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2-24-0241 (CALTRANS HWY 1 CENTERLINE RUMBLE STRIPS)
JUNE 13, 2024

EXHIBITS

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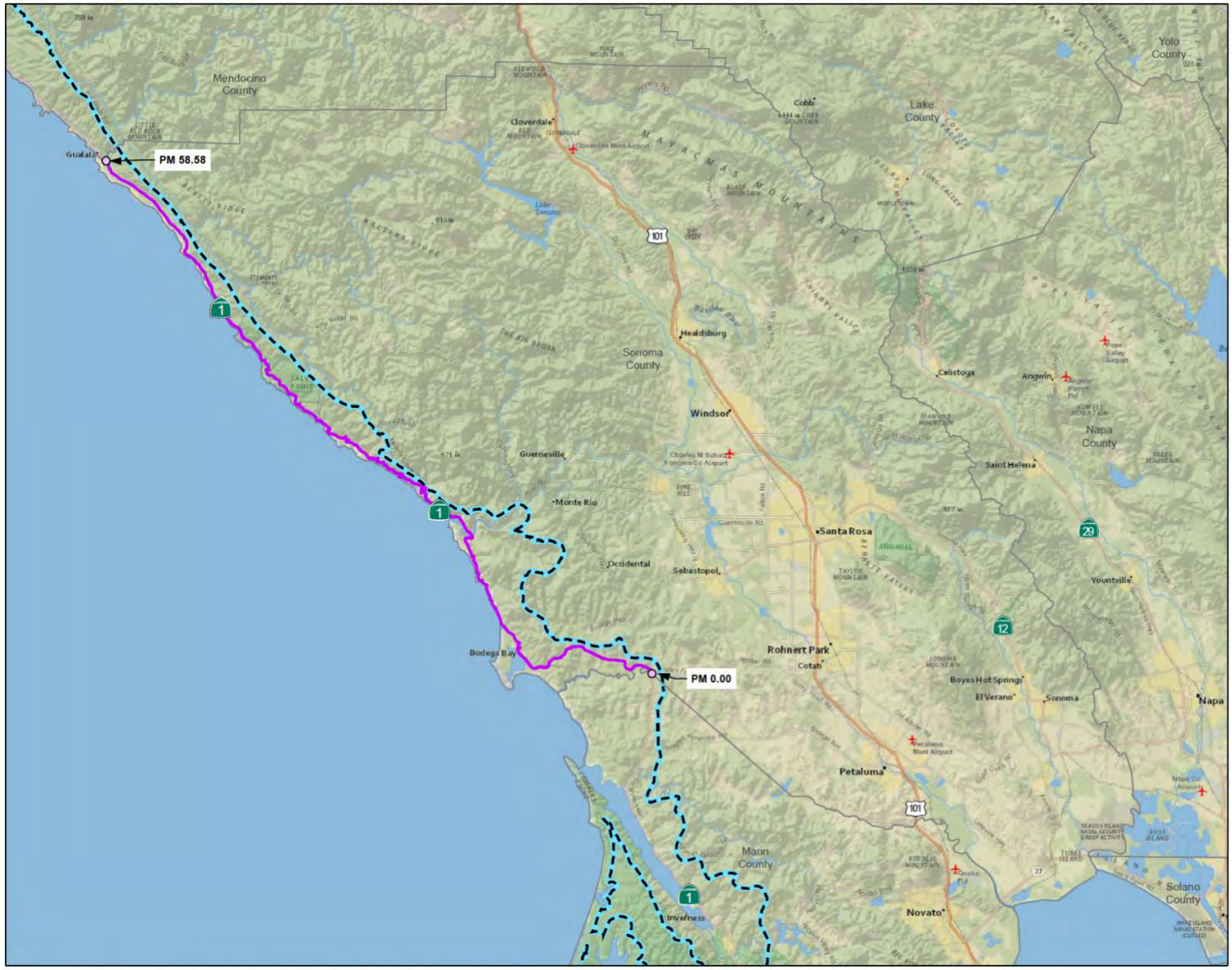
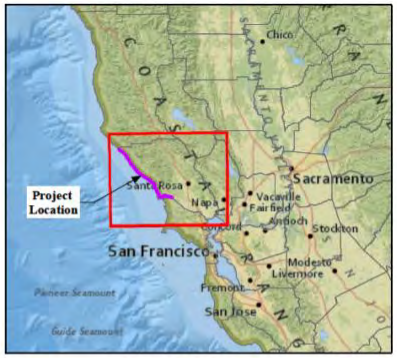
Project Site: Various locations along Highway 1 through Sonoma County, from Marin County Line near Valley Ford to the Mendocino County Line at the Gualala River (approx. between Post Miles (PMs) 0.0 to 58.58), Sonoma County.





Legend

- Post Mile
- Project Limits
- California Coastal Commission Coastal Zone

N

0 6 12
Miles

Caltrans

FIGURE 1
Vicinity Map
Map 1 of 2
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON1-0.00/58.58
Sonoma County, California

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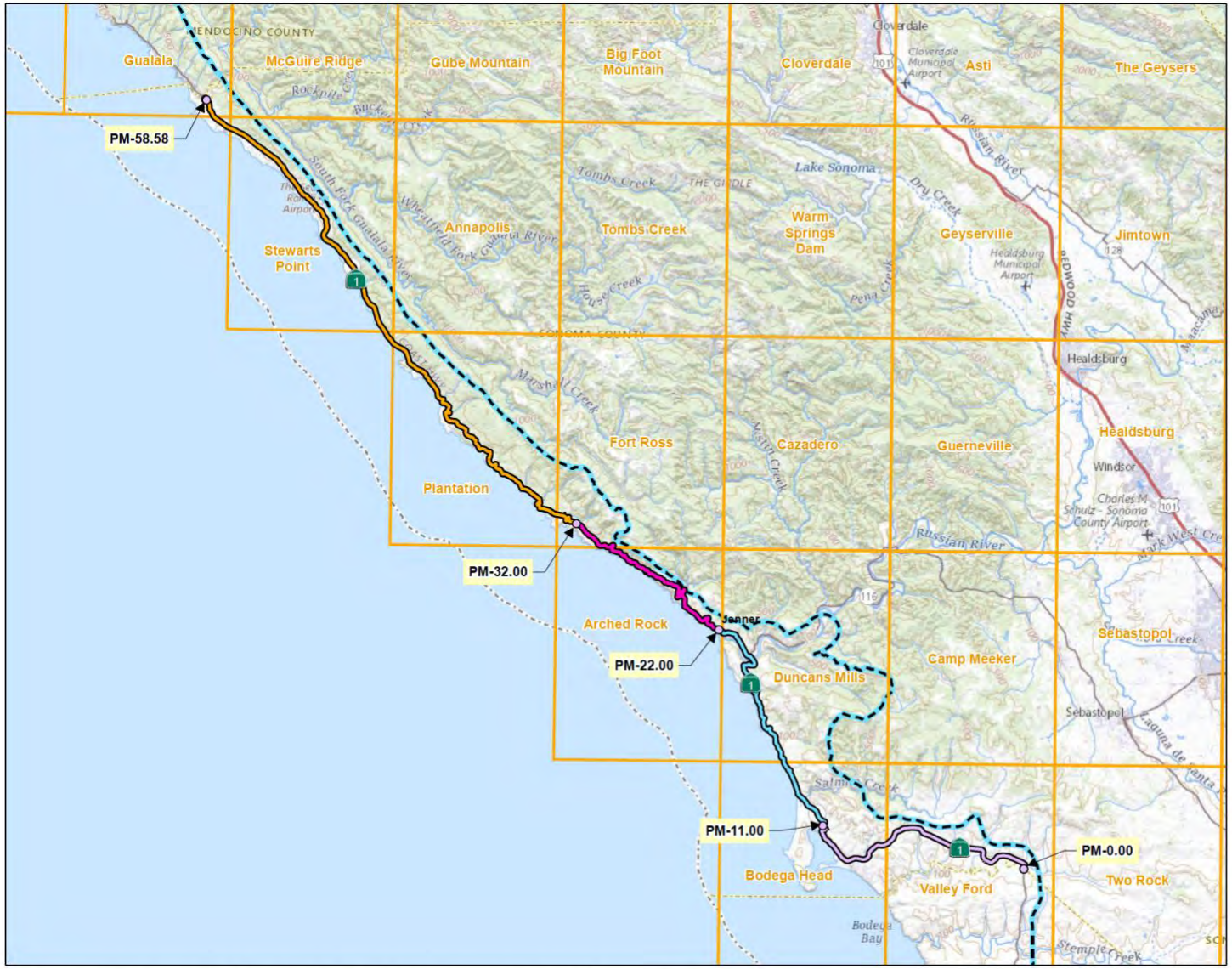

Legend

- Post Mile
- Project Limits
- USGS 7.5 Minute Quadrangle
- California Coastal Commission Coastal Zone

Project Sub Areas

- Sub Area 1
- Sub Area 2
- Sub Area 3
- Sub Area 4

N

0 4 8 Miles

Caltrans

FIGURE 1
Vicinity Map
Map 2 of 2
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\PD\03_MAR\FIG1_VICINITY_MAP_2_OF_2_4G780.MXD

Coastal Commission
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Project Description

Introduction

The California Department of Transportation (Caltrans) proposes the State Route (SR) 1 Centerline Rumble Strip Project (Project) to install ground-in centerline rumble strip, install wet-night visibility striping, install two biofiltration strips, and widen the shoulders at 29 spot locations on SR 1 in Sonoma County between Post Miles 0.0 and 58.58 (Figures 1 and 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 1; Figure 1). The Project footprint encompasses the maximum extent of construction-related activities, including staging and disturbed areas, and is approximately 155.49 acres (Figure 2).

Table 1. Project Sub-Areas

Sub-Area Name	Sub-Area Begin Post Mile	Sub-Area End Post Mile	Shoulder Widening Location[1]	Centerline Rumble Strip Segment[2]
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 #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 #11 (Location 18)	Segment 2
Sub-Area 2	11.00	22.00	SB #12 (Location 19)	Segment 3
Sub-Area 2	11.00	22.00	SB #13 (Location 20)	Segment 3
Sub-Area 2	11.00	22.00	SB #15 (Location 23)	Segment 3
Sub-Area 2	11.00	22.00	SB #16 (Location 24)	Segment 3
Sub-Area 3	22.00	32.00	SB #17 (Location 25)	Segment 4
Sub-Area 3	22.00	32.00	SB #18 (Location 26)	Segment 4
Sub-Area 3	22.00	32.00	NB #09 (Location 28)	Segment 4
Sub-Area 3	22.00	32.00	SB #20 (Location 30)	Segment 4
Sub-Area 3	22.00	32.00	SB #21 (Location 32)	Segment 4
Sub-Area 3	22.00	32.00	SB #23 (Location 34)	N/A
Sub-Area 4	32.00	58.58	SB #25 (Location 36)	Segment 5
Sub-Area 4	32.00	58.58	SB #26 (Location 37)	Segment 5
Sub-Area 4	32.00	58.58	SB #31 (Location 45)	Segment 5
Sub-Area 4	32.00	58.58	NB #15 (Location 46)	Segment 5
Sub-Area 4	32.00	58.58	SB #32 (Location 47)	Segment 5

Sub-Area Name	Sub-Area Begin Post Mile	Sub-Area End Post Mile	Shoulder Widening Location[1]	Centerline Rumble Strip Segment[2]
Sub-Area 4	32.00	58.58	SB #34 (Location 49)	Segment 5
Sub-Area 4	32.00	58.58	SB #35 (Location 50)	Segment 5
Sub-Area 4	32.00	58.58	SB #36 (Location 52)	Segment 5
Sub-Area 4	32.00	58.58	SB #38 (Location 54)	Segment 5
Sub-Area 4	32.00	58.58	SB #39 (Location 55)	Segment 5
Sub-Area 4	32.00	58.58	SB #40 (Location 56)	Segment 5
Sub-Area 4	32.00	58.58	SB #43 (Location 59)	Segment 5
Sub-Area 4	32.00	58.58	NB #17 (Location 60)	Segment 5
Sub-Area 4	32.00	58.58	SB #44 (Location 61)	Segment 5

Notes:
[1] Shoulder widening locations are provided in Table 5.
[2] Centerline rumble strip segments are provided in Table 4 and depicted on Figure 2.
NB = northbound
SB = southbound
N/A = Not applicable

The Project limits encompass the entirety of SR 1 in Sonoma County, extending from the Marin County border to the Mendocino County border for a distance of 58.58 miles. Within this stretch of SR 1, the highway is a two-lane rural conventional highway with 10- to 12-foot-wide travel lanes, having either no shoulder or less than 2-foot shoulders at most locations. Within Sonoma County, SR 1 also serves as the only link to a number of small coastal communities and does not provide High Occupancy Vehicle (HOV) lanes. Due to SR 1 being a very narrow and winding road, it is highly subjected to closure during winter storm events that often cause failure of the highway.

SR 1 also serves as a major tourist and recreational travel route, not only providing access to several parks and scenic areas, but also serving as an attraction in itself. SR 1 has very limited bicycle and pedestrian facilities available, although the highway is part of the Pacific Coast Bicycle Route and either runs parallel to, or is part of, the California Coastal Trail.

The Project is 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 is eligible for Federal-aid funding.

The Project total cost estimate, including capital and support costs, is approximately $8,800,000.

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. Additionally, the Project will 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.

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. Due to SR 1 being a narrow and winding road, it is subject to head-on and sideswipe collisions.

After further review of detailed survey data and field visits during the Project Approval and Environmental Document (PA&ED) stage, it was determined that the following formerly considered shoulder widening locations have existing 6-foot shoulders, and these locations were therefore removed from the scope of work:

- Northbound (NB) #01 (Location 1)
- NB #03 (Location 4)
- NB #05 (Location 7)
- Southbound (SB) #06 (Location 12)
- SB #07 (Location 14)

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.

After the Final Initial Study/Negative Declaration (IS/ND) (Caltrans 2023) was circulated to the public, the project development team further evaluated the locations and removed the following 21 additional shoulder widening locations from the Project during the design phase, due to environmental constraints:

- NB #02 (Location 2)
- SB #01 (Location 3)
- SB #03 (Location 9)
- SB #04 (Location 10)
- SB #08 (Location 15)
- SB #10 (Location 17)
- SB #19 (Location 27)
- NB #10 (Location 29)
- NB #11 (Location 31)
- SB #22 (Location 33)
- SB #24 (Location 35)
- NB #12 (Location 38)
- SB #28 (Location 41)
- SB #29 (Location 42)
- SB #30 (Location 43)
- NB #14 (Location 44)
- SB #33 (Location 48)
- NB #16 (Location 51)
- SB #37 (Location 53)
- SB #41 (Location 57)
- SB #42 (Location 58)

Table 2 depicts the existing shoulder conditions at the 29 shoulder widening spot locations.

