Plan were compiled for the Project in support of this finding. The Caltrans Cultural Studies Office concurred with the finding on November 10, 2022.

**a) No Impact**

There were no built environment resources identified in the APE. Therefore, there would be no impact.

**b and c) Less Than Significant Impact**

California law recognizes the need to protect interred human remains, particularly Native American burials and associated items of patrimony, from vandalism and inadvertent destruction. The procedures for the treatment of discovered human remains are contained in the California Health and Safety Code Sections 7050.5 and 7052, and the California Public Resources Code Section 5097.

Implementation of PF-CULT-1, PF-CULT-2, and PF-CULT-3 would reduce the impact to less than significant.

**PROJECT FEATURES**

Caltrans would incorporate the following PFs to reduce impacts to cultural resources:

- **PF-CULT-1, Establish and Enforce ESAs:** Archeological ESAs will be delineated on the plans and described in the specifications. Appropriate protective measures including demarcations with flags or high visibility spray paint, access restrictions, and monitoring of the ESA boundaries by a qualified archaeologist and local tribal representatives will be implemented during construction.

- **PF-CULT-2, Cease Work Upon Discovery of Cultural Resources:** Cease work if cultural resources are encountered during Project-related ground-disturbing activities, have a qualified archaeologist assess the significance of the resource, and implement appropriate avoidance or treatment measures, in coordination with local consulting tribes.

If buried cultural materials are encountered during construction, work would be stopped until a qualified archaeologist can evaluate the nature and significance of the find. The need for archaeological and Native American monitoring during the remainder of the Project would be reevaluated by Caltrans Archaeologists and local consulting tribes as part of the treatment measure determination. The archaeologist would consult with appropriate Native American representatives in determining suitable treatment for unearthed cultural resources if the resources are Native American in nature.

- **PF-CULT-3, Stop Work Upon Discovery of Human Remains:** In accordance with the California Health and Safety Code, if human remains are uncovered during construction-related activities, all such activities within a 60-foot radius of the find will be halted immediately and the Project's designated representative will be notified. The contractor or lead person on the Project will immediately notify the OCRS Office Chief and/or the District Native American Coordinator (DNAC). Once the remains are determined human, the lead person, OCRS Office Chief, or DNAC will contact the County Coroner and the NAHC. Although the Coroner has the ultimate responsibility to contact the NAHC, Caltrans OCRS contacts the NAHC at this time to provide information on the discovery and to assure the NAHC that appropriate action is being taken. The Coroner is required to examine the discovery of human remains within 48 hours of received notification of such a discovery on private or state lands (California Health and Safety Code Section 7050.5[b]). If the Coroner inspects the remains and determines that the remains are not Native American and/or determines they are a result of a wrongful death, the Coroner may take possession of the remains for further inquiry, release them to next of kin, or order the body to be reinterred. After the above action has been taken, work may resume on the Project. If the Coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making the determination (California Health and Safety Code Section 7050.5[c]). The Project's designated representative will be responsible for acting upon notification of discovery of Native American human remains, as identified in detail in California Public

Resources Code Section 5097.9. The Project's designated representative and the professional archaeologist will contact the Most Likely Descendent (MLD), as determined by the NAHC, regarding the remains. The MLD, in cooperation with the property owner and Caltrans, will determine the ultimate disposition of the remains. The lead person ensures that the recommendations are followed. After the appropriate actions are taken, Project work may resume.

### 3.3.6 Energy

Would the Project:

Question	CEQA Determination
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	Less Than Significant Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No Impact

#### CEQA SIGNIFICANCE DETERMINATIONS FOR ENERGY

An Energy Analysis Report was prepared by the Caltrans Office of Environmental Engineering (Caltrans 2022h). A summary of the findings is presented here.

#### a) Less Than Significant Impact

Greenhouse gases (GHGs) are the most extensively studied byproducts of energy consumption because they are linked to climate change. To assess energy consumed by construction equipment and vehicles, the Construction Emissions Tool 2020 (CAL-CET 2020) version 1.0, developed by Caltrans, was used to quantify carbon dioxide (CO<sub>2</sub>) emissions. The USEPA’s GHG equivalencies formulas were used to convert CO<sub>2</sub> to fuel volumes. It was assumed diesel would be used for all construction vehicles and equipment. The Project is anticipated to consume approximately 78,585.46 gallons of diesel fuel (Caltrans 2022h).

During construction, Project features PF-ENERGY-1 and PF-ENERGY-2, presented at the end of this section, would be implemented to improve energy efficiency of construction equipment. In addition, implementation of PF-AQ-2 and PF-AQ-3, as discussed in Section 3.3.3, would also improve energy efficiency and reduce energy consumption by Project construction.

Construction-related activities would be short-term and would not increase SR 1 transportation capacity or otherwise alter long-term vehicle traffic, and thus do not have the potential to substantially affect energy use. During Project operation, energy consumption would be limited to routine maintenance-related activities that are anticipated to be similar to existing conditions. Therefore, the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction and operation. The Project would have a less than significant impact.

**b) No Impact**

The proposed Project scope would not result in changes in traffic volumes, vehicle mix, or any other factor that would cause an increase in energy consumption. The Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with a regional, state, or local plan for renewable energy or energy efficiency. Therefore, the Project would not conflict with the regional/statewide goals on renewable energy or energy efficiency. There would be no impact.

**PROJECT FEATURES**

Caltrans would incorporate the following standard PFs into the Project to reduce potential impacts to energy:

- **PF-ENERGY-1, Recycle Waste and Materials:** Recycle nonhazardous waste and excess construction materials to reduce disposal, if feasible.
- **PF-ENERGY-2, Solar Energy:** Use solar energy as the energy source for construction equipment, such as, but not limited to, signal boards, if feasible.

### 3.3.7 Geology and Soils

Would the Project:

Question	CEQA Determination
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Less Than Significant Impact
(ii) Strong seismic ground shaking?	Less Than Significant Impact
(iii) Seismic-related ground failure, including liquefaction?	Less Than Significant Impact
(iv) Landslides?	Less Than Significant Impact
b) Result in substantial soil erosion or the loss of topsoil?	Less Than Significant Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Less Than Significant Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less Than Significant Impact

#### CEQA SIGNIFICANCE DETERMINATIONS FOR GEOLOGY AND SOILS

A Geologic, Seismic, and Palaeontologic Analysis was prepared by the Caltrans Office of Geotechnical Design – West (Caltrans 2022d). A summary of the findings is presented here.

The Project is located within the central portion of the Coast Ranges Geomorphic Province of California that encompasses SR 1, the primary highway running along the entire Sonoma Coast. The dominant geologic feature of the province is the San Andreas Fault, an approximately 800-mile-long fault zone that generally forms the dividing line between major tectonic plates, with the Pacific Plate situated west of the San Andreas Fault and the North American Plate situated east of the San Andreas Fault. The Project encompasses a lengthy segment of coastal highway along the North Coast section of the dextral strike-slip San Andreas fault zone which is mapped within 2 miles along the entire 58.58-mile Project corridor (Bryant 2002). This major

dextral strike-slip fault zone is displayed within the following U.S. Geological Survey (USGS) 7.5-minute quadrangles: Gualala, Stewarts Point, Plantation, Fort Ross, Arched Rock, Duncans Mills, Bodega Head, and Valley Ford (Bryant 2002).

Due to the length of the Project corridor, descriptions of soils and geology underlying the Project are broken into four Sub-Areas, as described in Chapter 2 (Figure 1-2). Approximate locations of mapped fault traces crossing construction-related activities along SR 1 within each of the four Sub-Area are as follows:

- Sub-Area 1: Between PM 9.4 and 10.1 and at PM 10.2
- Sub-Area 2: Between PM 13.78 and 13.96
- Sub-Area 3: Between PM 30.5 and 31.01 and at PM 31.9
- Sub-Area 4: None

In general, the Coast ranges consist of complexly folded Mesozoic and Cenozoic sedimentary, metamorphic, and volcanic rock. The Mesozoic and Tertiary Complex Terranes found within the Project include Central Belt Franciscan Complex and Quaternary-Tertiary surficial deposits within Sub-Areas 1 and 2; Coastal and Central Belt Franciscan Complex within Sub-Area 3; and Great Valley Complex within Sub Area-4 (Blake 2002a).

Geologic units underlying the Project area consist of surficial deposits, Sonoma Volcanics and Franciscan Complex rocks east of and within the San Andreas fault zone, and rocks west of and within the San Andreas fault zone, and can be further characterized by Sub-Area as follows (Blake 2002a; Blake 2022b; Knudsen 2000):

- Sub-Area 1 (PM 0.00-11.00): From Valley Ford to the coast, underlying geology consists primarily of late Pliocene to late Miocene aged Wilson Grove Formation (Twg) and Cretaceous and Jurassic-age Graywacke and mélangé of the Franciscan Complex (Kjfs). Twg is known to contain Miocene to Pliocene age fossils and fine-grained quartz-lithic arenite, conglomerate, tuff, and basalt. The Kjfs unit is described as “Massive to distinctly bedded, brown-, orange-, and white-weathering, green to gray, lithic wacke and dark-gray or black siltstone, shale, and slate, grading into mélangé consisting of sheared argillite and graywacke matrix enclosing blocks and lenses of sedimentary, metamorphic, and volcanic rocks.”

As SR 1 heads north along the coast, rocks east of and within San Andreas fault zone primarily consist of Late Cretaceous, Turonian to Campanian-aged Sandstone (Kfss) and Pleistocene aged alluvial and marine terrace deposits (Qt).



- Sub-Areas 2 and 3 (PM 11.00-22.00; PM 22.00-32.00): Following SR 1 north, the prominent underlying geology consists of Quaternary landslide, alluvial, and marine terrace deposits (Qls and Qt). Franciscan Complex Coastal and Central Belt units include Graywacke and mélangé (KJfs), and Sandstone (Kfss, TKfs) of Cretaceous to Jurassic age.
- Sub-Area 4 (PM 32.00-58.00): Continuing north along the Sonoma coast approaching the Mendocino County border, dominant underlying geology is predominately underlain by Pleistocene aged alluvial and marine terrace deposits (Qt) and Late Cretaceous and Paleocene aged members of Gualala Formation (Ka and Ks). Additionally, Eocene and Paleocene aged German Rancho Formation (Tg) of the Point Arena terrane is found including fine- to medium-grained distinctly bedded, feldspathic arenite, mudstone, and conglomerate and coarse clasts consist mostly of granitic rocks, amphibolite, schist, gneiss, quartzite, and porphyry volcanics.

Construction-related activities primarily involve installation of incontinent sections of ground-in centerline rumble strips within the existing highway pavement and would not disturb native soils. Additional construction-related activities would require widening the existing shoulder to 6 feet at 50 spot locations (Table 2-1). Construction is unlikely to disturb native soils at these locations but more likely to encounter non-native backfill. General information on native soils within the Project was obtained from the National Resources Conservation Service (NRCS) web soils survey, and official soil series maps and descriptions are available upon request (NRCS 2022).

**a(i), (ii), (iii), (iv), b, and c) Less Than Significant Impact**

The Project includes locations of construction-related activities within an Alquist-Priolo Earthquake Zone of Required Investigation (CGS 2022b; CGS 2022c); however, construction-related activities would not add to the hazard.

Additionally, the Project includes locations of construction-related activities located within mapped Tsunami Hazard Areas as designated by the California Geological Survey (CGS 2022a) and historic landslide potential (Manson et al. 2006). Based on potential impacts of construction-related activities, Project components would not further add to the hazard.

Soils may be subject to liquefaction during a strong seismic event; however, Project components would not further add to the hazard.

Implementation of Caltrans construction site, water pollution control, and erosion control BMPs contained in PF-HYD-1 and PF-HYD-2, described in Section 3.3.10, would minimize any soil erosion or loss of topsoil that would result from a seismic event during Project construction.

Based on the Project location, the public would be exposed to potential risk of loss, injury, or death due to hazards from ground shaking, seismic related ground failure, landslides, liquefaction, or other geologic hazards. However, construction-related activities require minimal disturbance with minor excavations that have the potential to result in erosion outside the Caltrans ROW. The Project would not result in increased seismic-related risk or substantial erosion or loss of topsoil, and the impact would be less than significant.

**d and e) No Impact**

The Project is not mapped on an unstable geologic unit or soil, does not directly or indirectly increase the potential for surface rupture or strong ground shaking, and does not expose the public to increased risk of loss, injury, or death.

Soft soils (loam and clay soils) may be found at depth within the Project work areas, but if native soils are encountered, they are not expected to be expansive or collapsible. No septic tanks or alternative wastewater delivery systems would be constructed or affected by the Project; therefore, no impact would occur.

**f) Less Than Significant Impact**

The underlying mapped Quaternary marine terraces of the Wilson Grove Formation are known to have the potential for significant fossil occurrence. However, construction-related activities are not expected to disturb paleontological resources, if present. The Project is unlikely to expose fossils or significantly affect sensitive palaeontologic resources and the Project would have less than significant impact.

**3.3.8 Greenhouse Gas Emissions**

Would the Project:

Question	CEQA Determination
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less Than Significant Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	No Impact

**CEQA SIGNIFICANCE DETERMINATIONS FOR GREENHOUSE GAS EMISSIONS**

A Construction GHG Emissions Analysis was prepared by the Caltrans Office of Environmental Engineering (Caltrans 2022i). A summary of the findings is presented here.

**a) Less Than Significant Impact**

Construction-generated GHGs include emissions resulting from construction equipment, workers commuting to and from the Project, and traffic delays due to construction of the Project. The emissions would be produced at different rates throughout the Project, depending on the construction-related activities occurring in the three phases of construction. Carbon dioxide (CO<sub>2</sub>) is a more important GHG pollutant due to its abundance when compared with other GHGs emitted from construction vehicles and equipment, including methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbon, and black carbon.

Construction-related GHG emissions were calculated using the Construction Emissions Tool 2020 (CAL-CET 2020), version 1.0, developed by Caltrans. During construction, the Project is anticipated to emit approximately 800 tons of CO<sub>2</sub>, 0.023 ton of CH<sub>4</sub>, and 0.051 ton of N<sub>2</sub>O. Total GHG emissions are presented as carbon dioxide equivalent (CO<sub>2</sub>e) by multiplying each GHG by their global warming potential (GWP). GWP is a measure of how much energy the emissions of 1 ton of a GHG will absorb over a given period of time, relative to the emissions of 1 ton of CO<sub>2</sub>. Total construction emissions of GHG of the Project is 740.27 metric tons of CO<sub>2</sub>e (Caltrans 2022i). The Project would not increase SR 1 transportation capacity and therefore would not generate long-term GHG emissions.

The Project would implement Caltrans Standard Specifications such as complying with applicable air pollution control rules, regulations, ordinances, and statutes and

the use of construction site BMPs to minimize short-term GHG emissions from construction activities. Project features PF-AQ-2 and PF-AQ-3 (Section 3.3.3) and PF-ENERGY-1 and PF-ENERGY-2 (Section 3.3.6) would reduce air emissions, energy consumption, and GHG emissions.

Therefore, the Project would not generate GHG emissions that may have a significant impact (i.e., long-term adverse effects) on the environment. The impacts would be less than significant.

**b) No Impact**

Plans and policies adopted for the purposes of reducing GHG emissions in California include multiple Senate Bills, Assembly Bills, and Executive Orders. These policies establish GHG emissions reduction goals, set low-carbon fuel standards, support rapid commercialization of zero-emission vehicles, fund clean vehicle programs, and require climate adaptation planning. The Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) developed the Plan Bay Area, a Regional Transportation Plan and Sustainable Communities Strategy for the Bay Area, which includes strategies and policies for reducing GHG emissions (ABAG and MTC 2021).

The Project would comply with applicable state and regional GHG reduction policies and implement emission control measures to minimize or reduce GHG emissions. The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The Project would not contribute to a long-term increase in GHG emissions. Therefore, the Project would not conflict with applicable plans, policies, or regulations adopted for the purposes of reducing the emissions of GHGs. There would be no impact.

### 3.3.9 Hazards and Hazardous Materials

Would the Project:

Question	CEQA Determination
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less Than Significant Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less Than Significant Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No Impact
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less Than Significant Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Less Than Significant Impact

#### CEQA SIGNIFICANCE DETERMINATIONS FOR HAZARDS AND HAZARDOUS MATERIALS

Residential structures are located in the vicinity of shoulder widening locations within each of the four Project Sub-Areas. Within Sub-Area 1, the nearest residence is located approximately 60 feet west of SB #02 (Location 6). Within Sub-Area 2, the nearest residence is located approximately 70 feet northeast of SB #11 (Location 18). Within Sub-Area 3, the nearest residence is located approximately 175 feet southwest of SB #23 (Location 34). Within Sub-Area 4, the nearest residence is located approximately 95 feet southwest of SB #43 (Location 59). SR 1 is a public highway, with motorists and bicyclists frequently traveling along the route.

#### **a and b) Less Than Significant Impact**

The installation of ground-in centerline rumble strips, wet-night visibility striping, and widening of the shoulders would not involve the routine transport or use of hazardous materials once the Project becomes operational. During construction,

Caltrans' Standard Specifications (PF-HAZ-1, as presented in this section), would be implemented to prevent spills or leaks from construction equipment and from storage of fuels, lubricants, and solvents. All aspects of Project construction associated with removal, storage, transportation, and disposal of hazardous materials would be done in accordance with the appropriate California Health and Safety Code. Handling of hazardous materials would comply with Caltrans Standard Specification 14-11, Hazardous Waste and Contamination, which outlines handling, storage, and disposal of hazardous waste.

The Caltrans Office of Environmental Engineering would assess the extent of ground disturbance involved in the scope of the Project during the design phase. Per the Caltrans Office of Environmental Engineering, a site investigation led by the Hazardous Waste Branch (PF-HAZ-2, as presented in this section) to characterize soil for contaminants, primarily lead, would be required. The results of the site investigation would dictate the special provisions required for proper soil management, disposal, and liability.

The lack of operational impacts from hazardous materials, along with implementation of PF-HAZ-1, would reduce the potential construction impacts caused by the transportation, use, and disposal of hazardous materials or an accidental release of hazardous materials. Therefore, impacts would be less than significant.

**c) No Impact**

No existing or proposed school is within 0.25 mile of the Project corridor. The nearest existing school is Bodega Bay Elementary School, which is located approximately 1 mile north of Staging Area D and approximately 1.2 miles southeast of NB #07 (Location 13). In addition to the lack of schools located within 0.25 miles of the Project corridor, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste during operation. No impacts to schools would result.

**d) No Impact**

Screening of environmental regulatory databases, including the State Water Resources Control Board's (SWRCB's) GeoTracker and California Department of Toxic Substances Control's EnviroStor, revealed no known hazardous materials or hazardous waste sites in the immediate vicinity of the Project. A former Leaking Underground Storage Tank Cleanup Site case located approximately 430 feet east of

SB #43 (Location 59) has been closed as of February 2004 (Sonoma County LOP Case #00016247; North Coast Regional Water Quality Control Board (RWQCB) Case # 1TS0576) (SWRCB 2022).

The Project is not located on a hazardous materials site compiled pursuant to Government Code Section 65962.5. The nearest case involving known hazardous materials or hazardous waste release (Sonoma County LOP Case #00016247; North Coast RWQCB Case # 1TS0576) has been cleaned up and the case closed for approximately 18 years. Therefore, no impact would result from the Project.

**e) No Impact**

The Project corridor is not within an airport land use plan or within 2 miles of a public airport or public use airport. The Sea Ranch Airstrip, located approximately 1.98 miles southeast of SB #42 (Location 58), is a private facility owned by The Sea Ranch Association. The Project is not located within any airport land use plans.

No Project components, including construction equipment, would reach heights or have the potential to pose a safety hazard to airport operations. Further, the Project would not generate excessive noise that would impact people residing or working adjacent to the Project footprints, as discussed in Section 3.3.13. No impact on airports would result from the Project.

**f) Less Than Significant Impact**

The Project would require the temporary closure of traffic lanes along SR 1. Potential localized delays to traffic along SR 1 would result from the rolling one-lane closures. A Traffic Management Plan (TMP) (PF-TRANS-1), as described in Section 3.3.17, would be prepared prior to the beginning of construction and in consultation with the appropriate agencies, and would include public information and press releases to notify and inform motorists, local businesses, community groups, local entities, emergency services, and local officials of the upcoming rolling one-lane closures. Emergency service response times are not anticipated to change substantially during construction because the TMP would provide priority to emergency and medical vehicles during rolling one-lane closures. The TMP would provide notifications and instructions for rapid response or evacuation in the event of an emergency. In addition, the Project would not conflict with the Sonoma County Emergency Operations Plan (Sonoma County 2022a) or other emergency response or evacuation

plans. The impact on adopted emergency response plans or emergency evacuation plans caused by the Project would be less than significant.

**g) Less Than Significant Impact**

The Project corridor is within a California Department of Forestry and Fire Protection (CAL FIRE)-designated Moderate, High, and Very High Fire Hazard Severity Zones (State Resource Areas). Several fire agencies serve the Project corridor and are responsible for emergency services and the management of fire operations during emergency response efforts.

The Bodega Bay Fire Protection District is located approximately 450 feet north of Staging Area D. The Valley Ford Volunteer Fire Department provides emergency services to the Valley Ford community, along with surrounding areas, and is located approximately 0.45 mile southwest from NB #04 (Location 5), and approximately 0.35 mile southeast of SB #02 (Location 6). The Bodega Volunteer Fire Department provides emergency services to the Bodega community, along with surrounding areas, and is located approximately 2 miles northeast from SB #03 (Location 9). The North Sonoma Coast Volunteer Firefighter Association provides emergency services to the Sea Ranch community, along with surrounding areas, and has two stations located approximately 2.25 miles southeast from SB #42 (Location 58) and 0.45 miles southeast of SB #43 (Location 59).

During construction, equipment may be used that has the potential to increase the risk of wildfire. However, construction crews would be equipped with standard incipient stage fire suppression equipment such as fire extinguishers and shovels. Professional fire services are stationed nearby and would be contacted immediately in the event of a fire. The Project does not have permanent components that would expose people or structures to risk of loss, injury, or death involving wildland fires. Impacts from the Project that would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires, would be less than significant.

**PROJECT FEATURES**

Caltrans would incorporate the following standard PFs into the Project to reduce potential impacts to hazards and hazardous materials:

- **PF-HAZ-1, Caltrans Standard Specifications and Hazardous Waste Regulations:** The current Caltrans Standard Specifications Section 13-4, Job Site



Management, would be implemented to prevent and control spills or leaks from construction equipment and from storage of fuels, paints, cleaners, solvents, and lubricants. Handling and management of hazardous materials would comply with the current Caltrans Standard Specification Section 14-11, Hazardous Waste and Contamination, which outlines handling, storing, and disposing of hazardous waste.

- **PF-HAZ-2, Soil Investigation:** A soil investigation for metals, primarily lead, and other contaminants of concern (i.e., petroleum hydrocarbons and volatile organic compounds) would be completed during the Project's design phase to characterize and profile the soil to be encountered by the construction of the Project. Depending upon the findings of the site investigation, appropriate hazardous waste management special provisions would be prepared and included in the Project specifications.

### 3.3.10 Hydrology and Water Quality

Would the Project:

Question	CEQA Determination
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Less Than Significant Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the Project may impede sustainable groundwater management of the basin?	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site;	Less Than Significant Impact
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	Less Than Significant Impact
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	Less Than Significant Impact
(iv) impede or redirect flood flows?	Less Than Significant Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	Less Than Significant Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

#### CEQA SIGNIFICANCE DETERMINATIONS FOR HYDROLOGY AND WATER QUALITY

A Water Quality Study was prepared by the Caltrans Office of Water Quality (Caltrans 2022f) and a Preliminary Drainage Study was prepared by the Office of Hydraulics Engineering (Caltrans 2022e). A summary of the findings is presented here.

The Project is located within the jurisdiction of Region 1 of the North Coast Regional Water Quality Control Board (RWQCB), which is responsible for the implementation and enforcement of state laws and regulations concerning water quality. The Project is within the hydrologic units and watersheds listed in Table 3-2 (Caltrans 2022f).

**Table 3-2. Hydrologic Units and Watersheds**

Sub-Area	Hydrologic Unit	Watershed
Sub-Area 1	Bodega	Salmon Creek-Frontal Pacific Ocean
Sub-Area 2	Russian River	Lower Russian River
Sub-Area 3	Mendocino Coast	Salmon Creek-Frontal Pacific Ocean
Sub-Area 4	Mendocino Coast	Gualala River

Source: Caltrans 2022f

The receiving water bodies are the Russian River and Gualala River, which are included as beneficial uses as part of the Region 1 RWQCB Basin Plan. These water bodies are not classified as impaired under the 2018 California Clean Water Act Section 303(d) List (SWRCB 2018), nor do they have Total Maximum Daily Loads for any pollutants.

The NIS would be 4.05 acres due to the 50 spot locations of shoulder widening. NIS means the creation of a hard or compacted surface. Since the NIS would be greater than 1 acre, the Project is anticipated to require post-construction storm water treatment measures for new impervious surfaces.

Thirty-two locations (Locations 2 through 3; 5 through 6; and 32 through 61) are located within the Federal Emergency Management Agency (FEMA) Flood Map Zone D, which indicates areas of possible but undetermined flood hazards (Caltrans 2022e). It should be noted that the portion of SR 1 from PM 0.21 to PM 1.38 on north and southbound, identified as Zone D, is known to flood periodically. This portion of SR 1 includes Locations 2 through 3, and Location 5. Eighteen locations are within a Zone X floodplain (Locations 9 through 11, 13, 15, 17 through 20, and 23 through 31). Zone X indicates areas outside of the 0.2 percent annual chance floodplain (500-year).

The Project location may be subject to tidal influence from current and/or future sea-level rise as provided in the State of California Sea-Level Rise Guidance, 2018 Update (California Ocean Protection Council 2018). However, a discussion of climate change, including potential sea-level rise, was not considered for the purposes of this IS/ND due to the limited nature of the work included in the Project scope of work, the purpose of which is to install ground-in centerline rumble strip, install wet-night visibility striping, and widen the shoulders at 50 spot locations to provide refuge areas for bicyclists when being passed by motorists on SR 1. Climate change and future

sea-level rise would be considered through the environmental evaluation process of future projects scoped to address these issues on SR 1 within the Project corridor.

**a) Less Than Significant Impact**

The Project has the potential to contribute stormwater runoff and pollutants to the Russian River and Gualala River during construction-related activities. Implementation of water pollution control BMPs, listed under PF-HYD-1, presented at the end of this section, would reduce temporary impacts to water quality.

The disturbed soil area does exceed 1 acre, and therefore, the Project is subject to the SWRCB Construction General Permit (CGP). To comply with the conditions of the SWRCB CGP and to further reduce impacts associated with water quality and hydrology, a Stormwater Pollution Prevention Plan (SWPPP) would be prepared and implemented prior to the beginning of construction, as described in PF-HYD-2. Potential water quality impacts would be reduced to the maximum extent practicable through proper implementation of the SWPPP and inclusion of the Standard Special Provisions (SSPs) for water pollution control BMPs in the Project. As a result, the Project is not expected to result in long-term impacts to water quality standards or exceed waste discharge requirements; therefore, impacts would be less than significant.

**b) No Impact**

Water would be used temporarily during construction, potentially at staging area entrances and exits. Water for construction-related activities would be brought in by the contractor and groundwater would not be used. Therefore, the Project would not affect groundwater supplies or groundwater recharge areas and there would be no impact.

**c(i), (ii), (iii), (iv) Less Than Significant Impact**

The Project would not alter the drainage pattern and no drainage work is anticipated (Caltrans 2022e). Implementation of water pollution control BMPs under PF-HYD-1, and of a SWPPP under PF-HYD-2, would minimize erosion, siltation, and the discharge of polluted runoff on- or offsite. The Project would not result in an increase in runoff substantial enough to increase flooding on- or offsite, nor would it impede or redirect flood flows. The existing drainage facilities have the capacity to handle the increase in new impervious areas and the existing drainage patterns at the 50 shoulder

widening spot locations would be maintained. Therefore, the impact would be less than significant.

**d) Less Than Significant Impact**

The 50 shoulder widening spot locations are not within a FEMA base floodplain or floodway, and as discussed under items a) and c), the Project would not contribute new substantial sources of runoff or pollutants or result in increased flooding. The water surface profile and existing drainage patterns within the Project corridor would be maintained; therefore, no floodplain impacts are anticipated. Some areas of the Project corridor are located within a tsunami hazard area (CGS 2022a); however, in the case of Project inundation, with implementation of PF-HYD-1, the release of substantial pollutants is not anticipated. Therefore, there would be a less than significant impact.

**e) No Impact**

With implementation of standard water pollution control BMPs, PF-HYD-1, and PF-HYD-2, the Project would not conflict with, or obstruct, implementation of a water quality control plan or suitable groundwater management plan. There would be no impact.

**PROJECT FEATURES**

Caltrans would incorporate the following standard PFs into the Project to reduce potential impacts to hydrology and water quality:

- **PF-HYD-1, Implementation of Construction Site Best Management Practices:** BMPs would be included in the final Project plans and specifications to comply with the conditions of the Caltrans National Pollutant Discharge Elimination System permit. Construction site BMPs for stormwater may include, but are not limited to, the following:
  - Construction tracking control practices
  - Job site management
  - Sediment control (fiber rolls and silt fencing)
  - Waste management and construction materials pollution control
  - Construction materials stockpile management
  - Dust and wind erosion controls
  - Drainage inlet protection

- Non-stormwater management
- Water quality monitoring
- **PF-HYD-2, Stormwater Pollution Prevention Plan and Job Site Management:** A SWPPP would be prepared by the contractor and approved by Caltrans, pursuant to the 2018 Caltrans Standard Specifications Section 13-3, Stormwater Pollution Prevention Plan, and the Caltrans SWPPP Preparation Manual. In addition to the SWPPP, job site management work specifications pursuant to the 2018 Caltrans Standard Specifications Section 13-4, Job Site Management, would be implemented prior to the beginning of construction.

**3.3.11 Land Use and Planning**

Would the Project:

Question	CEQA Determination
a) Physically divide an established community?	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Less Than Significant Impact

**CEQA SIGNIFICANCE DETERMINATIONS FOR LAND USE AND PLANNING**

The Project would occur along the entire segment of SR 1 in Sonoma County. The approximately 58.58-mile stretch between the Marin County line and the Mendocino County line is referred to herein as the “Project corridor.”

**a) No Impact**

The Project corridor is bordered by agricultural, open space, and rural residential land uses, and is entirely within the Sonoma Coastal Zone boundary. Within Sonoma County, SR 1 also serves as the primary link to a number of small, scattered coastal communities. Due to the scope of work, the proposed Project would not divide any existing established communities within the Project area. There would be no impact.

**b) Less Than Significant Impact**

SR 1 within the Project corridor is used as a primary access to Sonoma County coastal areas, providing access to public parks, beaches, vista points, visitor-serving facilities, and coastal residential developments (Sonoma County 2001).

Surrounding land uses include the approximately 58 miles of coastline of the Sonoma Coast; State Parks such as Salt Point and Fort Ross Historical Park; and beaches such as Stillwater Cove Regional Park, Gerstle Cove, Ocean Cove, and Timber Cove. Other land uses include rural residential and some visitor-serving commercial and tourist accommodations such as restaurants, hotels and bed and breakfast establishments. No changes in land use due to this Project are anticipated for the Project corridor or the Sonoma Coast in the Project vicinity.

The highway is part of the Pacific Coast Bicycle Route (Sonoma County 2019). Portions of the California Coastal Trail (CCT) run along SR 1 and/or are in the Project corridor (California Coastal Conservancy 2019).

SR 1 would remain open during construction, with implementation of temporary one-way traffic control as needed. Lane closures, existing pull-out areas, and an off-site Caltrans maintenance facility would be used for construction parking, staging, and stockpiling of materials. The Project, during both construction and operation, would have no effect on public access, including the CCT, visual and scenic resources, tourism and visitor-serving facilities, agricultural lands, or cultural, historical, or paleontological resources.

#### **CONSISTENCY WITH STATE, REGIONAL, AND LOCAL PLANS AND PROGRAMS**

##### ***State Scenic Highway Program***

SR 1 in Sonoma County is eligible, but not designated, as a State Scenic Highway. Policy OSRC-3i of the Sonoma County Open Space and Resource Conservation Element of the Sonoma County General Plan (Sonoma County 2016) states that the County should “consider requesting official State Scenic Highway designations for Highways 1 and 37.” State designation will require the County to submit an application to Caltrans, along with a Scenic Corridor Protection Plan, including adopted ordinances, policies, and related mechanisms to protect the scenic corridor. If Caltrans approves such a plan, the corridor would become a designated State Scenic Highway.

##### ***Sonoma County General Plan 2020***

The Project complies with the stated goals of the Sonoma County General Plan (Sonoma County 2016), including goals for transportation and safety. The proposed Project supports the following policies and goals by providing a safe, reliable road for motorized vehicles and multi-modal users:

- Policy OSRC-3i (as explained previously in the *State Scenic Highway Program* subsection)
- Goal OSRC-3: Identify and preserve roadside landscapes that have a high visual quality as they contribute to the living environment of local residents and to the County’s tourism economy
- Objective OSRC-3.1: Designate the scenic corridors on Figures OSRC-5a through OSRC-5i along roadways that cross highly scenic areas, provide visual links to major recreation areas, give access to historic areas, or serve as scenic entranceways to cities



- Policy OSRC-3h states: Design public works projects to minimize tree damage and removal along scenic corridors; where trees must be removed, design replanting programs so as to accommodate ultimate planned highway improvements; require re-vegetation following grading and roadway cuts

### **Coastal Zone Management Act**

The proposed Project lies within the California coastal zone and resources within this zone are protected by the Coastal Zone Management Act of 1972. States with an approved coastal management plan are able to review federal permits and activities to determine if they are consistent with the state's management plan.

California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976 (CCA), to protect the coastal zone. The policies established by the CCA include the protection and expansion of public access and recreation; the protection, enhancement, and restoration of environmentally sensitive areas; the protection of agricultural lands; the protection of scenic beauty; and the protection of property and life from coastal hazards. The CCC is responsible for implementation and oversight under the CCA.

The CCA delegates power to local governments to enact their own local coastal plans (LCPs); in this case, the Sonoma County LCP (Sonoma County 2001). The State-certified LCP is a portion of the Sonoma County General Plan and includes visual resources policies and recommendations under the "Development" section of the CCA. The Sonoma County LCP determines the short- and long-term use of coastal resources in their jurisdiction consistent with the CCA goals.

Under the Sonoma County LCP, the coast is divided by the Russian River into north and south coast sections. The proposed Project resides within both the Sonoma County North and South Coast Planning Areas.

The Project is within the permitting jurisdiction of Sonoma County and would require a local coastal permit for construction. However, development permits issued in accordance with the Sonoma County LCP could be appealable to the CCC.

The CCT, within the Project corridor, runs to the west and parallel to SR 1. In some areas, where steep slopes occur immediately adjacent to SR 1, the CCT is coincident with SR 1 (Sonoma County 2001).

The policies of the CCA (PRC Division 20) give the highest priority to the preservation and protection of Prime Agricultural Land and Timber Lands. On lands not needed for Prime Agricultural or Timber Lands, the next priority goes to public recreation and visitor serving facilities.

Key provisions of the CCA and the Sonoma County LCP that are relevant to the proposed Project are provided in Tables 3-3 and 3-4.

**Table 3-3. Key Provisions of the California Coastal Act**

Policy Number	Subject of Policy	Coastal Zone Assessment
Section 30210	Maximum public access and recreational opportunities shall be provided.	The proposed Project would improve coastal public access by maintaining the safety and reliability of SR 1.
Section 30211	Development shall not interfere with public access to the sea.	The proposed Project would maintain highway safety and reliability and continue to provide public access to the ocean as described above.
Section 30212	New development projects shall provide for public access to the shoreline and along the coast.	The scope of work included in the proposed Project would not be considered new development.
Section 30252	Public Access	The proposed Project would maintain highway reliability and public access to the ocean as described above. The CCT would not be affected by the proposed Project.
Section 30221	Recreation: Protect suitable oceanfront land for recreational use.	The Project would not impact public access to recreation facilities or oceanfront land.
Section 30231	Biological activity; water quality	Biological resources would be temporarily affected by construction of the proposed Project; however, all impacts would be minimized, and the affected areas would be restored to pre-existing conditions. Project Features and AMMs are incorporated to minimize environmental effects to biological resources, wetlands and water quality.
Section 30233	Diking, filling, dredging of wetlands	The proposed Project has been designed to avoid wetland impacts as much as possible. Specific compensatory requirements at a "no net loss level" would be acquired during the permitting phase.
Section 30235	Construction altering natural shoreline	The proposed Project would not alter the natural shoreline of the Pacific Ocean.

Policy Number	Subject of Policy	Coastal Zone Assessment
Section 30240	Environmentally Sensitive Habitat Areas	ESHAs in the Project BSA include wetlands, riparian areas, and potential habitat for California red-legged frog, northern spotted owl, and marbled murrelet. Project features and AMMs will be implemented to reduce impacts to ESHAs. Restoration of impacted areas will be accomplished through onsite revegetation. Specific compensatory requirements for potential impacts to riparian vegetation, waters of the U.S., waters of the State, and wetlands as defined by the Coastal Act will be determined in coordination with CDFW, USACE, RWQCB, CCC, and Sonoma County during the permitting process.
Section 30241-30242	Agricultural land	No Prime Farmland or Williamson Act parcels exist within the Project study area. The proposed Project would not affect these resources.
Section 30244	Archaeological/paleontological resources	The proposed Project would not result in an adverse effect to archaeological and historical resources. The Fort Ross Historic State Park would not be affected by the proposed Project. No effects to paleontological resources are anticipated.
Section 30251	Scenic and visual qualities	The proposed Project would not result in adverse effects to scenic vistas/resources in the Project study area. The proposed Project was designed such that scenic and visual qualities of coastal areas would be protected as a resource of public importance. The proposed Project would not alter natural landforms.
Section 30254	Public works facilities	With the proposed Project, SR 1 would remain a two-lane coastal scenic roadway.
Section 30604	Coastal development permits shall include a finding that the development is in conformity with public access and public recreation policies.	The proposed Project would be in conformity with public access and public recreation policies.
Section 30609.5	State lands between the first public roadway and the ocean	The proposed Project would maintain the land devoted to the existing SR 1 highway and its use for public access to the ocean.
Section 30706	Coastal hazards	The purpose of the Project is to maintain continued connectivity for SR 1, increase reliability and safety. The proposed Project would not result in coastal hazards.