Table 2. Existing Conditions

Location Number	Location Name	Begin Post Mile	Existing Shoulder
1	NB #04 (Location 5)	1.38	Paved, Dirt
2	SB #02 (Location 6)	2.34	Paved, Dirt
3	SB #05 (Location 11)	7.60	Paved, Gravel
4	NB #07 (Location 13)	12.10	Dirt
5	SB #11 (Location 18)	14.25	Paved, Gravel
6	SB #12 (Location 19)	15.80	Paved, Dirt
7	SB #13 (Location 20)	15.95	Paved, Dirt
8	SB #15 (Location 23)	20.49	Gravel, Dirt
9	SB #16 (Location 24)	21.00	Paved, Dirt
10	SB #17 (Location 25)	23.61	Gravel, Dirt
11	SB #18 (Location 26)	23.82	Gravel, Dirt

Location Number	Location Name	Begin Post Mile	Existing Shoulder
12	NB #09 (Location 28)	27.25	Paved, Dirt
13	SB #20 (Location 30)	27.67	Gravel
14	SB #21 (Location 32)	28.42	Gravel, Dirt
15	SB #23 (Location 34)	30.99	Gravel, Dirt
16	SB #25 (Location 36)	32.25	Gravel, Dirt
17	SB #26 (Location 37)	33.62	Gravel, Dirt
18	SB #31 (Location 45)	40.49	Gravel
19	NB #15 (Location 46)	40.71	Gravel, Dirt
20	SB #32 (Location 47)	41.74	Gravel, Dirt
21	SB #34 (Location 49)	43.03	Gravel
22	SB #35 (Location 50)	43.22	Gravel, Dirt
23	SB #36 (Location 52)	R44.53	Gravel
24	SB #38 (Location 54)	R45.18	Gravel, Dirt
25	SB #39 (Location 55)	46.06	Gravel, Dirt
26	SB #40 (Location 56)	47.61	Gravel, Dirt
27	SB #43 (Location 59)	55.89	Dirt
28	NB #17 (Location 60)	56.08	Gravel
29	SB #44 (Location 61)	57.11	Gravel, Dirt

Notes:
NB = northbound
SB = southbound

Coastal Development Permit Narrative for the California Coastal Commission

This narrative has been prepared for the California Coastal Commission (CCC) on behalf of Caltrans to summarize the removal of all impacts to special-status natural resources based on revisions between the Final Initial Study with Negative Declaration (IS/ND) and the final design package of the SR 1 Centerline Rumble Strip Project.

The Project's final design package proposes to install ground-in centerline rumble strip, install wet-night visibility striping, install two biofiltration strips, and widen the shoulders at 29 spot locations on SR 1 in Sonoma County between Post Miles 0.0 and 58.58. This represents a reduction of 21 Project locations from the 50 locations analyzed in the Final IS/ND. Please note that the technical studies and the Final IS/ND report impacts from the PA&ED phase, which included presumed impacts to several special-status natural resources due to the larger footprint. As a result of revisions made to the final Project design, all locations associated with impacts to special-status natural resources have been

removed from the Project footprint. Table 3 denotes the locations that have been removed from the Project. Locations were removed due to their potential to impact U.S. Army Corps of Engineers (USACE),California Department of Fish and Wildlife (CDFW), North Coast Regional Water Quality Control Board, and CCC-jurisdictional resources, and due to the timing needed for environmental functional units to gain clearance of the change in Project footprint and biological study area (BSA) between the PA&ED phase and final design Plans, Specifications, and Estimate (PS&E) phase.

Table 3. Project Locations Removed

Location Number	Location Name	Begin Post Mile	Still Included in the 100% Project Design
N/A	NB #02 (Location 2)	0.21	Removed
N/A	SB #01 (Location 3)	0.61	Removed
1	NB #04 (Location 5)	1.38	Yes
2	SB #02 (Location 6)	2.34	Yes
N/A	SB #03 (Location 9)	7.13	Removed
N/A	SB #04 (Location 10)	7.39	Removed
3	SB #05 (Location 11)	7.60	Yes
4	NB #07 (Location 13)	12.10	Yes
N/A	SB #08 (Location 15)	12.88	Removed
N/A	SB #10 (Location 17)	13.78	Removed
5	SB #11 (Location 18)	14.25	Yes
6	SB #12 (Location 19)	15.80	Yes
7	SB #13 (Location 20)	15.95	Yes
8	SB #15 (Location 23)	20.49	Yes
9	SB #16 (Location 24)	21.00	Yes
10	SB #17 (Location 25)	23.61	Yes
11	SB #18 (Location 26)	23.82	Yes
N/A	SB #19 (Location 27)	26.03	Removed
12	NB #09 (Location 28)	27.25	Yes
N/A	NB #10 (Location 29)	27.67	Removed
13	SB #20 (Location 30)	27.67	Yes
N/A	NB #11 (Location 31)	27.98	Removed
14	SB #21 (Location 32)	28.42	Yes
N/A	SB #22 (Location 33)	29.63	Removed
15	SB #23 (Location 34)	30.99	Yes
N/A	SB #24 (Location 35)	31.99	Removed
16	SB #25 (Location 36)	32.25	Yes

Location Number	Location Name	Begin Post Mile	Still Included in the 100% Project Design
17	SB #26 (Location 37)	33.62	Yes
N/A	NB #12 (Location 38)	34.00	Removed
N/A	SB #28 (Location 41)	39.09	Removed
N/A	SB #29 (Location 42)	39.23	Removed
N/A	SB #30 (Location 43)	39.35	Removed
N/A	NB #14 (Location 44)	40.00	Removed
18	SB #31 (Location 45)	40.49	Yes
19	NB #15 (Location 46)	40.71	Yes
20	SB #32 (Location 47)	41.74	Yes
N/A	SB #33 (Location 48)	42.24	Removed
21	SB #34 (Location 49)	43.03	Yes
22	SB #35 (Location 50)	43.22	Yes
N/A	NB #16 (Location 51)	R43.90	Removed
23	SB #36 (Location 52)	44.53	Yes
N/A	SB #37 (Location 53)	44.99	Removed
24	SB #38 (Location 54)	R45.18	Yes
25	SB #39 (Location 55)	46.06	Yes
26	SB #40 (Location 56)	47.61	Yes
N/A	SB #41 (Location 57)	49.18	Removed
N/A	SB #42 (Location 58)	54.30	Removed
27	SB #43 (Location 59)	55.89	Yes
28	NB #17 (Location 60)	56.08	Yes
29	SB #44 (Location 61)	57.11	Yes

Wetland Impact Analysis

Potential waters of the U.S. (WOTUS), as well as CCC-jurisdictional wetlands, were determined to be present within the Project footprint during the PA&ED phase and 95% design package. Based on the final 100% design package, the Project footprint has been revised to exclude the presence of, or impacts to, WOTUS and CCC-jurisdictional wetlands. As a result, the Project is no longer anticipated to result in short-term temporary or permanent impacts to any aquatic features. Under the Coastal Commission's definition of wetlands (see California Code of Regulations Section 13577(b)), a wetland need only display one of the parameters typically used to define wetland areas, in contrast to the U.S. Army Corps of Engineers, which uses a three-parameter definition under its federal authorities. In accordance with Coastal Act Section

30233, aquatic resources identified within the previous PA&ED phase would be considered a CCC defined wetland; however, the final design package has been revised to avoid all previously identified CCC-jurisdictional wetlands. Therefore, the previously identified temporary or permanent impacts to potential wetlands are no longer applicable.

Environmentally Sensitive Habitat Areas Impact Analysis

Potential Environmentally Sensitive Habitat Areas (ESHAs) were originally determined to be present within the Project footprint during the PA&ED phase. ESHAs included vegetation alliances and special-status species habitats. The final Project footprint excludes all former Project locations that were associated with ESHA impacts. As a result, implementation of the 100% final design package will have no impact to ESHAs at any locations.

Special Status Plants and Trees

The yellow larkspur (*Delphinium luteum*, federally endangered [FE]) was determined to be potentially impacted by the original Project footprint. Upon review of the U.S. Fish and Wildlife Service (USFWS) Biological Opinion dated January 22, 2024, Caltrans has opted to remove the locations that were found to have the potential to affect the yellow larkspur and its critical habitat. Additionally, special status vegetation removal is no longer applicable to this Project and has been removed per the final design. Consequently, the 100% final design avoids impacts to trees.

Special Status Wildlife

Implementation of the Project was determined to have potentially adverse effects at several locations, to the following wildlife species: Myrtle's silverspot butterfly (*Speyeria zerene myrtleae* [FE]), Behren's silverspot butterfly (*Speyeria zerene behrensii*, [FE]), California red-legged frog (*Rana draytonii*, federally threatened [FT]), western snowy plover (*Charadrius nivosus nivosus* [FT]), marbled murrelet (*Brachyramphus marmoratus* [FT]) and its critical habitat, and northern spotted owl (*Strix occidentalis caurina* [FT]). Upon further review of the USFWS Biological Opinion dated January 22, 2024, Caltrans has opted to remove the locations that were found to potentially impact these species. As a result, the Project's final design has been modified to avoid all previously identified impacts to special-status wildlife species. Additionally, due to the changes in the final PS&E design package, Caltrans is no longer proposing mitigation or monitoring as there are no longer existing impacts to special-status wildlife species or habitat. Staging areas for the overnight storage of construction equipment and materials would be limited to areas within the Caltrans right of way (ROW). The proposed shoulder widening locations, or areas near the shoulder widening locations, would not

require the removal of vegetation. Where vegetation is in proximity to the work location, environmentally sensitive area (ESA) fencing would be put in place to protect the vegetation from construction activities.

Project Components

The following section describes the Project components, which are also shown in Figure 2.

Install Centerline Rumble Strips

The Project proposes to install incontiguous sections of ground-in centerline rumble strips on SR 1. The centerline rumble strips will 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 4 provides the locations in which centerline rumble strips are proposed.

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 were 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, installation of a centerline rumble strip has been proven to increase the overall multi-modal safety for all users.

Table 4. Install Centerline Rumble Strips

Segment Name	Begin Post Mile	End Post Mile
Segment 1	2.45	9.40
Segment 2	11.47	15.10
Segment 3	15.80	21.00
Segment 4	22.00	30.60
Segment 5	31.95	58.53

Widen Shoulders

The Project will widen the existing shoulder to 6 feet at 29 spot locations (Table 5) where there is an existing width of shoulder that is relatively flat or on an uphill grade that does not require extensive embankment creation, excavation, or retaining structures to

construct the shoulder widening. The depth of excavation at the shoulder widening locations is 1.8 feet, and the total new impervious surface (NIS) due to the shoulder widening is approximately 0.88 acre. Currently, the 29 locations include 5 east of the northbound lane and 24 west of the southbound lane. These locations were selected considering their expected benefit to cyclists, limited environmental impact, and limited ROW concerns. The Project will provide sufficient shoulder width to accommodate bicyclists where off-road bicycle facilities are not feasible. The 29 spot locations of shoulder widening will serve as refuge areas for bicyclists when being passed by motorists, thereby increasing bicyclists' safety.

Table 5. Widen Shoulders

Location Number	Location Name	Post Mile	Proposed Paving Length (feet)
3	NB #04 (Location 5)	1.38	282
4	SB #02 (Location 6)	2.34	225
7	SB #05 (Location 11)	7.60	400
8	NB #07 (Location 13)	12.10	419
10	SB #11 (Location 18)	14.25	150
11	SB #12 (Location 19)	15.80	160
12	SB #13 (Location 20)	15.95	125
13	SB #15 (Location 23)	20.49	195
14	SB #16 (Location 24)	21.00	125
15	SB #17 (Location 25)	23.61	278
16	SB #18 (Location 26)	23.82	221
19	NB #09 (Location 28)	27.25	240
20	SB #20 (Location 30)	27.67	392
21	SB #21 (Location 32)	28.42	220
22	SB #23 (Location 34)	30.99	180
24	SB #25 (Location 36)	32.25	133
25	SB #26 (Location 37)	33.62	200
29	SB #31 (Location 45)	40.49	164
30	NB #15 (Location 46)	40.71	180
31	SB #32 (Location 47)	41.74	254
33	SB #34 (Location 49)	43.03	245
34	SB #35 (Location 50)	43.22	190
36	SB #36 (Location 52)	R44.53	398
38	SB #38 (Location 54)	R45.18	460
39	SB #39 (Location 55)	46.06	180

Location Number	Location Name	Post Mile	Proposed Paving Length (feet)
40	SB #40 (Location 56)	47.61	220
42	SB #43 (Location 59)	55.89	268
43	NB #17 (Location 60)	56.08	270
44	SB #44 (Location 61)	57.11	222

Notes:
NB = northbound
SB = southbound

Drainage Systems

The new impervious areas created by the shoulder widening will 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 will 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 are 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 drainage pattern that will be affected will be reestablished as part of the Project.

Install Biofiltration Strips

The Project will install two biofiltration strips in response to the 0.88 acre of NIS created by the shoulder widening locations (Table 6). The maximum depth of excavation for the biofiltration strips is 8 inches.

Table 6. Biofiltration Strips

Biofiltration Strip No.	Width (ft.)	Begin Stationing	End Stationing	Post Mile (PM)
1A	5	“W284” 10+30	“W284” 12+50	28.42
2A	7	“W460” 12+60	“W460” 14+40	46.06

Construction Methodologies

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

Construction Staging

Prior to the beginning of construction-related activities, construction area signs; ESA boundaries; and construction site, water pollution control, and erosion control best management practices (BMPs) will be installed. ESA fencing will 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 will grind the existing striping from the centerline, and grind in the centerline rumble strip. The highway surface will be cleaned immediately after with a vacuum truck, and then application of the new 6-inch-wide wet-night visibility striping will 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) will be completed separately from the rumble strip and restriping operation and will 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 will be placed along the ETW with end treatments at both ends, where shoulder closures occur.

As construction of the centerline rumble strip segments and shoulder widening locations concludes, all construction-related items will 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.

Vegetation Removal

Some of the shoulder widening locations will require clearing and grubbing of roadside vegetation. Vegetation disturbance will not occur within the typical bird nesting season (February 1 to September 30) unless pre-construction surveys are completed for nesting

birds. ESA fencing will be put in place to protect sensitive vegetation, and all areas of vegetation disturbance will be revegetated. Tree removal is not anticipated.

Construction Schedule

The overall construction period for the Project is 170 working days and will occur between March 2025 and November 2025. Construction-related activities will be limited to daytime hours.

Prior to ground-disturbing activities, the Project will develop temporary BMPs in compliance with Caltrans 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.

Staging Areas

Staging areas for the overnight storage of construction equipment and materials will be limited to areas within the Caltrans ROW, such as shoulder widening locations or shoulder areas near the shoulder widening locations that will not require the removal of vegetation (Figure 2).

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.

Utilities

Utility verification (i.e., potholing) has occurred during the design phase, and has confirmed that there is no need for utility relocations. The existing utility poles for AT&T and PG&E overhead utilities will be protected in place. 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. This optical fiber conduit will be protected in place from construction-related activities. In addition, the water lines that are also present within the Project corridor will be protected in place.