**Table 3-4. Key Provisions of the Sonoma County Local Coastal Program**

Policy Subject	Coastal Zone Assessment
Shoreline Access	The proposed Project would improve coastal public access by increasing highway safety and reliability by minimizing emergency road closures to SR 1 which would interfere with shoreline access to parks, beaches and oceanfront land.
Recreation and Visitor- Serving Facilities	The proposed Project would not interfere with public access to the ocean and the beach. Coastal recreation and visitor-serving facilities would be protected and maintained.
Transportation	The proposed Project would improve coastal public access by increasing highway safety.
Environmentally Sensitive Habitat Areas (ESHAs)	Potential adverse effects to ESHAs have been avoided to the extent practicable through Project Features and AMMs. The proposed Project would avoid ESHAs where practicable and enhance or replace lost habitat to ensure no net loss.
Agriculture	No Prime Farmland or Williamson Act contracts exist within the Project study area. The proposed Project would have no effect on these resources.
Public Works	The proposed Project would not adversely affect public works in the proposed Project study area. Caltrans would submit the Project to Sonoma County and the CCC for review, comment and findings as to its conformity with the LCP during the coastal development permit process.
Coastal Watersheds	The proposed Project would be consistent with Sonoma County's LCP since it would improve highway reliability and safety and would result in no harm to coastal resources.
Visual and Scenic Resources	The proposed Project would not result in adverse effects to scenic vistas/resources. The proposed Project was designed such that scenic and visual qualities of coastal areas would be protected as a resource of public importance. The proposed Project would not alter natural landforms.
Hazards	The purpose of the Project is to improve safety of SR 1. The proposed Project would not result in hazards.
Archaeology	The proposed Project would not result in an adverse effect to archaeological and/or historical resources. The Fort Ross Historic State Park would not be affected by the proposed Project. A Finding of No Historic Properties was determined for this Project under Section 106.
Air Quality	No air quality impacts are anticipated to result from the proposed Project.

**Final Sonoma Route 1 Repair Guidelines**

Caltrans in coordination with CCC, State Parks, and Sonoma County prepared the *Final Sonoma Route 1 Repair Guidelines* (Guidelines) (Caltrans 2019) to promote stewardship and sustainability of state transportation resources through a shared vision with respect to coastal resources within the Coastal Zone. The Guidelines are not a policy plan but instead provide a framework to enable more timely repairs that are not only functional but are also consistent with the landscape, uses, and regulatory and land management policies associated with SR 1.

The key provisions of the Guidelines relevant to the Project are listed in Table 3-5.

**Table 3-5. Key Provisions of the Final Sonoma Route 1 Repair Guidelines**

Design Guideline	SR 1 Repair Recommendation and Assessment
Parking, Pullouts, Unpaved Shoulders, and Turnouts	No net loss of parking, pullouts, or turnouts. Non-pavement treatments should be used where feasible. Other roadway uses or development of the area beyond the shoulder should be minimized and fit in with the natural environment. The proposed Project would have no effect on existing parking. The Project would affect existing pullouts and turnouts by adding to them in the form of bicycle refuge areas.
Drainage Features	Drainage pipes should be hidden from view where feasible. Pipes that cannot be hidden should be colored with earth-tone coating to conceal them. Concrete drainage features should be colored to match adjacent earth tones. Drainage rock used as dissipaters should be colored earth tone to reduce visual impacts. Inlets should be sited outside of where bicyclists are most likely to ride, if feasible, and shall use bicycle-proof grates. The Project would meet drainage feature recommendations, where feasible.
Ditches	Ditches should be designed to blend into the surrounding landscape. Concrete and metal facilities should be treated to match the surrounding terrain. Where appropriate, drainage ditches should be designed in conjunction with the shoulder to reduce the amount of pavement and widening needed, following the guidelines in Chapter 830 of the Highway Design Manual. The Project scope does not include ditches.
Bicycles and Pedestrians	Pedestrians and bicyclists should be accommodated in all projects. Dedicated pedestrian facilities should be incorporated into projects on a case-by-case basis where there is an identified need and in coordination with local stakeholders. The Project would affect existing pullouts and turnouts by adding to them in the form of bicycle refuge areas.

The Project would be designed to be consistent with the Guidelines. Where the Project components occur coincident with or along the existing CCT, the Project would accommodate pedestrian and bicycle users during construction. No permanent impacts to the CCT would occur as a result of the Project.

The Project would be consistent with the State Scenic Highway Program, Sonoma County General Plan 2020, Sonoma County Local Coastal Program, the Coastal Zone Management Act, and the Guidelines. Therefore, there would be less than significant impacts.

**3.3.12 Mineral Resources**

Question	CEQA Determination
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No Impact
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No Impact

**CEQA SIGNIFICANCE DETERMINATIONS FOR MINERAL RESOURCES**

**a and b) No Impact**

The California Geological Survey (CGS) designates the four Sub-Areas of the Project as occurring within Mineral Resource Zone (MRZ) categories as follows (Miller and Busch 2013):

- Sub-Area 1 (PM 0.00-11.00): MRZ-1 and MRZ-3
- Sub-Area 2 (PM 11.00-22.00): MRZ-1 and MRZ-3
- Sub-Area 3 (PM 22.00-32.00): MRZ-1, MRZ-3 and MRZ-4
- Sub-Area 4 ((PM 32.00-58.00): MRZ-1 and MRZ-3

CGS assigns the following designations for the MRZs:

- MRZ-1: “Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources”
- MRZ-3: “Areas containing mineral occurrences of undetermined mineral resource significance”
- MRZ-4: “Areas where available information is inadequate for assignment to any other MRZ category”

The four Sub-Areas within the Project occur within the MRZ categories MRZ-1, MRZ-3, and MRZ-4 (Miller and Busch 2013). Even though sections of work fall within the mapped Quaternary marine terraces of the Wilson Grove Formation known to have the potential for significant fossil occurrence, construction-related activities are limited to previously disturbed areas (centerline of existing highway and shoulder expansion); are not expected to disturb mineral resources, if present; and would not

result in the loss of availability of a known mineral resource or locally important mineral resource recovery site. Therefore, no impact would occur.

**3.3.13 Noise**

Would the Project result in:

Question	CEQA Determination
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less Than Significant Impact
b) Generation of excessive groundborne vibration or groundborne noise levels?	No Impact
c) For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	Less Than Significant Impact

**CEQA SIGNIFICANCE DETERMINATIONS FOR NOISE**

A Construction Noise Analysis was completed by Caltrans Office of Environmental Engineering, Noise (Caltrans 2022b). A summary of the findings is presented here.

**a) Less Than Significant Impact**

There are sensitive receptors in areas where centerline rumble strips are proposed. The Project would potentially expose noise-sensitive receptors to a short-term increase in noise levels during construction, but the increase would be temporary. The sensitive receptors within 25 feet from the construction-related activities would potentially perceive noise greater than 86 A-weighted decibels (dBA) between 9:00 p.m. to 6:00 a.m. Noise associated with construction is controlled by Caltrans Standard Specification Section 14-8.02, Noise Control, which limits maximum hourly noise levels ( $L_{max}$ ) to 86 dBA at 50 feet from a project from 9:00 p.m. to 6:00 a.m.

Because construction noise levels may exceed 86 dBA during nighttime work (if needed in those locations), AMM-NOISE-1, as presented in this section, includes measures to reduce construction noise and conduct public outreach to nearby noise-sensitive receptors. Therefore, a less than significant impact would occur.

The Project would not change SR 1 transportation capacity; therefore, a permanent increase in traffic noise levels due to increase in traffic volumes would not occur.

Following Project completion, noise levels may increase at adjacent receptors if vehicles cross the centerline. However, the noise caused by the rumble strips would



not be continuous or frequent. Therefore, the increase in noise due to the rumble strips would be a less than significant impact.

**b) No Impact**

Construction of the Project would not require vibratory or impact pile driving. There would be no impact from excessive groundborne vibration.

**c) Less Than Significant Impact**

The Sea Ranch Airstrip is a private airstrip located approximately 1.98 miles southeast of SB #42 (Location 58). The Project would not generate excessive noise that would permanently impact or expose people residing or working within 2 miles of the Project footprint to excessive noise levels. The lack of permanent operational impacts from noise, along with compliance with Caltrans' Standard Specifications, would result in less than significant noise impacts.

**AVOIDANCE AND MINIMIZATION MEASURES**

Caltrans would incorporate the following AMM into the Project to avoid and/or minimize potential impacts to noise:

- **AMM-NOISE-1, Construction Noise Levels:** The following measures would be implemented to reduce noise levels during construction where feasible:
  - Any operation exceeding 86 dBA would not be allowed at nighttime from 9:00 p.m. to 6 a.m.
  - Public outreach would be required throughout the Project to update residents, businesses, and others regarding upcoming construction-related activities and Project schedule.
  - Schedule noisy operations within the same time frame where feasible. The total noise level would not be significantly greater than the level produced if operations are performed separately.
  - Avoid unnecessary idling of internal combustion engines within 100 feet of sensitive receptors.
  - Locate all stationary noise-generating construction equipment as far as practical from noise-sensitive receptors or provide baffled housing or sound

- aprons for equipment when sensitive receptors adjoin or are near a Project construction area.
- Equip all internal combustion engine driven equipment with manufacturer recommended intake and exhaust mufflers that are in good condition and appropriate for the equipment.
  - Utilize “quiet” air compressors and other “quiet” equipment where such technology exists.
  - No construction equipment would be delivered and dropped off before 6:00 a.m.
  - Maintain all internal combustion engines properly to minimize noise generation.

### 3.3.14 Population and Housing

Would the Project:

Question	CEQA Determination
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact

#### CEQA SIGNIFICANCE DETERMINATIONS FOR POPULATION AND HOUSING

##### a, b) No Impact

The Project would not induce population growth because it does not increase the capacity of SR 1, remove barriers to future growth, or increase population or housing growth (or demand for new housing, utilities, or public services). The Project would not induce substantial population growth, displace housing, or displace people; therefore, there would be no impact to population and housing.

**3.3.15 Public Services**

Question	CEQA Determination
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection?	No Impact
Police protection?	No Impact
Schools?	No Impact
Parks?	No Impact
Other public facilities?	No Impact

**CEQA SIGNIFICANCE DETERMINATIONS FOR PUBLIC SERVICES**

**a) No Impact**

The Project would not result in the substantial alteration of government facilities in the Project corridor, such as fire and police protection, schools, parks, or other public facilities, nor trigger the need for new government facilities or alter the demand for public services. A TMP would be prepared (PF-TRANS-1 as presented in Section 3.3.17). Therefore, police, fire, and medical services would not be adversely affected by the proposed Project. There would be no impact.

**3.3.16 Recreation**

Question	CEQA Determination
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No Impact
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	No Impact

**CEQA SIGNIFICANCE DETERMINATIONS FOR RECREATION**

The Project corridor crosses and provides access to 10 public parks and beaches including Sonoma Coast State Park, Fort Ross State Historic Park, Stillwater Cove Regional Park, Russian Gulch State Beach, and Salt Point State Park. In addition, the Project corridor includes several natural reserves:

- Jenner Headlands Reserve
- Kruse Rhododendron State Natural Reserve
- Rocky Point – Sonoma Land Trust
- Kashia Coastal Reserve
- Del Mar Landing Ecological Reserve

The Project corridor also includes the following California Marine Protected Areas:

- Russian River State Marine Recreational Management Area
- Gerstle Cove State Marine Reserve
- Salt Point State Marine Conservation Area
- Stewarts Point State Marine Reserve
- Stewarts Point State Marine Conservation Area
- Del Mar Landing State Marine Reserve

**a, b) No Impact**

The Project would not directly or indirectly increase use of existing recreational facilities such that substantial deterioration of the facilities would occur. The Project would not require the construction of additional recreational facilities. There would be no impacts.

### 3.3.17 Transportation

Would the Project:

Question	CEQA Determination
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Less Than Significant Impact
b) Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Less Than Significant Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No Impact
d) Result in inadequate emergency access?	Less Than Significant Impact

#### CEQA SIGNIFICANCE DETERMINATIONS FOR TRANSPORTATION

SR 1 is a two-lane, rural conventional highway with 10-foot to 12-foot-wide travel lanes, with existing 0-foot to 2-foot-wide shoulders at most locations. The Project would install centerline rumble strip, install wet-night visibility striping, and widen the shoulders to 6 feet at 50 spot locations along SR 1 within the Project corridor. The Project would not increase SR 1 transportation capacity, nor would it permanently alter the circulation system, and would have no temporary or permanent impact on vehicle miles traveled (VMT).

#### a) Less Than Significant Impact

The Project would conflict with the *District 4 Pedestrian Plan for the Bay Area* (Pedestrian Plan) (Caltrans 2022a), which analyzed existing pedestrian travel and potential future improvements on SR 1. The Pedestrian Plan identified the entire length of SR 1 within the Project limits as Tier 3 priorities, which are the lowest intensity of need. The Project would not improve pedestrian facilities within the Project corridor and therefore would not address needs identified in the Pedestrian Plan.

The Project would also conflict with Director’s Policy (DP) 37, Complete Streets (Caltrans 2021). DP 37 requires that all Caltrans transportation projects provide “complete streets,” which is defined as comfortable, convenient, and connected complete streets facilities for people walking, biking, and taking transit or passenger rail unless an exception is documented and approved. The Project, while providing refuge areas for bicyclists, would not provide facilities for people walking or taking

transit or passenger rail, and justification would be documented with final approval by the Caltrans District 4 Director.

The Project would not conflict with other programs, plan, ordinances, or policies regarding the circulation system, public transit, and bicycle or pedestrian facilities. As stated in Section 1.2, the purpose of the Project is to provide safe traffic operations on SR 1 and to also provide refuge areas for bicyclists to use when being passed by motorists.

To protect construction workers and the traveling public, traffic control would be in place while construction-related activities are underway. A detailed TMP (PF-TRANS-1, presented at the end of this section) would be developed prior to the beginning of construction to aid in coordinating and providing further safety measures for those accessing the Project corridor during construction. Therefore, impacts would be less than significant.

**b) Less Than Significant Impact**

The Project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). The Project would have less than significant impacts on VMT and transportation during construction because of temporary traffic control, including rolling one-lane closures. The Project would have no permanent impact on VMT and would cause no permanent impacts on transportation. The impact would be less than significant.

**c) No Impact**

The Project would not increase hazards because of a geometric design feature. The Project does not include design features or Project components that would substantially increase hazards. There would be no impact.

**d) Less Than Significant Impact**

The Project would not result in inadequate emergency access. With implementation of PF-TRANS-1, medical and emergency vehicles would be able to continue to use SR 1 for fire, medical, emergency, and law enforcement purposes. The Project has the potential to cause short-term, localized traffic congestion and delays resulting from rolling one-lane closures during construction. Detours are not anticipated to be required during construction. Therefore, impacts would be less than significant.

## PROJECT FEATURES

Caltrans would incorporate the following PF to reduce potential impacts to transportation:

- **PF-TRANS-1, Transportation Management Plan:** A TMP would be prepared by Caltrans prior to the beginning of construction and in consultation with the appropriate agencies to aid in coordinating and providing further safety measures for those accessing the Project corridor during construction. The TMP would identify traffic delays and alternative routes for emergency and medical vehicles associated with essential services, thereby avoiding or minimizing short-term, localized traffic congestions and delays. Notifications and instructions for rapid response or evacuation in the event of an emergency would be provided.



**3.3.18 Tribal Cultural Resources**

Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Question	CEQA Determination
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	No Impact
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Less Than Significant Impact

**CEQA SIGNIFICANCE DETERMINATIONS FOR TRIBAL CULTURAL RESOURCES**

**a) No Impact**

Under AB 52 and as part of Section 106 of the National Historic Preservation Act process, Caltrans’ Office of Cultural Resource Studies initiated consultation with the identified Tribes and individuals from the list provided by the NAHC. THPO Macias noted that there are four sites of importance to the Kashia Pomo located along the project corridor within the APE and one of these sites is eligible for listing on the California Register of Historical Resources; however, none of the four sites are located in the ADI and they will not be impacted by the Project.

**b) Less Than Significant Impact**

One site was previously determined eligible for listing on the NRHP and that determination was concurred with by the California State Historic Preservation Officer on February 13, 2002. Three additional sites are considered eligible for inclusion in the NRHP for the purposes of the Project only. Implementation of PF-CULT-1 as discussed in Section 3.3.5 would reduce the impact to less than significant.

### 3.3.19 Utilities and Service Systems

Would the Project:

Question	CEQA Determination
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Less Than Significant Impact
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	No Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?	No Impact
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

#### CEQA SIGNIFICANCE DETERMINATIONS FOR UTILITIES AND SERVICE SYSTEMS

Utility providers along the Project corridor include PG&E, AT&T, Frontier Communications, Sea Ranch Fiber Optic Network, Sea Ranch Water District, Russian River Utility, and Timber Cove Water. There are existing overhead PG&E and AT&T utility lines that are anticipated to be relocated at some of the shoulder widening locations. There is also an existing optical fiber conduit running under portions of SR 1, close to the centerline of the highway within the Project limits that is anticipated to be protected in place. In addition, it is anticipated that water lines are also present, and would be protected in place. However, the need for potholing and relocation of existing utilities, if any, would be ascertained during the Project's design phase, and following the completion of the verification process. Utility relocations would occur prior to the beginning of construction and in consultation with the utility providers.

#### a) Less Than Significant Impact

The Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electrical power, or natural gas facilities. The Project is not anticipated to require utility relocations for gas, water, and sewer systems. However, the Project is anticipated to require the

relocation of telephone and electric power poles that are within some of the shoulder widening locations. Utility verification is anticipated to be required for the Project and would occur during the design phase to confirm the need for utility relocations, and if needed, utility relocations would occur prior to the beginning of construction and in consultation with utility providers (AMM-UTIL-1, presented at the end of this section). Therefore, impacts to utilities would be less than significant.

**b, c, d, and e) No Impact**

The Project would not require the services of a landfill where the Project would impact its capacity. The Project would not exceed wastewater treatment requirements. The Project would not require water supplies to serve the Project from existing entitlements or where the Project would impact new or expanded entitlements. The Project would not require the services of a wastewater treatment provider where the Project would impact the provider's capacity. All construction-related waste would be properly disposed of, or recycled, at an approved facility in compliance with both Caltrans Standard Specification 14-11, Hazardous Waste and Contamination (PF-HAZ-1 [Section 3.3.9]), and the requirements of the facility to which the construction-related waste is hauled. Construction-related activities would comply with all federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, there would be no impact.

**AVOIDANCE AND/OR MINIMIZATION MEASURES**

Caltrans would incorporate the following AMM to avoid and/or minimize potential impacts to utilities and service systems:

**AMM-UTIL-1, Utility Notifications:** During design phase, Caltrans would coordinate with all affected utility companies regarding the construction schedule for the Project so that relocations can be conducted by each utility company as necessary prior to the start of construction.

### 3.3.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

Question	CEQA Determination
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	Less Than Significant Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	No Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Less Than Significant Impact

#### CEQA SIGNIFICANCE DETERMINATIONS FOR WILDFIRE

The four Sub-Areas of the Project corridor are all located within Sonoma County and are within a State Responsibility Area, each with varying types of fire hazard severity according to CAL FIRE (Figure 3-1). The shoulder widening locations and staging areas are located within either a Moderate, High, or Very High Fire Hazard Severity Zone (Table 3-6 and Figure 3-1).

**Table 3-6. Fire Hazard Severity Zones**

Shoulder Widening Location and/or Staging Area	Project Sub-Area	Fire Hazard Severity Zone
NB #02 (Location 2)	Sub-Area 1	Moderate
SB #01 (Location 3)	Sub-Area 1	Moderate
Staging Area A	Sub-Area 1	Moderate
NB #04 (Location 5)	Sub-Area 1	Moderate
SB #02 (Location 6)	Sub-Area 1	Moderate
Staging Area B	Sub-Area 1	Moderate
SB #03 (Location 9)	Sub-Area 1	Moderate
SB #04 (Location 10)	Sub-Area 1	Moderate
Staging Area C	Sub-Area 1	Moderate
SB #05 (Location 11)	Sub-Area 1	Moderate
Staging Area D	Sub-Area 1	Moderate

<b>Shoulder Widening Location and/or Staging Area</b>	<b>Project Sub-Area</b>	<b>Fire Hazard Severity Zone</b>
NB #07 (Location 13)	Sub-Area 2	Moderate
Staging Area E	Sub-Area 2	Moderate
SB #08 (Location 15)	Sub-Area 2	Moderate
SB #10 (Location 17)	Sub-Area 2	Moderate
SB #11 (Location 18)	Sub-Area 2	Moderate
SB #12 (Location 19)	Sub-Area 2	Moderate
SB #13 (Location 20)	Sub-Area 2	Moderate
Staging Area F	Sub-Area 2	Moderate
SB #15 (Location 23)	Sub-Area 2	Moderate and High
SB #16 (Location 24)	Sub-Area 2	Moderate and High
Staging Area G	Sub-Area 3	Moderate
SB #17 (Location 25)	Sub-Area 3	Moderate
SB #18 (Location 26)	Sub-Area 3	Moderate
Staging Area H	Sub-Area 3	Moderate
SB #19 (Location 27)	Sub-Area 3	Moderate
NB #09 (Location 28)	Sub-Area 3	Moderate
NB #10 (Location 29)	Sub-Area 3	Moderate
SB #20 (Location 30)	Sub-Area 3	Moderate
NB #11 (Location 31)	Sub-Area 3	Moderate
SB #21 (Location 32)	Sub-Area 3	High
Staging Area I	Sub-Area 3	High
SB #22 (Location 33)	Sub-Area 3	High
SB #23 (Location 34)	Sub-Area 3	High
SB #24 (Location 35)	Sub-Area 3	Moderate
SB #25 (Location 36)	Sub-Area 4	Moderate
SB #26 (Location 37)	Sub-Area 4	Moderate
NB #12 (Location 38)	Sub-Area 4	Moderate
SB #28 (Location 41)	Sub-Area 4	Moderate
SB #29 (Location 42)	Sub-Area 4	Moderate
SB #30 (Location 43)	Sub-Area 4	Moderate
NB #14 (Location 44)	Sub-Area 4	Moderate
SB #31 (Location 45)	Sub-Area 4	High
NB #15 (Location 46)	Sub-Area 4	High
SB #32 (Location 47)	Sub-Area 4	Very High
SB #33 (Location 48)	Sub-Area 4	High and Very High
Staging Area J	Sub-Area 4	High

Shoulder Widening Location and/or Staging Area	Project Sub-Area	Fire Hazard Severity Zone
SB #34 (Location 49)	Sub-Area 4	High
SB #35 (Location 50)	Sub-Area 4	High and Very High
NB #16 (Location 51)	Sub-Area 4	Very High
SB #36 (Location 52)	Sub-Area 4	Very High
SB #37 (Location 53)	Sub-Area 4	High
Staging Area K	Sub-Area 4	High
SB #38 (Location 54)	Sub-Area 4	High
SB #39 (Location 55)	Sub-Area 4	High
SB #40 (Location 56)	Sub-Area 4	High and Very High
SB #41 (Location 57)	Sub-Area 4	High
SB #42 (Location 58)	Sub-Area 4	Moderate and High
SB #43 (Location 59)	Sub-Area 4	High
Staging Area L	Sub-Area 4	High
NB #17 (Location 60)	Sub-Area 4	High
SB #44 (Location 61)	Sub-Area 4	High

Notes:

NB = northbound

SB = southbound

The County of Sonoma Emergency Readiness, Response and Recovery, along with incorporated cities, have established standardized evacuation zones that will remain consistent for multiple incidents (Sonoma County 2022b). The “Evacuation” annex to the Sonoma County Operational Area Emergency Operations Plan (Sonoma County 2021) notes that evacuation routes would be selected by law enforcement officials and approved at the time of the evacuation decision. Evacuation routes may include interstate, state and surface roads (like SR 1) and would be chosen based on the relative safety of highway infrastructure and current traffic conditions (Sonoma County 2021). The Sonoma County Fire District and volunteer fire companies operating through the County of Sonoma Emergency Readiness Response and Recovery, as well as CAL FIRE, provide fire suppression, rescue, and emergency services within the Project corridor (Sonoma County 2022a).

**a and d) Less Than Significant Impact**

A TMP (PF-TRANS-1), as discussed in Section 3.3.17, would be prepared prior to the beginning of construction and in consultation with the appropriate agencies to avoid or minimize potential impacts to transportation, and to aid in coordinating and providing safety measures for those accessing SR 1 within the Project limits during

construction. Such agencies can include the Sonoma County Transportation Authority (SCTA), SCTA Paratransit Services, Sonoma County School Districts, the Sonoma County Office of Education, public transportation providers from neighboring jurisdictions including cities and counties, Golden Gate Highway and Transportation District, and/or private sector transportation providers (Sonoma County 2021).

The TMP would include public information and press releases to notify and inform motorists, local businesses, community groups, local entities, emergency services, and local officials of upcoming closures and detours (if needed). Additionally, the TMP would include various elements such as portable message signs, ground-mounted signs, and a Construction Zone Enhanced Enforcement Program (COZEEP) to minimize delays and alleviate inconveniences to the traveling public. Emergency and medical vehicles associated with essential public services would be prioritized, and notifications and instructions for rapid response or evacuation in the event of an emergency would be provided to them. The Project would require rolling one-lane closures to install the ground-in centerline rumble strips and widen the shoulders.

In the event of a wildfire, the TMP would be implemented. The Project would not exacerbate wildfire risks or expose people or structures to significant risks. Therefore, the Project would have a less than significant impact.

**b and c) No Impact**

The Project would be entirely within Caltrans ROW and therefore would not expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, nor would it require the installation of associated infrastructure that would exacerbate fire risk. There would be no impact.

**3.3.21 Mandatory Findings of Significance**

Question	CEQA Determination
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	Less Than Significant Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Less Than Significant Impact

**CEQA SIGNIFICANCE DETERMINATIONS FOR MANDATORY FINDINGS OF SIGNIFICANCE**

**a) Less Than Significant Impact**

As determined in Section 3.3.4, Biological Resources, the Project would not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number of or restrict the range of a rare or endangered plant or animal.

The Project would generate temporary and permanent impacts to both terrestrial ESHAs and aquatic ESHAs. AMMs will be implemented to avoid and/or minimize impacts on terrestrial and aquatic features. Coordination with the appropriate regulatory agencies will also be conducted in the later stages of the Project. During construction, ground-disturbing activities are anticipated; PFs and AMMs would reduce, avoid and/or minimize impacts to special-status species.

Thirty-six archaeological sites were identified within the APE, it was determined that all construction-related activities have been placed outside the boundaries of sites with known cultural resources. However, certain Project locations were adjacent to known resources; therefore, ESAs will be established to protect these resources in addition to monitoring the ESAs to ensure compliance. Consultation with the Kashia Pomo and Graton Rancheria is ongoing throughout the life of the Project.



The Project would also result in other temporary, minor, and construction-related impacts. PFs, and AMMs (Appendix B), would reduce, avoid, and/or minimize impacts to less than significant levels.

**b) No Impact**

A review of projects in the vicinity of the Project determined that no past, present, or future projects would pose a cumulative effect together with implementation of the Project. For biological resources, no cumulative impacts are anticipated due to the implementation of the PFs, and AMMs as summarized in Appendix B.

With respect to population and housing, the Project would not be growth inducing. With respect to land use and planning, the Project is generally consistent with State Scenic Highway Program, Sonoma County General Plan 2020, Sonoma County Local Coastal Program, the Coastal Zone Management Act, and the Guidelines. With these considerations, the Project would not have cumulative impacts, therefore there would be no impact.

**c) Less Than Significant Impact**

The Project would have no impact on agriculture and forest resources, mineral resources, population and housing, public services, and recreation. The Project would potentially affect aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, transportation, tribal cultural resources, utilities and service systems, and wildfire. However, with implementation of PFs, and AMMs these potential impacts would be reduced, avoided, and/or minimized to a less than significant level. Construction-related activities would temporarily increase criteria air pollutant emissions, ambient noise levels, and emergency response times and the Project would incorporate PFs and AMMs to reduce, avoid, or minimize potentially adverse effects to humans. Therefore, the Project would not have a substantial direct or indirect impact on the human environment. Impacts would be less than significant.



# **Chapter 4** Community Outreach and Consultation and Coordination with Public Agencies

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To date, public and agency coordination consists of the following:

## **4.1 Community Outreach**

This IS/ND, maps, and Project information are available to download at the [District 4 Environmental Documents by County](https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs) website (https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs). In addition, a hardcopy of this IS/ND will be made available at the following locations in the vicinity of the Project:

- Sonoma County Regional Library  
755 West Napa Street  
Sonoma, CA 95476
  
- Guerneville Regional Library  
14107 Armstrong Woods Road  
Guerneville, CA 95446
  
- Rohnert Park – Cotati Regional Library  
6250 Lynne Conde Way  
Rohnert Park, CA 94928

The deadline for submission of comments on this IS/ND is February 15, 2023.

## **4.2 Consultation and Coordination with Public Agencies**

Consultation with agencies occurred during the PA&ED phase. A list of coordination activities and contacts is provided in Table 4-1.

**Table 4-1. Agency Coordination Meetings and Contacts**

Organization(s)	Date	Topic
Native American Heritage Commission (NAHC)	June 22, 2021	Caltrans contacted the NAHC requesting a review of the Sacred Lands File (SLF). The results of the SLF were positive and a list of Native American contacts with potential interest or information regarding the APE was provided.
USFWS	June 13, 2022	Caltrans biologist emailed the Caltrans District 4 Liaison/USFWS to request technical assistance for the Project.
USFWS	September 13, 2022	Jacobs biologist shared the draft figures with Mr. Cleckler/USFWS.
USFWS	September 20, 2022	Jacobs biologists received an email from the Caltrans District 4 Liaison /USFWS explaining that it is reasonable to assume SNPL could be located in the range of the proposed Project's disturbance area.
Local Native American Contacts provided by the NAHC	September 21, 2021	Caltrans sent consultation initiation letters, under AB 52 and Section 106 of the National Historic Preservation Act, regarding the Project, to all NAHC contacts that were provided.
USFWS	November 14 and 16, 2022	Jacobs biologist and the Caltrans District 4 Liaison /USFWS corresponded via email on where the suitable habitat was for NSO in relation to the Project and Jacobs wanted to get technical assistance on potential auditory impacts to NSO. Mr. Cleckler responded with some questions that the Jacobs biologist answered.
California Coastal Commission and Sonoma County	December 19, 2022	Caltrans Senior Environmental Planner and Jacobs Environmental Planner held an informal early coordination call with California Coastal Commission and Sonoma County to introduce the Project.

## Chapter 5 List of Preparers and Reviewers

The primary people responsible for preparing and reviewing this IS/ND are summarized in Table 5-1.

**Table 5-1. List of Preparers and Reviewers**

Organization	Name	Role
Caltrans	Maxwell Lammert	Office Chief (Acting), Office of Environmental Analysis
Caltrans	Arnica MacCarthy	Senior Environmental Planner, Office of Environmental Analysis
Caltrans	Chris Pincetich	Branch Chief (Acting), Office of Biological Sciences and Permits
Caltrans	Robert Blizard	Branch Chief, Office of Environmental Studies and Permits
Caltrans	Lindsay Vivian	Office Chief (Acting), Office of Biological Sciences and Permits
Caltrans	Grant Samaniego	Environmental Scientist, Office of Biological Sciences and Permits
Caltrans	Alicia Sanhueza	Branch Chief (Acting), Office of Cultural Resource Studies
Caltrans	Ingrid Pena	Associate Environmental Planner (Architectural History), Office of Cultural Resource Studies
Caltrans	Frances Schierenbeck	Senior Environmental Planner (Architectural History), Office of Cultural Resource Studies
Caltrans	Althea Asaro	Branch Chief (Acting), Office of Cultural Resource Studies
Caltrans	Shilpa Mareddy	Branch Chief, Office of Environmental Engineering
Caltrans	Radhika Mothkuri	Transportation Engineer, Office of Environmental Engineering
Caltrans	Chris Wilson	District Branch Chief, Office of Environmental Engineering
Caltrans	Chris Risen	Branch Chief, Office of Geotechnical Design – West
Caltrans	Kathleen Reilly	District Branch Chief, Office of Hydraulic Engineering
Caltrans	Tom Jiang	Hydraulic Engineer, Office of Hydraulic Engineering
Caltrans	Joaquin Pedrin	Branch Chief, Office of Landscape Architecture – North
Caltrans	Chris Else	Landscape Architecture Associate, Office of Landscape Architecture
Caltrans	Diana Pink	Landscape Architecture Associate, Office of Landscape Architecture
Caltrans	Mojgan Osooli	Branch Chief, Office of Water Quality
Caltrans	Brian Rowley	Branch Chief, Office of Water Quality
Caltrans	Melvin Dumlao	Water Quality Engineer, Office of Water Quality

<b>Organization</b>	<b>Name</b>	<b>Role</b>
Caltrans	Jim Murphy	Right of Way Agent, Office of Right of Way Acquisitions & Project Management Services
Caltrans	Yetendra Jangid	Project Manager, Project Management North
Caltrans	Jaime Gutierrez	Senior Transportation Engineer, Office of Design Support
Caltrans	Luis Hernandez	Project Engineer, Office of Design Support
Caltrans	Joy Cheung	Construction Manager, Office of North Bay Construction
Jacobs	Rachel Cotroneo	Senior Biologist
Jacobs	Stephanie Owens	Biologist
Jacobs	Patricia Ambacher	Senior Cultural Resources Specialist
Jacobs	Hong Zhuang	Senior Environmental Engineer
Jacobs	Yassaman Sarvian	Senior Environmental Planner
Jacobs	Joe Aguirre	Environmental Planner
Jacobs	Erik Lauritzen	Environmental Planner
Jacobs	Joza Burnam	Senior Environmental Planner
Jacobs	Will Packard	Environmental Planner
Jacobs	Sam Schoevaars	Environmental Planner
Jacobs	Hannah Minderhout	Environmental Planner
Jacobs	Tara Zuroweste	Environmental Planner
Jacobs	Loretta Meyer	Senior Environmental Planner
Jacobs	Chris Archer	Geospatial Professional
Jacobs	Clarice Ericsson	Publications Technician
Jacobs	Bryan Bell	Senior Technical Editor

# **Chapter 6** Circulation List

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This Draft IS/ND will be circulated via email by January 17, 2023, to the agencies and elected officials listed in the following sections.