Right of Way

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	1	0.0/58.6	1	X

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE SHEET AND LOCATION MAP
2	LOCATIONS OF CONSTRUCTION
3	TYPICAL CROSS SECTION
4 - 9	PROJECT CONTROL
10 - 22	LAYOUT
23	CONSTRUCTION DETAILS
24 - 36	TEMPORARY WATER POLLUTION CONTROL PLAN AND QUANTITIES
37 - 39	DRAINAGE PLAN, DETAILS AND QUANTITIES
40 - 49	UTILITY PLAN
50	CONSTRUCTION AREA SIGNS
51 - 54	PAVEMENT DELINEATION QUANTITIES
55 - 65	SIGN PLAN, DETAILS, AND QUANTITIES
66	SUMMARY OF QUANTITIES
67 - 82	EROSION CONTROL LEGEND, PLANS, DETAILS AND QUANTITIES
83 - XX	REVISED STANDARD PLANS

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

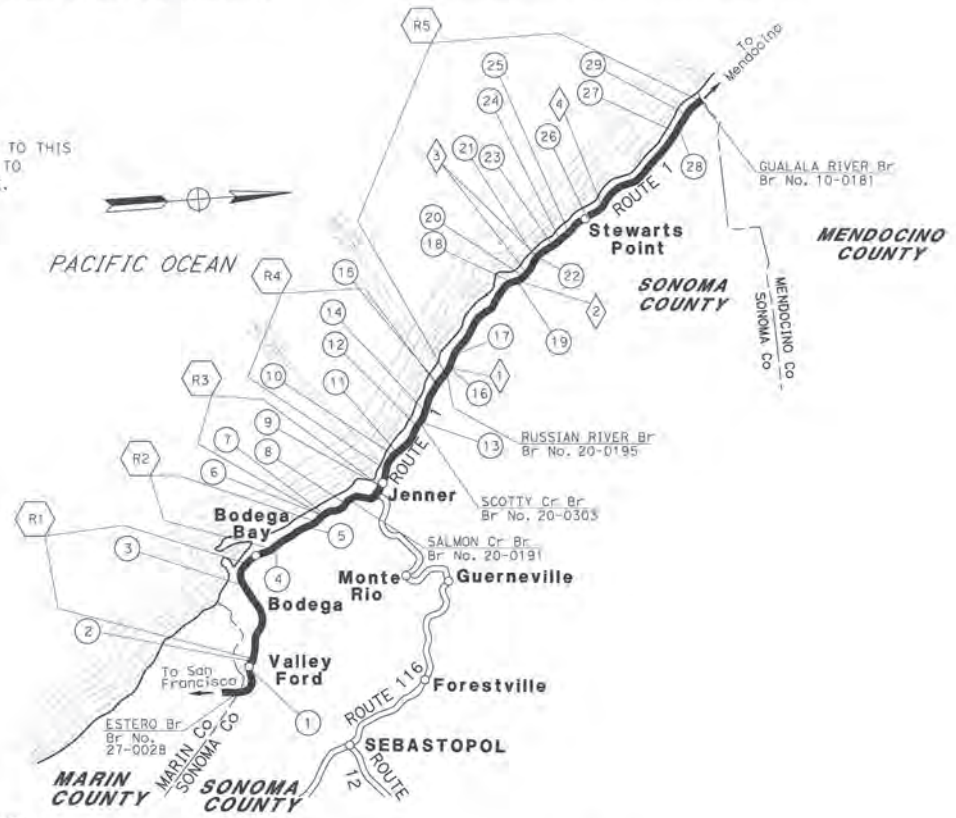
PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN SONOMA COUNTY AT VARIOUS LOCATIONS FROM MARIN COUNTY LINE TO MENDOCINO COUNTY LINE

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2023

THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.



NO SCALE

NOTE:

THE TABLE OF LOCATIONS OF CONSTRUCTION IS SHOWN ON THE LOCATIONS OF CONSTRUCTION SHEET.

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

X
PLANS APPROVAL DATE

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

CONTRACT No.	04-4G7804
PROJECT ID	0413000178

PROJECT MANAGER: HRISHIKESH KATTI
DESIGN MANAGER: ABU HAIDER

BORDER LAST REVISED 9/17/2019 | CALTRANS WEB SITE IS: HTTP://WWW.DOT.CA.GOV/

RELATIVE BORDER SCALE IS IN INCHES

UNIT 0742 | PROJECT NUMBER & PHASE 0413000178

DATE PLOTTED => 02-09-24
TIME PLOTTED =>

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	1	0.0/58.6	2	XX

REGISTERED CIVIL ENGINEER DATE

Luis Hernandez 79708 9-30-24 CIVIL

PLANS APPROVAL DATE

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

LOCATIONS OF CONSTRUCTION (CENTERLINE RUMBLE STRIP)

ROUTE	LOCATION No.	PM	DESCRIPTION
1	R1	2.45 TO 9.40	FROM 0.03 MILE NORTH OF VALLEY FORD ESTERO Rd TO SMITH BROTHERS Rd
	R2	11.47 TO 15.10	FROM 0.18 MILE NORTH OF BAY HILL Rd TO 0.20 MILE SOUTH OF SCOTTY CREEK CULVERT
	R3	15.80 TO 21.00	FROM 0.40 MILE NORTH OF SCOTTY CREEK CULVERT TO 0.30 MILE SOUTH OF JENNER
	R4	22.00 TO 30.60	FROM 0.70 MILE NORTH OF JENNER TO 4.22 MILE NORTH OF MEYERS GRADE Rd
	R5	31.95 TO 58.53	FROM 0.30 MILE SOUTH OF FORT ROSS CEMETERY TO GUALALA RIVER BRIDGE

NOTES:

1. ACTUAL LOCATIONS OF CENTERLINE RUMBLE STRIPS SHALL BE DETERMINED BY THE ENGINEER.

LOCATIONS OF CONSTRUCTION (SHOULDER WIDENING)

ROUTE	SHEET No.	LOCATION No.	PM	DIRECTION	EXISTING TRAVELED WAY WIDTH (Ft)	EXISTING SHOULDER WIDTH (Ft)	DESCRIPTION
					NB/SB	NB/SB	
1	L-1	1	1.38	NB	11.5/12.0	4.0/4.0	0.28 MILE SOUTH OF MIDDLE Rd
		2	2.34	SB	11.5/12.0	Var/2.0	0.31 MILE NORTH OF VALLEY FORD ESTERO Rd
	L-2	3	7.60	SB	11.5/12.0	Var/Var	1.30 MILES NORTH OF BAY HILL Rd
		4	12.10	NB	10.5/10.5	Var/Var	0.81 MILE NORTH OF BAY HILL Rd
	L-3	5	14.25	SB	10.5/11.0	Var/Var	0.15 MILE NORTH OF CARMET DRIVE
		6	15.80	SB	10.5/11.0	Var/Var	0.50 MILE NORTH OF SCOTTY CREEK
		7	15.95	SB	10.0/11.5	Var/Var	0.65 MILE NORTH OF SCOTTY CREEK
	L-4	8	20.49	SB	11.0/12.0	Var/Var	0.81 MILE SOUTH OF JENNER
		9	21.00	SB	11.5/11.0	Var/2.0	0.30 MILE SOUTH OF JENNER
		10	23.61	SB	10.5/10.5	Var/Var	1.82 MILES NORTH OF BURKE Ave
	L-5	11	23.82	SB	10.0/11.0	Var/2.0	2.03 MILES NORTH OF BURKE Ave
		12	27.25	NB	11.0/10.0	4.0/2.0	0.87 MILES NORTH OF MEYERS GRADE Rd
	L-6	13	27.67	SB	10.5/10.5	2.0/2.0	1.29 MILES NORTH OF MEYERS GRADE Rd
		14	28.42	SB	10.0/10.0	Var/Var	2.04 MILES NORTH OF MEYERS GRADE Rd
	L-7	15	30.98	SB	10.5/10.5	Var/Var	4.61 MILES NORTH OF MEYERS GRADE Rd
		16	32.25	SB	11.0/11.0	Var/Var	0.78 MILE SOUTH OF FORT ROSS Rd
	L-8	17	33.62	SB	10.0/11.0	Var/Var	0.59 MILE NORTH OF FORT ROSS Rd
		18	40.49	SB	11.5/10.5	Var/Var	2.42 MILES SOUTH OF KRUSE RANCH Rd
	L-9	19	40.71	NB	12.0/11.0	Var/Var	2.20 MILES SOUTH OF KRUSE RANCH Rd
		20	41.74	SB	10.5/11.0	Var/Var	1.17 MILES SOUTH OF KRUSE RANCH Rd
	L-10	21	43.03	SB	11.5/11.0	Var/Var	0.12 MILE NORTH OF KRUSE RANCH Rd
		22	43.22	SB	11.5/11.0	Var/Var	0.31 MILE NORTH OF KRUSE RANCH Rd
	L-11	23	R44.53	SB	11.5/11.5	Var/Var	1.62 MILES NORTH OF KRUSE RANCH Rd
		24	R45.18	SB	11.0/11.5	Var/2.0	2.93 MILES SOUTH OF SKAGGS SPRING Rd
	L-12	25	46.06	SB	11.0/11.5	Var/2.0	2.05 MILES SOUTH OF SKAGGS SPRING Rd
		26	47.61	SB	11.5/11.5	2.0/2.0	0.50 MILE SOUTH OF SKAGGS SPRING Rd
	L-13	27	55.89	SB	10.5/11.5	Var/Var	0.86 MILE NORTH OF DEERFIELD Rd
		28	56.08	NB	11.0/11.0	2.0/Var	1.05 MILES NORTH OF DEERFIELD Rd
		29	57.11	SB	11.0/11.0	Var/2.0	2.08 MILES NORTH OF DEERFIELD Rd

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

DESIGN

FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ

CALCULATED/DESIGNED BY: LUIS HERNANDEZ

CHECKED BY: ANNA URETA

REVISED BY

DATE REVISED

LOCATIONS OF CONSTRUCTION

LC-1

BORDER LAST REVISED 8/5/2020

USERNAME =>

DGN FILE =>

RELATIVE BORDER SCALE IS IN INCHES

UNIT 0742

PROJECT NUMBER & PHASE 04130001781

DATE PLOTTED => 3/7/2024

TIME PLOTTED => 02-02-24

Coastal Commission
Exhibit 3
Page 2 of 16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	1	0.0/58.6	3	XX

REGISTERED CIVIL ENGINEER DATE

Luis Hernandez No. 79708 9-30-24 Exp. CIVIL

PLANS APPROVAL DATE

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

NOTES:

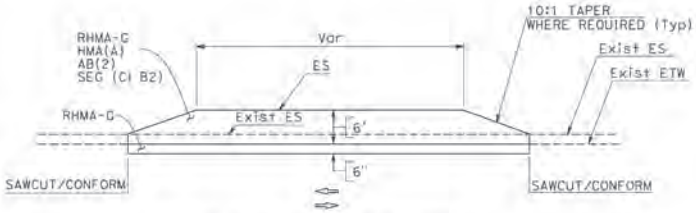
1. DIMENSIONS OF THE Pvmt STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. FOR SINUSOIDAL CENTERLINE RUMBLE STRIP, SEE Pvmt DELINEATION QUANTITIES.
3. FOR SINUSOIDAL CENTERLINE RUMBLE STRIP, SEE STANDARD PLANS A40F AND A40G FOR DETAILS.
4. RUMBLE STRIP SHOULD ALIGN WITH EXISTING STRIPE UNLESS DIRECTED BY ENGINEER.

ABBREVIATION

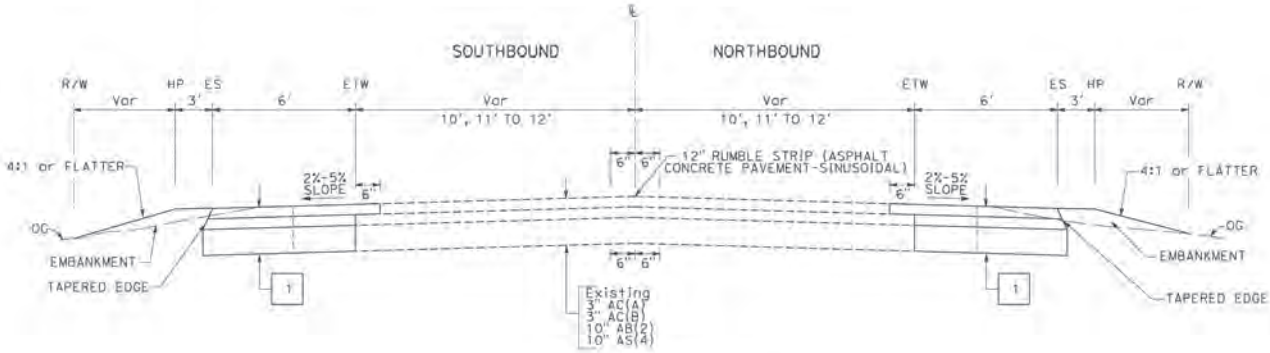
SEG SUBGRADE ENHANCEMENT GEOTEXTILE
RHMA-G RUBBERIZED HOT MIX ASPHALT (GAP GRADED)

PAVEMENT STRUCTURAL SECTION

1
0.20' RHMA-G
0.50' HMA(A)
1.00' AB(2)
SEG (CI B2)



SHOULDER WIDENING DETAIL (LAYOUT)



STATE ROUTE 1

TYPICAL CROSS SECTION

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN
FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ
CALCULATED-DESIGNED BY: LUIS HERNANDEZ
CHECKED BY: ANNA URETA
REVISED BY
DATE REVISED

BORDER LAST REVISED 8/5/2020
USERNAME =>
DGN FILE => ...\04150001T\sc01_0501_2024.dgn
RELATIVE BORDER SCALE IS IN INCHES
UNIT
PROJECT NUMBER & PHASE
DATE PLOTTED => 3/1/2024
TIME PLOTTED => 8:31:40 AM

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

CURVE DATA

No. ⓒ	R	Δ	T	L
1	620'	34° 11' 34"	190.69'	370.00'
2	800'	11° 17' 14"	79.06'	157.60'

LEGEND:

- SHOULDER WIDENING
- No. — STRUCTURAL SECTION NUMBER
- (No.) — CURVE DATA NUMBER

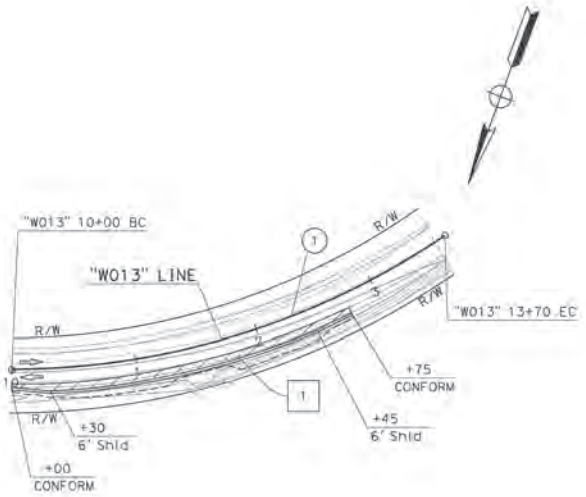
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	1	0.0/58.6	10	XX

REGISTERED CIVIL ENGINEER DATE

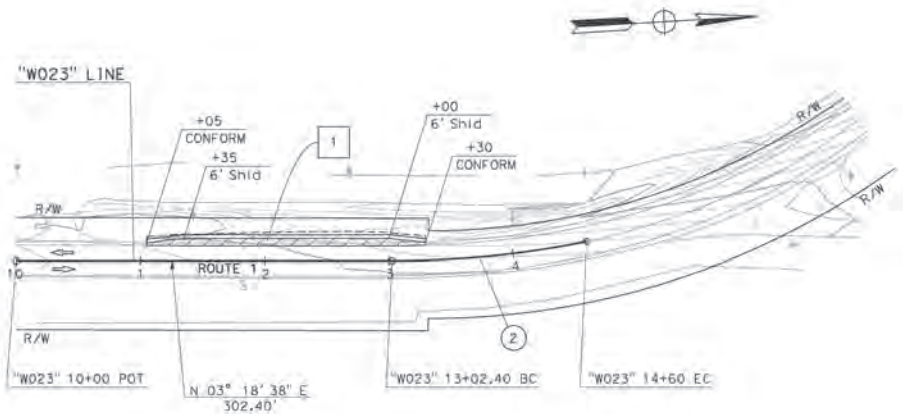
Luis Hernandez No. 79708 Exp. 9-30-24 CIVIL

PLANS APPROVAL DATE

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



LOCATION No. 1



LOCATION No. 2

LAYOUT
SCALE: 1" = 50'

L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN
FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ
CALCULATED-DESIGNED BY: ANNA URETA
CHECKED BY: LUIS HERNANDEZ
REVISED BY
DATE REVISED

BORDER LAST REVISED 8/5/2020
USERNAME =>
DGN FILE => ...\04_4g780_Layout True Scope & Cut for for 85 RSE LH 03012024.dgn
RELATIVE BORDER SCALE IS IN INCHES
UNIT
PROJECT NUMBER & PHASE
DATE PLOTTED => 3/13/2024
TIME PLOTTED => 07:49:20 AM

NOTE:

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

CURVE DATA

No. ⑧	R	Δ	T	L
3	4000'	00° 43' 32"	25.33'	50.66'
4	2500'	07° 45' 28"	169.50'	338.49'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Son	1	0.0/58.6	11	XX

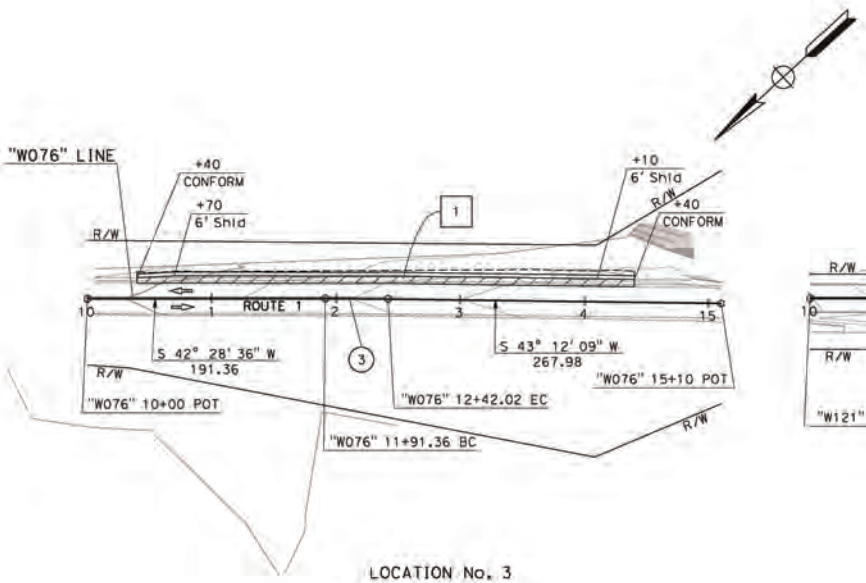
REGISTERED CIVIL ENGINEER DATE

Luis Hernandez No. 79708 Exp. 9-30-24 CIVIL

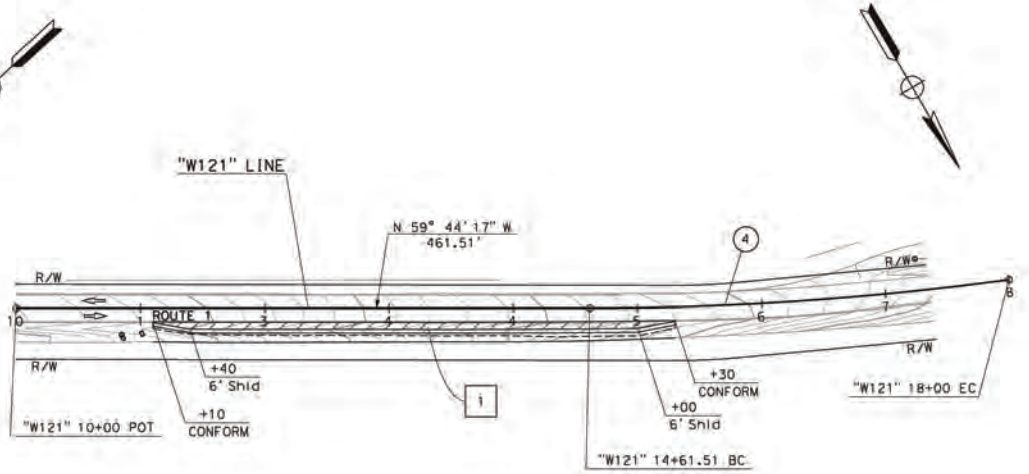
REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

PLANS APPROVAL DATE

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



LOCATION No. 3



LOCATION No. 4

LAYOUT

SCALE: 1" = 50'

L-2

FOR NOTES AND LEGEND, SEE SHEET L-1

UNIT

PROJECT NUMBER & PHASE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DESIGN

FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ

CALCULATED-DESIGNED BY: ANNA URETA

CHECKED BY: LUIS HERNANDEZ

REVISED BY

DATE REVISED

BORDER LAST REVISED 8/5/2020

USERNAME =>

DGN FILE => ...\04_4g780_Layout true Space & Cut for for 95 PSE LH 03012024.dgn

RELATIVE BORDER SCALE IS IN INCHES

LAST REVISION

DATE PLOTTED => 3/1/2024

TIME PLOTTED => 8:59:10 AM

NOTE:

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

CURVE DATA

No. ⑤	R	Δ	T	L
5	4500'	01° 49' 24"	71.61'	143.20'

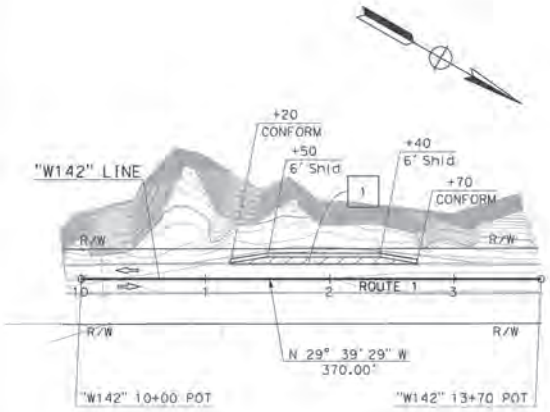
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	1	0.0/58.6	12	XX

REGISTERED CIVIL ENGINEER DATE

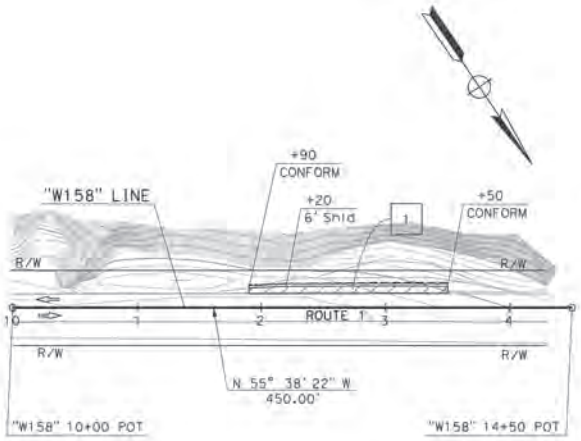
Luis Hernandez No. 79708 Exp. 9-30-24 CIVIL

PLANS APPROVAL DATE

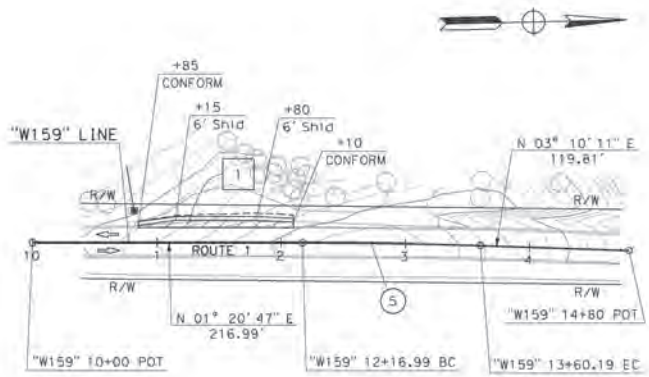
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



LOCATION No. 5



LOCATION No. 6



LOCATION No. 7

LAYOUT

SCALE: 1" = 50'

L-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | Caltrans | DESIGN | FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ | CALCULATED-DESIGNED BY: ANNA URETA | CHECKED BY: LUIS HERNANDEZ | REVISED BY | DATE REVISED

FOR NOTES AND LEGEND, SEE SHEET L-1

BORDER LAST REVISED 8/5/2020

USERNAME => DGN FILE => ...\04_4g780_Layout True Scale & Cut for for 85 RSE LH 03012024.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT PROJECT NUMBER & PHASE

DATE PLOTTED => 3/7/2024 TIME PLOTTED => 8:50:30 AM

NOTE:

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

CURVE DATA

No. ⓒ	R	Δ	T	L
6	500'	07° 38' 39"	33.40'	66.71'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	1	0.0/58.6	13	XX

REGISTERED CIVIL ENGINEER DATE

Luis Hernandez No. 79708 Exp. 9-30-24 CIVIL

PLANS APPROVAL DATE

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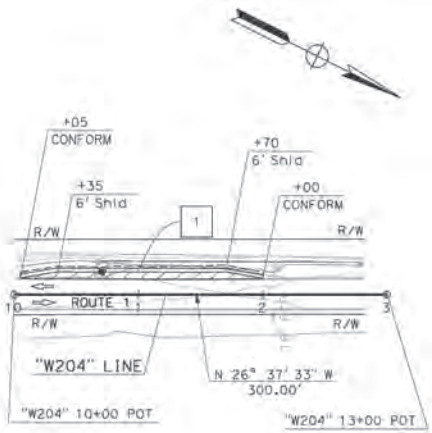
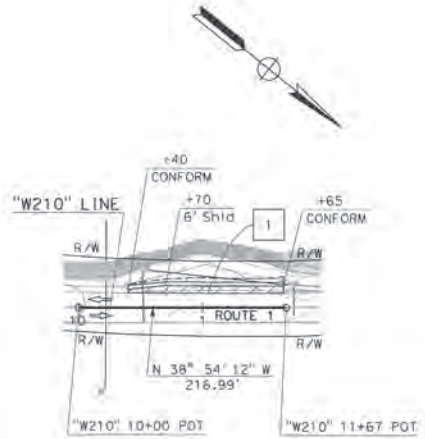
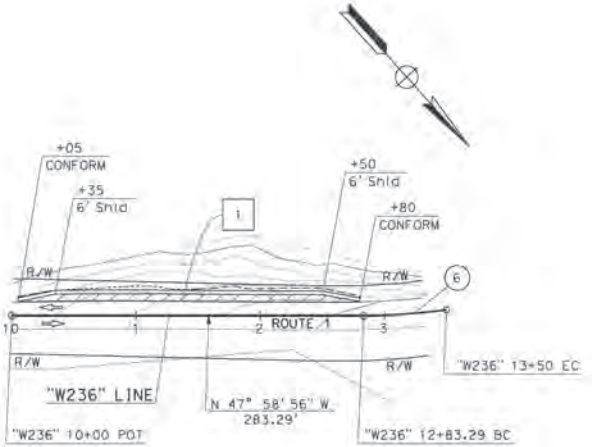


LOCATION No. 8



LOCATION No. 9



LOCATION No. 10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

DESIGN

FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ

CALCULATED-DESIGNED BY: ANNA URETA

CHECKED BY: LUIS HERNANDEZ

REVISED BY

DATE REVISED

LAYOUT

SCALE: 1" = 50'

L-4

FOR NOTES AND LEGEND, SEE SHEET L-1

BORDER LAST REVISED 8/5/2020

USERNAME =>

DGN FILE =>

RELATIVE BORDER SCALE IS IN INCHES

UNIT

PROJECT NUMBER & PHASE

DATE PLOTTED =>

TIME PLOTTED =>

NOTE:

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

CURVE DATA

No. ⓒ	R	Δ	T	L
7	80'	59° 55' 02"	46.11'	83.66'
8	110'	14° 55' 54"	14.42'	28.67'
9	95'	43° 47' 09"	38.18'	72.60'

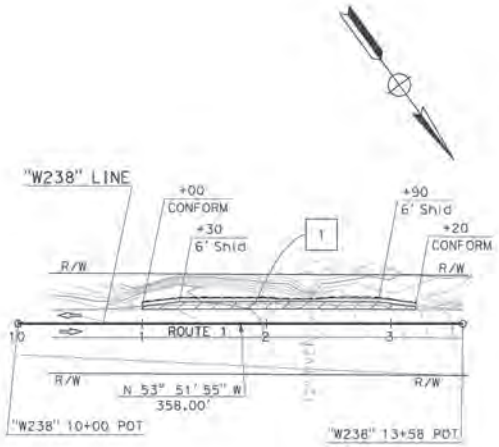
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	1	0.0/58.6	14	XX

REGISTERED CIVIL ENGINEER DATE

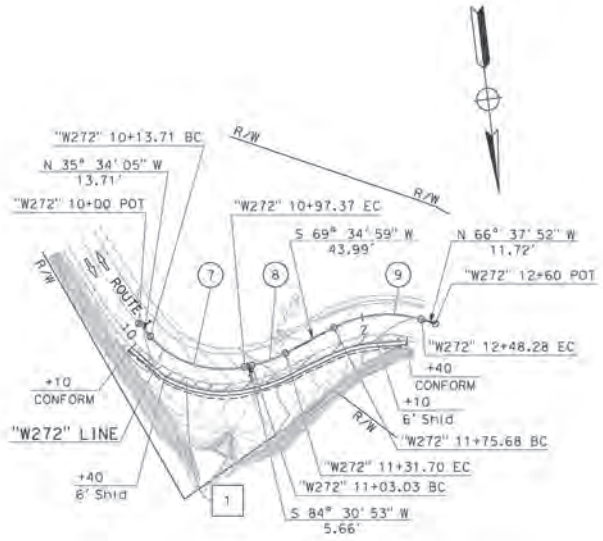
Luis Hernandez No. 79708 Exp. 9-30-24 CIVIL