## **6.1 Agencies**

- Bay Area Air Quality Management District
- California Coastal Commission
- California Department of Fish and Wildlife
- California Department of Forestry and Fire Protection
- California Department of Parks and Recreation
- California Transportation Commission
- Governor's Office of Planning and Research
- North Coast Regional Water Quality Control Board
- Sonoma County Planning Division
- Sonoma County Sheriff's Office
- Sonoma County Transportation Authority
- State Water Resources Control Board
- U.S. Fish and Wildlife Service
- U.S. Army Corps of Engineers

## **6.2 Elected Officials**

- The Honorable Dianne Feinstein
- The Honorable Alex Padilla
- The Honorable Jared Huffman (CA-2)
- The Honorable Mike McGuire (SD 2)
- The Honorable Jim Wood (District 2)
- The Honorable Supervisor Lynda Hopkins (District 5)

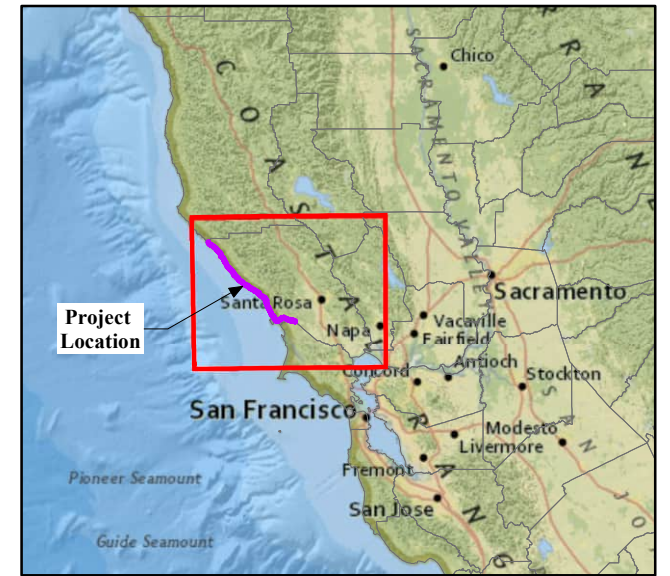
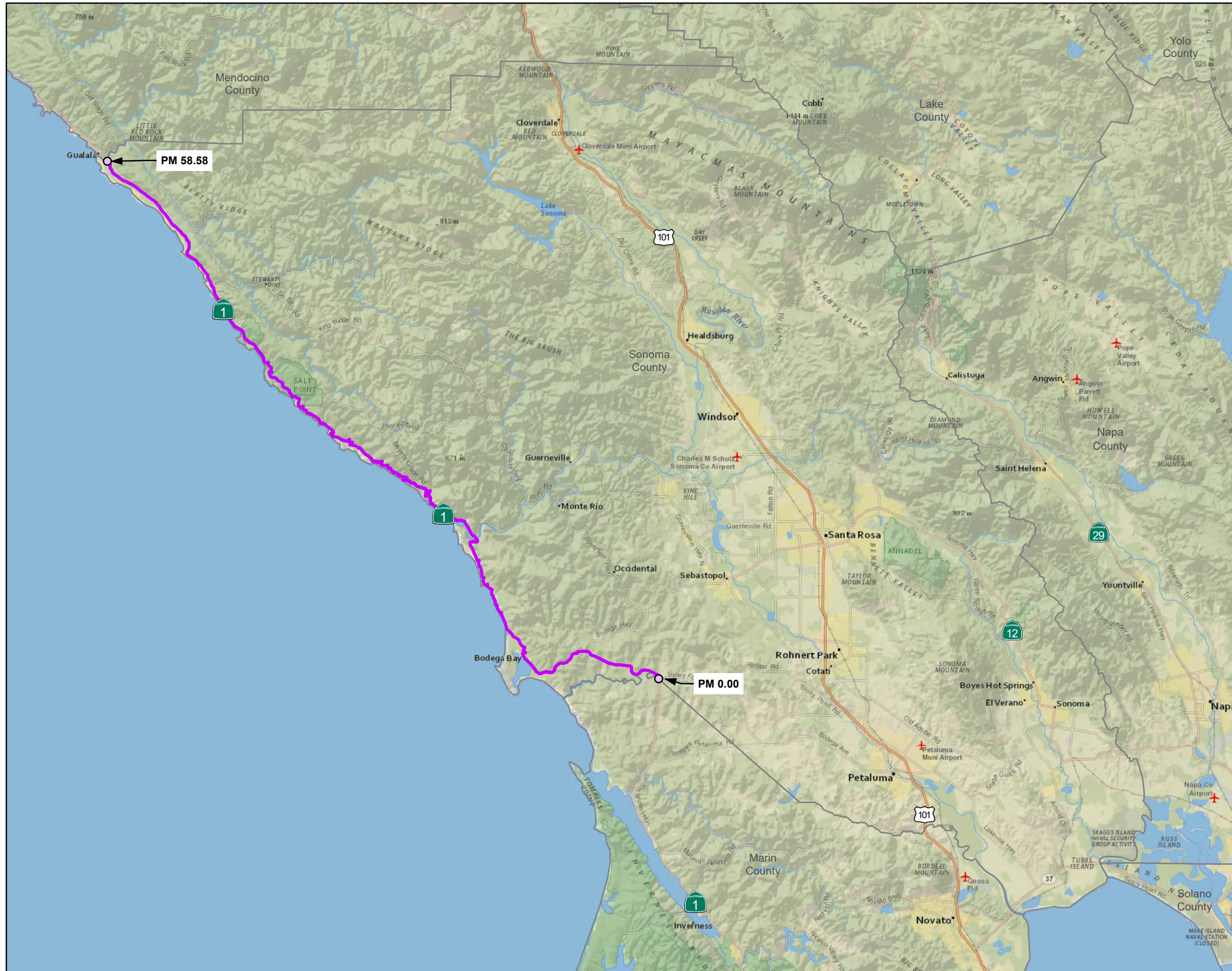




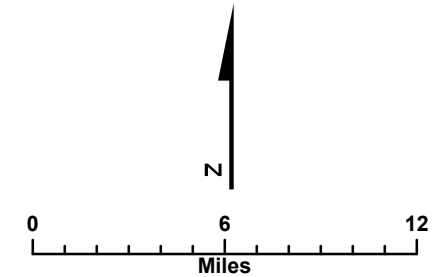
# **Appendix A** Figures

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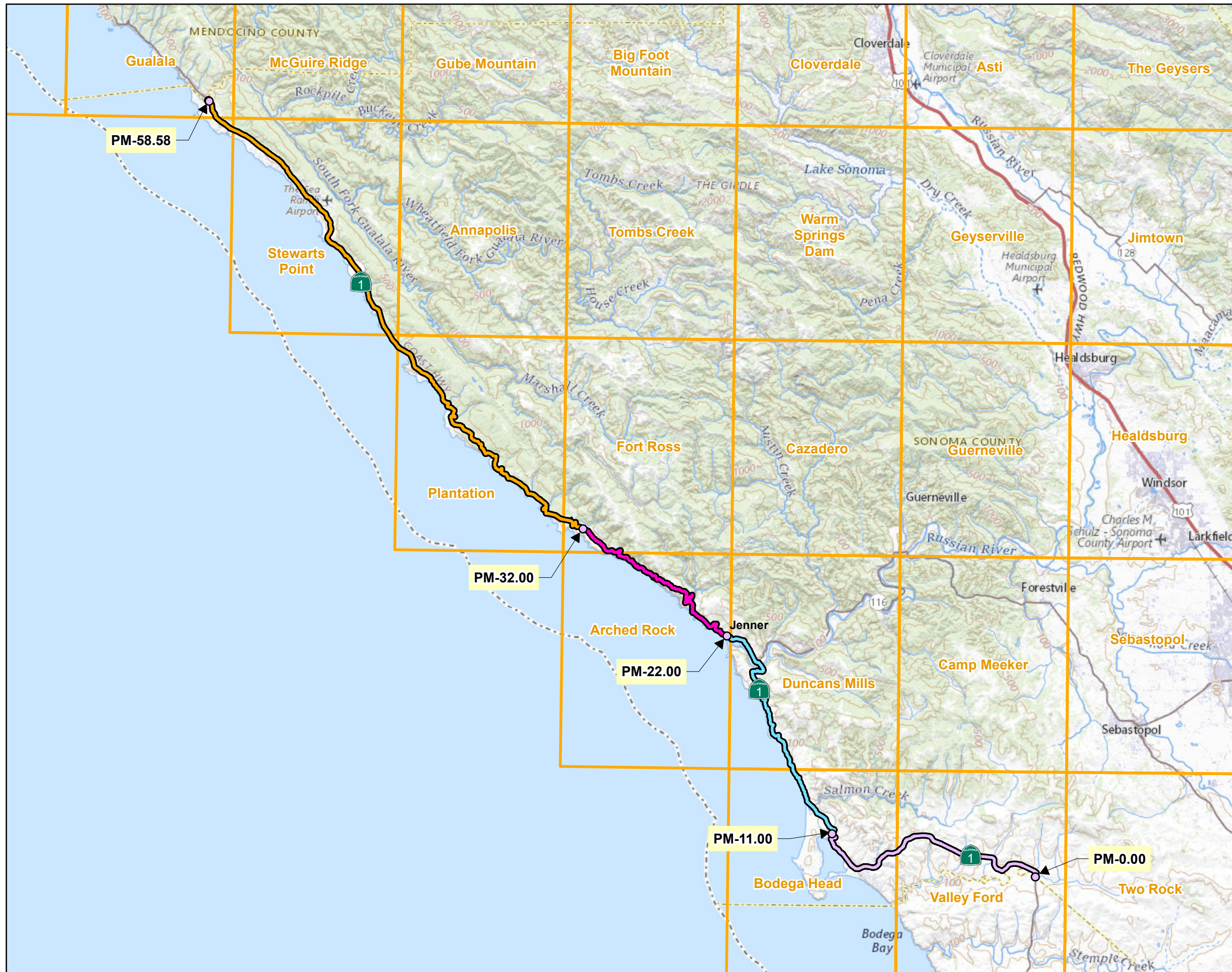


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  - ▭ Project Limits



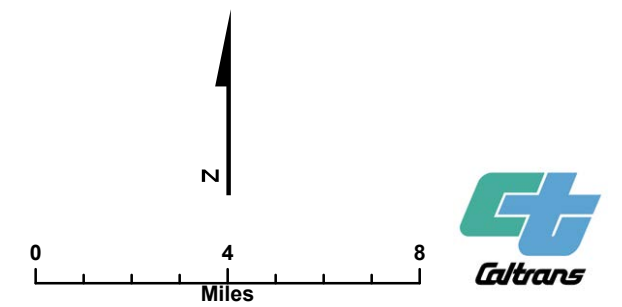
**FIGURE 1-1**  
**Regional Location**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON1-0.00/58.58  
 Sonoma County, California





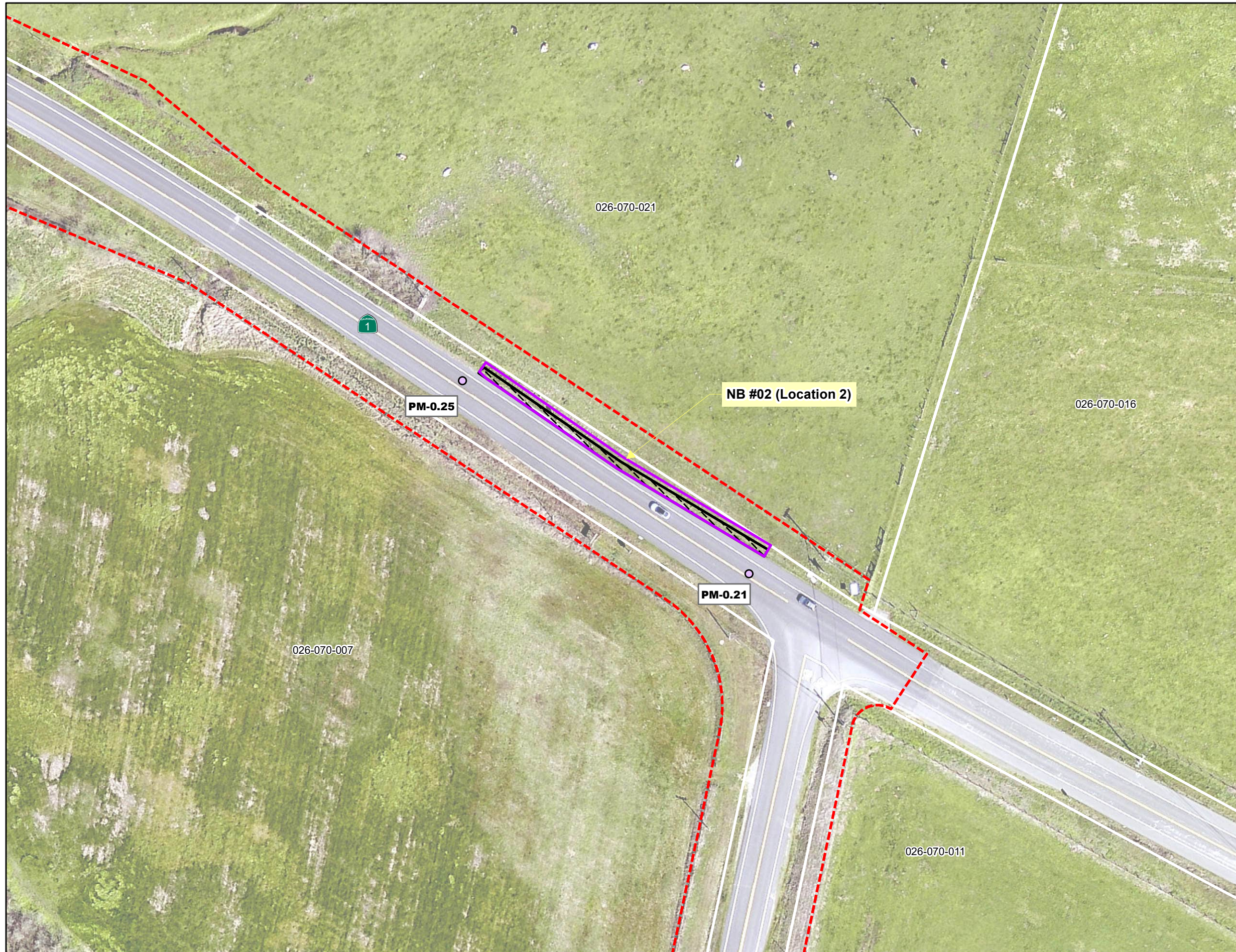
**Legend**

- Post Mile
- ▭ Project Limits
- Project Sub Areas**
- Sub Area 1
- Sub Area 2
- Sub Area 3
- Sub Area 4
- ▭ USGS 7.5 Minute Quadrangle



**FIGURE 1-2**  
**Project Location**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



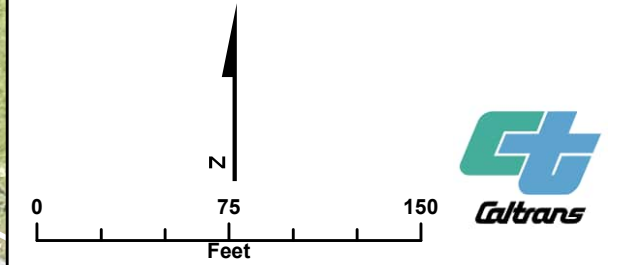


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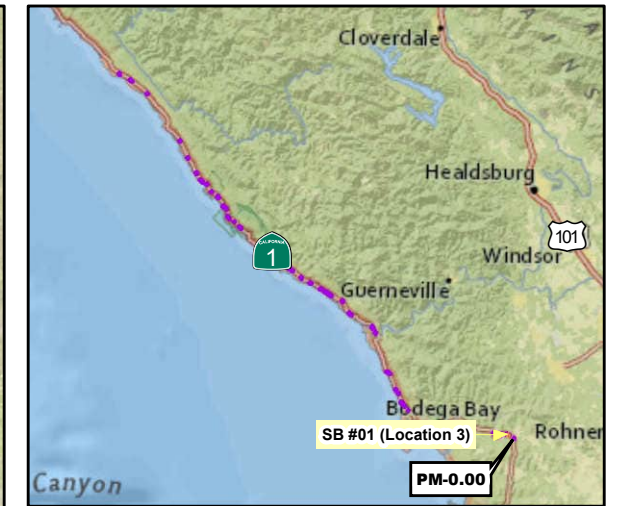
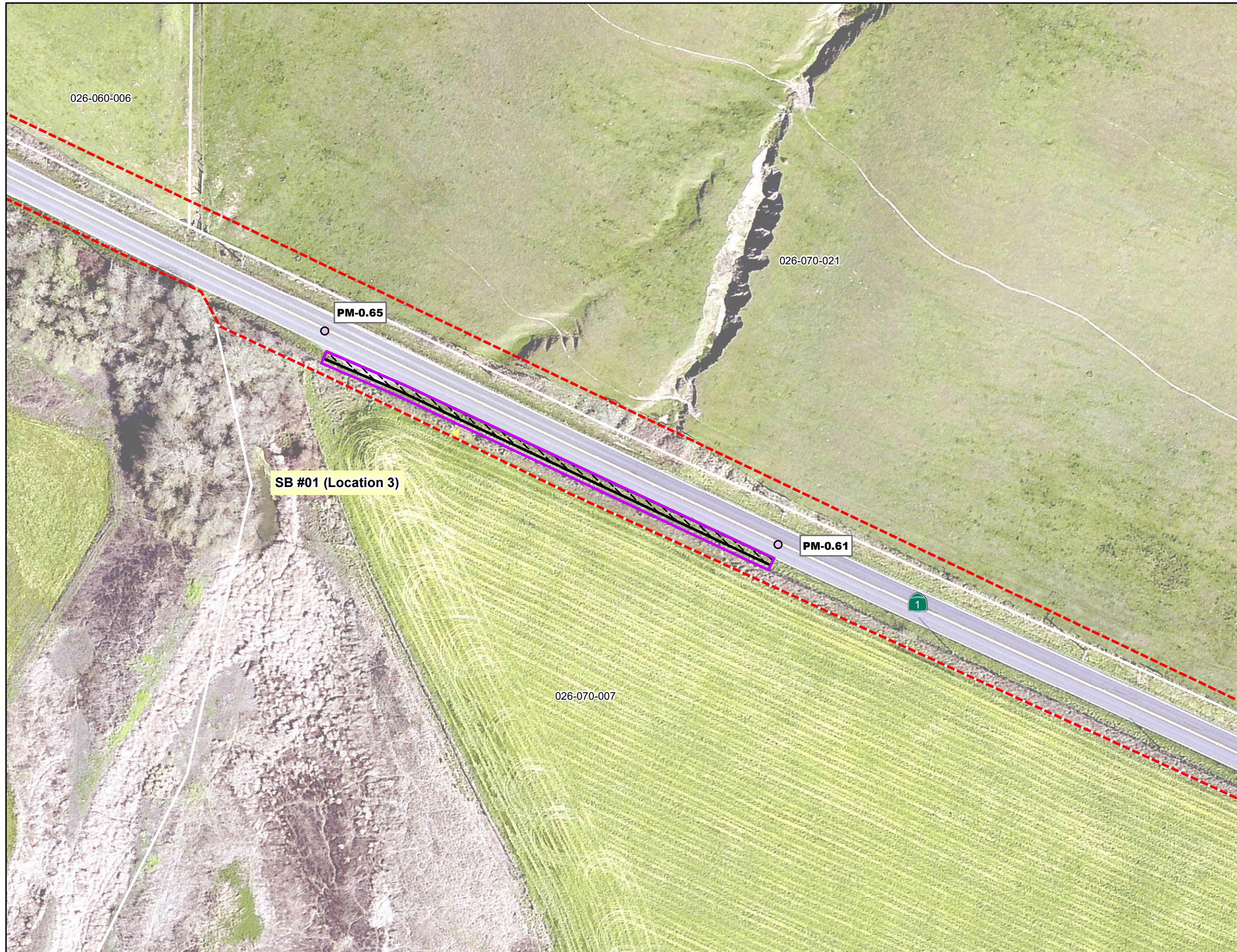
- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▨ Widen Shoulder

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 The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 01 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

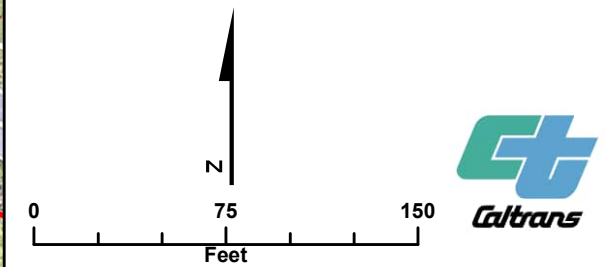


**LEGEND**

- Post Mile
- Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 02 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



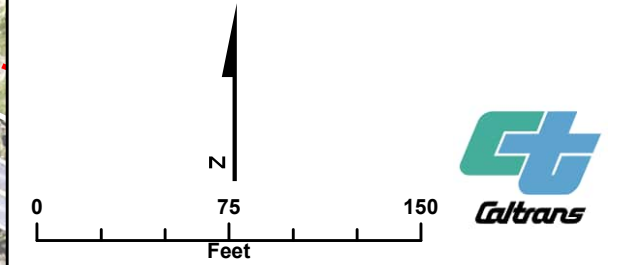


**LEGEND**

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▨ Staging Area

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 03 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

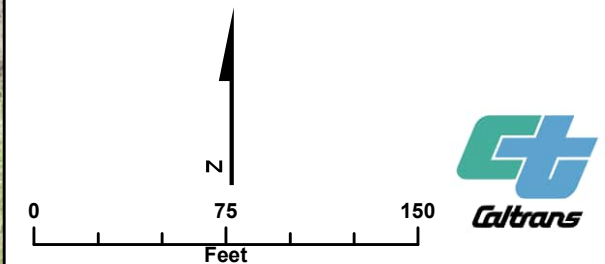


**LEGEND**

- Post Mile
- - - Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 04 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

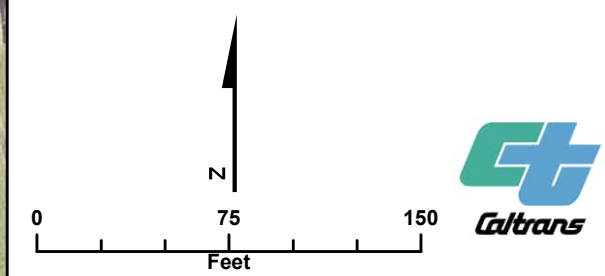


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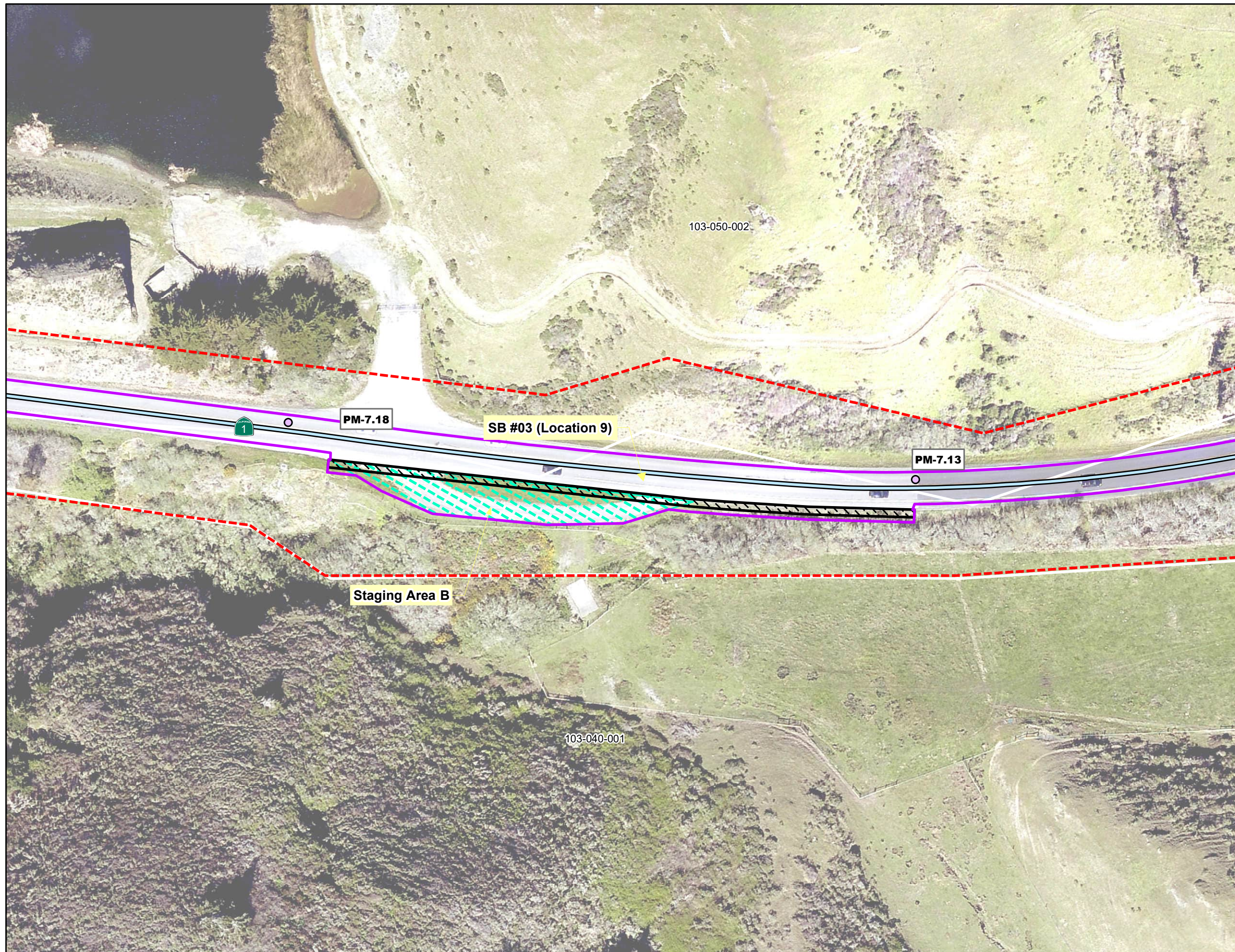
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- ▭ Project Footprint
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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 05 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

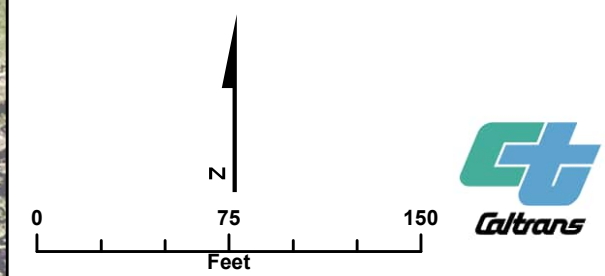


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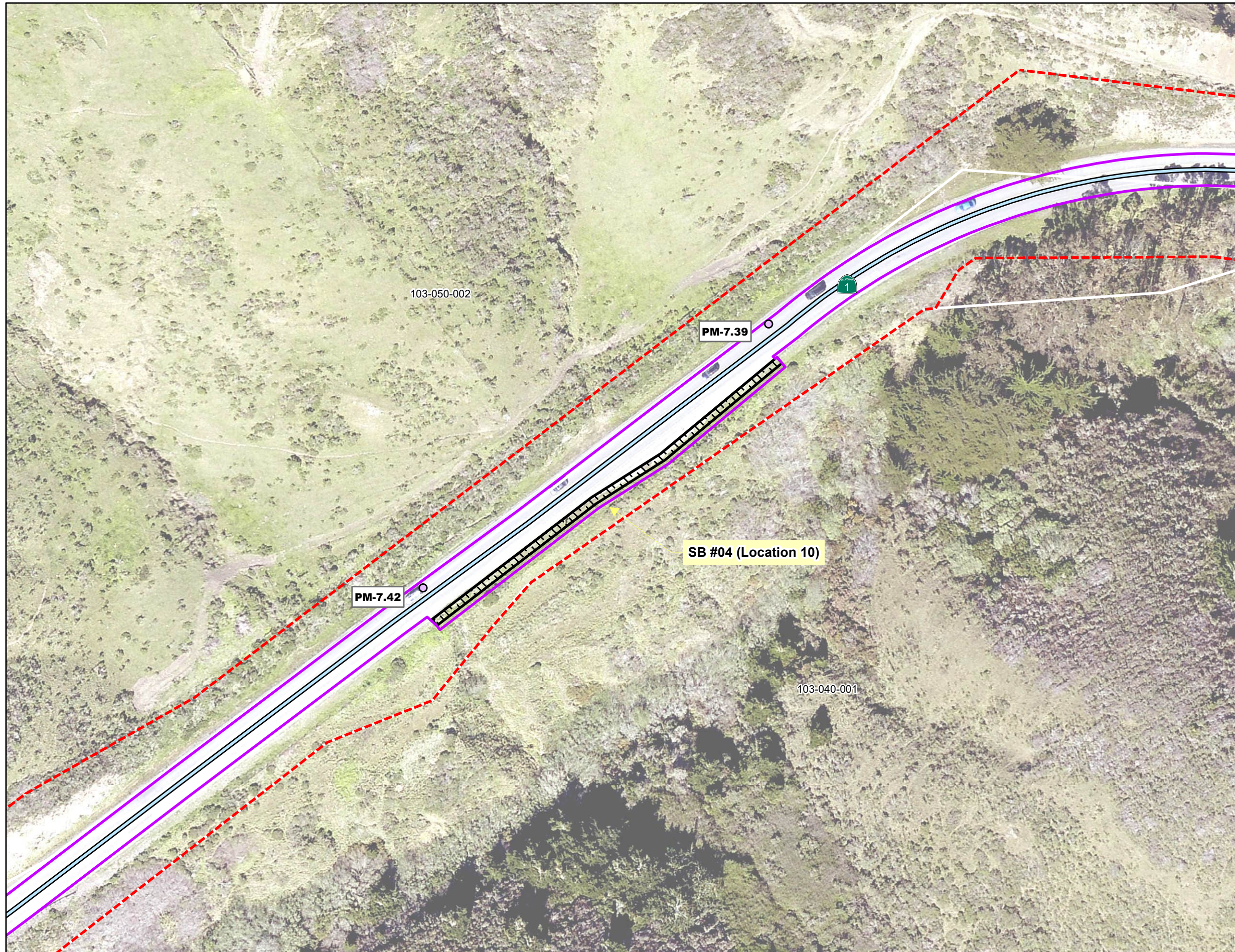
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- ▭ Project Footprint
- Install Centerline Rumble Strip (Segment 1)
- ▨ Widen Shoulder
- ▨ Staging Area

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 06 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

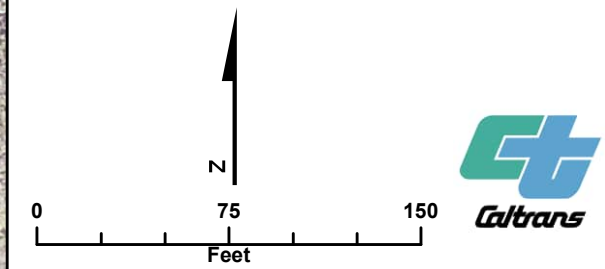


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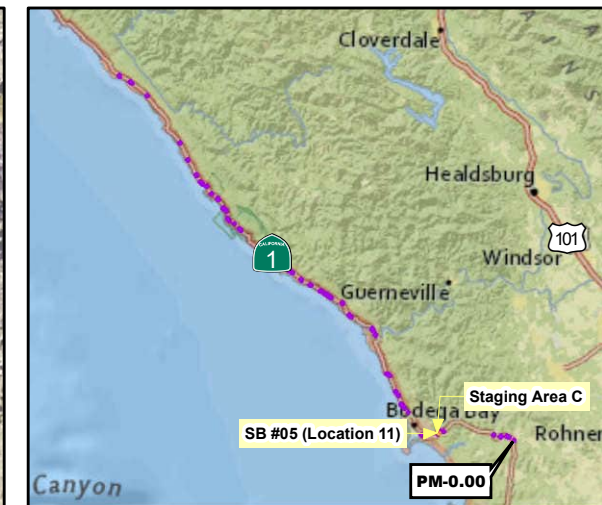
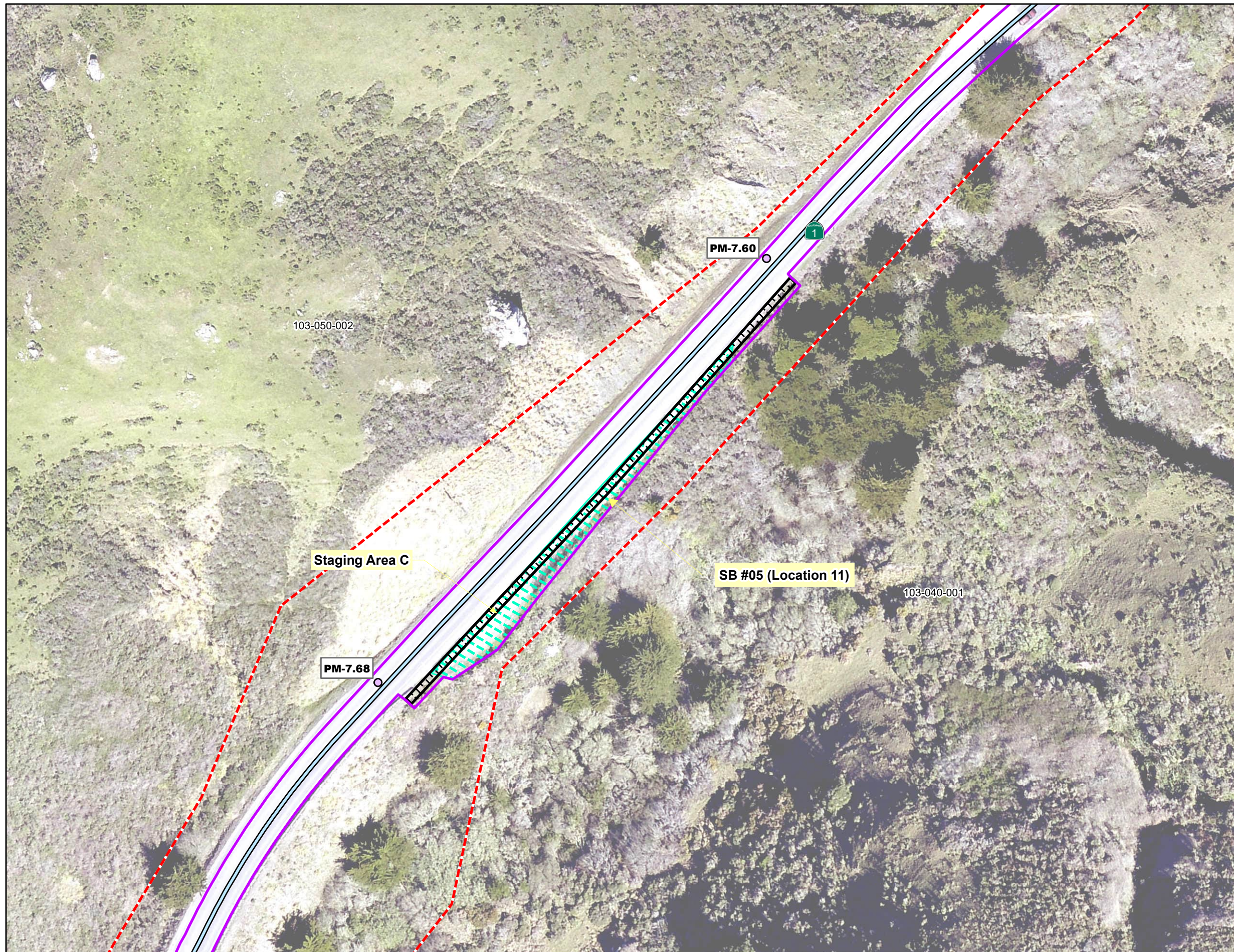
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- ▨ Widen Shoulder

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 Sonoma County 2021



**Figure 1-3**  
**Map 07 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

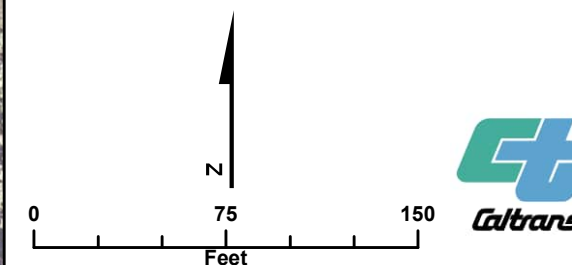


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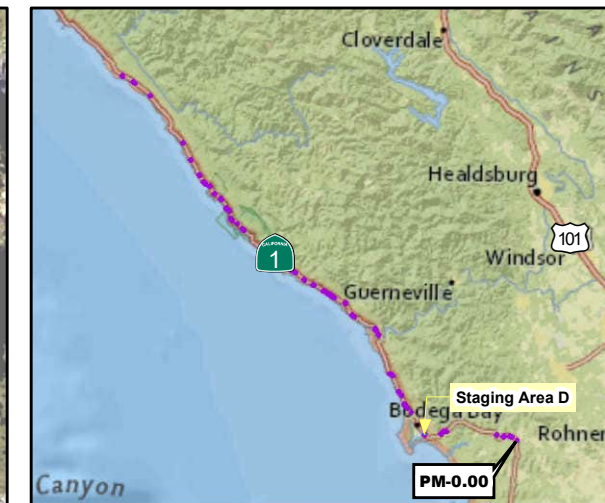
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- Sonoma County Parcels
- ▭ Project Footprint
- — — — — Install Centerline Rumble Strip (Segment 1)
- ▨ Widen Shoulder
- ▨ Staging Area

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 Sonoma County 2021



**Figure 1-3**  
**Map 08 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

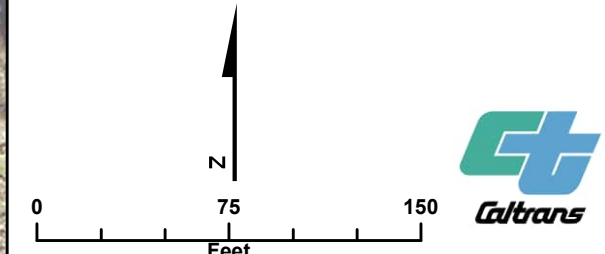


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- Post Mile
- Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 1)
- ▨ Staging Area

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 09 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

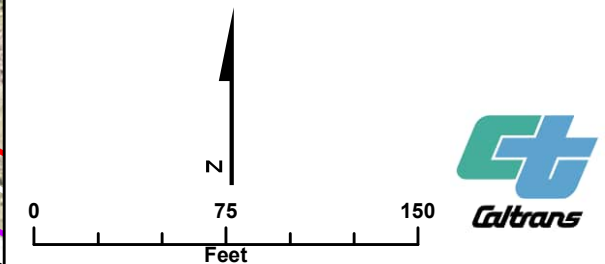


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- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 2)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 10 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California





**LEGEND**

- Post Mile
- Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▭ Install Centerline Rumble Strip (Segment 2)
- ▨ Staging Area

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**Imagery Source:**  
 Sonoma County 2021

**Figure 1-3**  
**Map 11 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

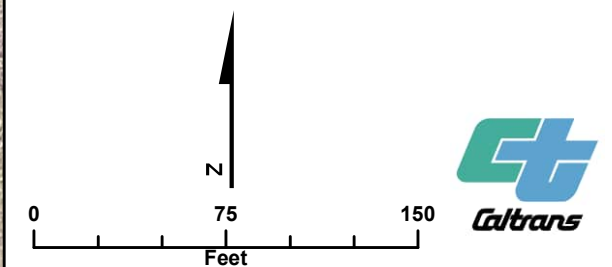


**LEGEND**

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 2)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 12 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

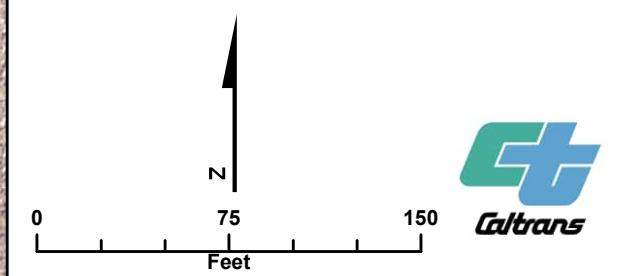


**LEGEND**

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- Install Centerline Rumble Strip (Segment 2)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 13 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

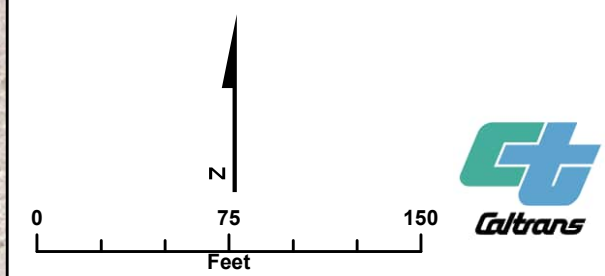


**LEGEND**

- Post Mile
- - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬▬▬ Install Centerline Rumble Strip (Segment 2)
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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 14 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