PLANS APPROVAL DATE

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



LOCATION No. 11



LOCATION No. 12

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

DESIGN

FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ

CALCULATED-DESIGNED BY: ANNA URETA

CHECKED BY: LUIS HERNANDEZ

REVISED BY

DATE REVISED

FOR NOTES AND LEGEND, SEE SHEET L-1

LAYOUT

SCALE: 1" = 50'

L-5

BORDER LAST REVISED 8/5/2020

USERNAME =>

DGN FILE => ...\04_4g780_Layout True Scope & Cut for for 85 RSE LH 03012024.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT

PROJECT NUMBER & PHASE

DATE PLOTTED => 3/7/2024

TIME PLOTTED => 09:51:17 AM

NOTE:

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

CURVE DATA

No. Ⓢ	R	Δ	T	L
10	270'	35° 52' 44"	87.41'	169.07'
11	225'	37° 33' 18"	76.50'	147.48'
12	470'	10° 45' 58"	44.29'	88.32'
13	220'	27° 59' 31"	54.84'	107.48'
14	600'	05° 45' 01"	30.13'	60.22'

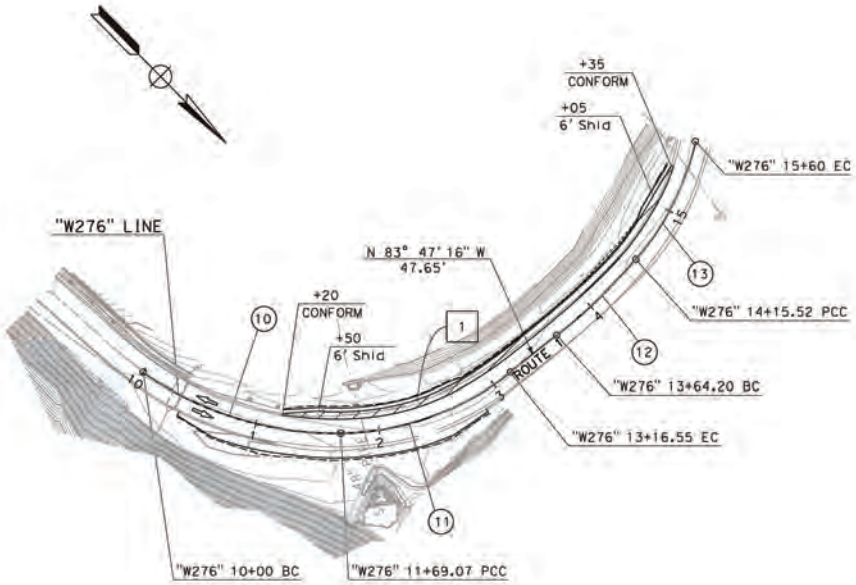
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	1	0.0/58.6	15	XX

REGISTERED CIVIL ENGINEER DATE

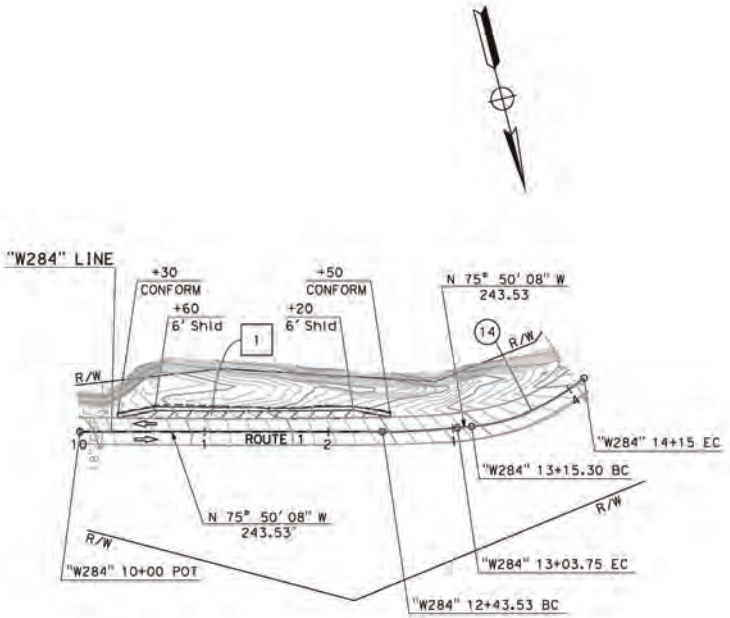
PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER — Luis Hernandez — No. 79708 — Exp. 9-30-24 — CIVIL — STATE OF CALIFORNIA



LOCATION No. 13



LOCATION No. 14

LAYOUT
SCALE: 1" = 50'

L-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans — DESIGN
FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ
CALCULATED-DESIGNED BY: ANNA URETA
CHECKED BY: LUIS HERNANDEZ
REVISED BY
DATE REVISED

BORDER LAST REVISED 8/5/2020

USERNAME =>
DGN FILE => ...\04_4g780_Layout true Space & Cut for for 95 PSE LH 03012024.dgn

RELATIVE BORDER SCALE IS IN INCHES

FOR NOTES AND LEGEND, SEE SHEET L-1

UNIT

PROJECT NUMBER & PHASE

DATE PLOTTED => 3/1/2024
TIME PLOTTED => 8:51:36 AM

LAST REVISION

NOTE:

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

CURVE DATA

No. Ⓒ	R	Δ	T	L
15	900'	17° 01' 47"	134.74'	267.50'
16	1220'	13° 27' 21"	143.92'	286.52'
17	480'	38° 11' 50"	166.20'	320.00'

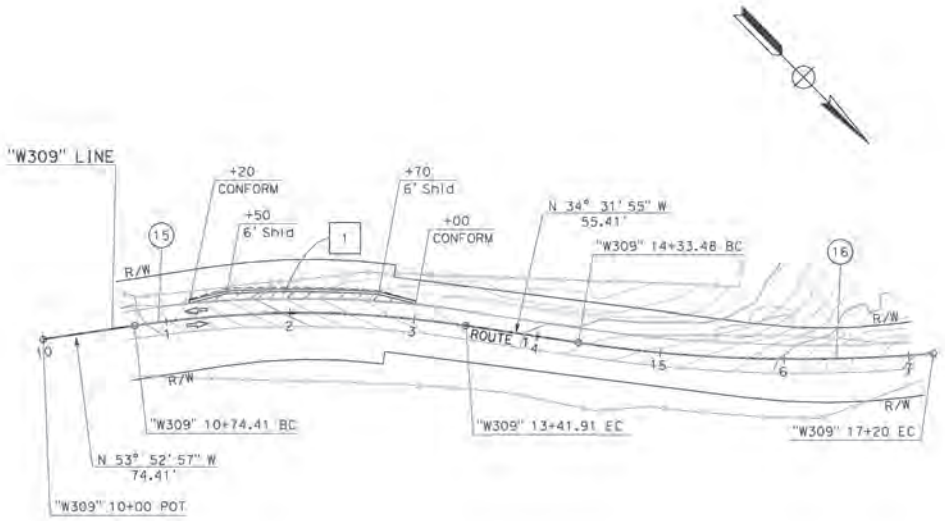
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	1	0.0/58.6	16	XX

REGISTERED CIVIL ENGINEER DATE

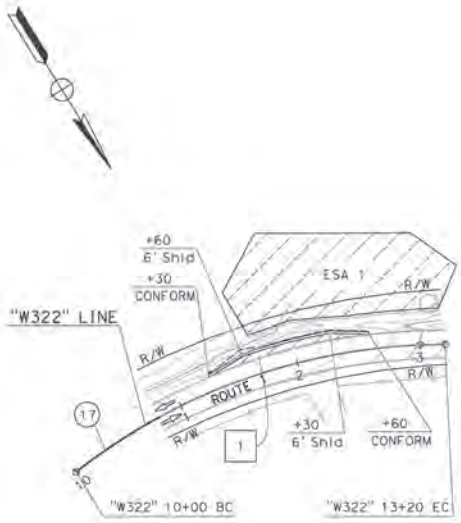
Luis Hernandez No. 79708 Exp. 9-30-24 CIVIL

PLANS APPROVAL DATE

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



LOCATION No. 15



LOCATION No. 16

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN
FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ
CALCULATED-DESIGNED BY: ANNA URETA
CHECKED BY: LUIS HERNANDEZ
REVISED BY
DATE REVISED

FOR NOTES AND LEGEND, SEE SHEET L-1

LAYOUT
SCALE: 1" = 50'

L-7

BORDER LAST REVISED 8/5/2020

USERNAME =>
DGN FILE => ...\04 4g780 Layout True Scope & Cut for for 65 RSE LH 03012024.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT

PROJECT NUMBER & PHASE

DATE PLOTTED => 3/7/2024
TIME PLOTTED => 09:51:52 AM

NOTE:

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

CURVE DATA

No. ⓑ	R	Δ	T	L
18	1000'	06° 28' 57"	56.63'	113.14'
19	530'	16° 17' 24"	75.85'	150.69'
20	1760'	02° 37' 57"	40.44'	80.87'
21	890'	06° 53' 24"	41.54'	82.97'

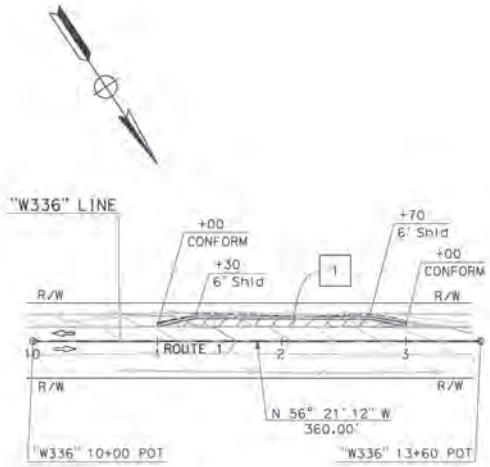
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Son	1	0.0/58.6	17	XX

REGISTERED CIVIL ENGINEER DATE

Luis Hernandez No. 79708 Exp. 9-30-24 CIVIL

PLANS APPROVAL DATE

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



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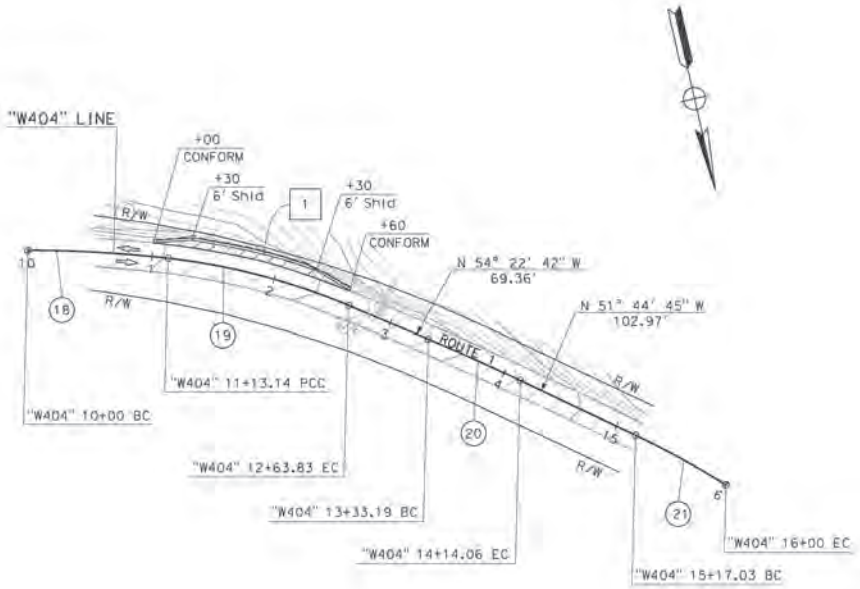

LOCATION No. 18

LAYOUT

SCALE: 1" = 50'

L-8

FOR NOTES AND LEGEND, SEE SHEET L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

DESIGN

FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ

CALCULATED-DESIGNED BY: ANNA URETA

CHECKED BY: LUIS HERNANDEZ

REVISED BY

DATE REVISED

BORDER LAST REVISED 8/5/2020

USERNAME =>

DGN FILE => ...\04 4g780 Layout True Scope & Cut for for 85 PSE LH 03012024.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT

PROJECT NUMBER & PHASE

DATE PLOTTED => 3/7/2024

TIME PLOTTED => 07:11 AM

NOTE:

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

CURVE DATA

No. ⓒ	R	Δ	T	L
22	430'	21° 53' 16"	83.15'	164.27'
23	218'	12° 41' 55"	24.26'	48.32'
24	116'	66° 38' 45"	76.26'	134.93'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	1	0.0/58.6	18	XX

REGISTERED CIVIL ENGINEER DATE

Luis Hernandez No. 79708 Exp. 9-30-24 CIVIL

PLANS APPROVAL DATE

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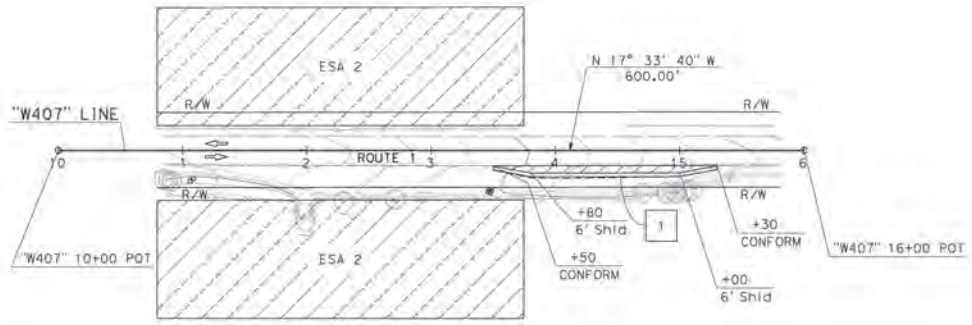

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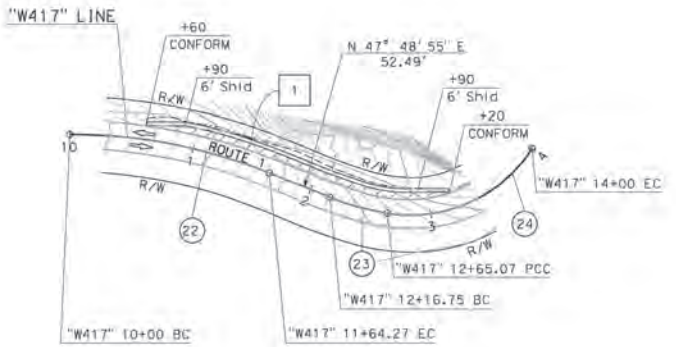

LOCATION No. 20

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans — DESIGN

FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ

CALCULATED-DESIGNED BY: ANNA LORETA

CHECKED BY: LUIS HERNANDEZ

REVISED BY

DATE REVISED

FOR NOTES AND LEGEND, SEE SHEET L-1

LAYOUT

SCALE: 1" = 50'

L-9

BORDER LAST REVISED 8/5/2020

USERNAME =>

DGN FILE => ...\04_4g780_Layout True Scale & Cut for for 65 RSE LH 03012024.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT

PROJECT NUMBER & PHASE

DATE PLOTTED => 3/7/2024

TIME PLOTTED => 8:52:48 AM

NOTE:

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

CURVE DATA

No. ⓒ	R	Δ	T	L
25	210'	29° 15' 38"	54.82'	107.25'
26	140'	32° 28' 54"	40.78'	79.38'
27	380'	13° 57' 12"	46.50'	92.54'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	1	0.0/58.6	19	XX

REGISTERED CIVIL ENGINEER DATE

Luis Hernandez No. 79708 Exp. 9-30-24 CIVIL

PLANS APPROVAL DATE

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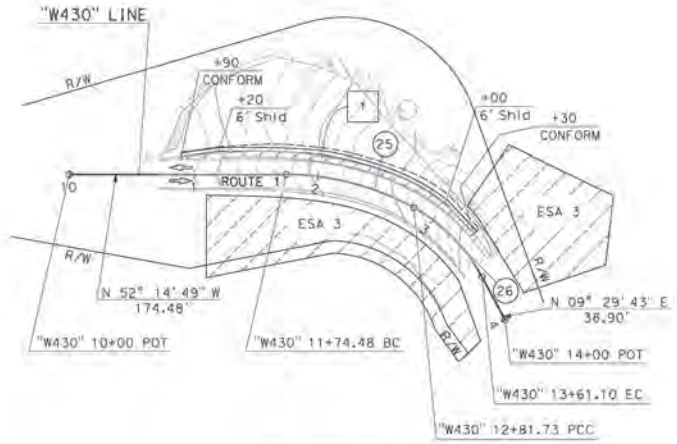

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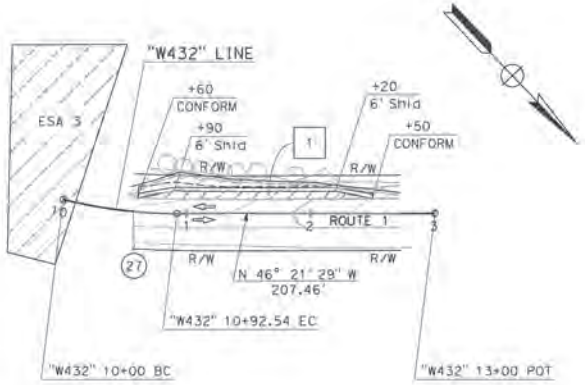

LOCATION No. 22

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

DESIGN

FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ

CALCULATED-DESIGNED BY: ANNA URETA

CHECKED BY: LUIS HERNANDEZ

REVISED BY

DATE REVISED

LAYOUT

SCALE: 1" = 50'

L-10

FOR NOTES AND LEGEND, SEE SHEET L-1

BORDER LAST REVISED 8/5/2020

USERNAME =>

DGN FILE => ...\04 4g780 Layout True Scope & Est for for 65 RSE LH 03012024.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT

PROJECT NUMBER & PHASE

DATE PLOTTED => 3/7/2024

TIME PLOTTED => 09:33:07 AM

NOTE:

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

CURVE DATA

No. ⓒ	R	Δ	T	L
28	920'	18° 22' 10"	148.76'	294.96'
29	2100'	05° 25' 50"	294.91'	99.60'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	1	0.0/58.6	20	XX

REGISTERED CIVIL ENGINEER DATE

Luis Hernandez No. 79708 Exp. 9-30-24 CIVIL

PLANS APPROVAL DATE

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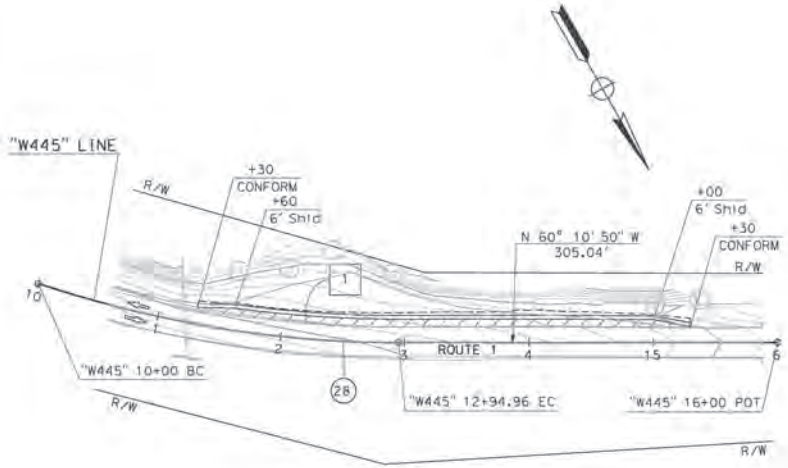

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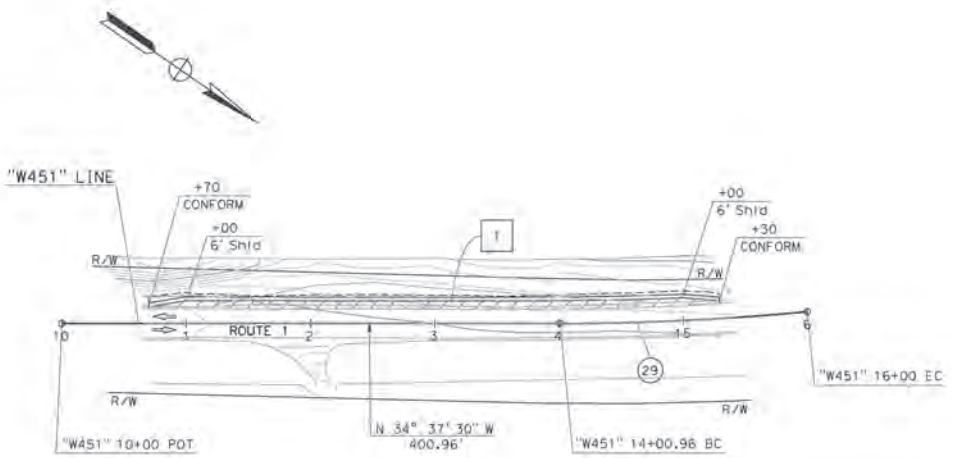

LOCATION No. 24

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

DESIGN

FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ

CALCULATED-DESIGNED BY: ANNA URETA

CHECKED BY: LUIS HERNANDEZ

REVISED BY

DATE REVISED

LAYOUT

SCALE: 1" = 50'

L-11

FOR NOTES AND LEGEND, SEE SHEET L-1

BORDER LAST REVISED 8/5/2020

USERNAME =>

DGN FILE => ...\04 4g780 Layout Title Sheet & Est for for 65 RSE LH 03012024.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT

PROJECT NUMBER & PHASE

DATE PLOTTED => 3/7/2024

TIME PLOTTED => 8:59:26 AM

NOTE:

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

CURVE DATA

No. ⑧	R	Δ	T	L
30	2740'	02° 23' 53"	57.35'	114.68'
31	710'	16° 30' 01"	102.95'	204.47'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	1	0.0/58.6	21	XX

REGISTERED CIVIL ENGINEER DATE

Luis Hernandez No. 79708 Exp. 9-30-24 CIVIL

PLANS APPROVAL DATE

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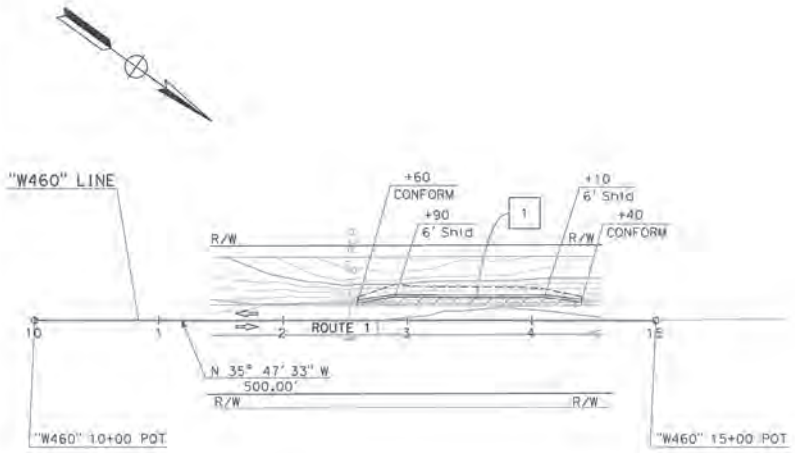

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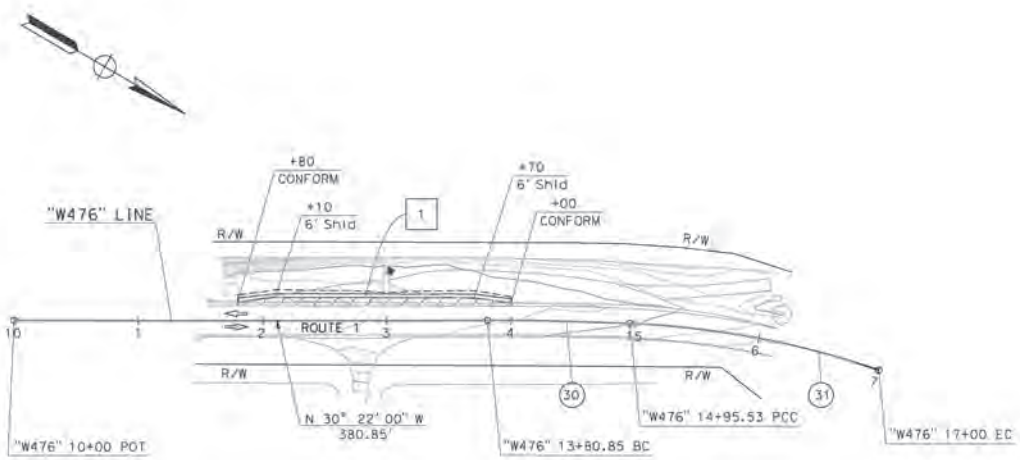

LOCATION No. 26

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

DESIGN

FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ

CALCULATED-DESIGNED BY: ANNA LORETA

CHECKED BY: LUIS HERNANDEZ

REVISED BY

DATE REVISED

FOR NOTES AND LEGEND, SEE SHEET L-1

LAYOUT

SCALE: 1" = 50'

L-12

BORDER LAST REVISED 8/5/2020

USERNAME =>

DGN FILE => ...\04_4g780_Layout True Scope & Est for for 65 RSE LH 03012024.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT

PROJECT NUMBER & PHASE

DATE PLOTTED => 3/7/2024

TIME PLOTTED => 09:39:42 AM

NOTE:

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

CURVE DATA

No. ⓒ	R	Δ	T	L
32	5000'	00° 50' 18"	36.58'	73.15'
33	4000'	05° 36' 49"	196.11'	391.90'
34	1280'	10° 45' 28"	120.52'	240.33'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	1	0.0/58.6	22	XX

REGISTERED CIVIL ENGINEER DATE

Luis Hernandez No. 79708 Exp. 9-30-24 CIVIL

PLANS APPROVAL DATE

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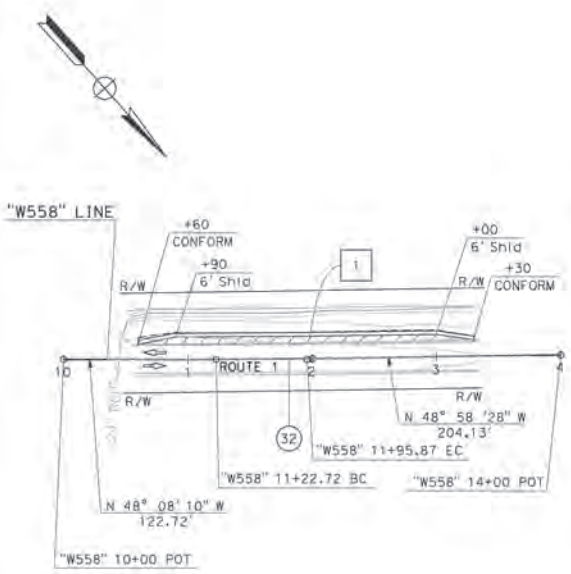

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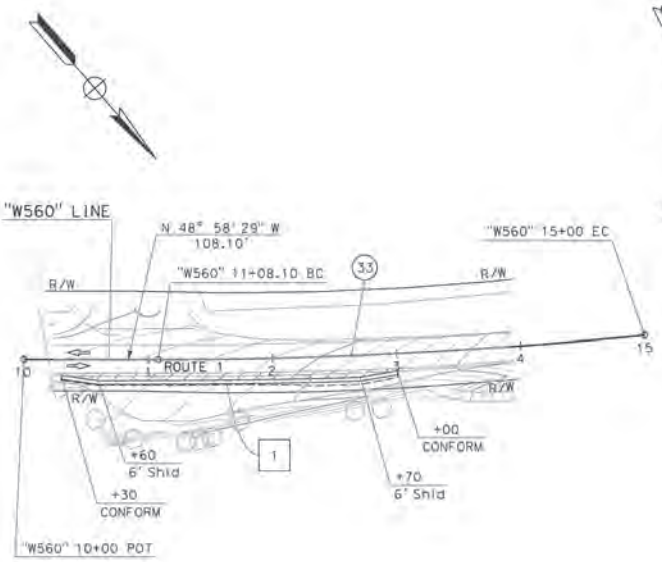
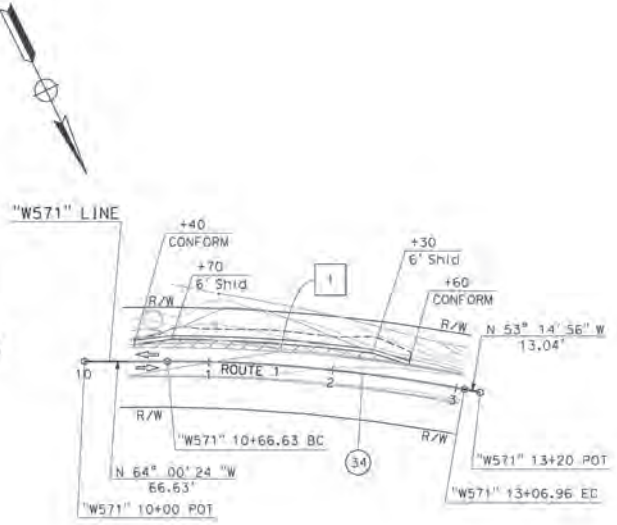


LOCATION No. 28



LOCATION No. 29

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

DESIGN

FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ

CALCULATED-DESIGNED BY: ANNA URETA

CHECKED BY: LUIS HERNANDEZ

REVISED BY

DATE REVISED

FOR NOTES AND LEGEND, SEE SHEET L-1

LAYOUT

SCALE: 1" = 50'

L-13

BORDER LAST REVISED 8/5/2020

USERNAME =>

DGN FILE => ...\04 4g780 Layout True Scope & Est for for 85 RSE LH 03012024.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT

PROJECT NUMBER & PHASE

DATE PLOTTED => 3/11/2024

TIME PLOTTED => 8:59:59 AM

Appendix A Summary of Project Features, and Avoidance and/or Minimization Measures

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: 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.

- **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 hydroseeded with commercially available locally appropriate native grasses and shrubs. 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, Cease Work Upon Discovery of Cultural Resources:** Cease work within 60-feet if cultural resources are encountered during Project-related 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 cultural materials are encountered during construction, work will be stopped within a 60-foot radius of the find until a qualified archaeologist can evaluate the nature and significance of the find, in coordination with local consulting tribes. 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 Native American Heritage Commission (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) was completed during the Project's design phase to characterize and profile the soil to be encountered by the construction of the Project. The project area was found to contain nothing but unregulated soils that won't require any management or disposal requirements specific to hazardous waste characteristics.

- **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 (Reseed and Restore Disturbed Areas).** Restoration of temporary disturbance areas, 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.

- **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.

- **AMM-BIO-3: Biological Monitoring**. The Caltrans biological monitor will be present during construction activities. 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).

  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 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-CULT-1, Establish and Enforce ESAs:** Cultural 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 consulting tribal representatives will be implemented before and during construction.

- **AMM-NOISE-1, Construction Noise Levels:** The following measures would be implemented to reduce noise levels during construction where feasible:

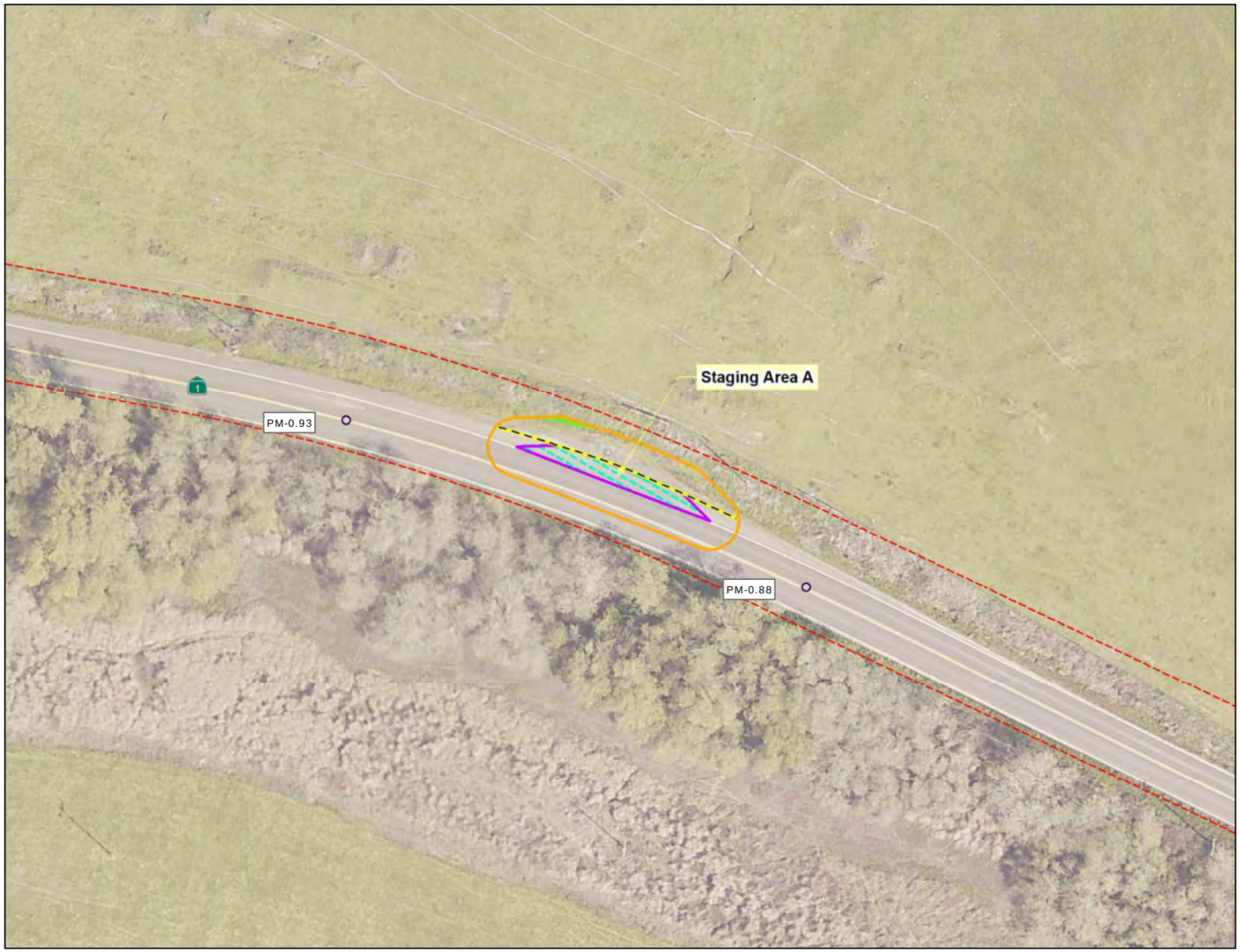
  - Any operation exceeding 86 dBA would not be allowed at nighttime from 9:00 p.m. to 6 a.m.
  - Public outreach would be required throughout the Project to update residents, businesses, and others regarding upcoming construction-related activities and Project schedule.
  - Schedule noisy operations within 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-TRANS-1, Coordinate Construction Schedules:** Caltrans provided Sonoma County Regional Parks with the 95% PS&E package, to ensure Sonoma County Regional Parks can review and provide input on the Caltrans improvement plans during the design phase, and to ensure Sonoma County Regional Parks and Caltrans can coordinate construction activities if overlap exists between the Project and Sonoma County Regional Parks efforts related to the North Coast Trails Project. Sonoma County Regional Parks did not have any comments on the 95% PS&E package.

- **AMM-TRANS-2, Bicycle-Related Signage:** Caltrans evaluated bicycle-related signage in areas where the shoulder tapers and narrows again where bicyclists may be re-entering the lane from the widened shoulder.

- **AMM-UTIL-1, Utility Notifications:** Caltrans performed an investigation of known utilities within the project limits and determined that no utility relocations are necessary.



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area

Environmentally Sensitive Habitat Areas

- Arroyo Willow Thicket

N

0 50 100

Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 01 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

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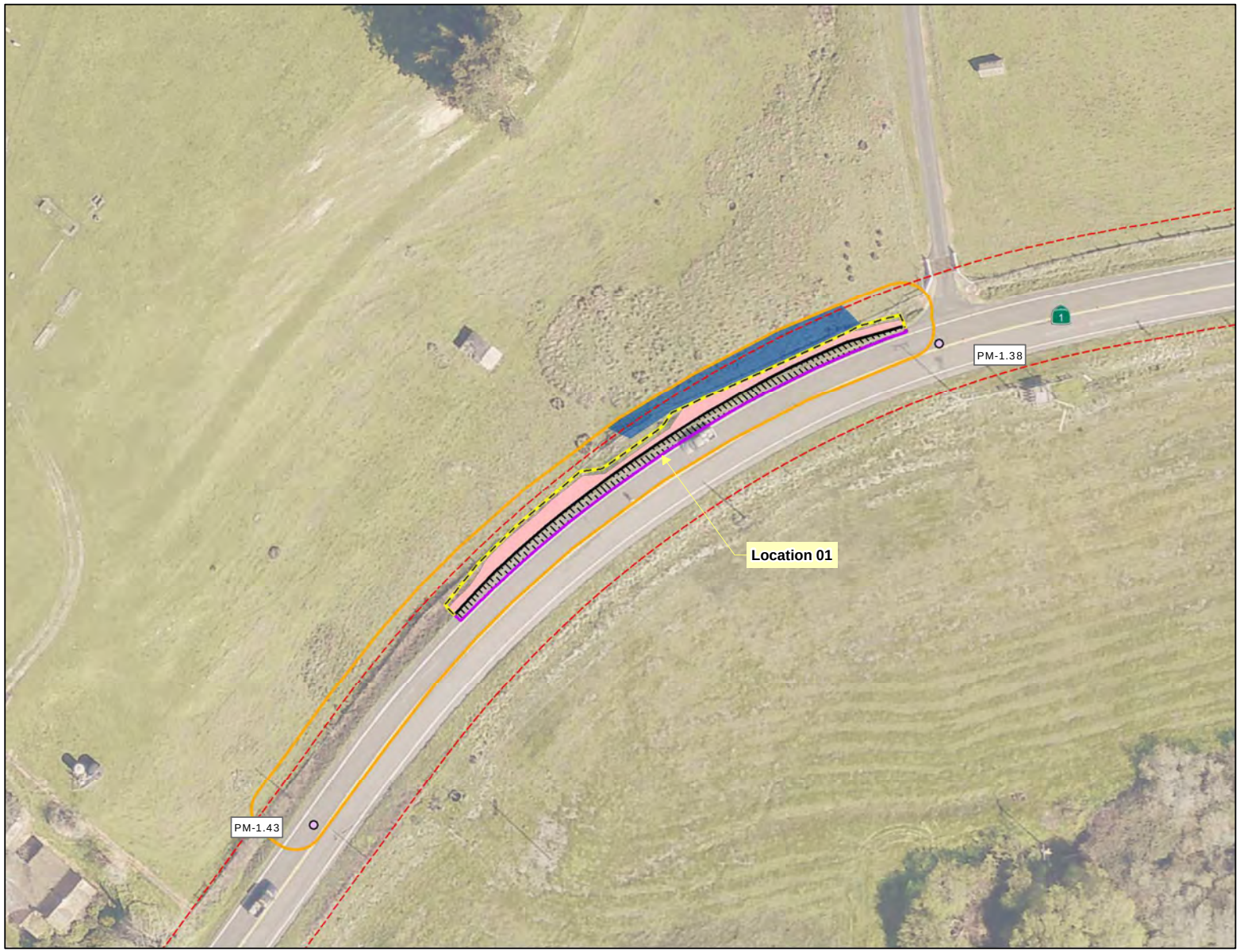

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening

Environmentally Sensitive Habitat Areas

- Soft Rush Marsh

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Imagery Source:
Sonoma County 2021

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Figure 3-1
Map 02 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 1)
- Fill Area
- Shoulder Widening

N

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Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 03 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

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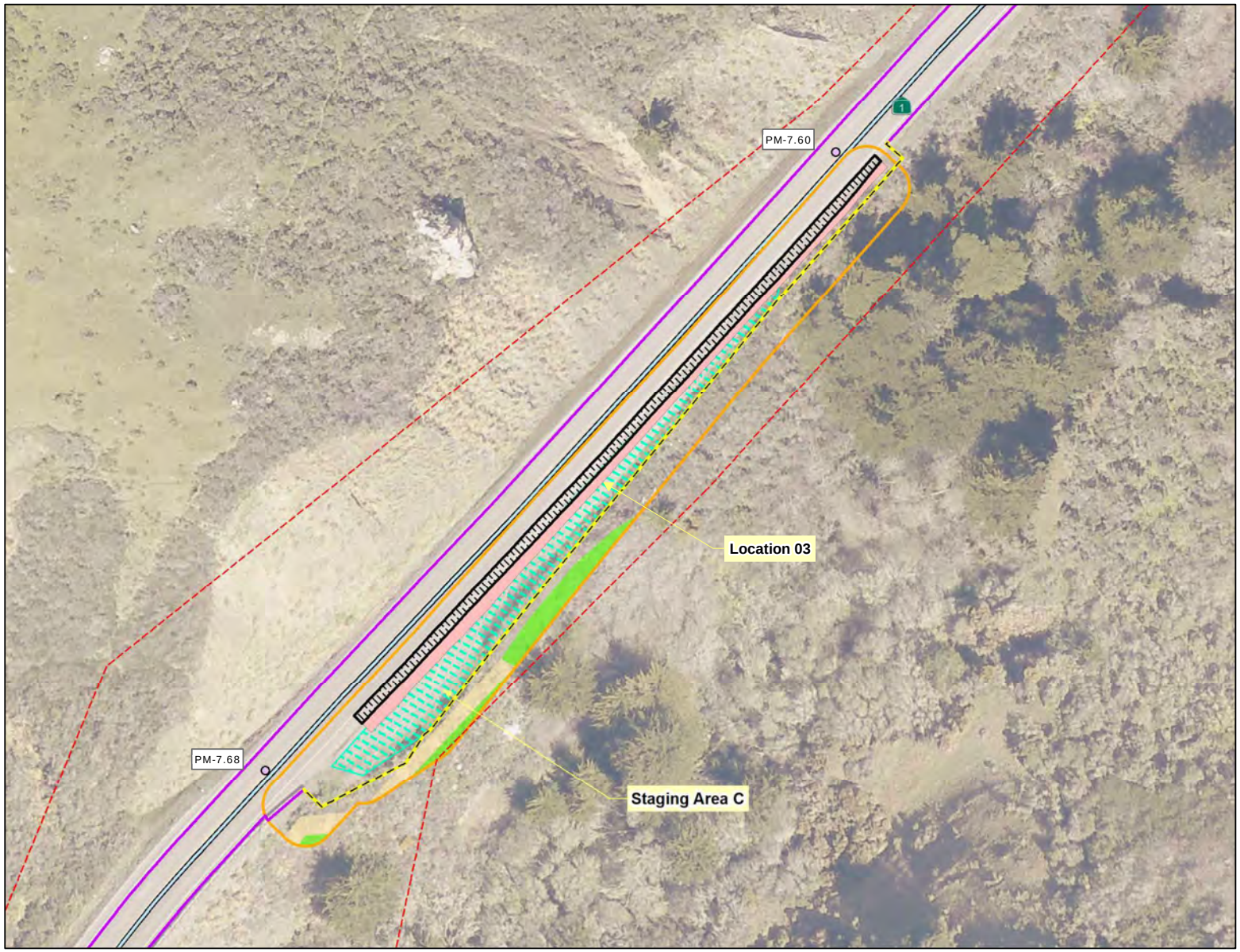

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area
- Install Centerline Rumble Strip (Segment 1)
- Fill Area
- Shoulder Widening

Environmentally Sensitive Habitat Areas

- Arroyo Willow Thicket
- Bush Monkeyflower Scrub

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Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 04 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

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LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area
- Install Centerline Rumble Strip (Segment 1)

Tree Species

- Willow (*Salix*)
- Trees within CDFW 1600 Jurisdictional Riparian Habitat
- CDFW 1600 Jurisdictional Riparian Habitat

Environmentally Sensitive Habitat Areas

- Sitka Willow Thicket

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Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 05 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

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LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 2)
- Fill Area
- Shoulder Widening

Tree Species

- Monterey cypress (*Hesperocyparis macrocarpa*)

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Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 06 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