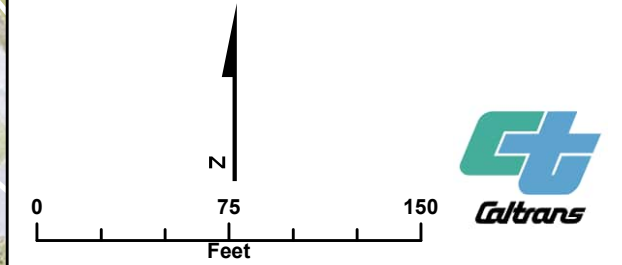


**LEGEND**

- Post Mile
- Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▭ Install Centerline Rumble Strip (Segment 2)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 15 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

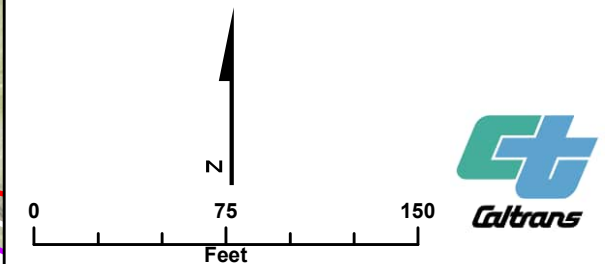


**LEGEND**

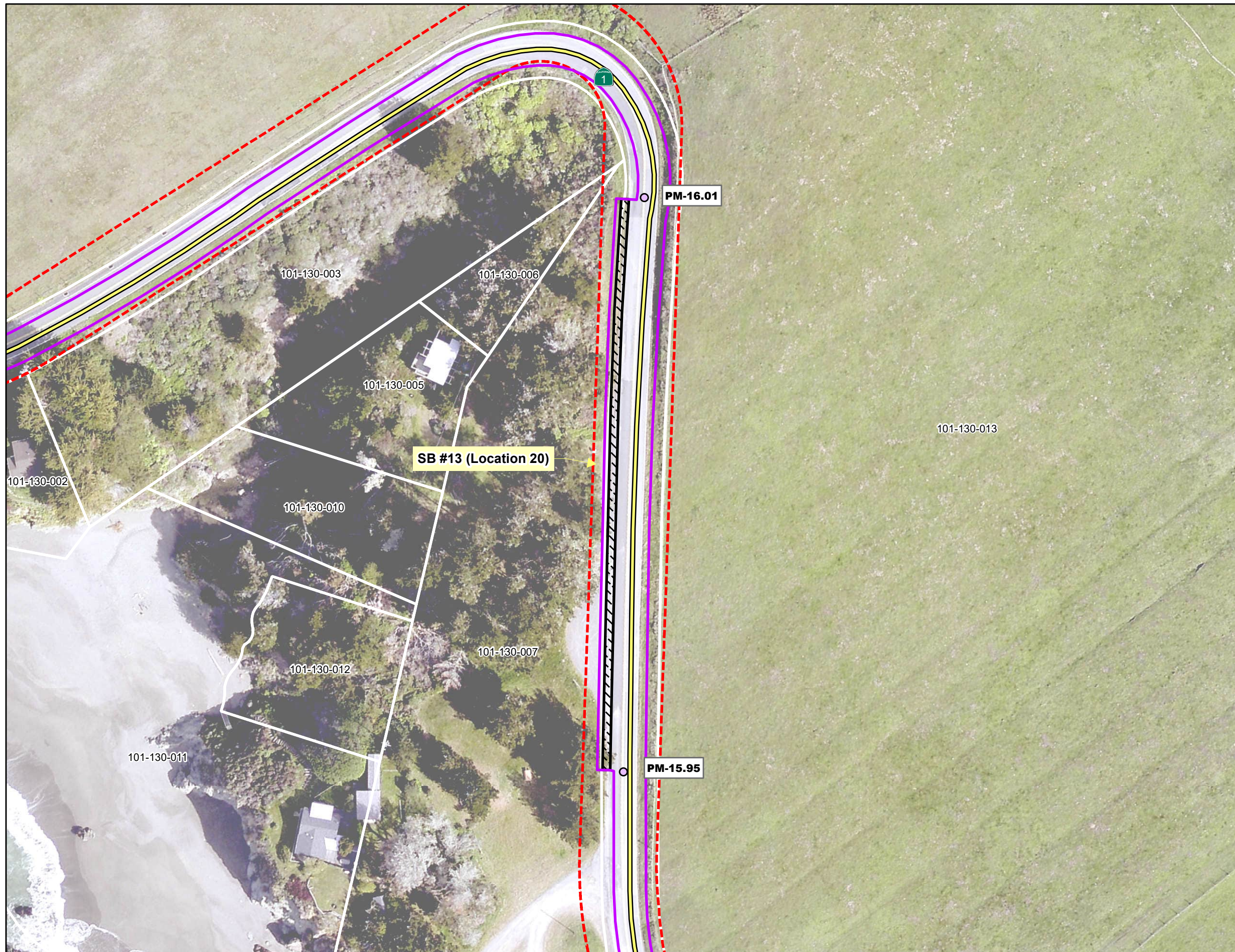
- Post Mile
- - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬▬▬ Install Centerline Rumble Strip (Segment 2)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 16 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

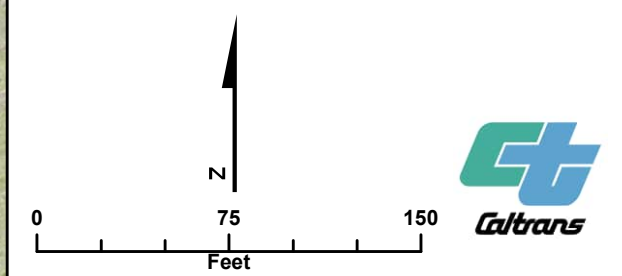


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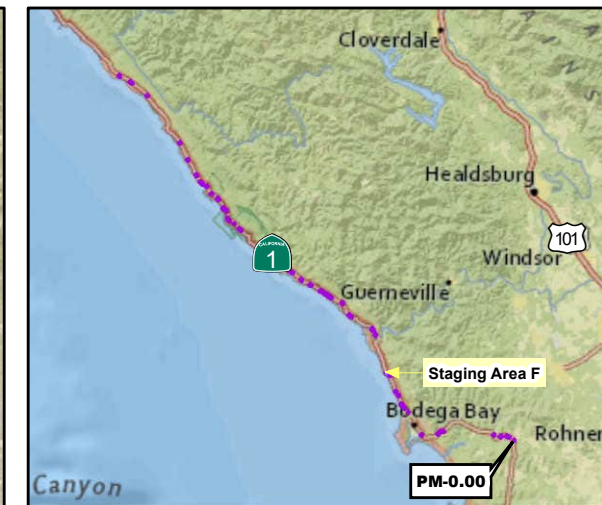
- Post Mile
- - - Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▬▬▬ Install Centerline Rumble Strip (Segment 2)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 17 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

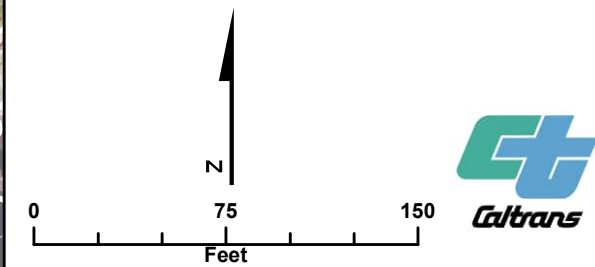


**LEGEND**

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬▬ Install Centerline Rumble Strip (Segment 2)
- ▨ Staging Area

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 18 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



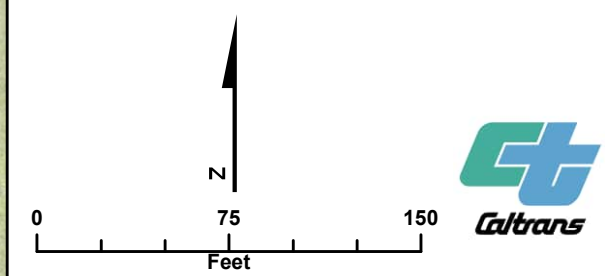


**LEGEND**

- Post Mile
- Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▬▬▬ Install Centerline Rumble Strip (Segment 2)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 19 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

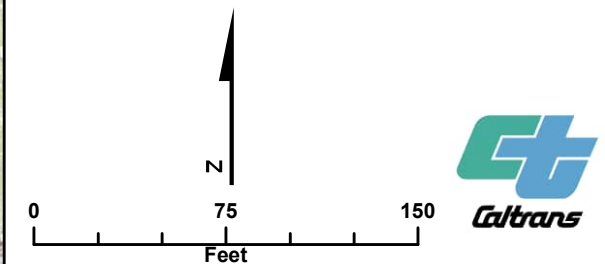


**LEGEND**

-  Post Mile
-  Caltrans Right of Way
-  Sonoma County Parcels
-  Project Footprint
-  Install Centerline Rumble Strip (Segment 2)
-  Widen Shoulder

**Disclaimer:**  
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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 20 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

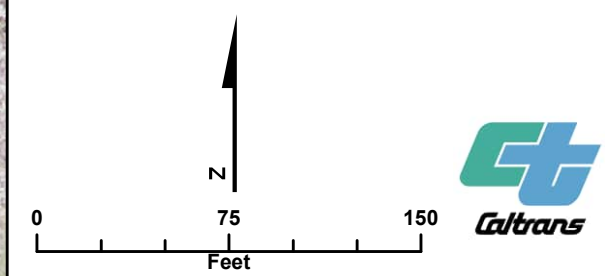


**LEGEND**

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬▬▬ Install Centerline Rumble Strip (Segment 2)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 21 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

099-040-001

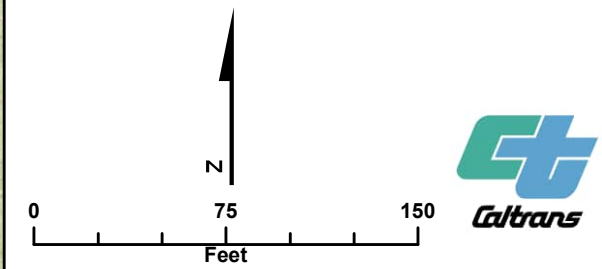


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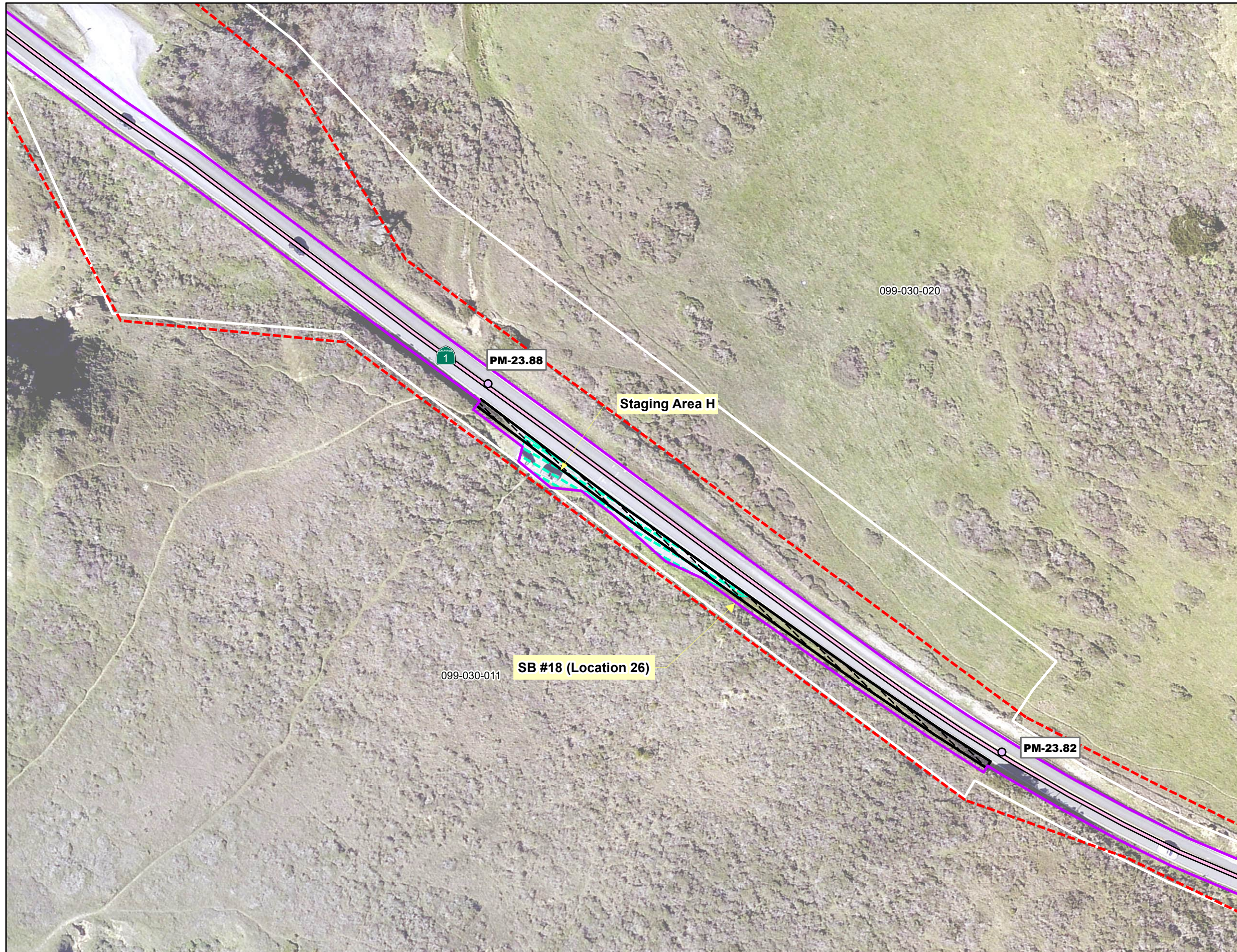
- Post Mile
- - - Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▭ Install Centerline Rumble Strip (Segment 3)
- ▨ Widen Shoulder
- ▨ Staging Area

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 22 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

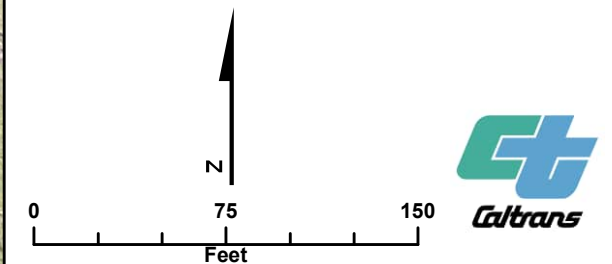


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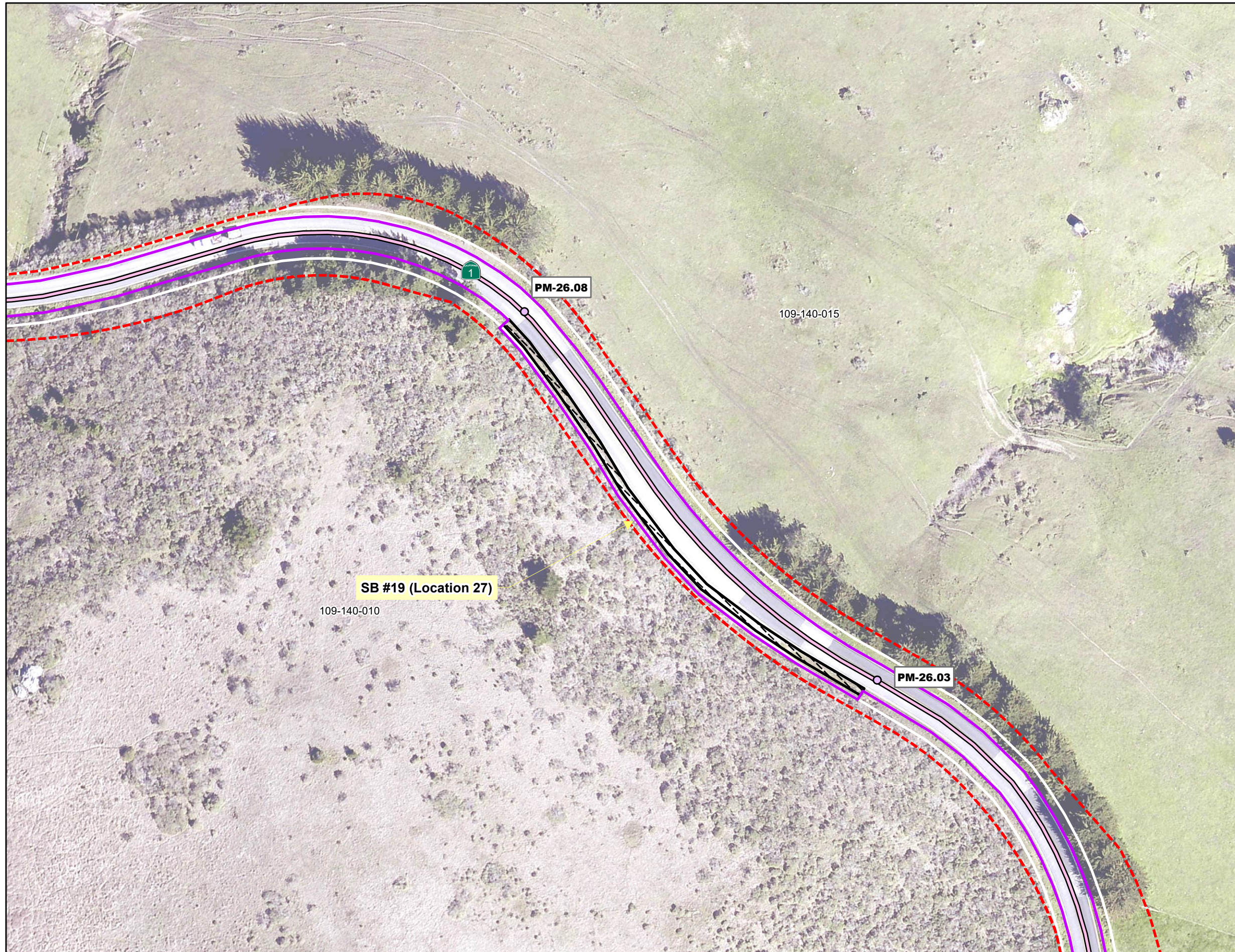
- Post Mile
- - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬▬▬ Install Centerline Rumble Strip (Segment 3)
- ▨ Widen Shoulder
- ▨ Staging Area

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 23 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

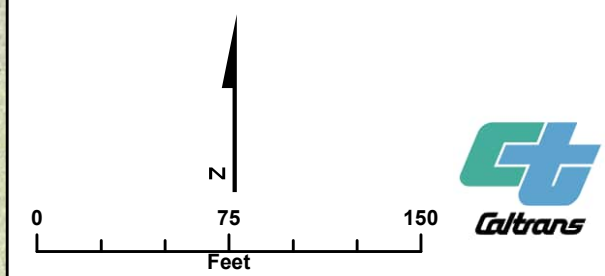


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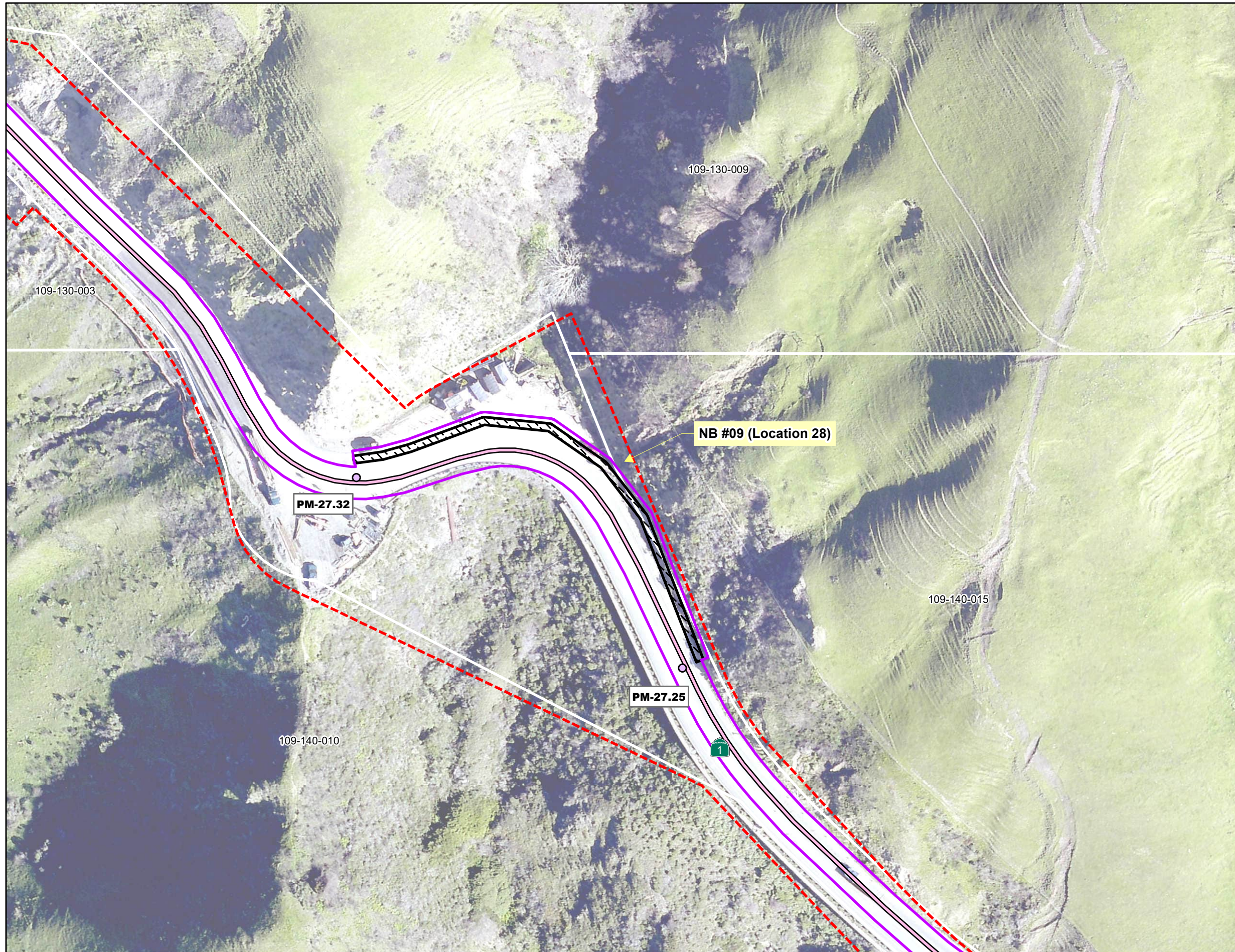
- Post Mile
- - - - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 3)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 24 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

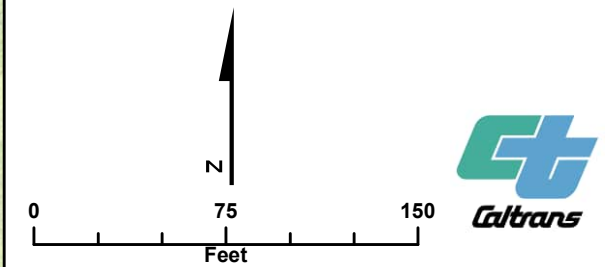


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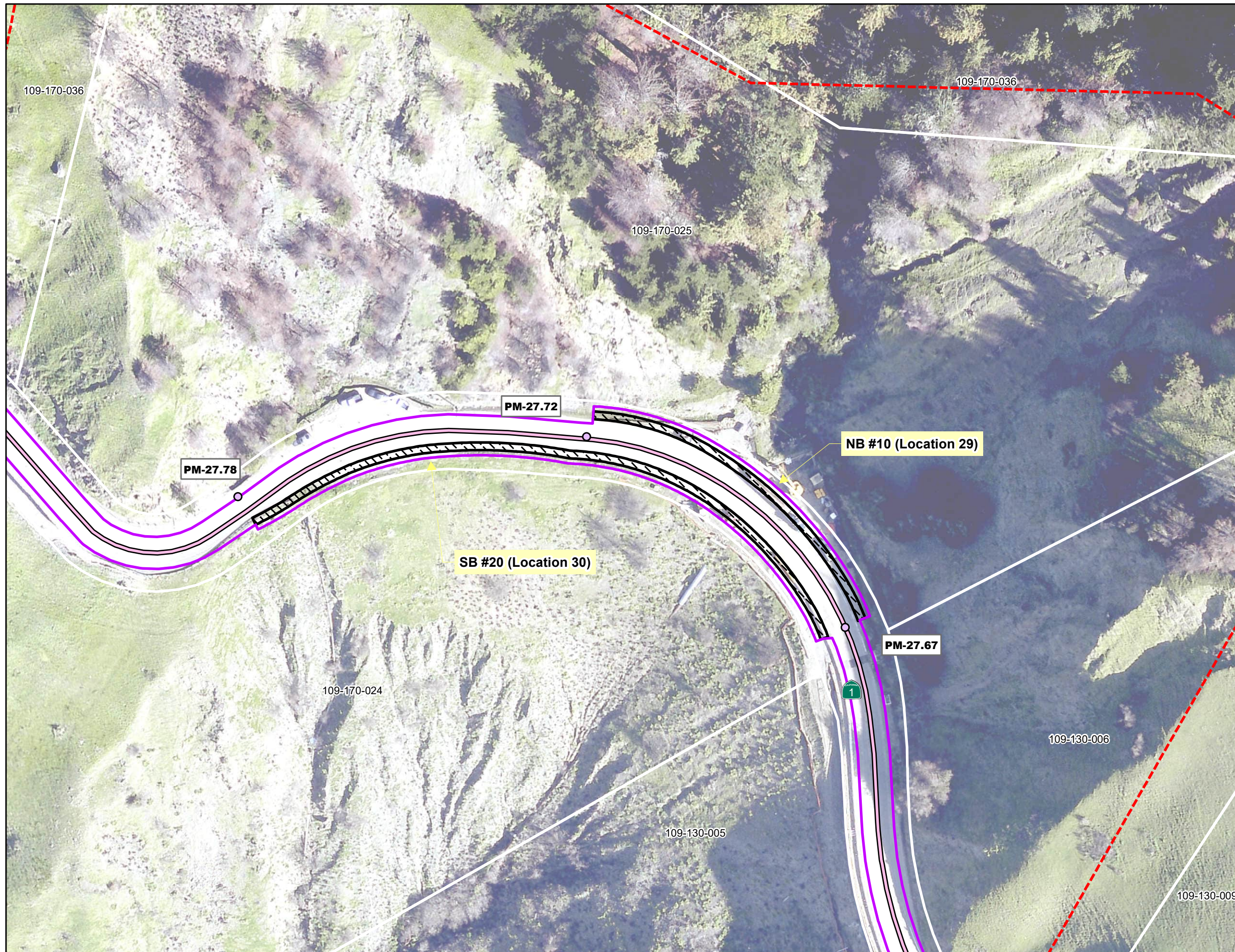
- Post Mile
- Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▭ Install Centerline Rumble Strip (Segment 3)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 25 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

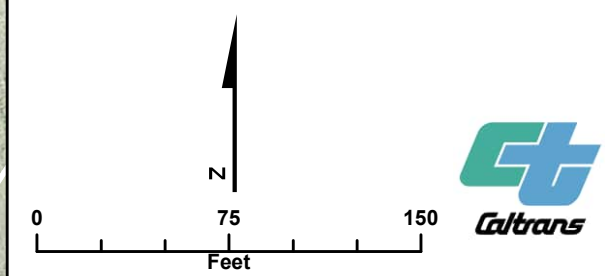


**LEGEND**

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 3)
- ▨ Widen Shoulder

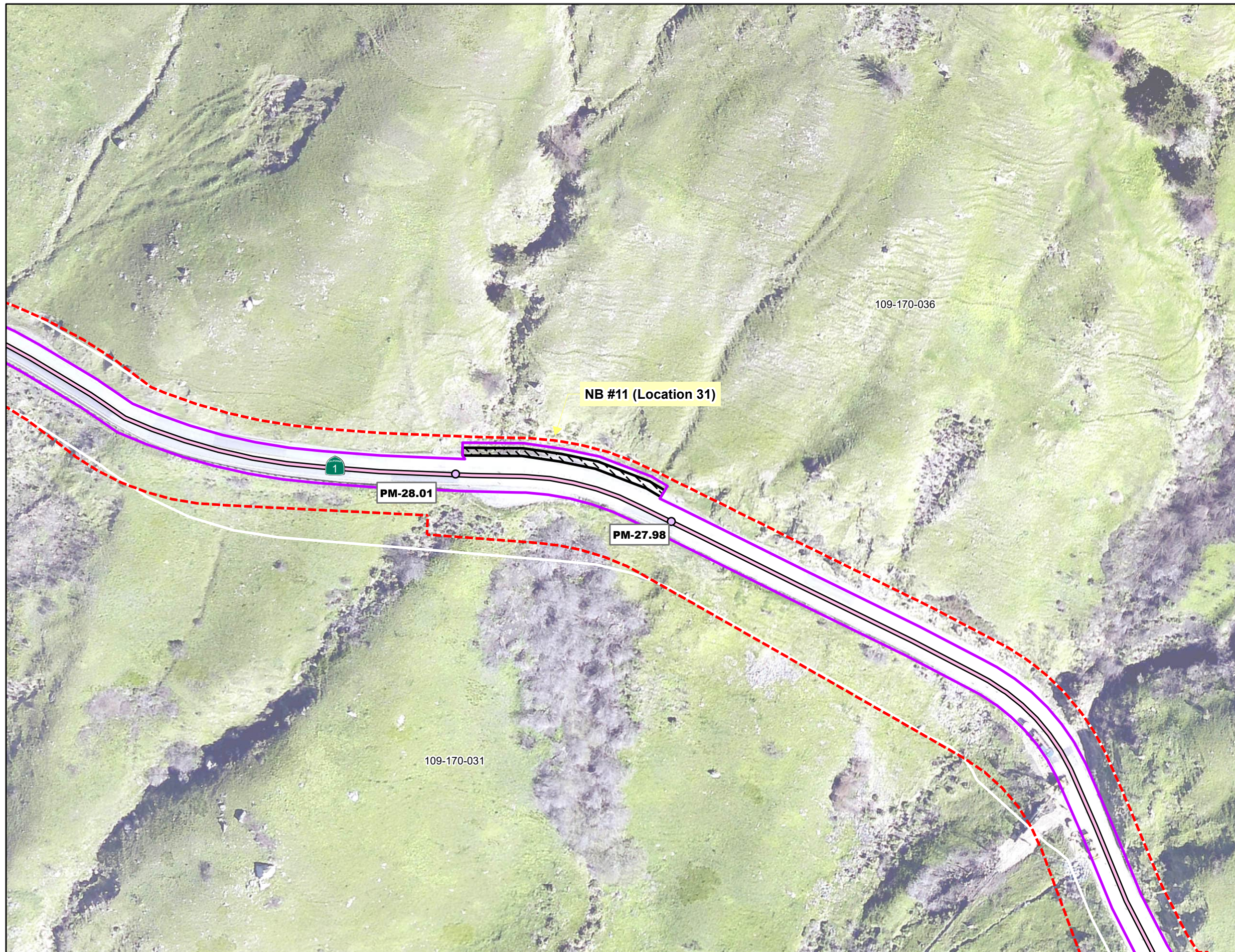
**Disclaimer:**  
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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 26 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



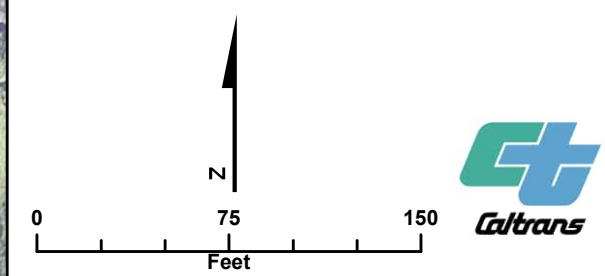


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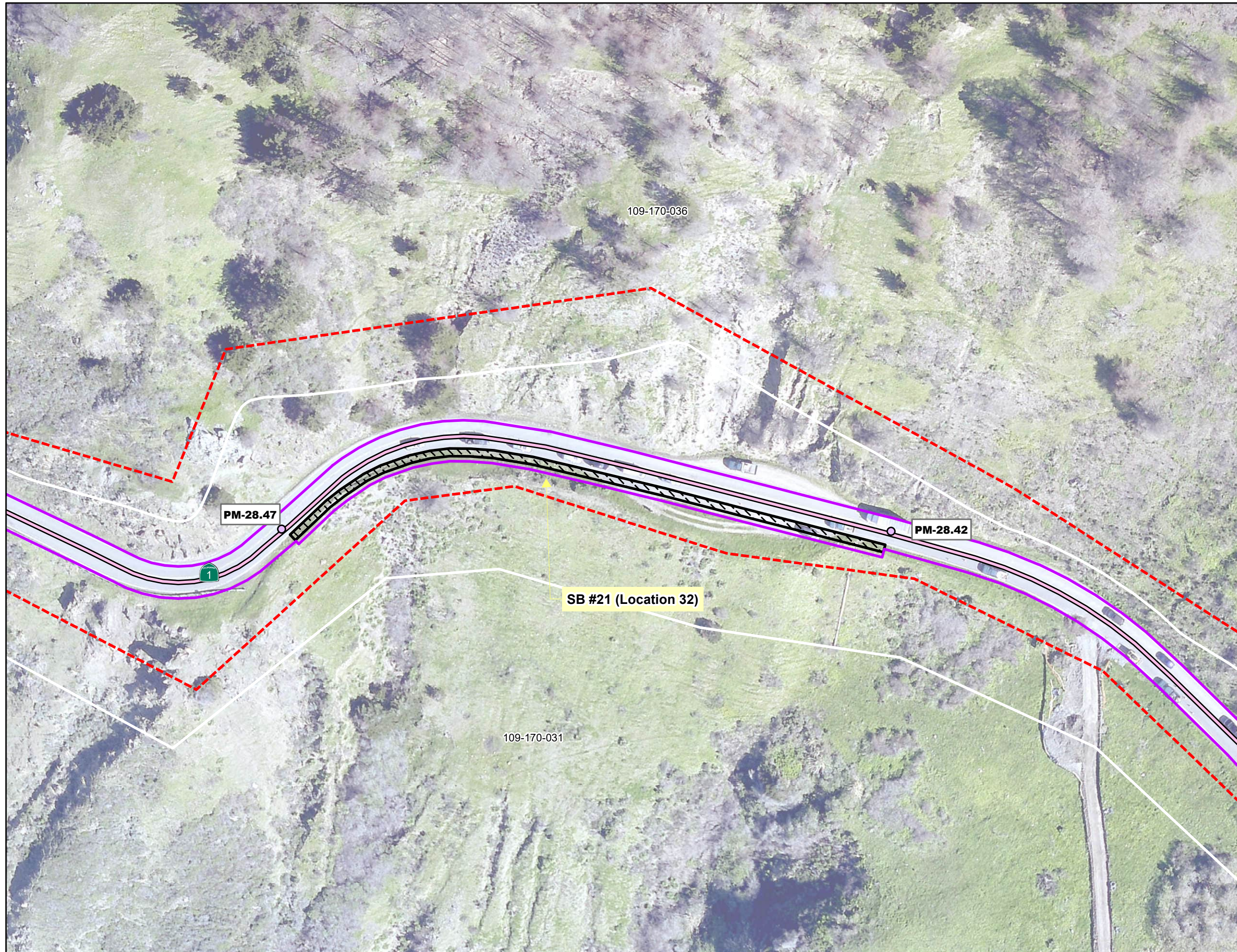
- Post Mile
- - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 3)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 27 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

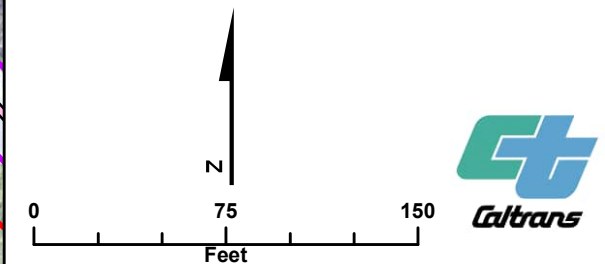


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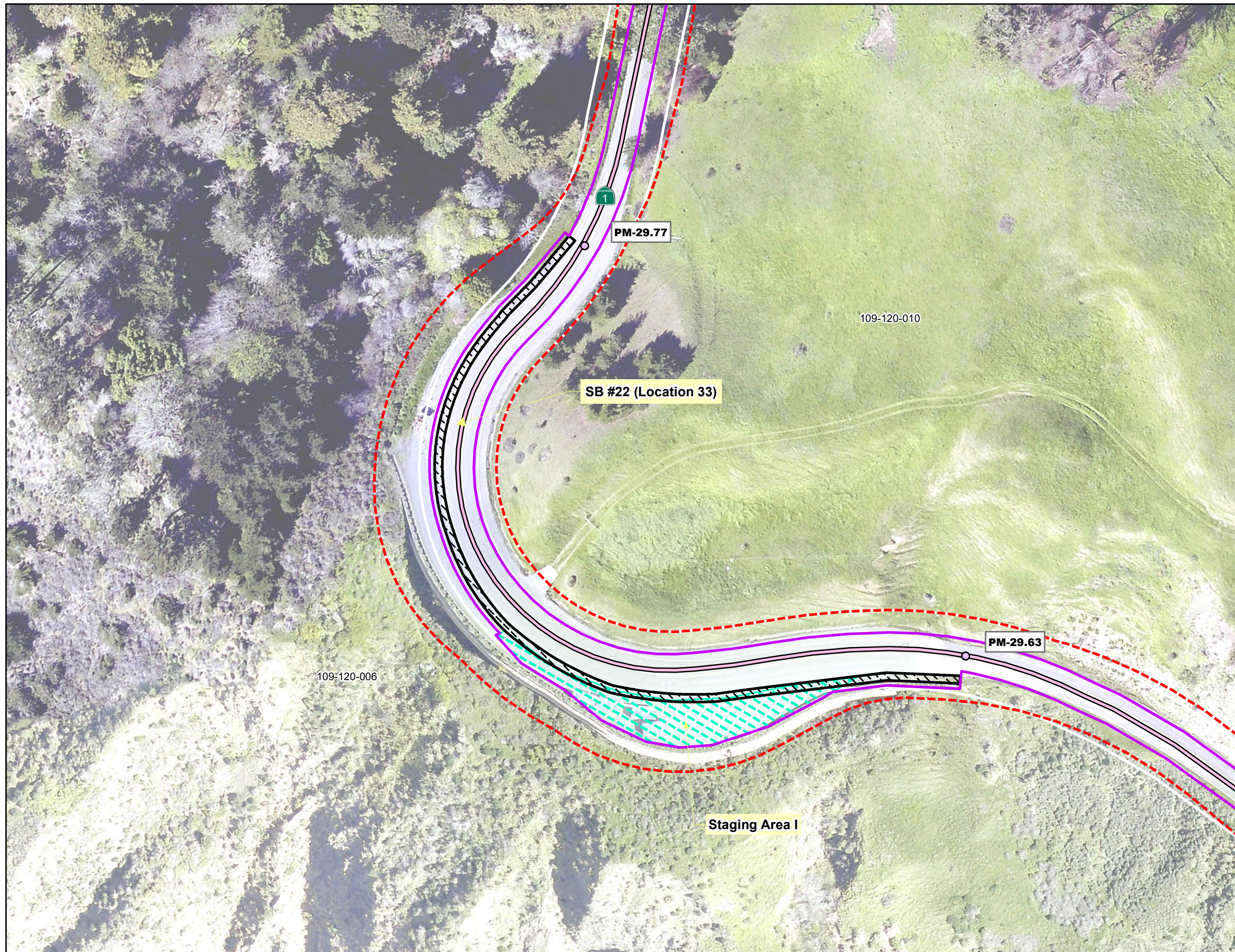
- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 3)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 28 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

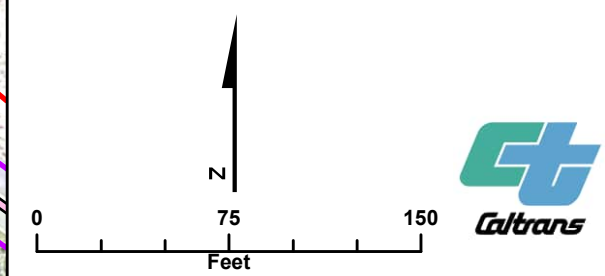


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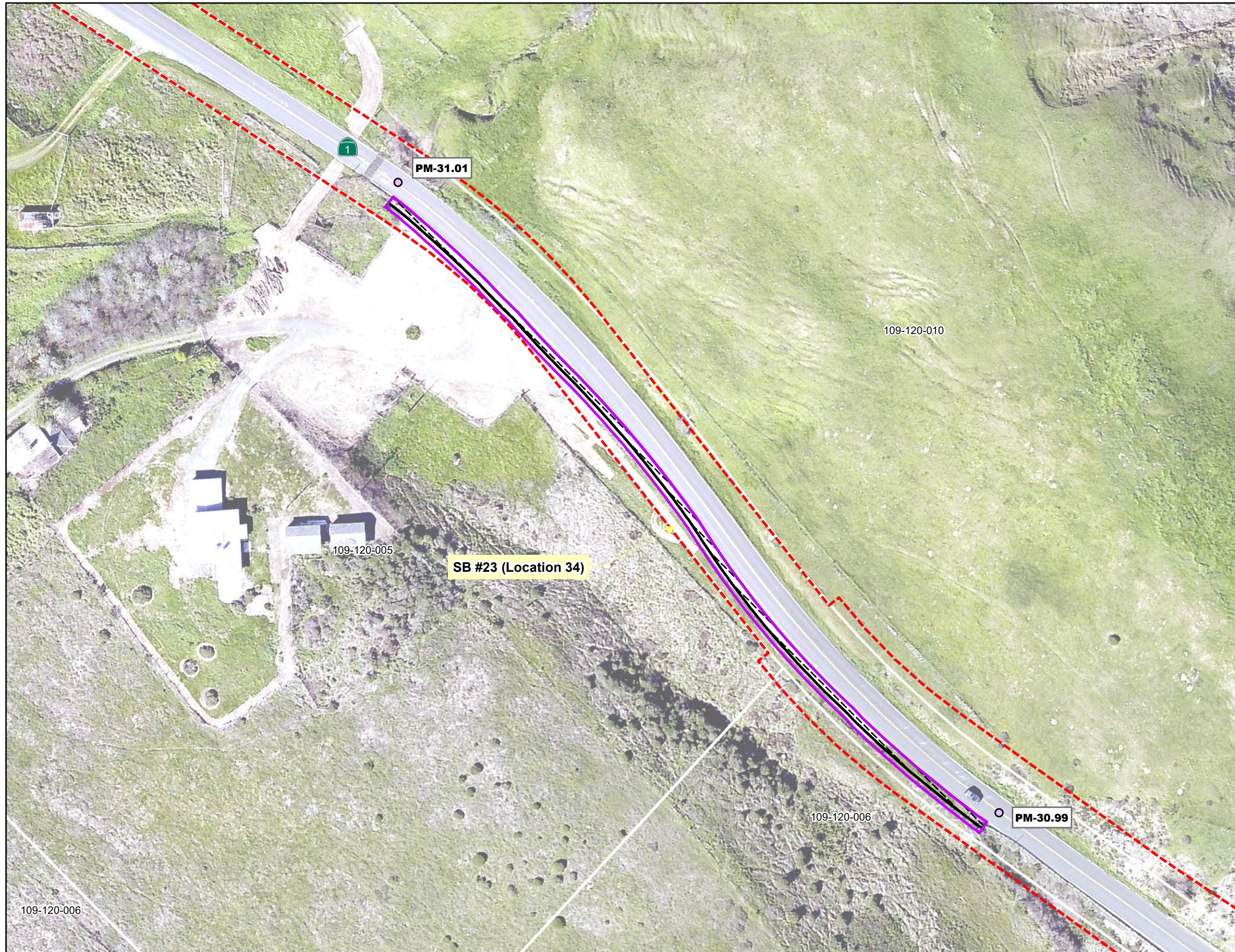
- Post Mile
- - - Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▭ Install Centerline Rumble Strip (Segment 3)
- ▨ Widen Shoulder
- ▨ Staging Area

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 29 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

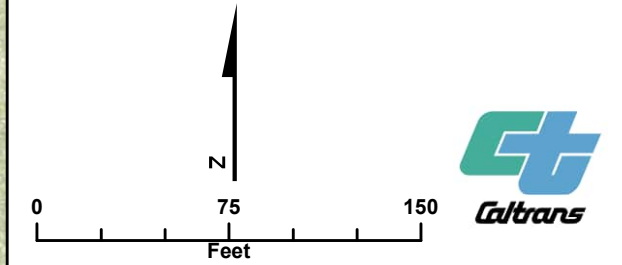


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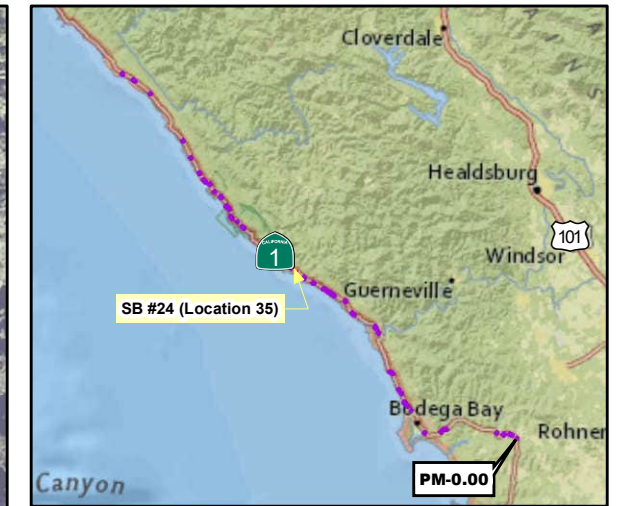
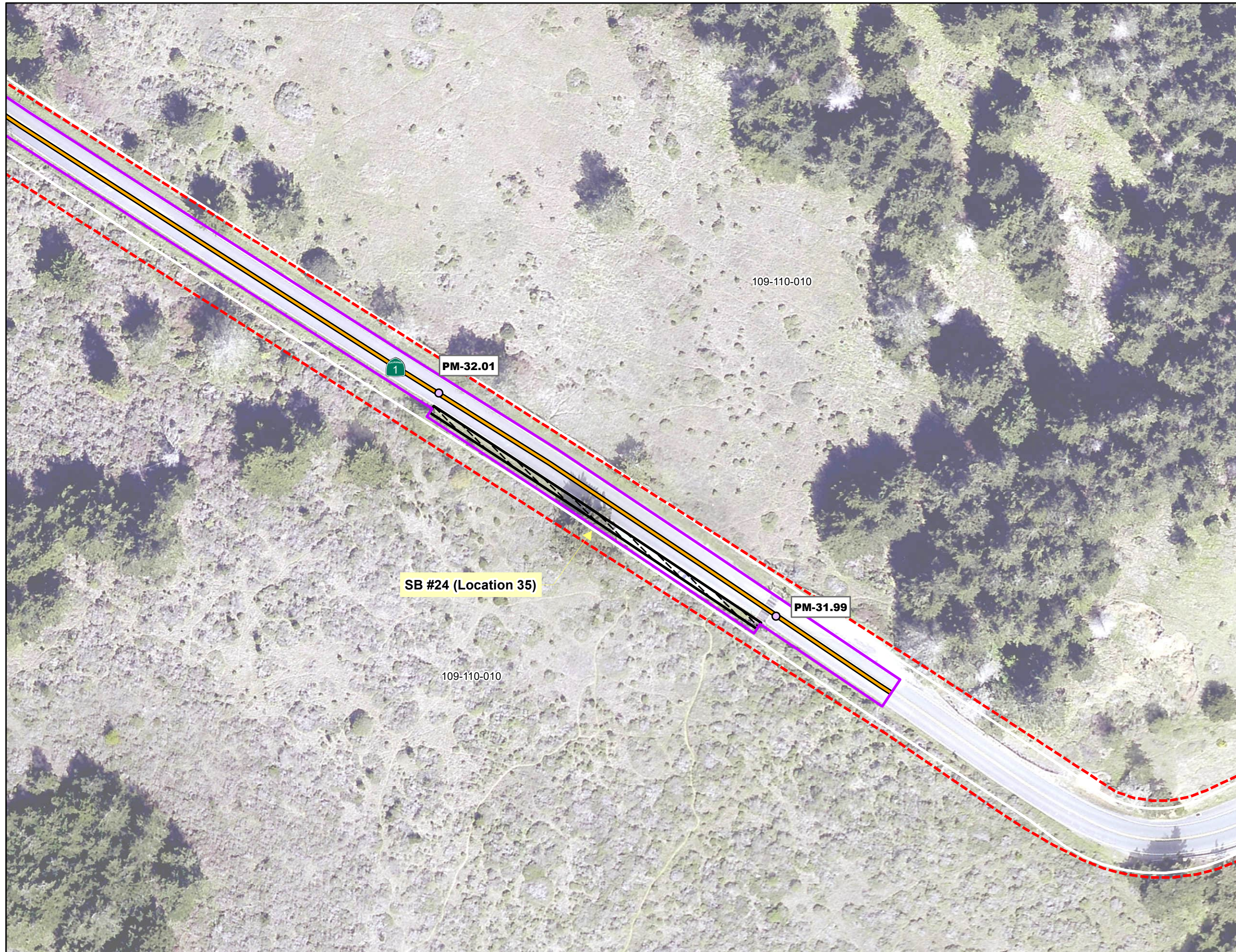
- Post Mile
- Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 30 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

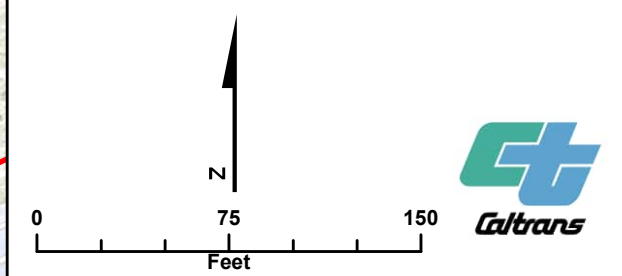


**LEGEND**

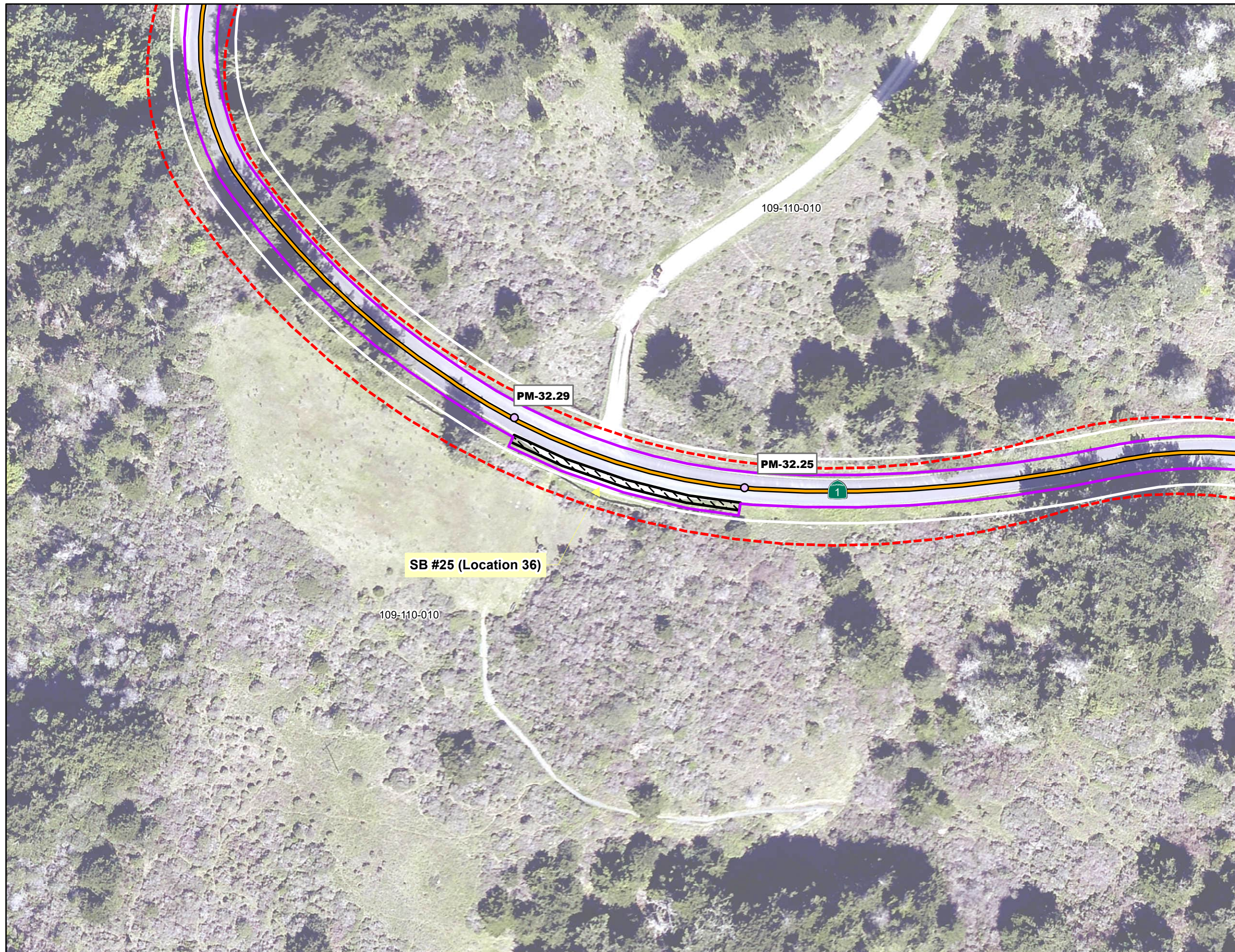
- Post Mile
- - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 31 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

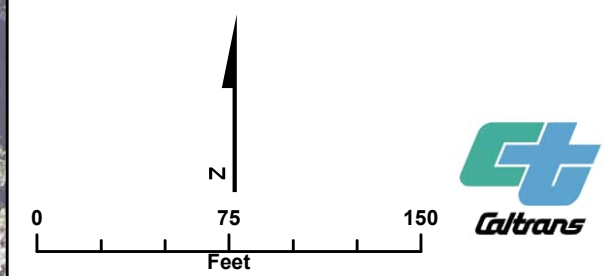


**LEGEND**

- Post Mile
- - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 32 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

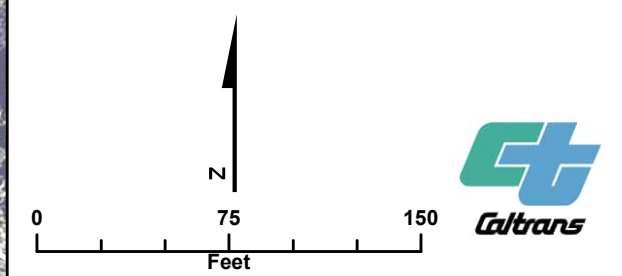


**LEGEND**

- Post Mile
- - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬▬▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 33 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

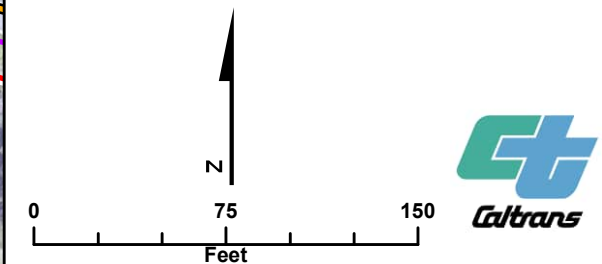


**LEGEND**

- Post Mile
- Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▭ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

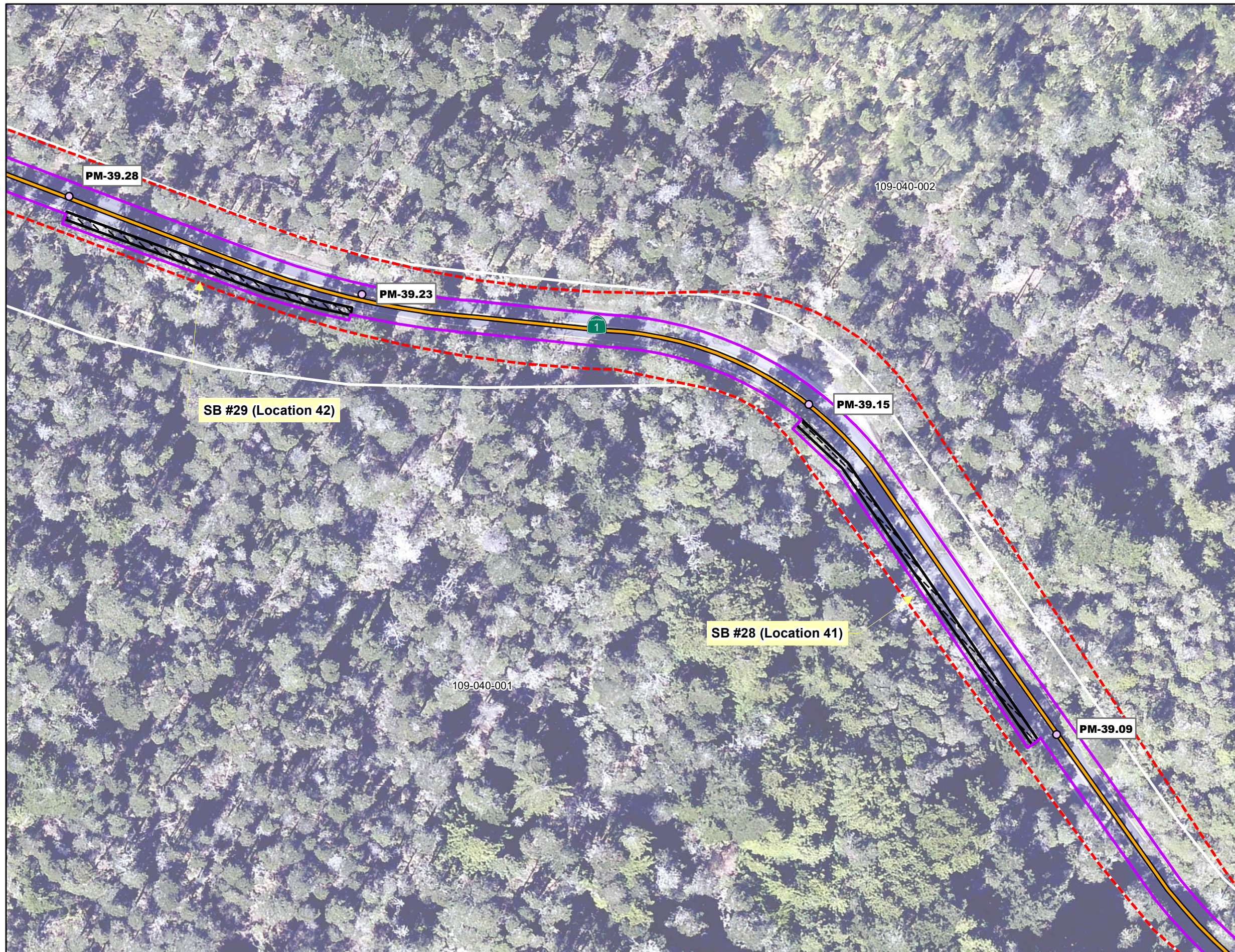
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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 34 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



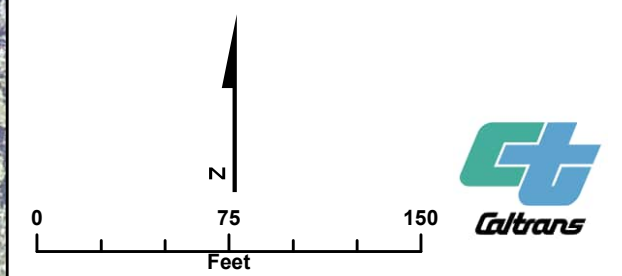


**LEGEND**

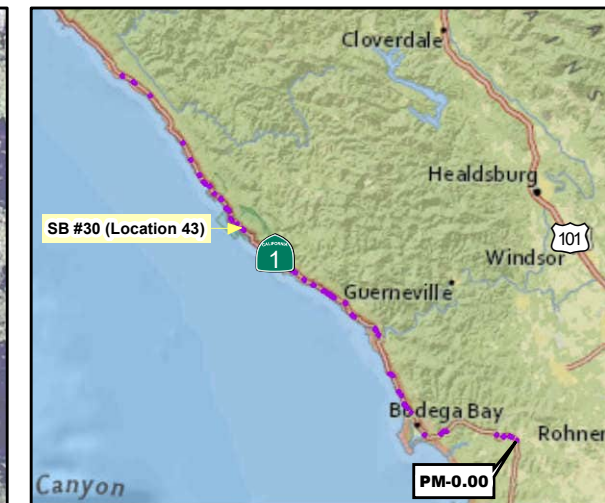
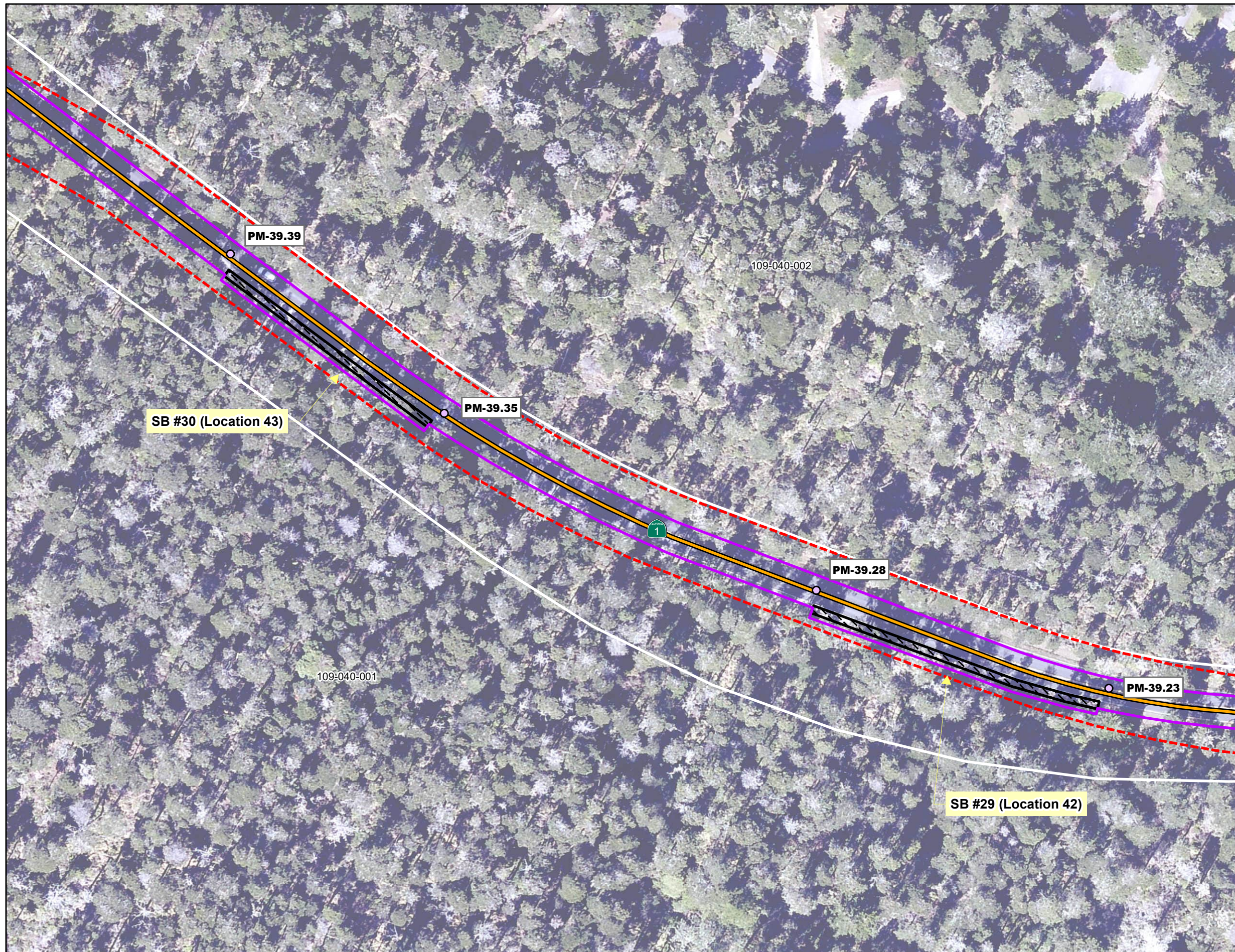
- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 35 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

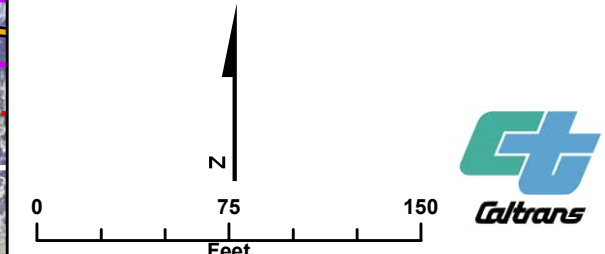


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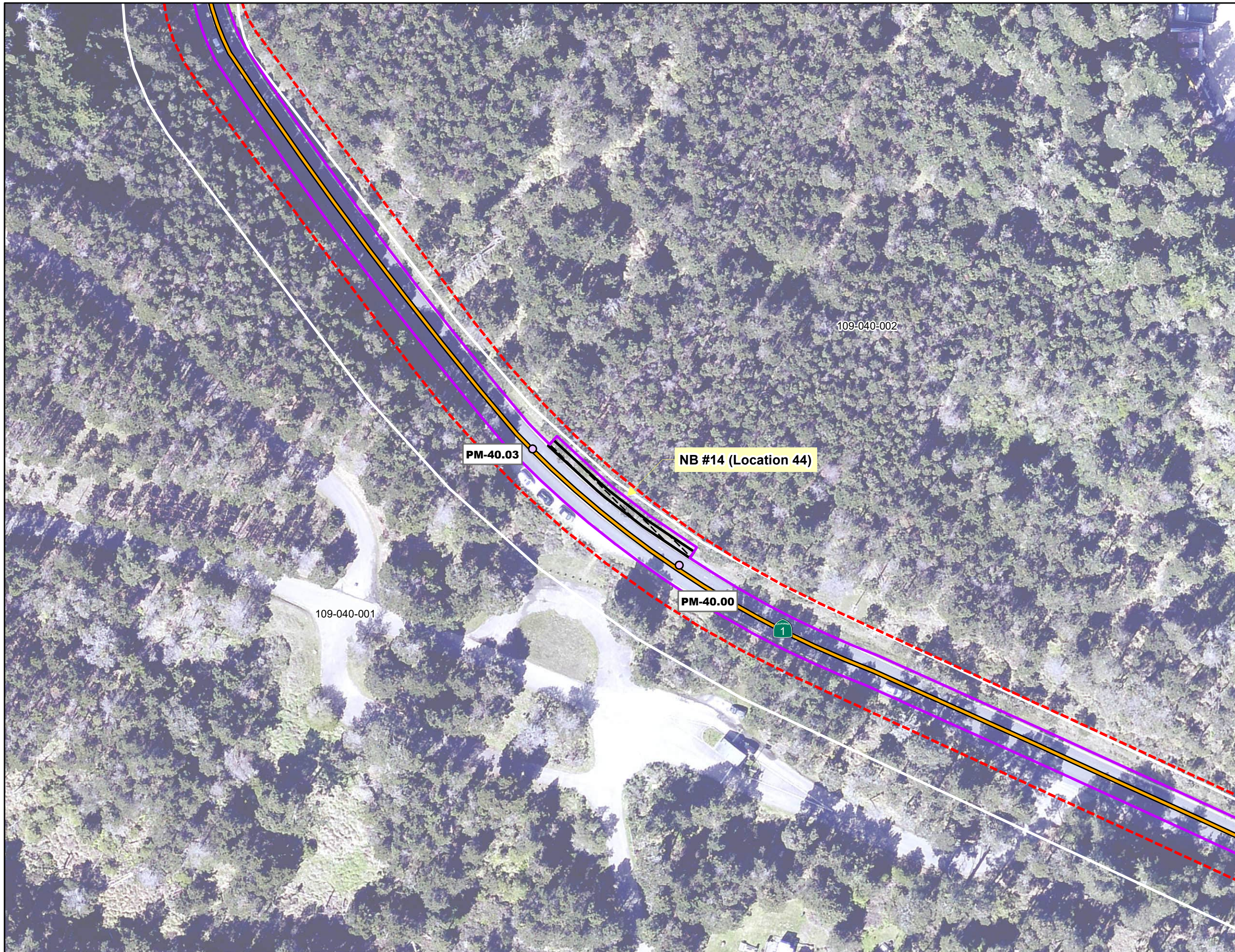
- Post Mile
- - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 36 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

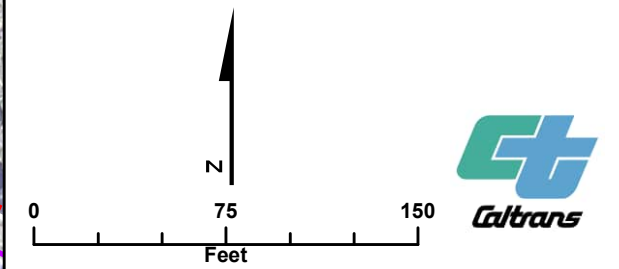


**LEGEND**

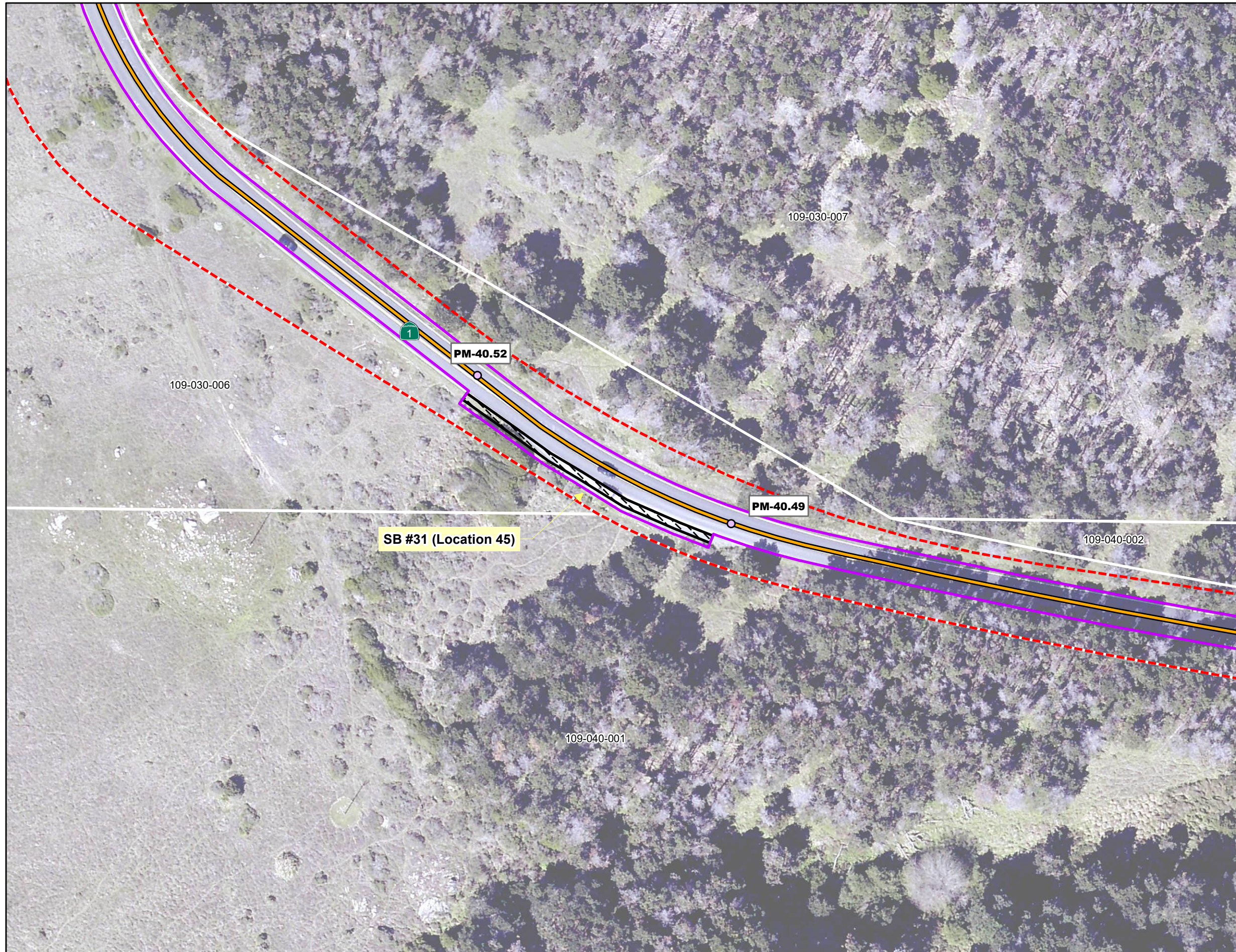
- Post Mile
- - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

**Disclaimer:**  
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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 37 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

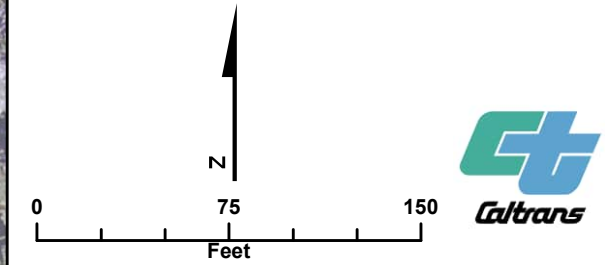


**LEGEND**

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 38 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

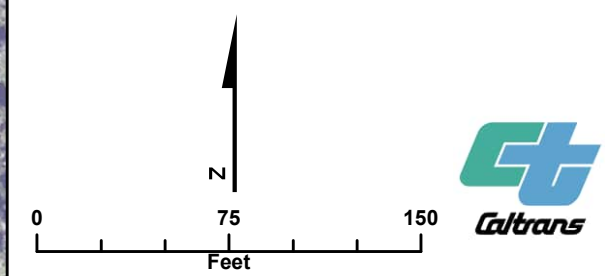


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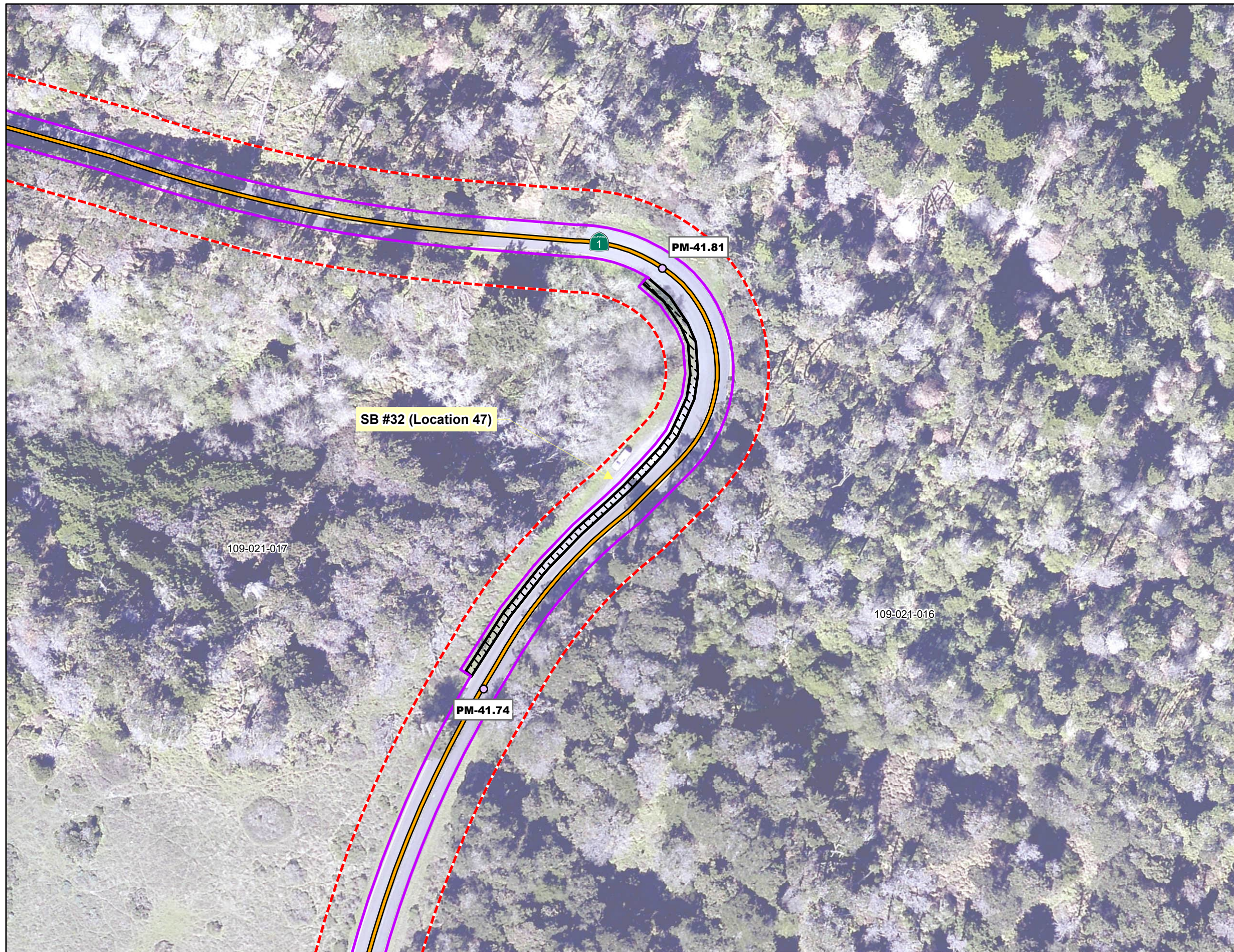
- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 39 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

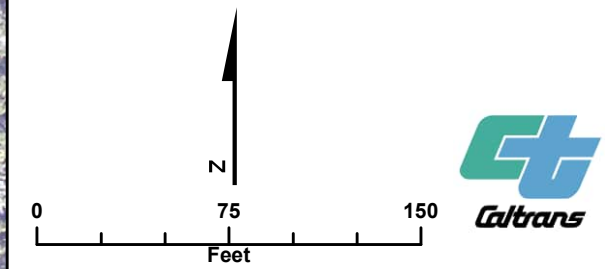


**LEGEND**

- Post Mile
- - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 40 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

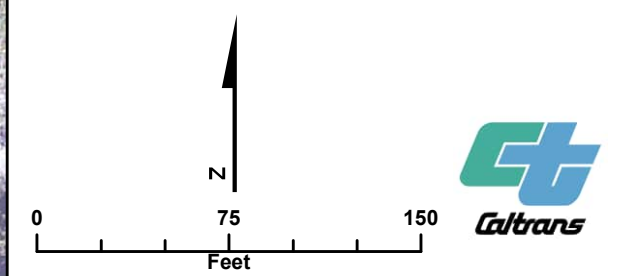


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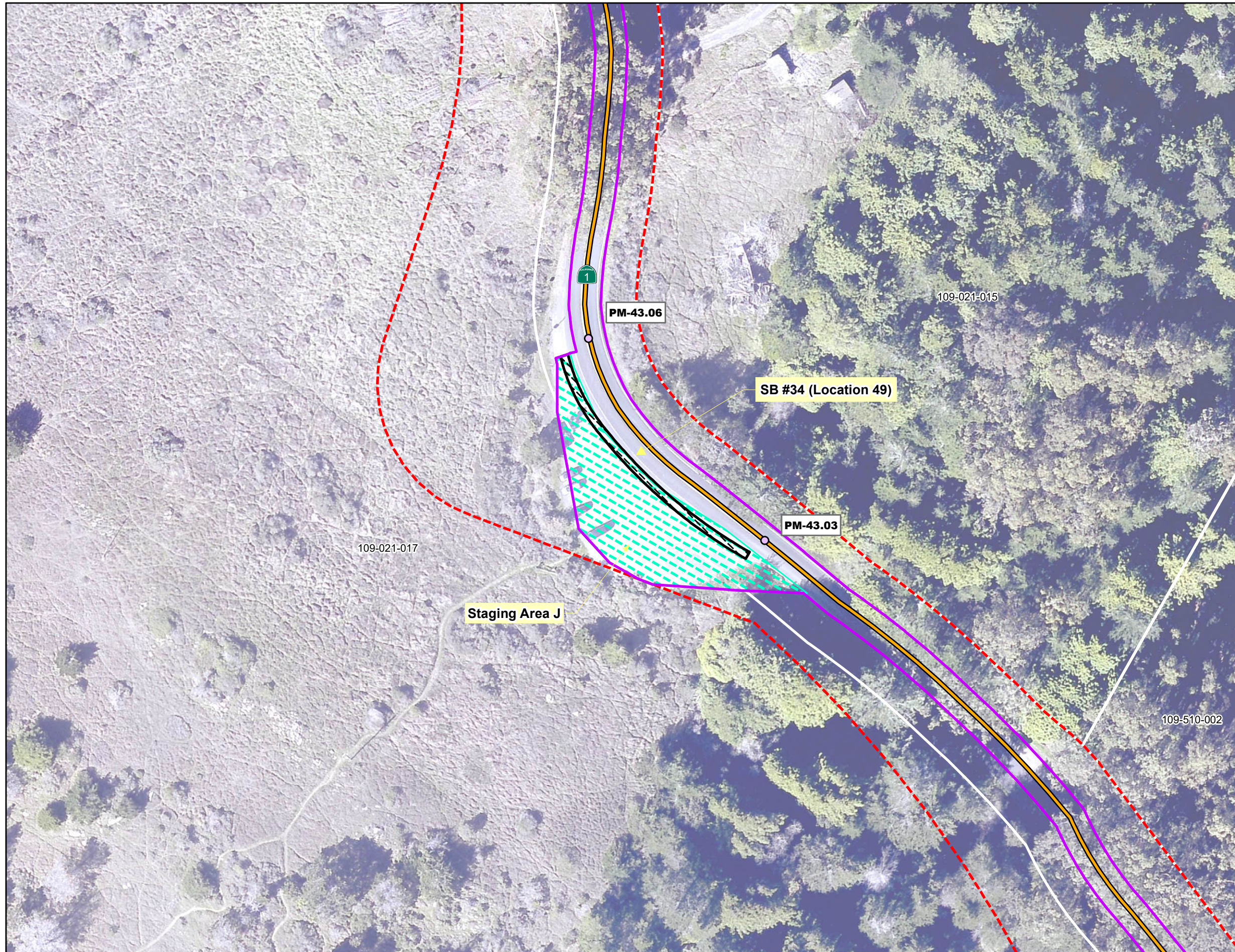
- Post Mile
- Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▭ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

**Disclaimer:**  
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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 41 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

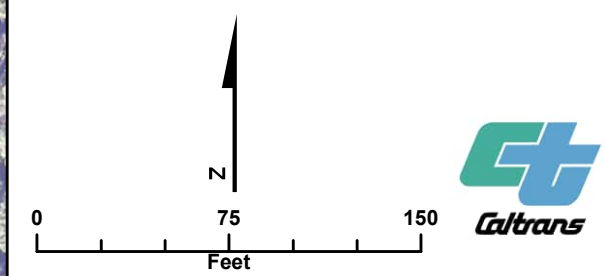


**LEGEND**

- Post Mile
- - - Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder
- ▨ Staging Area

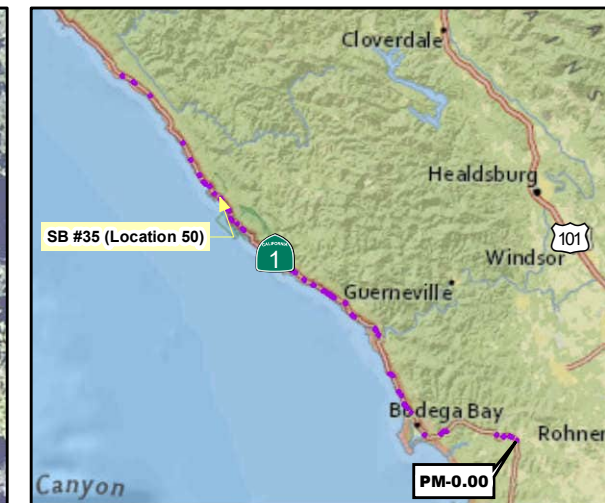
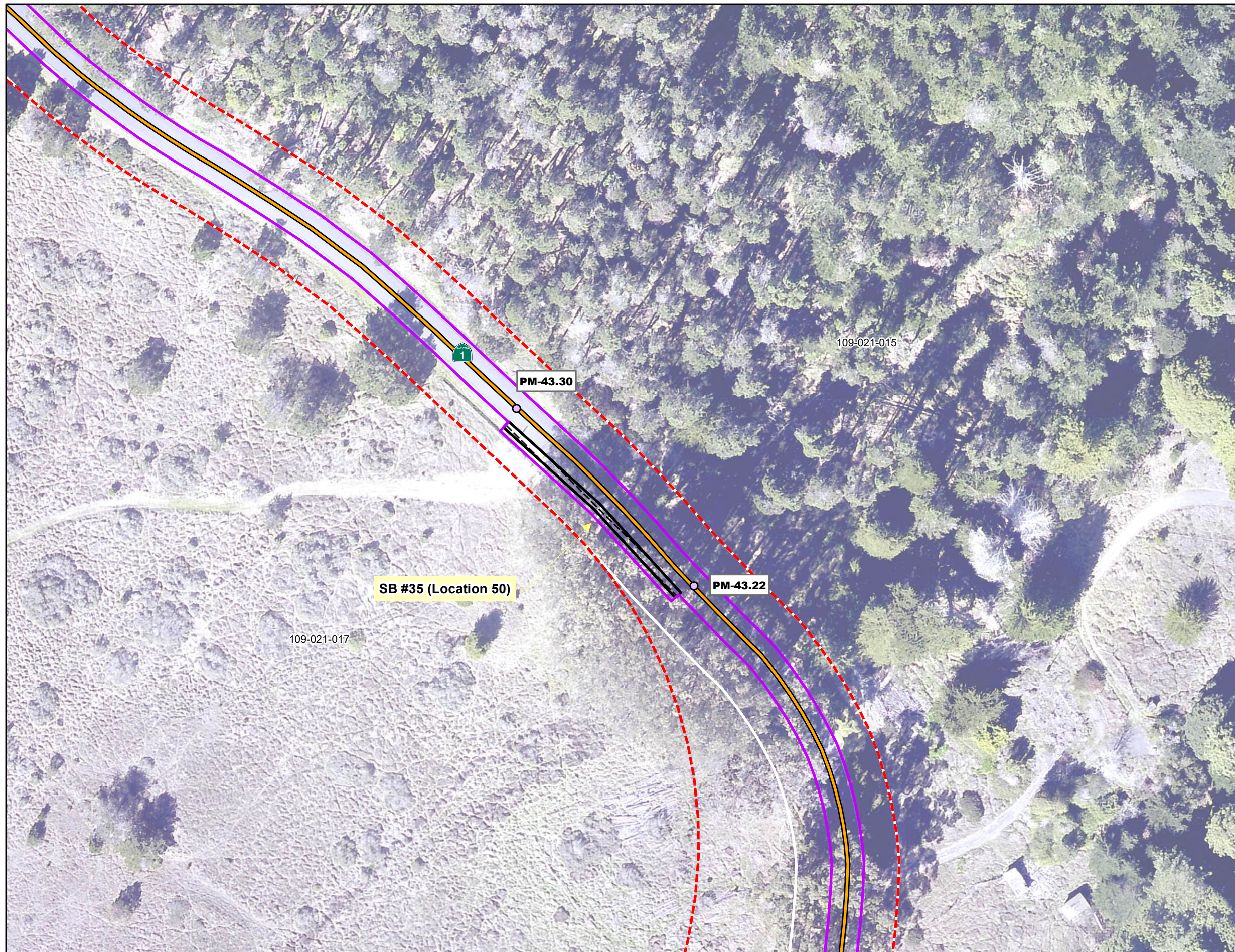
**Disclaimer:**  
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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 42 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



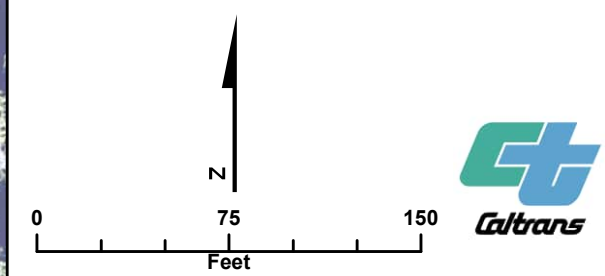


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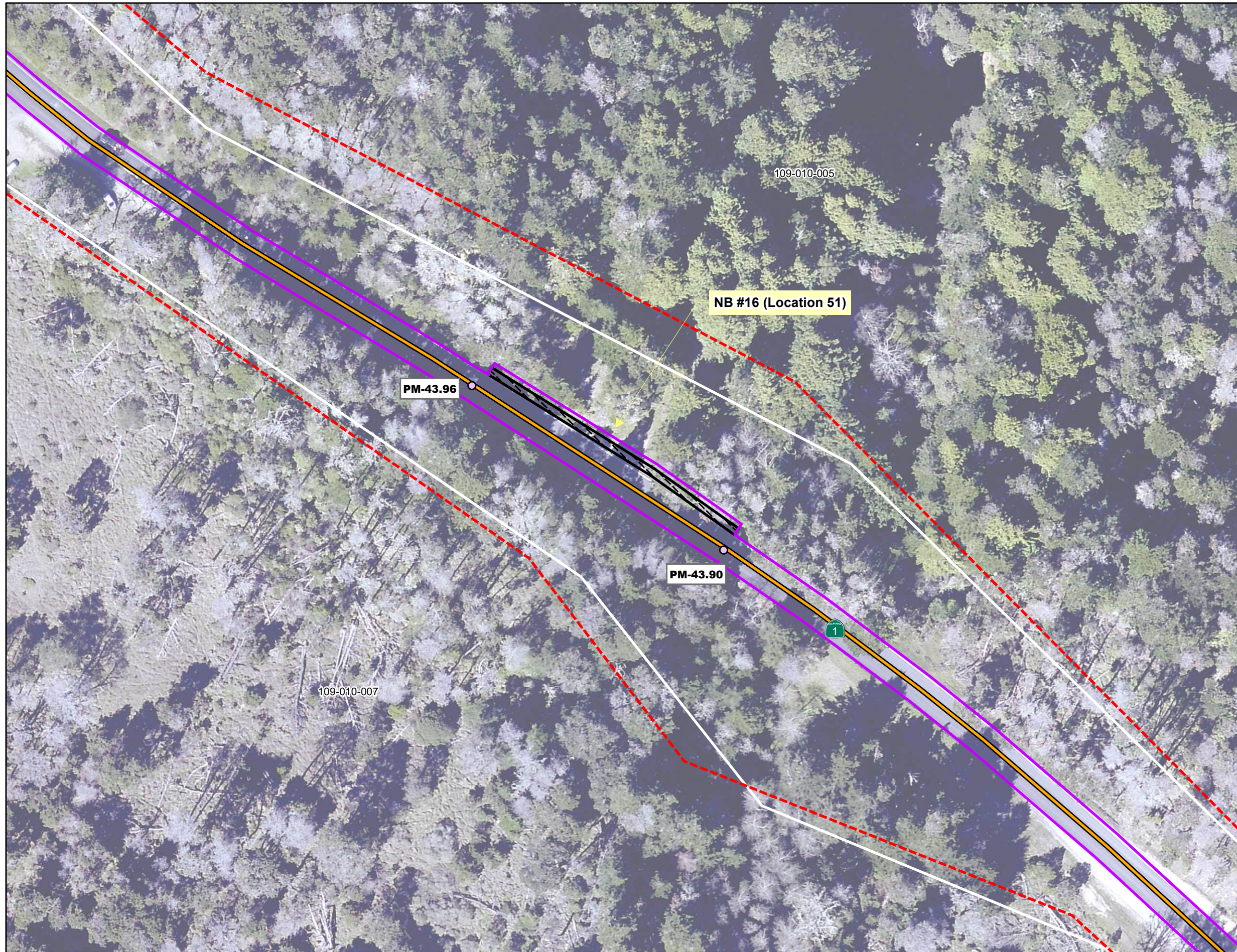
- Post Mile
- - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬▬▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 43 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

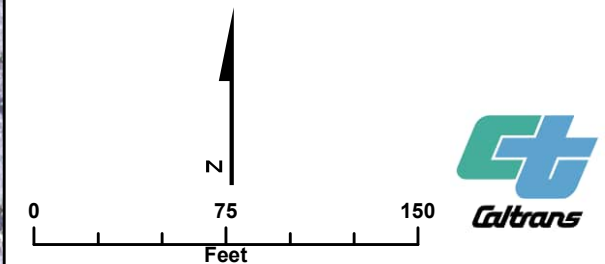


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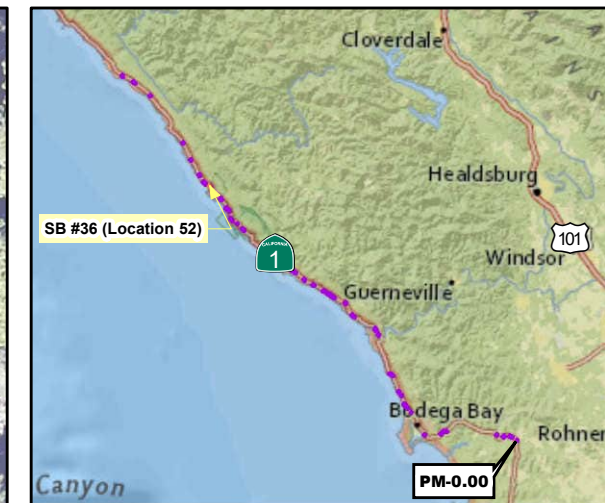
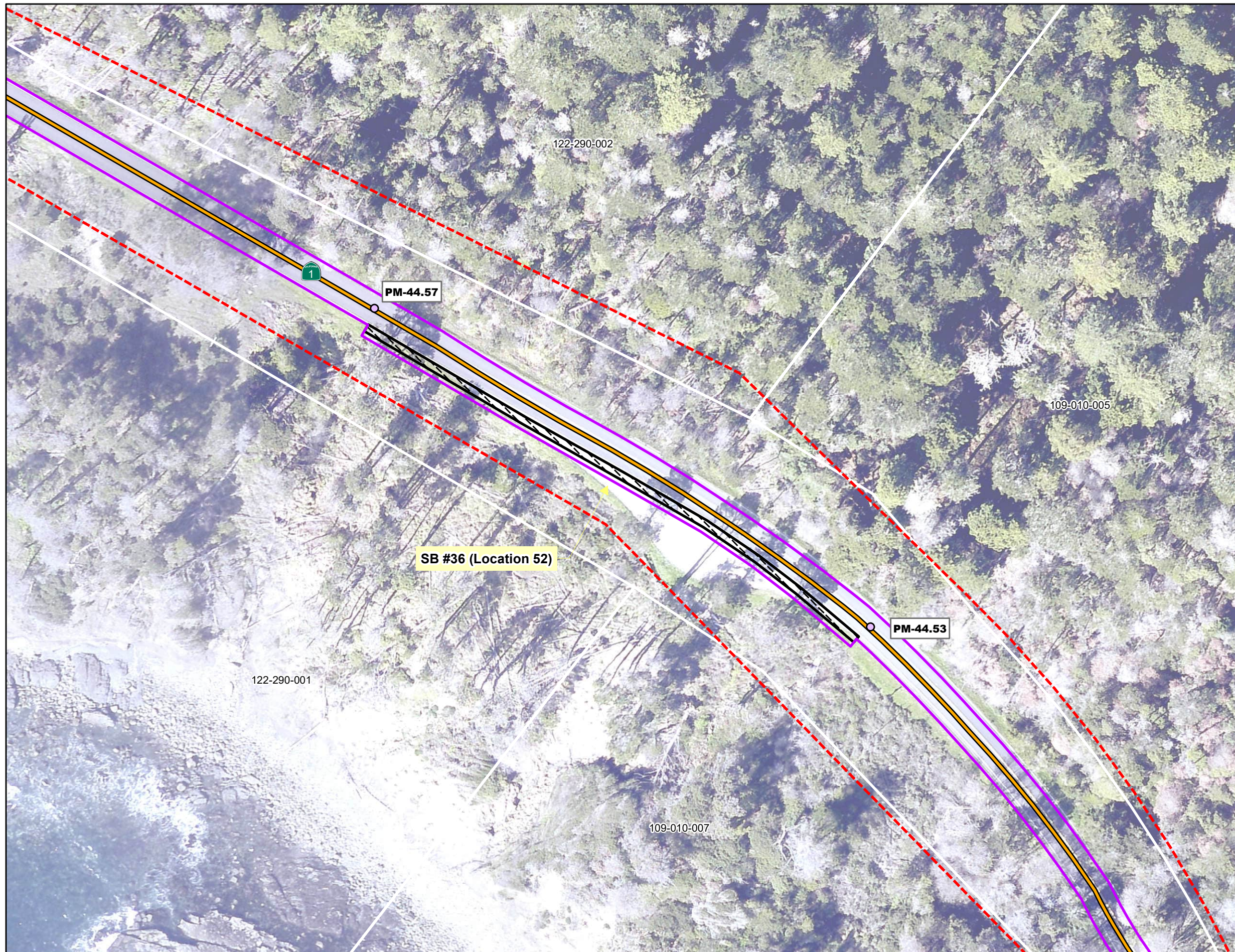
- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 44 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

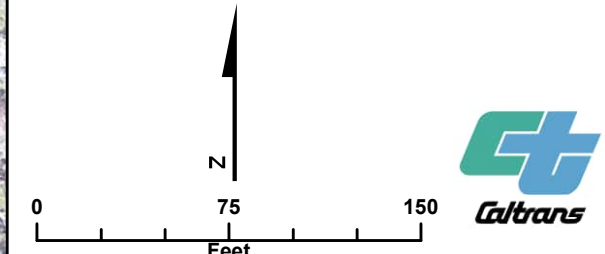


**LEGEND**

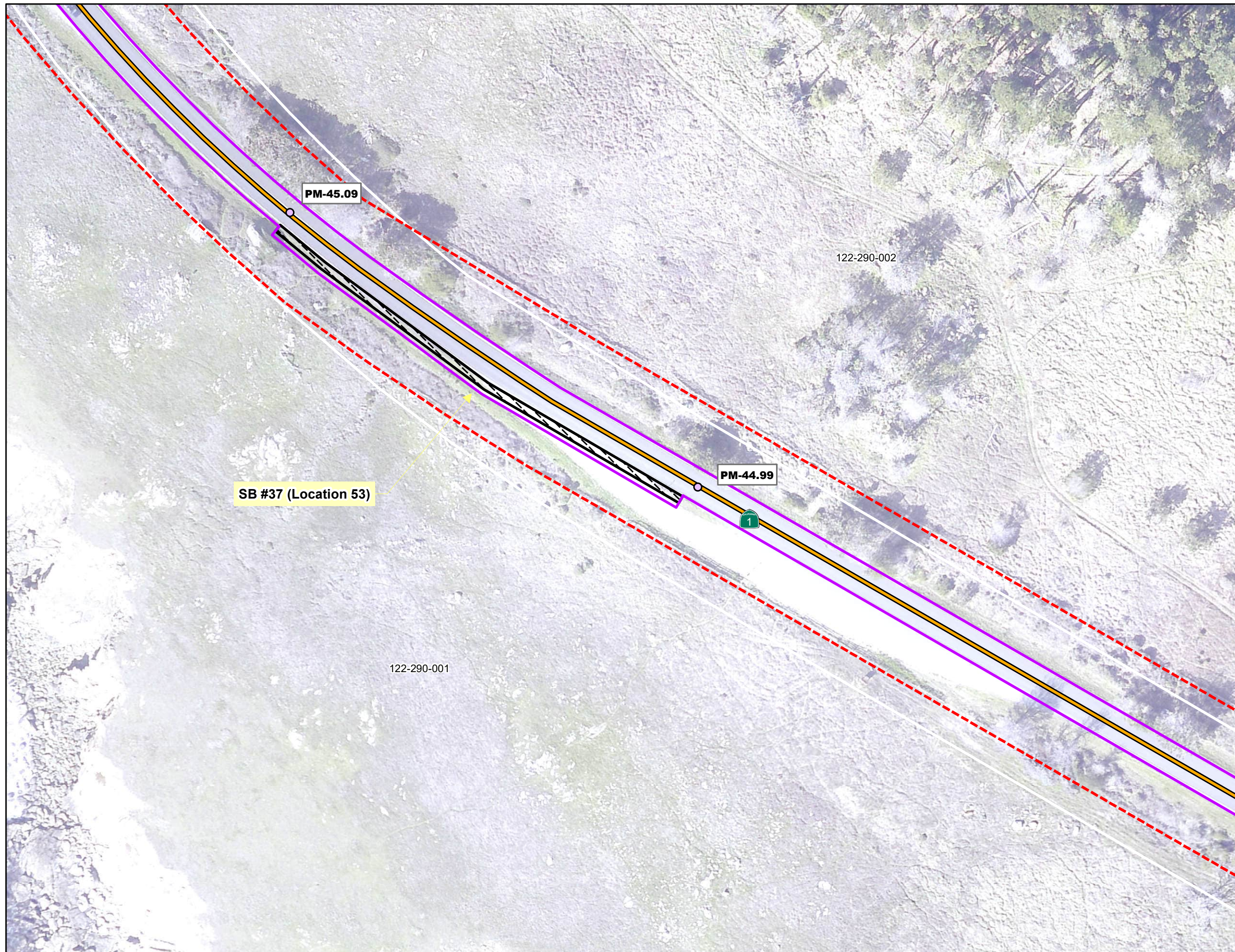
- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 45 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

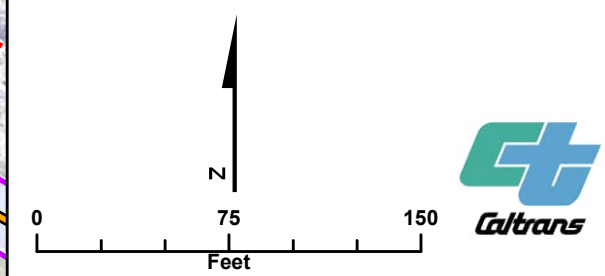


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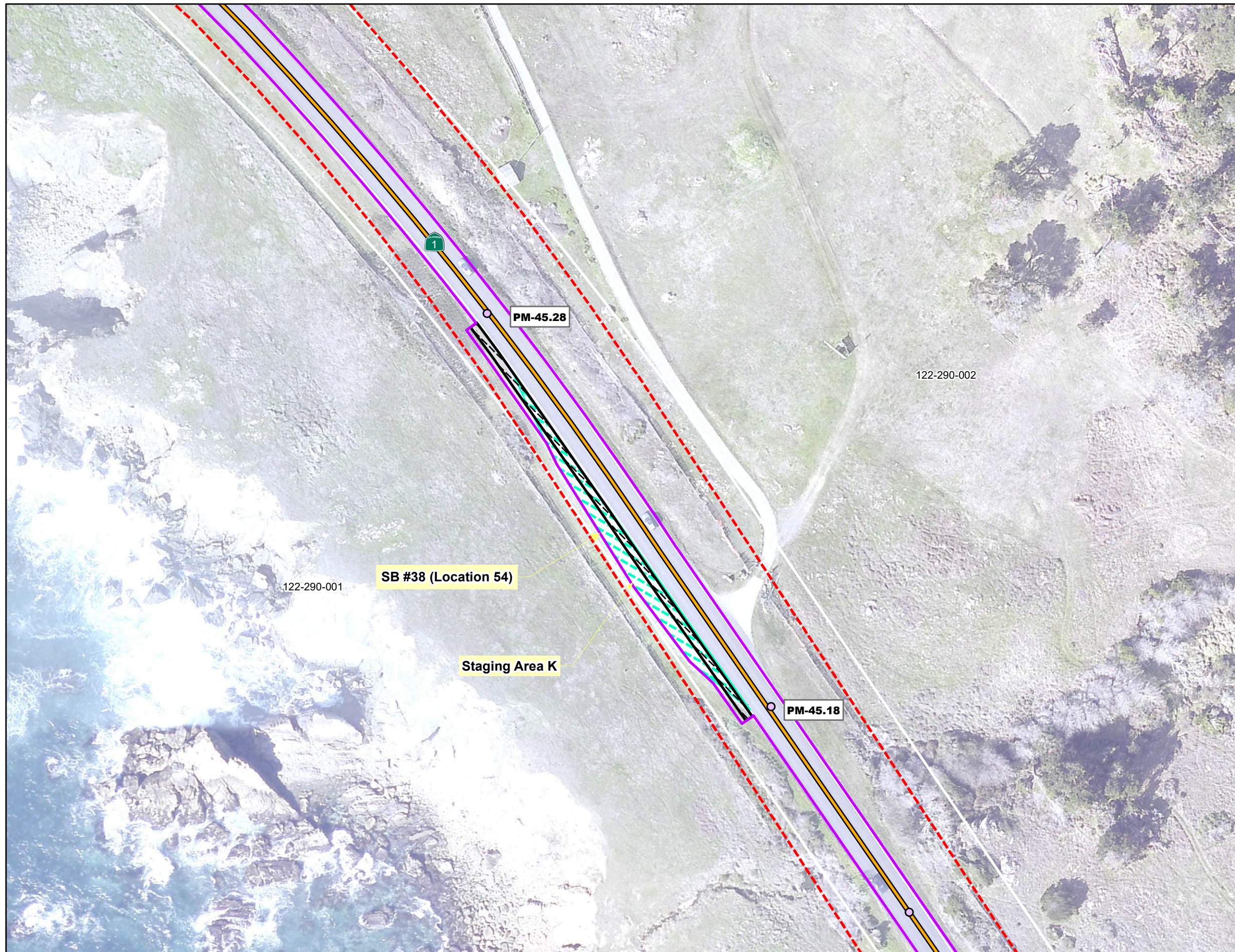
- Post Mile
- - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 46 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

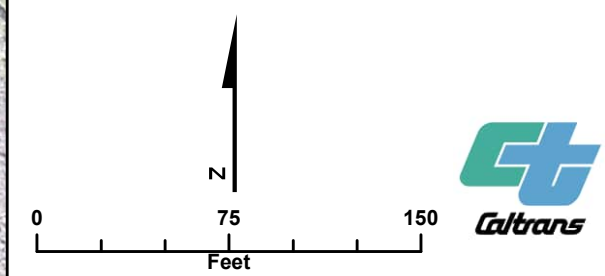


**LEGEND**

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder
- ▨ Staging Area

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 47 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

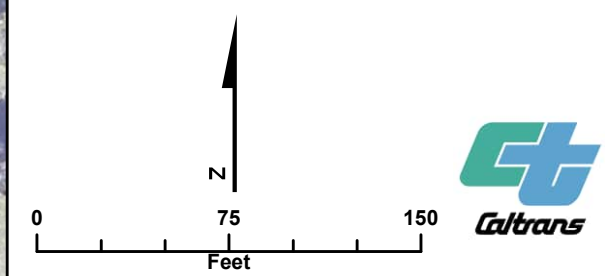


**LEGEND**

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬▬▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 48 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

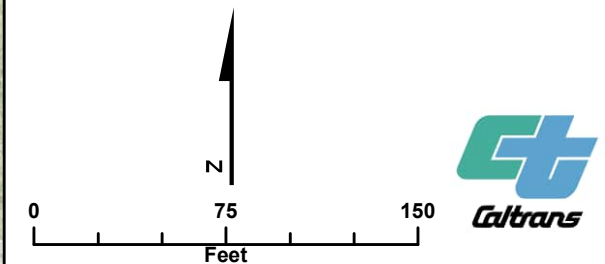


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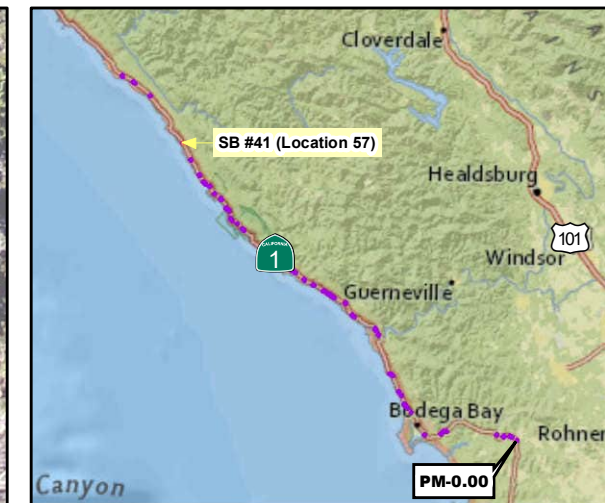
- Post Mile
- - - Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 49 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

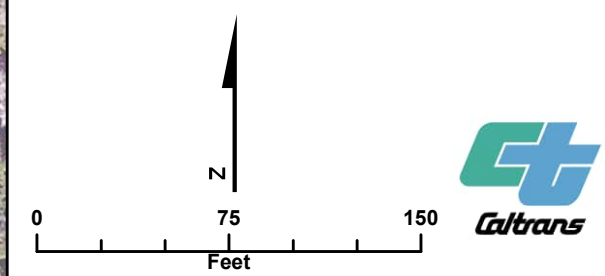


**LEGEND**

- Post Mile
- - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 50 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



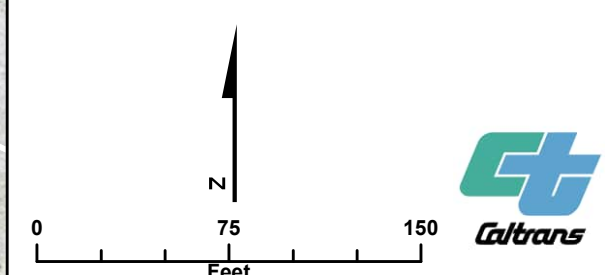


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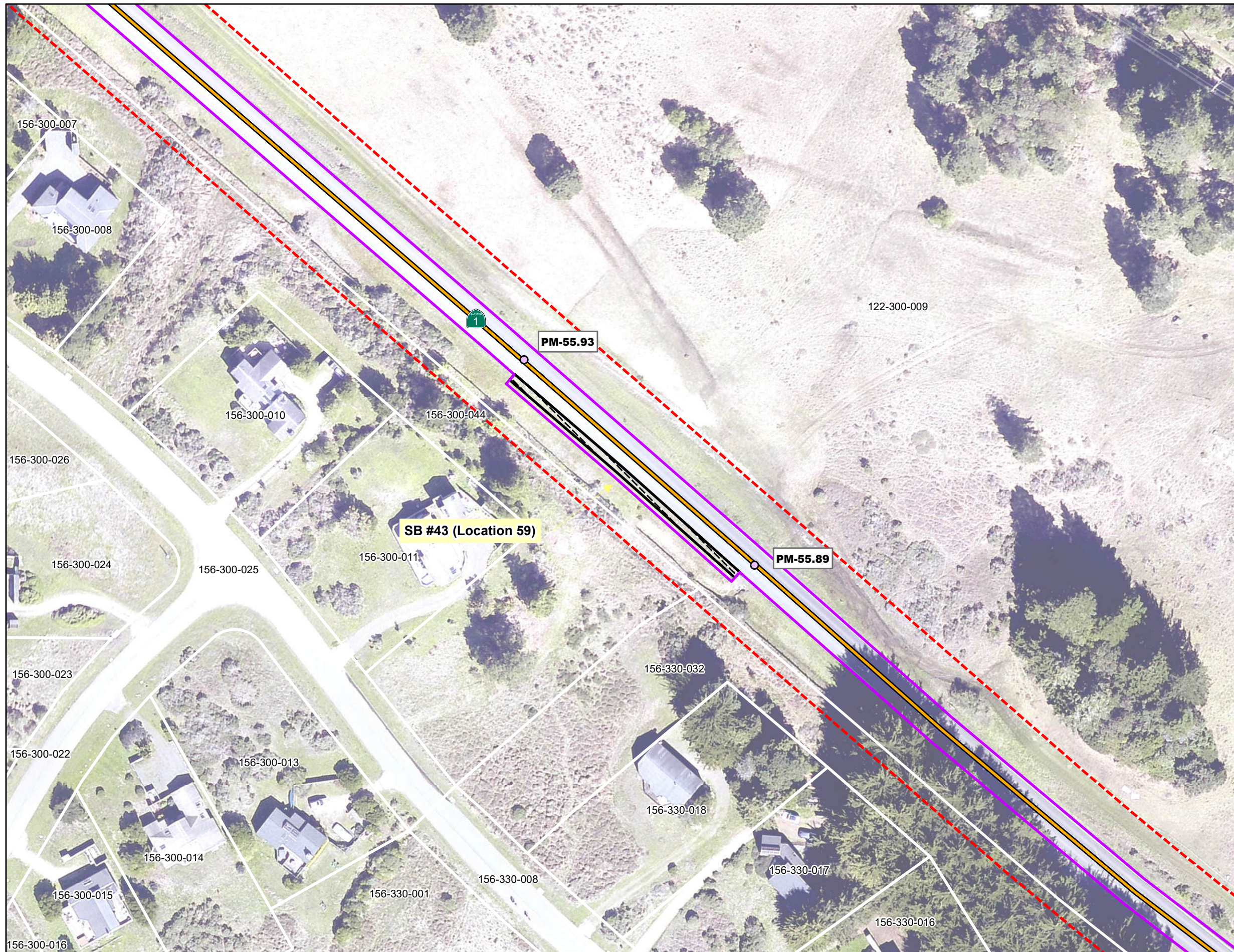
- Post Mile
- Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 51 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

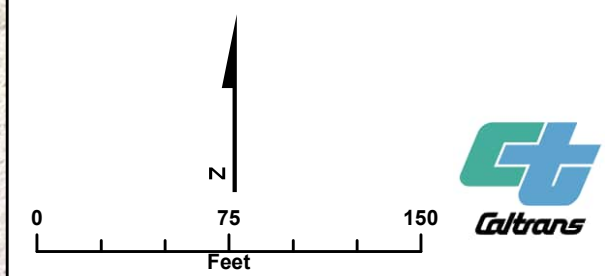


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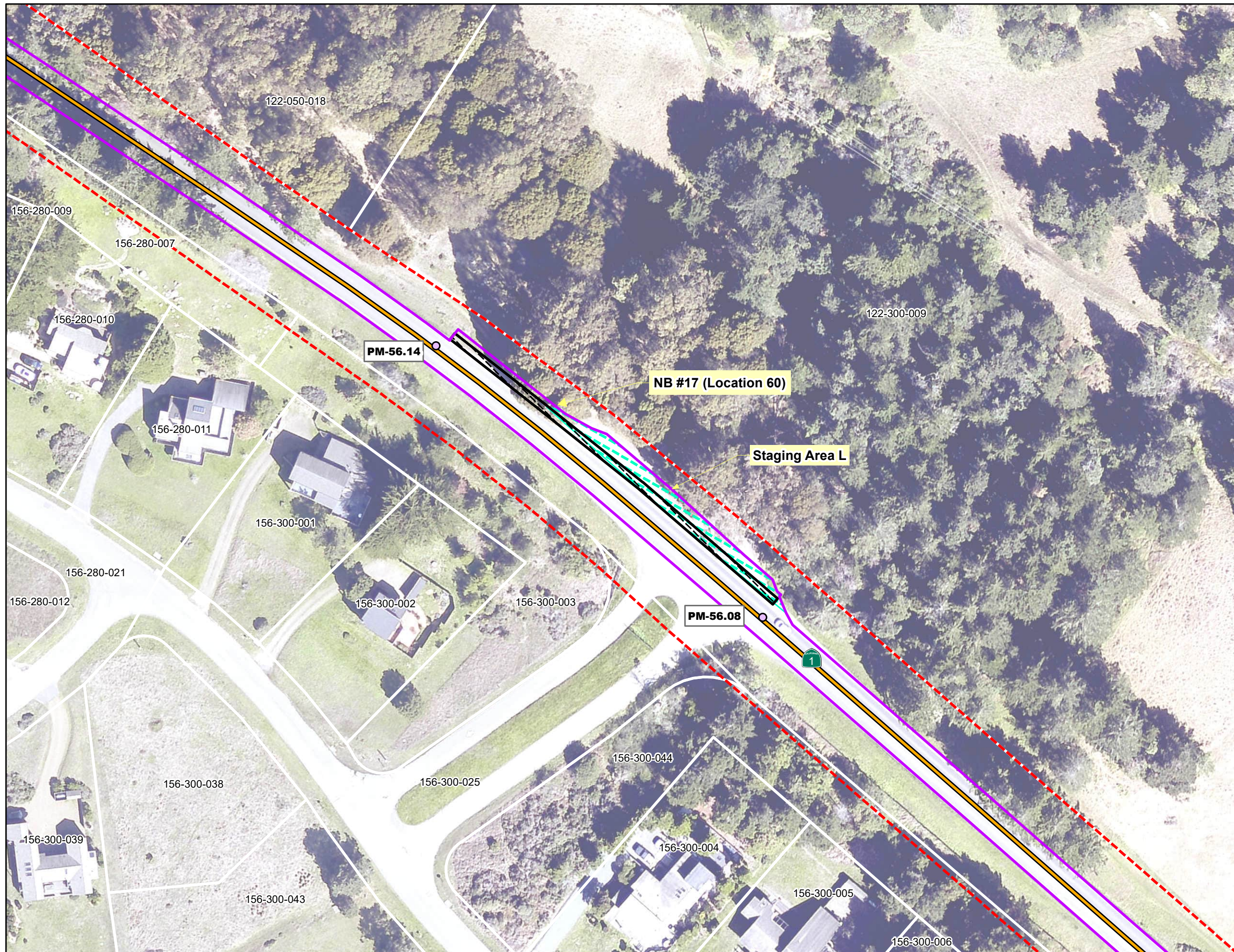
- Post Mile
- - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬▬▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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**Imagery Source:**  
 Sonoma County 2021



**Figure 1-3**  
**Map 52 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



**LEGEND**

- Post Mile
- - - Caltrans Right of Way
- Sonoma County Parcels
- ▭ Project Footprint
- ▬▬▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder
- ▨ Staging Area

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**Imagery Source:**  
 Sonoma County 2021

**Figure 1-3**  
**Map 53 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

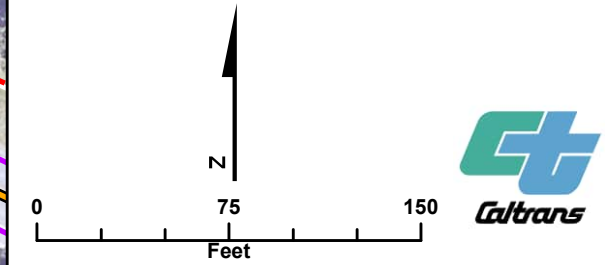


**LEGEND**

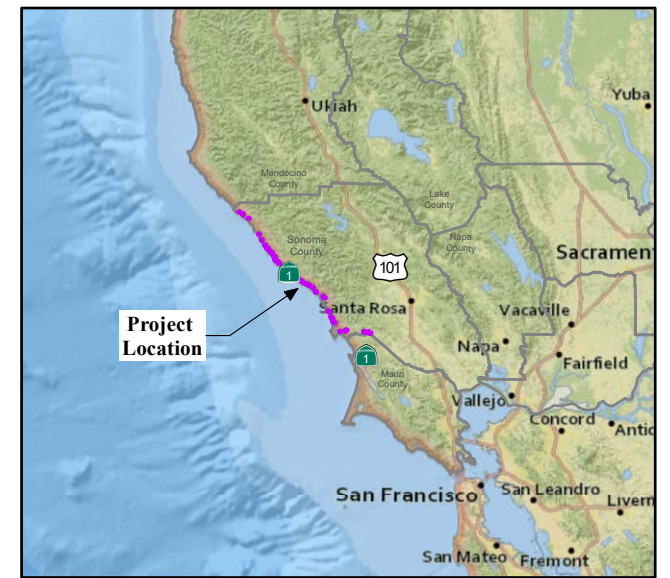
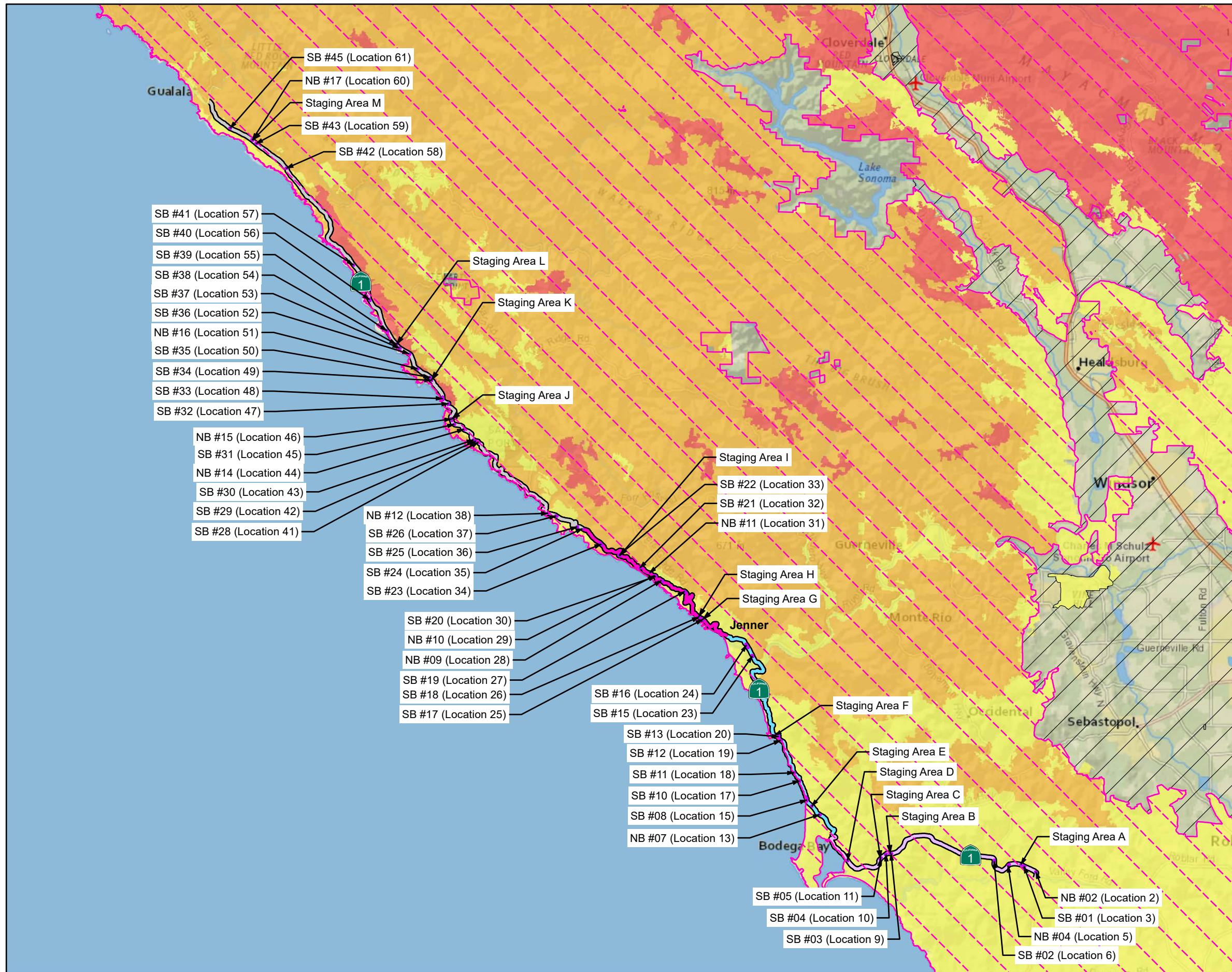
- Post Mile
- Caltrans Right of Way
- ▭ Sonoma County Parcels
- ▭ Project Footprint
- ▬ Install Centerline Rumble Strip (Segment 4)
- ▨ Widen Shoulder

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Imagery Source:  
 Sonoma County 2021

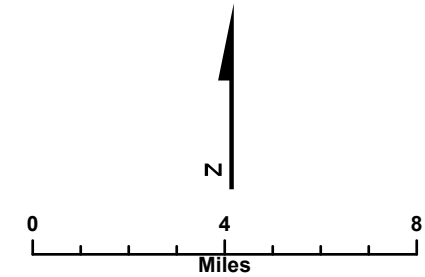


**Figure 1-3**  
**Map 54 of 54**  
**Project Components**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

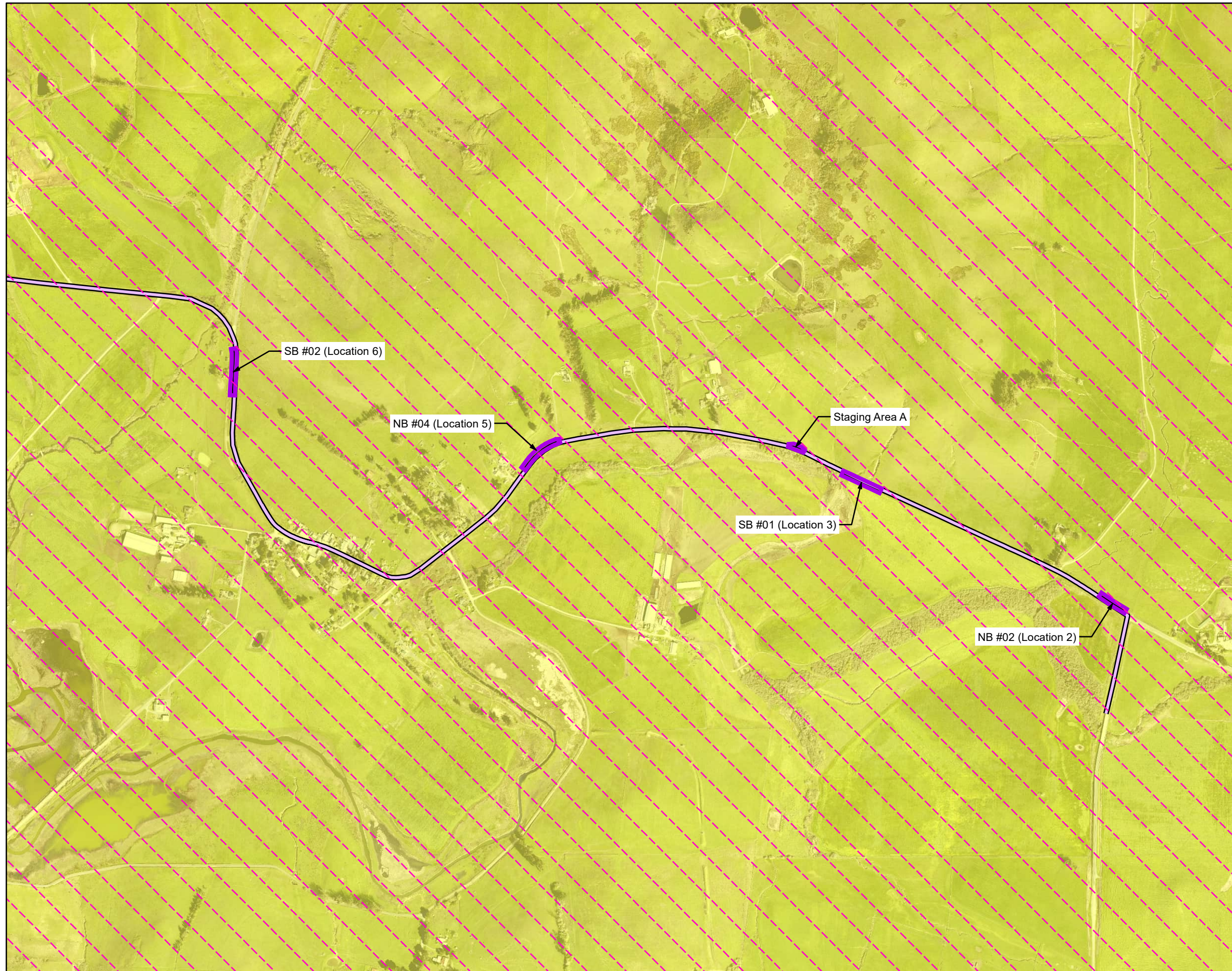


- Legend**
- Project Footprint
  - Project Sub Areas**
    - Sub Area 1
    - Sub Area 2
    - Sub Area 3
    - Sub Area 4  - Local Responsibility Area (LRA)
  - State Responsibility Area (SRA)
  - CDF Fire Hazard Severity Zones**
    - Moderate
    - High
    - Very High

Sources:  
CAL FIRE-FRAP



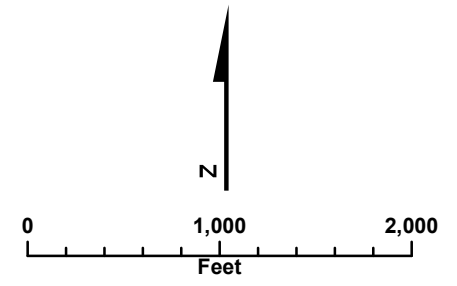
**FIGURE 3-1**  
**Map 01 of 15**  
**Fire Hazard Severity Zones**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



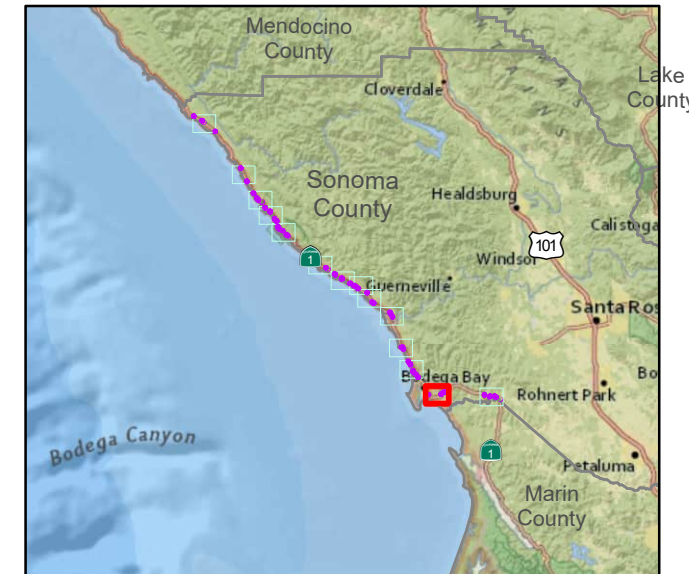
**Legend**

- Project Footprint
- Project Sub Areas**
- Sub Area 1
- State Responsibility Area (SRA)
- CDF Fire Hazard Severity Zones**
- Moderate






Sources:  
CAL FIRE-FRAP



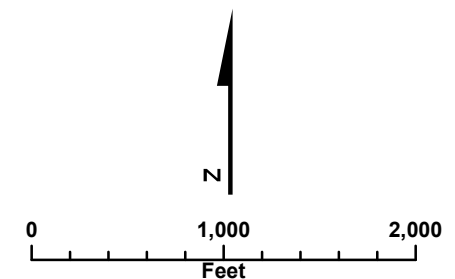
**FIGURE 3-1**  
**Map 02 of 15**  
**Fire Hazard Severity Zones**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



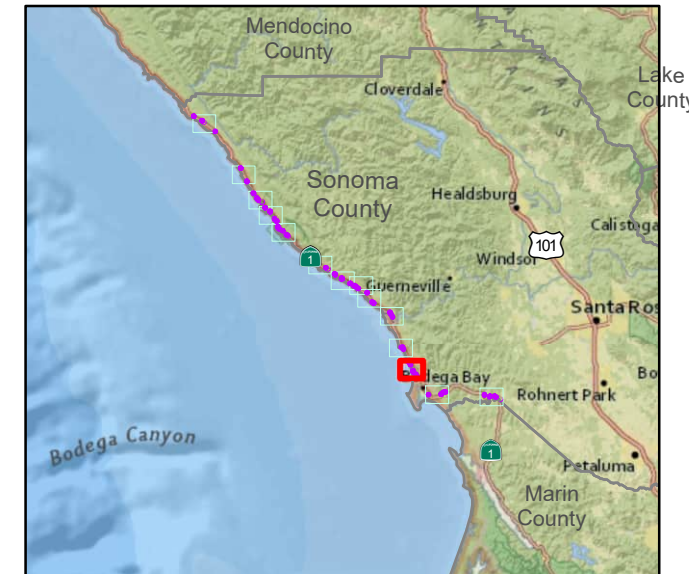
**Legend**

-  Project Footprint
-  Project Sub Areas
-  Sub Area 1
-  State Responsibility Area (SRA)
- CDF Fire Hazard Severity Zones**
-  Moderate






Sources:  
CAL FIRE-FRAP



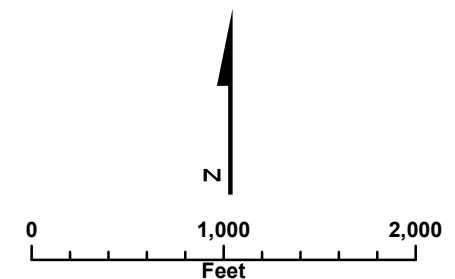
**FIGURE 3-1**  
**Map 03 of 15**  
**Fire Hazard Severity Zones**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



**Legend**

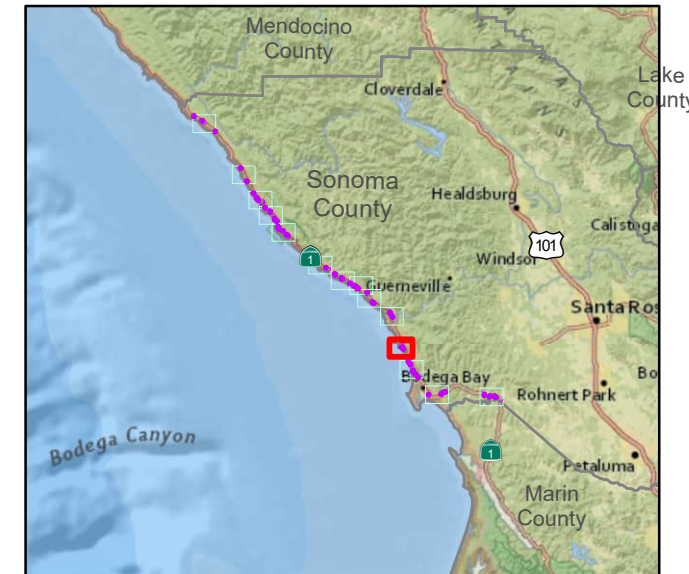
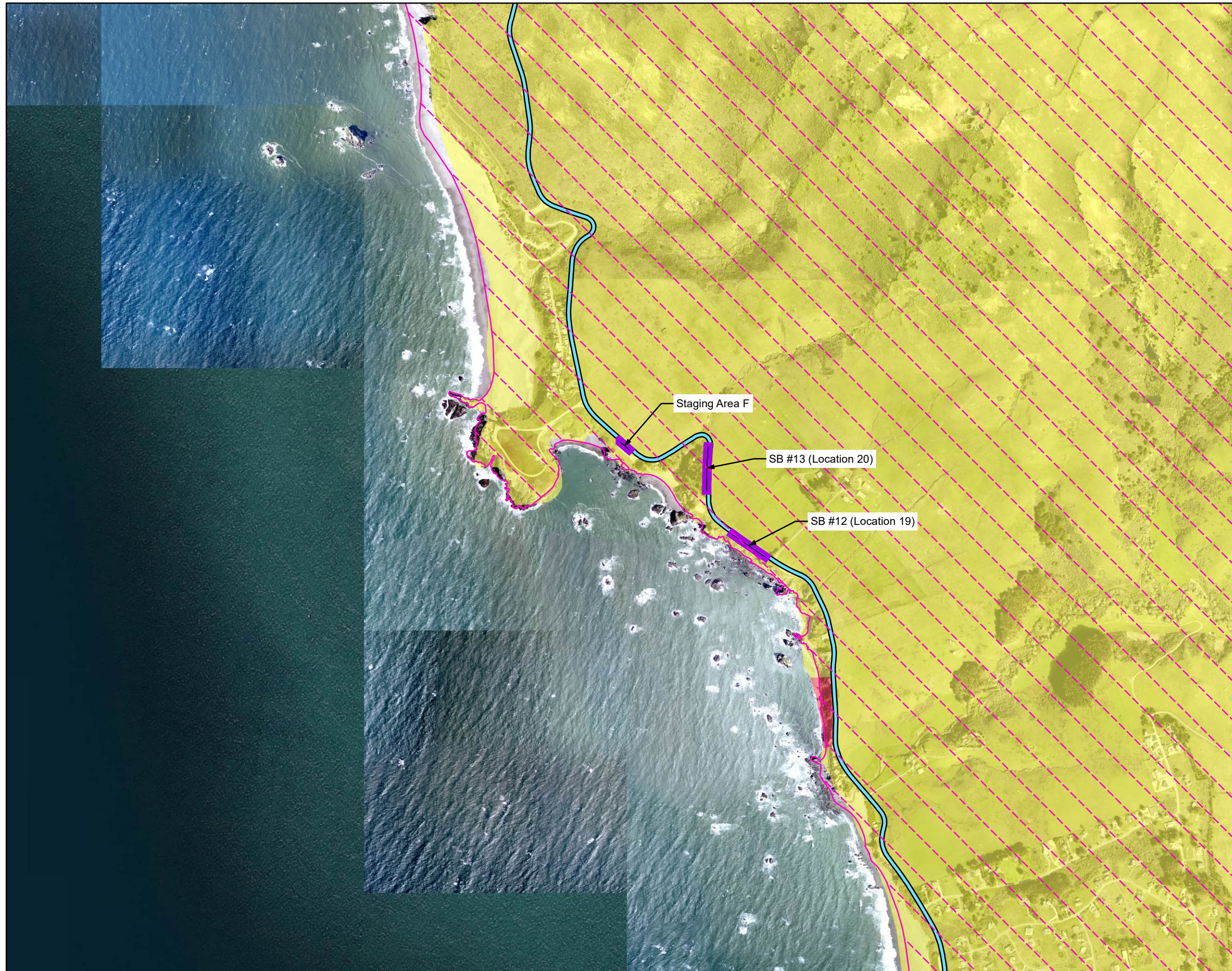
-  Project Footprint
-  Project Sub Areas
-  Sub Area 2
-  State Responsibility Area (SRA)
- CDF Fire Hazard Severity Zones**
-  Moderate

Sources:  
CAL FIRE-FRAP



**FIGURE 3-1**  
**Map 04 of 15**  
**Fire Hazard Severity Zones**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

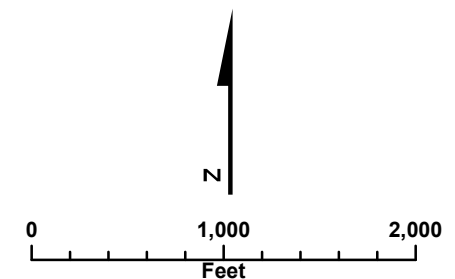




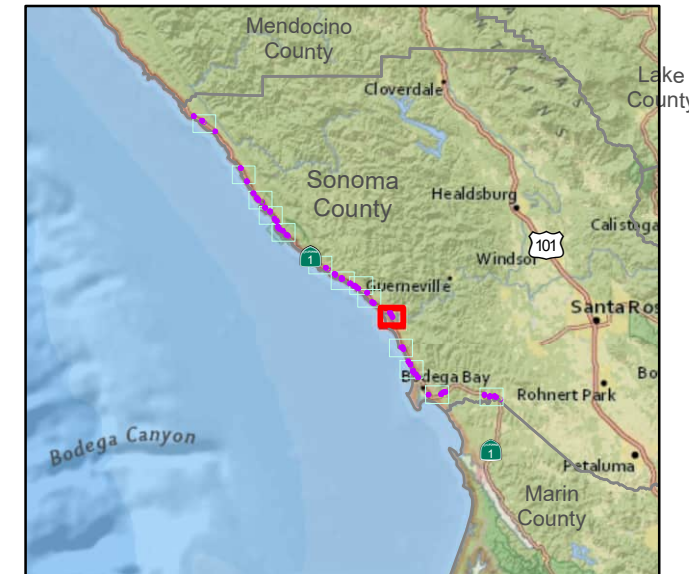
**Legend**

- Project Footprint
- Project Sub Areas**
- Sub Area 2
- State Responsibility Area (SRA)
- CDF Fire Hazard Severity Zones**
- Moderate
- Very High





Sources:  
CAL FIRE-FRAP



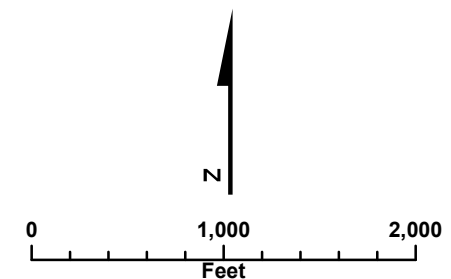
**FIGURE 3-1**  
**Map 05 of 15**  
**Fire Hazard Severity Zones**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



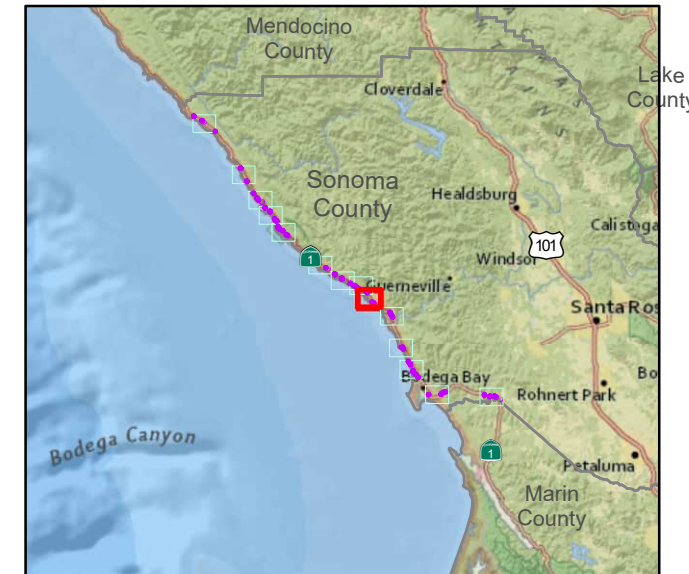
**Legend**

-  Project Footprint
- Project Sub Areas**
-  Sub Area 2
-  Sub Area 3
-  State Responsibility Area (SRA)
- CDF Fire Hazard Severity Zones**
-  Moderate
-  High
-  Very High

Sources:  
CAL FIRE-FRAP



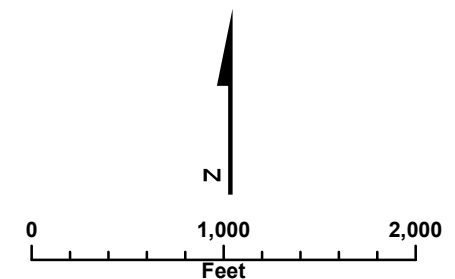
**FIGURE 3-1**  
**Map 06 of 15**  
**Fire Hazard Severity Zones**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



**Legend**

- Project Footprint
- Project Sub Areas**
- Sub Area 3
- State Responsibility Area (SRA)
- CDF Fire Hazard Severity Zones**
- Moderate
- High

Sources:  
CAL FIRE-FRAP



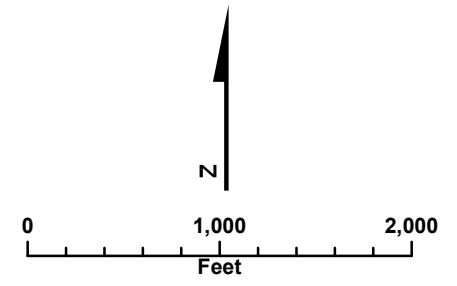
**FIGURE 3-1**  
**Map 07 of 15**  
**Fire Hazard Severity Zones**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



**Legend**

- Project Footprint
- Project Sub Areas**
- Sub Area 3
- State Responsibility Area (SRA)
- CDF Fire Hazard Severity Zones**
- Moderate
- High

Sources:  
CAL FIRE-FRAP



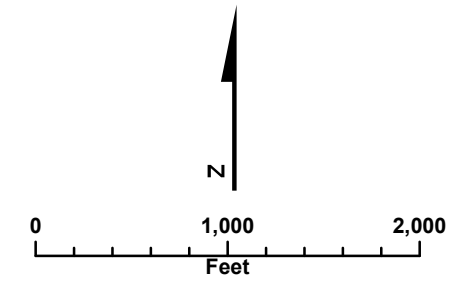
**FIGURE 3-1**  
**Map 08 of 15**  
**Fire Hazard Severity Zones**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



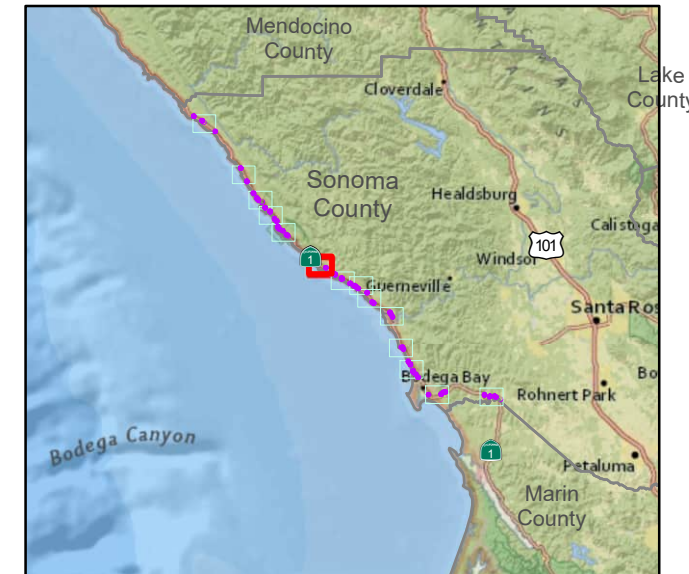
**Legend**

- Project Footprint
- Project Sub Areas
- State Responsibility Area (SRA)
- CDF Fire Hazard Severity Zones**
- Moderate
- High

Sources:  
CAL FIRE-FRAP



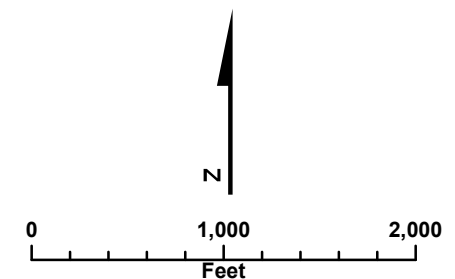
**FIGURE 3-1**  
**Map 09 of 15**  
**Fire Hazard Severity Zones**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



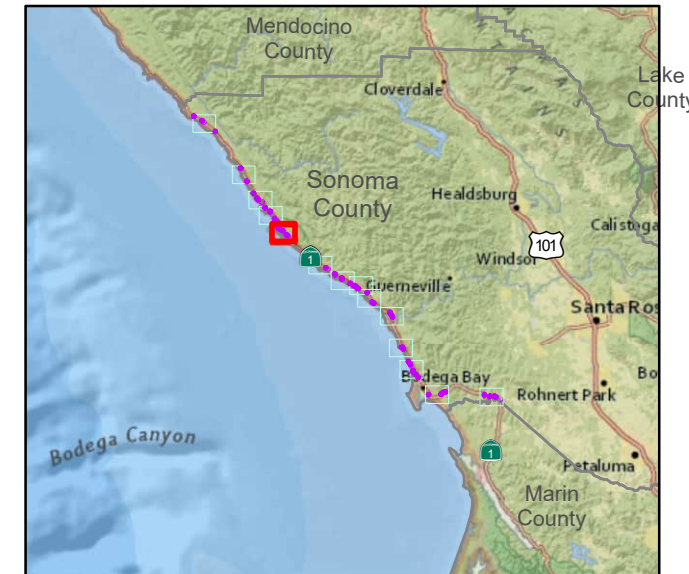
**Legend**

- Project Footprint
- Project Sub Areas**
- Sub Area 3
- Sub Area 4
- State Responsibility Area (SRA)
- CDF Fire Hazard Severity Zones**
- Moderate
- High
- Very High

Sources:  
CAL FIRE-FRAP



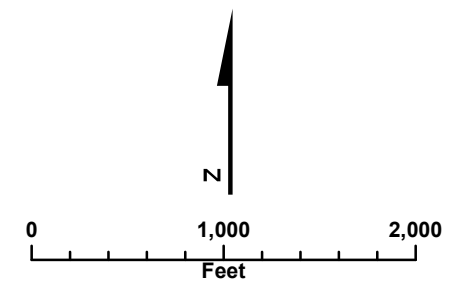
**FIGURE 3-1**  
**Map 10 of 15**  
**Fire Hazard Severity Zones**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



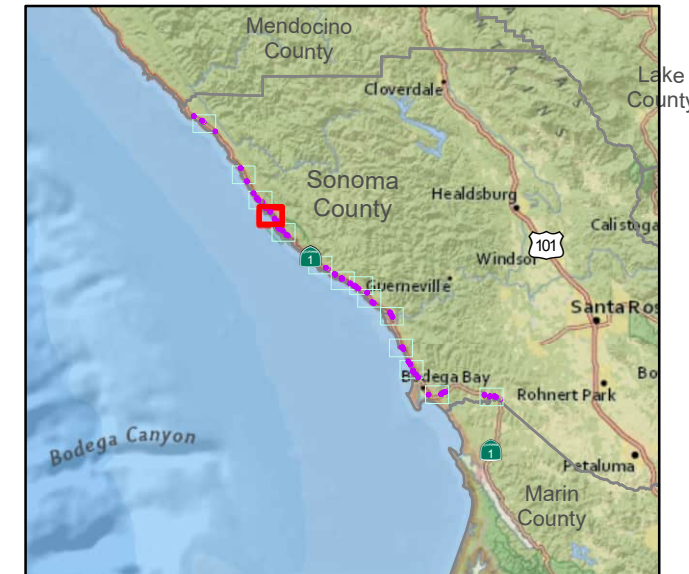
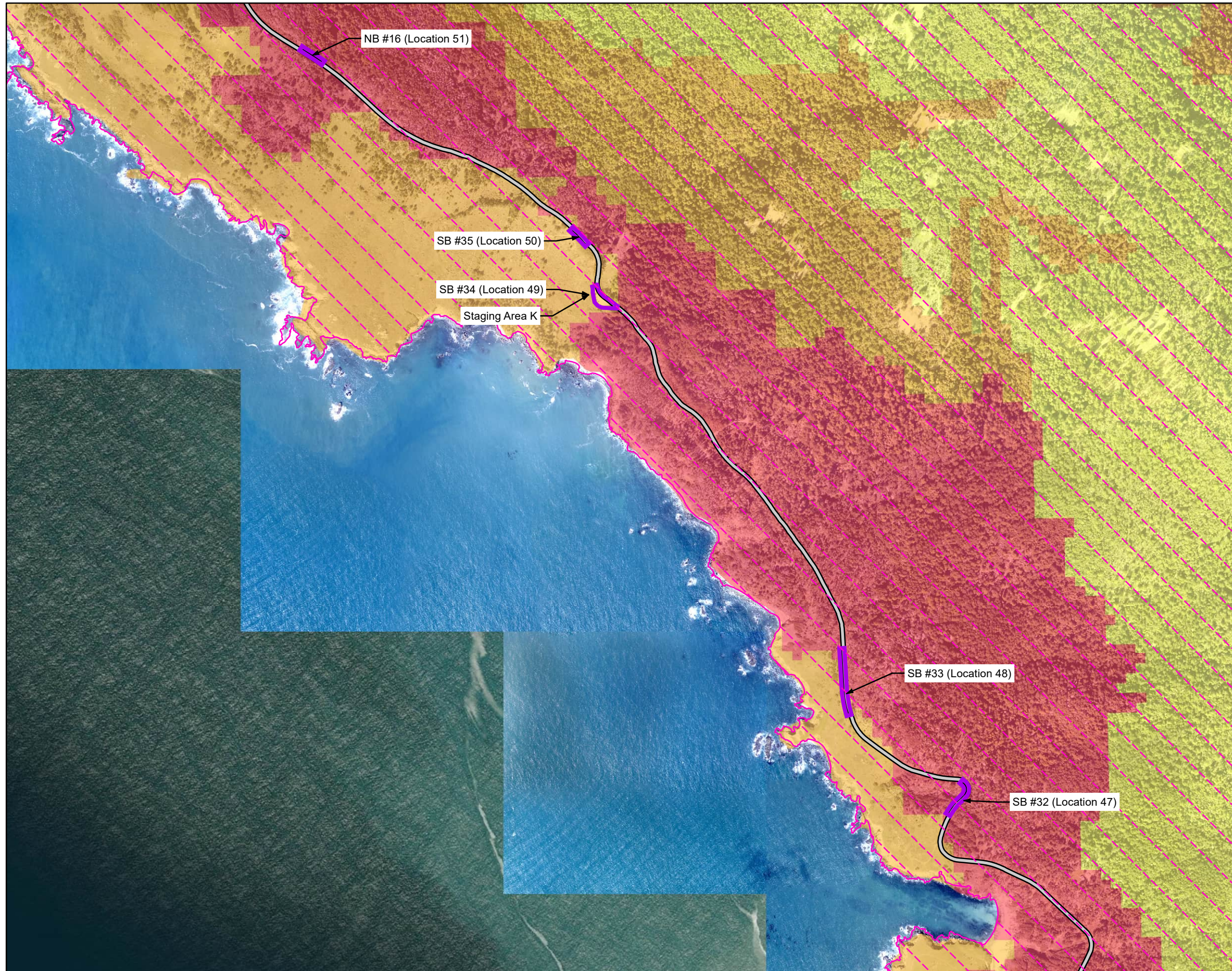
**Legend**

- Project Footprint
- Project Sub Areas**
- Sub Area 4
- State Responsibility Area (SRA)
- CDF Fire Hazard Severity Zones**
- Moderate
- High
- Very High

Sources:  
CAL FIRE-FRAP



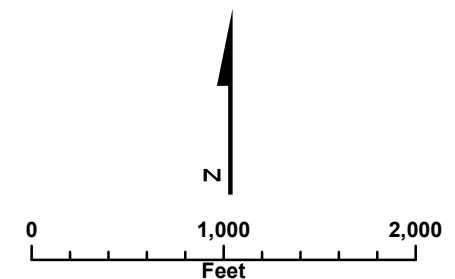
**FIGURE 3-1**  
**Map 11 of 15**  
**Fire Hazard Severity Zones**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



**Legend**

- Project Footprint
- Sub Area 4
- State Responsibility Area (SRA)
- CDF Fire Hazard Severity Zones**
- Moderate
- High
- Very High

Sources:  
CAL FIRE-FRAP







**FIGURE 3-1**  
**Map 12 of 15**  
**Fire Hazard Severity Zones**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California








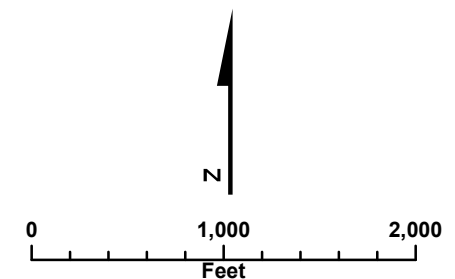
**Legend**

-  Project Footprint
-  Project Sub Areas
-  Sub Area 4
-  State Responsibility Area (SRA)

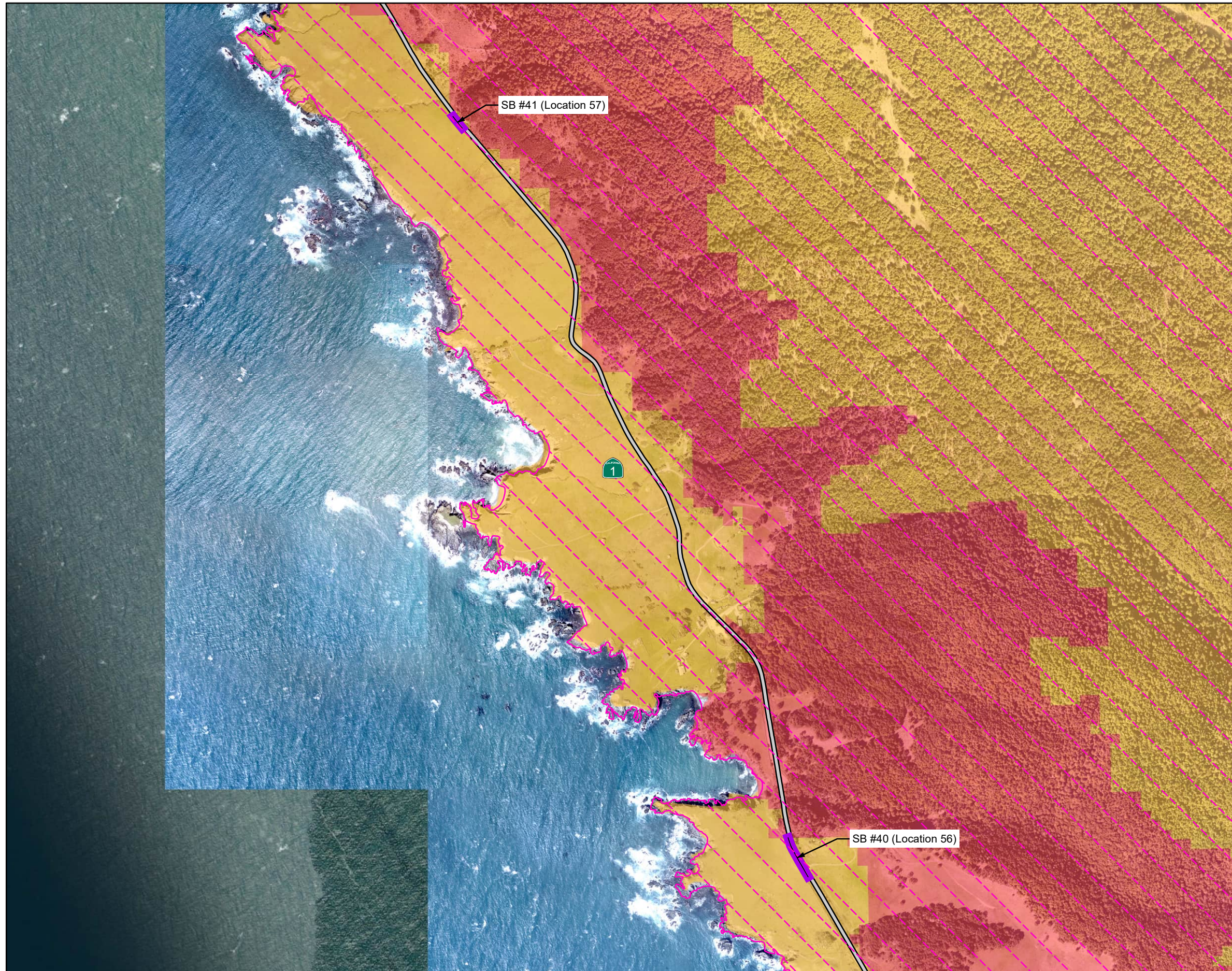
**CDF Fire Hazard Severity Zones**

-  Moderate
-  High
-  Very High






Sources:  
CAL FIRE-FRAP



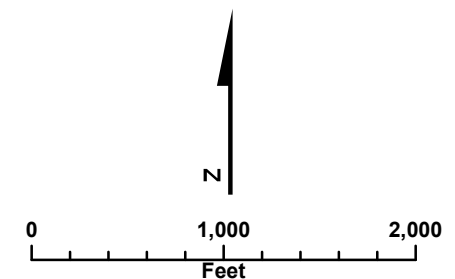
**FIGURE 3-1**  
**Map 13 of 15**  
**Fire Hazard Severity Zones**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



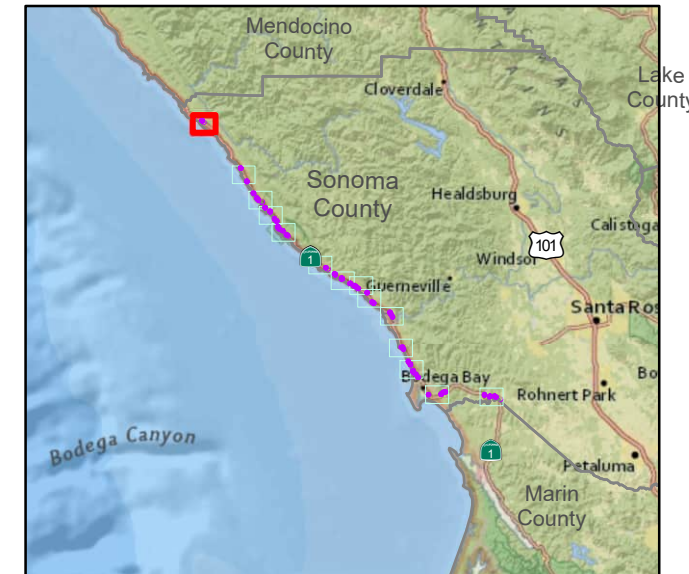
**Legend**

-  Project Footprint
-  Sub Area 4
-  State Responsibility Area (SRA)
- CDF Fire Hazard Severity Zones**
-  High
-  Very High






Sources:  
CAL FIRE-FRAP



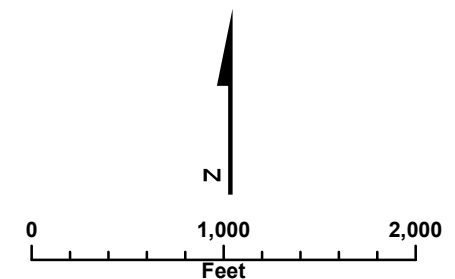
**FIGURE 3-1**  
**Map 14 of 15**  
**Fire Hazard Severity Zones**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California



**Legend**

-  Project Footprint
- Project Sub Areas**
-  Sub Area 4
-  State Responsibility Area (SRA)
- CDF Fire Hazard Severity Zones**
-  Moderate
-  High

Sources:  
CAL FIRE-FRAP



**FIGURE 3-1**  
**Map 15 of 15**  
**Fire Hazard Severity Zones**  
 State Route 1 Centerline Rumble Strip Project  
 EA 04-4G780, SON-1-0.00/58.58  
 Sonoma County, California

# **Appendix B** Summary of Project Features, and Avoidance and Minimization Measures

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## **Project Features**

- **PF-AES-1, Minimize Vegetation Impacts:** Minimize impacts to vegetation to the greatest extent possible. Vegetation to remain would be protected from construction-related activities by temporary fencing when vegetation is close to construction work or staging areas.
- **PF-AES-2, Reseeding Disturbed Areas:** Apply erosion control seeding and similar measures to all areas of disturbed soil.
- **PF-AQ-1, Dust Control Measures:** Implement dust control measures to minimize airborne dust and soil particles generated from construction-related activities, including watering or applying dust palliative to disturbed areas, preventing and promptly removing trackouts on SR 1 and other public roadways affected by construction traffic, and covering soils or construction materials or providing adequate freeboard (space from the top of the material to the top of the truck) during transport.
- **PF-AQ-2, Construction Vehicles and Equipment:** Maintain and tune the construction vehicles and equipment in accordance with manufacturer's specifications.
- **PF-AQ-3, Limit Idling:** Limit idling times either by shutting construction equipment off when not in use or reducing the maximum idling time to 5 minutes.
- **PF-BIO-1: Seasonal Avoidance.** The Project will develop temporary BMPs in compliance with Standard Specification 13-3.01C(3) and develop and deploy appropriate BMPs consistent with the Rain Event Action Plan at least 48 hours in advance of a forecasted storm that has a 50% probability of rainfall within 72 hours.
- **PF-BIO-2: Worker Environmental Awareness Training.** Prior to ground-disturbing activities, the Project Biologist will conduct an education program for all construction personnel. At a minimum, the training will include a description

of special-status species, migratory birds, and their habitats, how the species might be encountered within the Project area, an explanation of the status of these species and protection under the federal and state regulations, the measures to be implemented to conserve listed species and their habitats as they relate to the work site, boundaries within which construction may occur, and how to best avoid the incidental take of listed species. The field meeting will include topics on species identification, life history, descriptions, and habitat requirements during various life stages. Emphasis will be placed on the importance of the habitat and life stage requirements within the context of Project maps showing areas where PFs/AMMs are to be implemented. The program will include an explanation of applicable federal and state laws protecting endangered species as well as the importance of compliance with Caltrans and various resource agency conditions.

- **PF-BIO-3: Environmentally Sensitive Area Fencing.** Before starting construction, environmentally sensitive area (ESAs) (defined as areas containing sensitive habitats adjacent to or within construction work areas for which physical disturbance is not allowed) will be clearly delineated as needed using high visibility fencing. The ESA fencing will remain in place at each location until work at that location is complete and will prevent construction equipment or personnel from entering sensitive habitat areas. The ESA fencing also serves to delineate the Project footprint in which all construction activity is to occur. The final Project plans will depict the locations where ESA fencing will be installed and how it will be assembled/constructed. The special provisions in the bid solicitation package will clearly describe acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within ESAs. The ESA fencing will be removed at each location as necessary.
- **PF-BIO-4: Wildlife Exclusion Fencing.** Before starting construction, at the discretion of the Project Biologist, wildlife exclusion fencing (WEF) may be installed along the Project footprint perimeter in the areas where wildlife could enter the Project footprint. The final Project plans will depict the locations where WEF will be installed, and how it will be assembled/constructed. The special provisions in the bid solicitation package will clearly describe acceptable WEF fencing material and proper WEF installation and maintenance. The WEF will remain in place at each location until work at that location is complete and will be regularly inspected for stranded animals and fully maintained daily. The WEF will be removed following completion of construction activities.

- **PF-BIO-5: Stormwater Best Management Practices.** In accordance with Regional Water Quality Control Board requirements, a Stormwater Pollution Prevention Plan will be developed and erosion control BMPs implemented to minimize wind- or water-related erosion. The Caltrans Construction Site BMP Manual (Caltrans 2017) provides guidance for the inclusion of provisions in all construction contracts to protect sensitive areas and prevent and minimize stormwater and non-stormwater discharges. At a minimum, protective measures will include the following:
  - a. Prohibiting discharge of pollutants from vehicle and equipment cleaning into storm drains or watercourses.
  - b. Servicing vehicles and construction equipment, including fueling, cleaning, and maintenance at least 50 feet from aquatic habitat, unless separated by topographic or engineered drainage barrier.
  - c. Collecting and disposing of concrete wastes and water from curing operations in appropriate washouts, located at least 50 feet from watercourses.
  - d. Maintaining spill containment kits onsite at all times during construction operations and/or staging or fueling of equipment.
  - e. Using water trucks and dust palliatives to control dust in unvegetated areas and covering temporary stockpiles when weather conditions require.
  - f. Installing coir rolls or straw wattles along or at the base of slopes during construction to capture sediment. To prevent wildlife from becoming entangled or trapped in erosion control materials, plastic monofilament netting such as erosion control matting or similar material will not be used. Acceptable substitutes would include coconut coir matting or tackifying hydroseeding compounds.
  - g. Protecting graded areas from erosion using a combination of silt fences, fiber rolls along toes of slopes or along edges of designated staging areas, and erosion control netting (jute or coir) as appropriate on sloped areas.
  - h. Establishing permanent erosion control measures such as bio-filtration strips and swales to receive storm water discharges from the highway or other impervious surfaces to the maximum extent practicable.

- **PF-BIO-6: Construction Site Management Practices.** The following site restrictions will be implemented to avoid or minimize potential effects on listed species and their habitats:
  - a. Enforcing a speed limit of 15 miles per hour in the Project footprint in unpaved and paved areas to reduce dust and excessive soil disturbance.
  - b. Locating construction access, staging, storage, and parking areas within the Project footprint outside any designated ESA. Access routes, staging and storage areas, and contractor parking will be limited to the minimum necessary to construct the proposed Project. Routes and boundaries of roadwork will be clearly marked before initiating construction or grading.
  - c. Certifying, to the maximum extent practicable, borrow material is nontoxic and weed-free.
  - d. Enclosing food and food-related trash items in sealed trash containers and removing them from the site at the end of each day.
  - e. Prohibiting pets from entering the Project footprint during construction.
  - f. Prohibiting firearms within the Project site, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.
  - g. Maintaining equipment to prevent the leakage of vehicle fluids such as gasoline, oils, or solvents, and developing a Spill Response Plan. Hazardous materials such as fuels, oils, and solvents will be stored in sealable containers in a designated location that is at least 50 feet from aquatic habitats.
  
- **PF-BIO-7: Avoidance of Entrapment.** During construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day using plywood or similar materials or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Pipes, culverts, or similar structures stored in the BSA overnight will be inspected before they are subsequently moved, capped, or buried.
  
- **PF-BIO-8: Vegetation Removal.** Vegetation that is growing in locations where shoulder widening will be placed will be cleared. Vegetation will be cleared only

where necessary and will be cut above soil level, except in areas that will be permanently impacted or excavated. This will allow plants that reproduce vegetatively to resprout after construction. Clearing and grubbing of woody vegetation will occur by hand or using construction equipment such as mowers, backhoes, and excavators. If clearing and grubbing occurs between February 1 and September 30, the Project Biologist will survey for nesting birds within the areas to be disturbed (including a perimeter buffer of 50 feet for passerines/migratory birds and 300 feet for raptors) before clearing activities begin. All nest avoidance requirements of the Migratory Bird Treaty Act and CDFW Code will be observed, such as establishing appropriate protection buffers around active nests until young have fledged. Cleared vegetation will be removed from the Project footprint to prevent attracting animals to the Project footprint.

- **PF-BIO-9: Pre-construction Nesting Bird Surveys and Nest Avoidance.** During the nesting season (February 1 through September 30), pre-construction surveys for nesting birds will be conducted by the Project Biologist no more than 72 hours prior to the start of construction activities. If work is to occur within 300 feet of active raptor nests or 50 feet of active non-game bird nests, a non-disturbance buffer will be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the species' sensitivity to disturbance, and the intensity/type of potential disturbance. To minimize and avoid take of migratory birds, their nests, and their young, Caltrans will conduct vegetation and tree trimming outside of the bird nesting season, prior to construction. This work will be limited to vegetation and trees that are within the Project footprint. Additional bird nesting surveys will be required if work must occur during the nesting season.
- **PF-BIO-10: Replant, Reseed, and Restore Disturbed Areas.** Caltrans will restore temporarily disturbed areas to the maximum extent practicable. Exposed slopes and bare ground will be reseeded at the end of each construction season, with commercially available, locally appropriate native grass and shrub seeds to stabilize and prevent erosion. Where disturbance includes the removal of trees and woody shrubs, native species will be replanted.
- **PF-BIO-11: Reduce Spread of Invasive Species.** Caltrans will comply with Executive Order 13112. This order is provided to prevent the introduction of invasive species and provide for their control to minimize the economic, ecological, and human health effects. In the event that noxious weeds are



disturbed or removed during construction-related activities, the contractor will be required to contain the plant material associated with these noxious weeds and dispose of it in a manner that will not promote the spread of the species. The contractor will be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance will be replanted with fast-growing native grasses or a native erosion control seed mixture. Where seeding is not practical, the target areas within the Project footprint will be covered to the extent practicable with heavy black plastic solarization material until the end of the Project construction.

- **PF-CULT-1, Establish and Enforce ESAs:** Archeological ESAs will be delineated on the plans and described in the specifications. Appropriate protective measures including demarcations with flags or high visibility spray paint, access restrictions, and monitoring of the ESA boundaries by a qualified archaeologist and local tribal representatives will be implemented during construction.
- **PF-CULT-2, Cease Work Upon Discovery of Cultural Resources:** Cease work if cultural resources are encountered during Project-related ground-disturbing activities, have a qualified archaeologist assess the significance of the resource, and implement appropriate avoidance or treatment measures, in coordination with local consulting tribes.

If buried cultural materials are encountered during construction, work would be stopped until a qualified archaeologist can evaluate the nature and significance of the find. The need for archaeological and Native American monitoring during the remainder of the Project would be reevaluated by Caltrans Archaeologists and local consulting tribes as part of the treatment measure determination. The archaeologist would consult with appropriate Native American representatives in determining suitable treatment for unearthed cultural resources if the resources are Native American in nature.

- **PF-CULT-3, Stop Work Upon Discovery of Human Remains:** In accordance with the California Health and Safety Code, if human remains are uncovered during construction-related activities, all such activities within a 60-foot radius of the find will be halted immediately and the Project's designated representative will be notified. The contractor or lead person on the Project will immediately notify the OCRS Office Chief and/or the District Native American Coordinator

(DNAC). Once the remains are determined human, the lead person, OCRS Office Chief, or DNAC will contact the County Coroner and the NAHC. Although the Coroner has the ultimate responsibility to contact the NAHC, Caltrans OCRS contacts the NAHC at this time to provide information on the discovery and to assure the NAHC that appropriate action is being taken. The Coroner is required to examine the discovery of human remains within 48 hours of received notification of such a discovery on private or state lands (California Health and Safety Code Section 7050.5[b]). If the Coroner inspects the remains and determines that the remains are not Native American and/or determines they are a result of a wrongful death, the Coroner may take possession of the remains for further inquiry, release them to next of kin, or order the body to be reinterred. After the above action has been taken, work may resume on the Project. If the Coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making the determination (California Health and Safety Code Section 7050.5[c]). The Project's designated representative will be responsible for acting upon notification of discovery of Native American human remains, as identified in detail in California Public Resources Code Section 5097.9. The Project's designated representative and the professional archaeologist will contact the Most Likely Descendent (MLD), as determined by the NAHC, regarding the remains. The MLD, in cooperation with the property owner and Caltrans, will determine the ultimate disposition of the remains. The lead person ensures that the recommendations are followed. After the appropriate actions are taken, Project work may resume.

- **PF-ENERGY-1, Recycle Waste and Materials:** Recycle nonhazardous waste and excess construction materials to reduce disposal, if feasible.
- **PF-ENERGY-2, Solar Energy:** Use solar energy as the energy source for construction equipment, such as, but not limited to, signal boards, if feasible.
- **PF-HAZ-1, Caltrans Standard Specifications and Hazardous Waste Regulations:** The current Caltrans Standard Specifications Section 13-4, Job Site Management, would be implemented to prevent and control spills or leaks from construction equipment and from storage of fuels, paints, cleaners, solvents, and lubricants. Handling and management of hazardous materials would comply with the current Caltrans Standard Specification Section 14-11, Hazardous Waste and Contamination, which outlines handling, storing, and disposing of hazardous waste.

- **PF-HAZ-2, Soil Investigation:** A soil investigation for metals, primarily lead, and other contaminants of concern (i.e., petroleum hydrocarbons and volatile organic compounds) would be completed during the Project’s design phase to characterize and profile the soil to be encountered by the construction of the Project. Depending upon the findings of the site investigation, appropriate hazardous waste management special provisions would be prepared and included in the Project specifications.
  
- **PF-HYD-1, Implementation of Construction Site Best Management Practices:** BMPs would be included in the final Project plans and specifications to comply with the conditions of the Caltrans National Pollutant Discharge Elimination System permit. Construction site BMPs for stormwater may include, but are not limited to, the following:
  - Construction tracking control practices
  - Job site management
  - Sediment control (fiber rolls and silt fencing)
  - Waste management and construction materials pollution control
  - Construction materials stockpile management
  - Dust and wind erosion controls
  - Drainage inlet protection
  - Non-stormwater management
  - Water quality monitoring
  
- **PF-HYD-2, Stormwater Pollution Prevention Plan and Job Site Management:** A SWPPP would be prepared by the contractor and approved by Caltrans, pursuant to the 2018 Caltrans Standard Specifications Section 13-3, Stormwater Pollution Prevention Plan, and the Caltrans SWPPP Preparation Manual. In addition to the SWPPP, job site management work specifications pursuant to the 2018 Caltrans Standard Specifications Section 13-4, Job Site Management, would be implemented prior to the beginning of construction.
  
- **PF-TRANS-1, Transportation Management Plan:** A TMP would be prepared by Caltrans prior to the beginning of construction and in consultation with the appropriate agencies to aid in coordinating and providing further safety measures for those accessing the Project corridor during construction. The TMP would identify traffic delays and alternative routes for emergency and medical vehicles associated with essential services, thereby avoiding or minimizing short-term,

localized traffic congestions and delays. Notifications and instructions for rapid response or evacuation in the event of an emergency would be provided.

## **Avoidance and Minimization Measures**

- **AMM-AES-1, Selection of Staging Areas:** Ensure that the establishment of staging areas would not require the removal of any but weedy nonnative vegetation or cause the compaction of any tree roots. Staging areas would be located such that they do not block views of the ocean whenever feasible.
- **AMM-AES-2, Comply with Sonoma State Route 1 Repair Guidelines:** The design and construction of the Project would comply with all applicable provisions of the Guidelines, as confirmed by the Office of Landscape Architecture and the Office of Environmental Analysis.
- **AMM-AES-3, Selection of Materials:** In conjunction with the Office of Landscape Architecture, select materials and Project components appropriate for the visual character of the location and to maintain corridor consistency.
- **AMM-BIO-1: Restoration (Replant, Reseed, and Restore Disturbed Areas).** Restoration of temporary disturbance areas, including ESHA, will be accomplished through onsite revegetation. Restoration of temporary impact areas will occur within the same season they are disturbed so that the duration of disturbance at each location will not exceed 12 months through a non-standard edit to the Erosion Control General Specifications.

Restoration of temporarily disturbed areas will be performed at a 1:1 ratio. At the end of each construction season, exposed slopes and bare ground will be reseeded with native grasses and shrubs to stabilize and prevent erosion.

Native trees removed from riparian or other habitats or within the CDFW jurisdiction will be replanted following construction.

- **AMM-BIO-2: Designation of Special-status Plant Populations.** In conjunction with pre-construction survey AMMs, additional focused species checks and mapping of any observed populations of special-status plants within the BSA will be performed the season prior to construction to delineate the current limits of these populations prior to construction. These areas will be denoted as ESA and be avoided as feasible.

If avoidance of mapped populations within the Project footprint is not possible, the Caltrans Biologist will consult with appropriate agencies on suitable salvage, propagation, or relocation protocols. If avoidance is not possible, a special-status plant restoration plan will be prepared for agency review prior to special-status plant salvage or restoration. The special-status plant restoration plan will include information on performance criteria, monitoring requirements, and reporting.

- **AMM-BIO-3: Biological Monitoring.** The Caltrans biological monitor will be present during construction activities where take of a listed species could occur. Through communication with the Resident Engineer or designee, the biological monitor may stop work if deemed necessary for any reason to protect listed species and will advise the Resident Engineer or designee on how to proceed accordingly.
- **AMM-BIO-4: Pre-construction CRLF Surveys.** Visual encounter surveys will be conducted by the Caltrans biological monitor immediately before ground-disturbing activities. Suitable non-breeding aquatic and upland habitat within the Project footprint, including refugia habitat such as under shrubs, downed logs, small woody debris, and burrows will be inspected. If a CRLF is observed, the individual will be evaluated and relocated by the biological monitor in accordance with the observation and handling protocol outlined under Item 4. Fossorial mammal burrows will be inspected for signs of frog usage, to the extent practicable. If it is determined that a burrow may be occupied by a CRLF, the Resident Engineer and USFWS will be contacted, and work within the vicinity of the burrow will stopped.
- **AMM-BIO-5: Stop Work for CRLF Observation.** If the CRLF is encountered in the Project footprint, work within 50 feet of the animal will cease immediately and the Resident Engineer and approved biologist will be notified. Based on the professional judgment of the approved biologist, if Project activities can be conducted without harming or injuring the animal, it may be left at the location of discovery and monitored by the approved biologist. Project personnel will be notified of the finding, and at no time will work occur within 50 feet of the animal without an approved biologist present.
- **AMM-BIO-6: Pre-construction NSO Surveys.** A focused pre-construction non-protocol survey will be conducted during the NSO nesting season in areas of potential NSO habitat. The NSO-focused surveys will be conducted by a qualified

biologist within 165 feet of suitable NSO habitat. This includes areas with observed suitable habitat and areas with proximal occurrence data, including widening Locations 27, 29, 30, 33, 35 to 38, and 41 to 61; associated staging areas; and rumble strip segments 3 and 4. If surveys are not completed, work at these un-surveyed locations would be restricted to between August 1 and February 28, unless surveys determine the suitable habitat or site is unoccupied or the owls are not nesting.

For Project work within 165 feet of a known nest site or nesting habitat that cannot be scheduled outside of the nesting season, and where the 165-foot buffer cannot be maintained, reduced buffers should be implemented based on “Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California” (USFWS 2006).

- **AMM-BIO-7: Occupied NSO Habitat.** If NSO surveys (using the USFWS’ 2012 survey protocol [USFWS 2012]) detect an active NSO nesting site within 165 feet of the Project footprint, or Caltrans biologist presumes spotted owl occupancy without conducting surveys, Caltrans Resident Engineer will adhere to the following measures:
  - a. The start of construction within 165 feet of the NSO nest will be delayed until the young have fledged. NSO young generally leave the nest (that is, fledge) in late May or June. The NSO nest will be monitored by a USFWS-approved biologist to document when the young have left the nest and construction can start.
  - b. To minimize noise and visual disturbances generated from the proposed Project to the degree possible, all construction equipment, fixed or mobile, will be fitted with properly operating and maintained mufflers consistent with manufacturers’ standards. Additionally:
    - i. No proposed activity generating sound levels 20 or more decibels (dB) above ambient sound levels or with maximum sound levels (ambient sound level plus activity-generated sound level) above 90 dB (excluding vehicle backup alarms) may occur within suitable NSO nesting or roosting habitat during most of the nesting season (February 1 to July 9) (USFWS 2014). These above-ambient sound level restrictions will be lifted after July 31, after which the USFWS

considers the above-ambient sound levels as having “no effect” on nesting NSO and dependent young.

- ii. No human activities will occur within a visual line of sight of 131 feet or less from any known NSO nest locations within the Project footprint (USFWS 2014).
- **AMM-BIO-8: Focused MAMU Surveys.** MAMU-focused non-protocol surveys will be conducted by a qualified biologist at all Project locations that are within 0.25 mile of suitable MAMU habitat (Locations 29, 30, 33, 41 through 44, 47, 49 through 55, and 58, and rumble strip segments 3 and 4). If surveys are not completed, work at these locations would be restricted to between August 1 and February 28. For Project work within 0.25 mile of a known MAMU nest site that cannot be scheduled outside of the nesting season, reduced buffers should be implemented based on “Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California” (USFWS 2006).
  - **AMM-BIO-9: MAMU Habitat.** If MAMU surveys (using the USFWS’s survey protocol [USFWS 2014]) determine that the work area is occupied by nesting MAMU, or Project Biologist presumes MAMU occupancy without conducting surveys, Caltrans Resident Engineer will adhere to the following:
    - a. **Vegetation Removal or Alteration:**
      - i. No potential MAMU nest trees will be removed during the nesting season (March 24 to September 15),  
  
However, potential suitable MAMU habitat may be removed or altered outside the nesting season (September 16 to March 23).
      - ii. Caltrans Biologist shall coordinate with USFWS to determine whether proposed habitat removal within designated critical habitat would constitute an adverse impact during the design phase.
    - b. **Auditory or Visual Disturbance:**
      - i. No proposed activity generating sound levels 20 dB or more above ambient sound levels or with maximum sound levels (ambient sound level plus activity-generated sound level) above 90 dB (excluding vehicle backup alarms) may occur within 0.25 mile of suitable MAMU

nesting habitat as determined by the Project Biologist from March 24 to August 5 (USFWS 2014).

- ii. Between August 6 and September 30 (end of MAMU nesting season) of any year, Project activities adjacent to suitable nesting habitat that will generate sound levels equal to or greater than 10 dB above ambient sound levels will observe a daily work window beginning 2 hours after sunrise and ending 2 hours before sunset. However, preparation work that does not generate noise above ambient sound levels, including street sweeping and manual removal of pavement markers, can occur during all hours.
- iii. No human activities will occur within the visual line of sight of 131 feet or less from an active MAMU nest from March to August (USFWS 2006).

If non-protocol surveys determine that all suitable MAMU nesting habitat within the Project footprint is considered unoccupied, suitable nesting habitat may be removed or altered without seasonal restrictions. The removal of a few small trees and shrubs would be exempt from this requirement.

- **AMM-BIO-10: SNPL Seasonal Avoidance.** At Location 15, staging area E, and rumble strip segment 2, which are near suitable habitat for the SNPL, no construction activities will be performed during the snowy plover nesting season, March 1 through September 14. A no-disturbance buffer of 130 feet from suitable habitat for SNPL will be implemented outside the nesting season, September 15 through February 28.
- **AMM-BIO-11: Pre-construction SNPL Surveys.** A USFWS-approved biologist will conduct pre-construction clearance surveys for snowy plover prior to work at Location 15 and staging area E. At least two surveys will be conducted at those locations: one survey will be between 14 and 3 calendar days prior to work starting, and another will be within 3 calendar days prior to work starting. Surveys will be conducted along the beach area (on foot within accessible areas or using binoculars) within a 500-foot radius of the Project footprint. Tidal phase, weather, wind speeds, and visibility will be recorded during each survey. Surveyors will document observations and banded birds but will not approach a bird on a nest or an adult with chicks, or female head-bobbing, a male tail-dragging, birds copulating, nest scraping, birds performing a broken wing display, or an adult



with chicks. Positive identifications should be reported to USFWS and State Parks within 24 hours.

- **AMM-BIO-12: Pre-construction Survey for *Viola adunca*.** A pre-construction survey for *Viola adunca* will be conducted in the early spring (late February/early March), referencing phenology trends observed at Fort Ross or other nearby reference populations. If *Viola adunca* are found in the work area, they will be flagged for avoidance with ESA fencing in coordination with the Project Biologist and Resident Engineer.
- **AMM-BIO-13: Pre-construction WPT Surveys.** An approved biologist will conduct pre-construction surveys for WPT immediately before ground-disturbing activities in areas identified as suitable WPT habitat within the Project footprint. If WPT is found within the Project footprint and at risk of harm, then it will be relocated by an approved biologist outside of the Project footprint.
- **AMM-BIO-14: Pre-construction Surveys for Bats.** Prior to the start of work at each location, a qualified biologist will conduct a visual survey of the area for bat species. Any bats observed in the BSA should be allowed to leave on its own.
- **AMM-BIO-15: Bat Surveys Prior to Vegetation Removal.** A survey by a qualified bat biologist will be conducted prior to vegetation removal to determine if two-phase tree removal methods are appropriate for any trees scheduled for removal, or if a biological monitor should be required to be present during tree removal. The qualified biologist should inspect all trees marked for removal for bat roost habitat (e.g., crevice and foliage habitat types).
- **AMM-BIO-16: Pre-construction Surveys for Sonoma Tree Vole.** Before the start of construction, a qualified biologist will conduct a survey of the Project work areas and a 30-foot buffer beyond the Project footprint to determine the location of STV nests. Any nests detected during the surveys will be recorded and mapped in relation to the Project footprint. In addition, the biologist will evaluate any signs of current activity. A 30-foot equipment exclusion buffer will be established around nests that can be avoided; within such buffers, all vegetation will be retained, and nests will remain undisturbed.
- **AMM-BIO-17: Impacts to ESHAs.** Temporary impacts to ESHAs would be mitigated at a ratio of at least 1:1. Permanent impacts to ESHAs and aquatic resources would be mitigated at a ratio of at least 3:1. Impacts to ESHAs,

- mitigation ratios, and appropriate compensation would be confirmed with the appropriate agencies during the design phase.
- **AMM-BIO-18: Tree Replacements.** The trees removed for the Project would be replaced or compensated via an in-lieu fee. Appropriate tree replacement locations or in-lieu fee compensation would be determined during the design phase and in consultation with the appropriate agencies.
  - **AMM-BIO-19: Impacts to Waters.** Temporarily impacted wetland and other waters would be restored and revegetated to mitigate impacts to habitat functionality. Permanent impacts would be mitigated at a ratio of at least 1:1. Impacts to waters, mitigation ratios, and appropriate compensation would be confirmed with the appropriate agencies during the permitting process.
  - **AMM-NOISE-1, Construction Noise Levels:** The following measures would be implemented to reduce noise levels during construction where feasible:
    - Any operation exceeding 86 dBA would not be allowed at nighttime from 9:00 p.m. to 6 a.m.
    - Public outreach would be required throughout the Project to update residents, businesses, and others regarding upcoming construction-related activities and Project schedule.
    - Schedule noisy operations within the same time frame where feasible. The total noise level would not be significantly greater than the level produced if operations are performed separately.
    - Avoid unnecessary idling of internal combustion engines within 100 feet of sensitive receptors.
    - Locate all stationary noise-generating construction equipment as far as practical from noise-sensitive receptors or provide baffled housing or sound aprons for equipment when sensitive receptors adjoin or are near a Project construction area.
    - Equip all internal combustion engine driven equipment with manufacturer recommended intake and exhaust mufflers that are in good condition and appropriate for the equipment.
    - Utilize “quiet” air compressors and other “quiet” equipment where such technology exists.

- No construction equipment would be delivered and dropped off before 6:00 a.m.
- Maintain all internal combustion engines properly to minimize noise generation.
- **AMM-UTIL-1, Utility Notifications:** During design phase, Caltrans would coordinate with all affected utility companies regarding the construction schedule for the Project so that relocations can be conducted by each utility company as necessary prior to the start of construction.

## Appendix C List of Technical Studies and References

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