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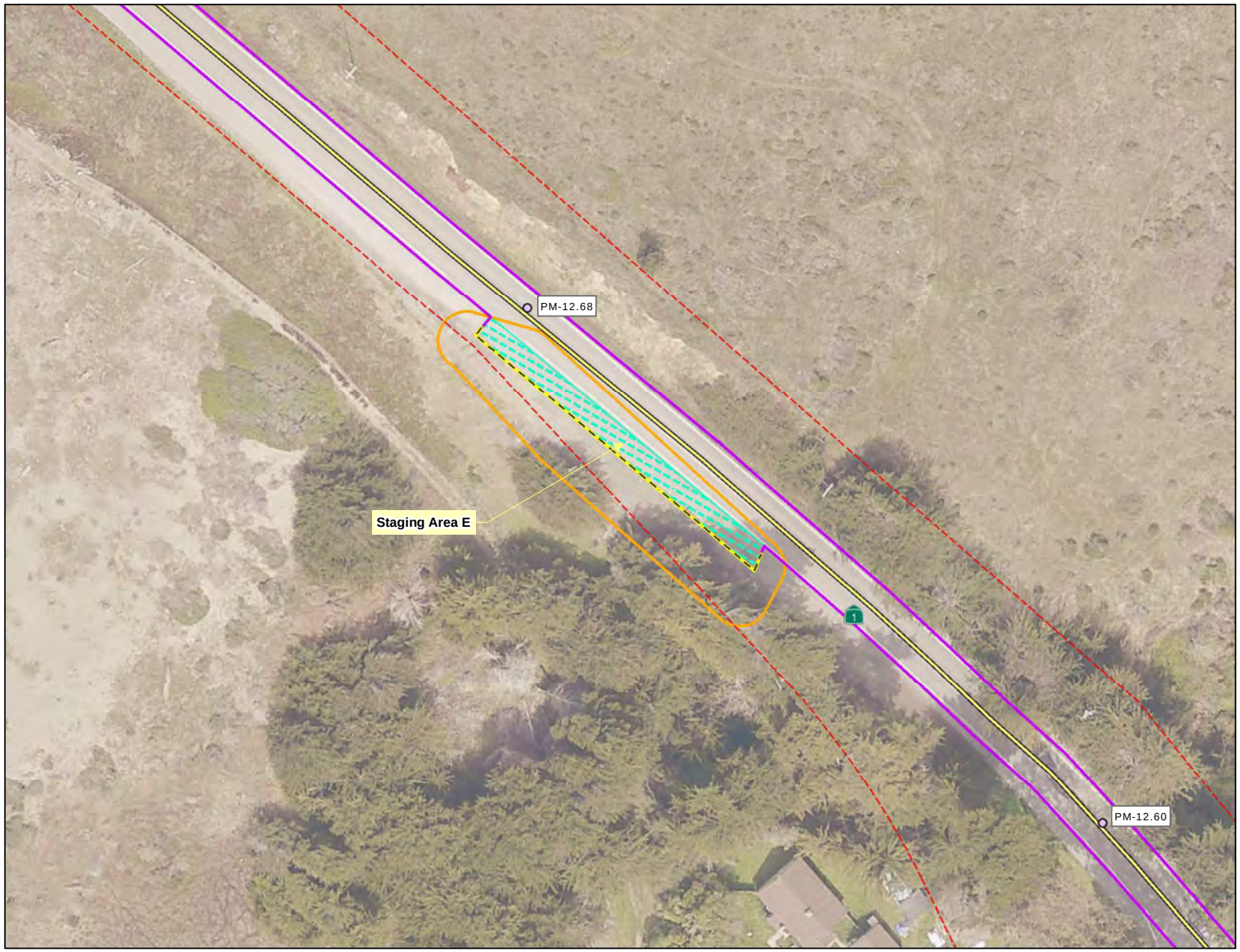

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area
- Install Centerline Rumble Strip (Segment 2)

N

0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 07 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

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LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 2)
- Fill Area
- Shoulder Widening

Environmentally Sensitive Habitat Areas

- Arroyo Willow Thicket

N

0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 08 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

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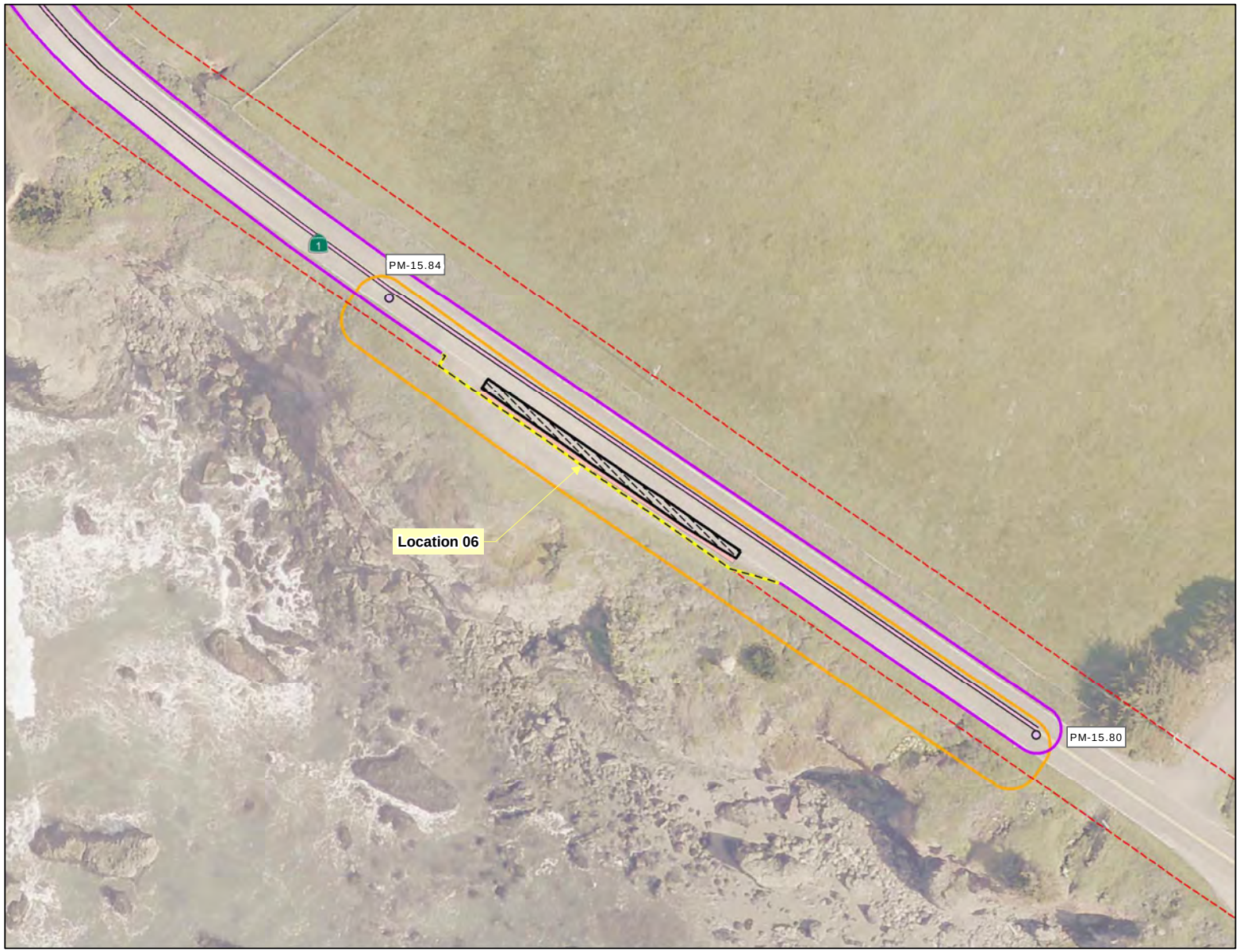

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 3)
- Fill Area
- Shoulder Widening

N

0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 09 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

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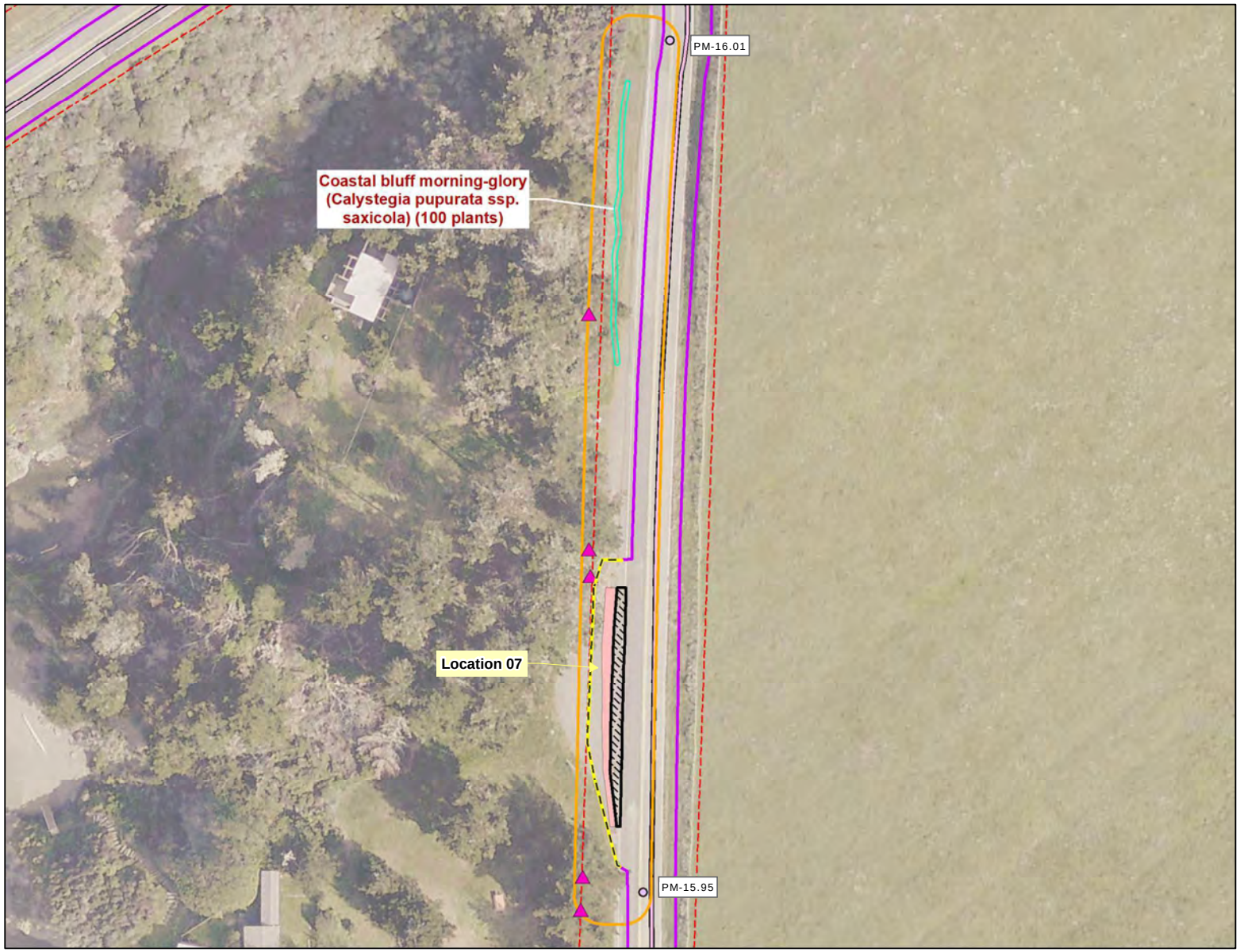


LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 3)
- Fill Area
- Shoulder Widening

Tree Species

- Monterey pine (*Pinus radiata*)

Rare Plant Species

- Coastal bluff morning glory (Calystegia pupurata ssp. saxicola)

N

0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 10 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area
- Install Centerline Rumble Strip (Segment 3)

N

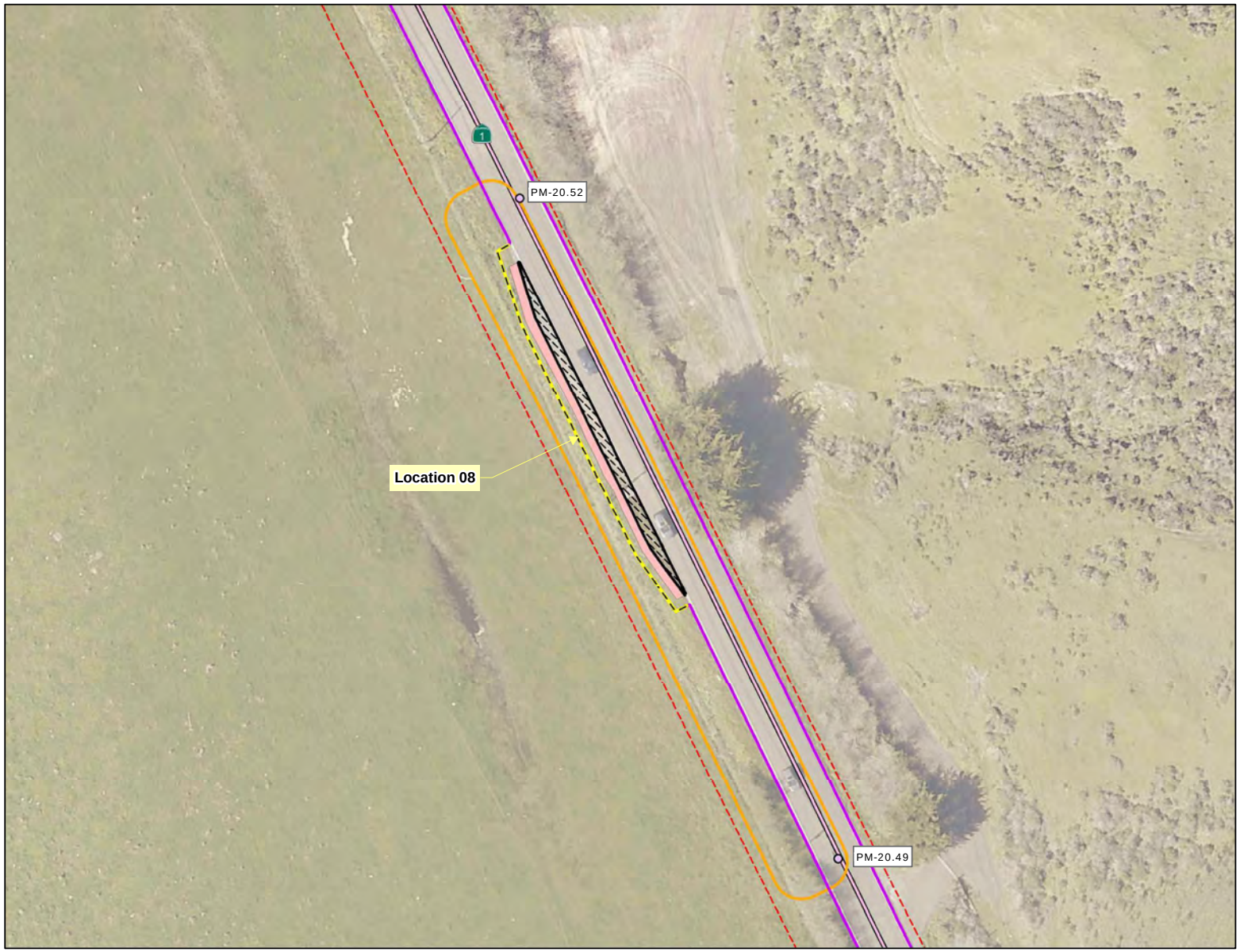
0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 11 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 3)
- Fill Area
- Shoulder Widening

N

0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 12 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 3)
- Fill Area
- Shoulder Widening

Tree Species

- California bay (*Umbellularia californica*)

Environmentally Sensitive Habitat Areas

- Arroyo Willow Thicket
- Bush Monkeyflower Scrub
- California Bay Forest

N

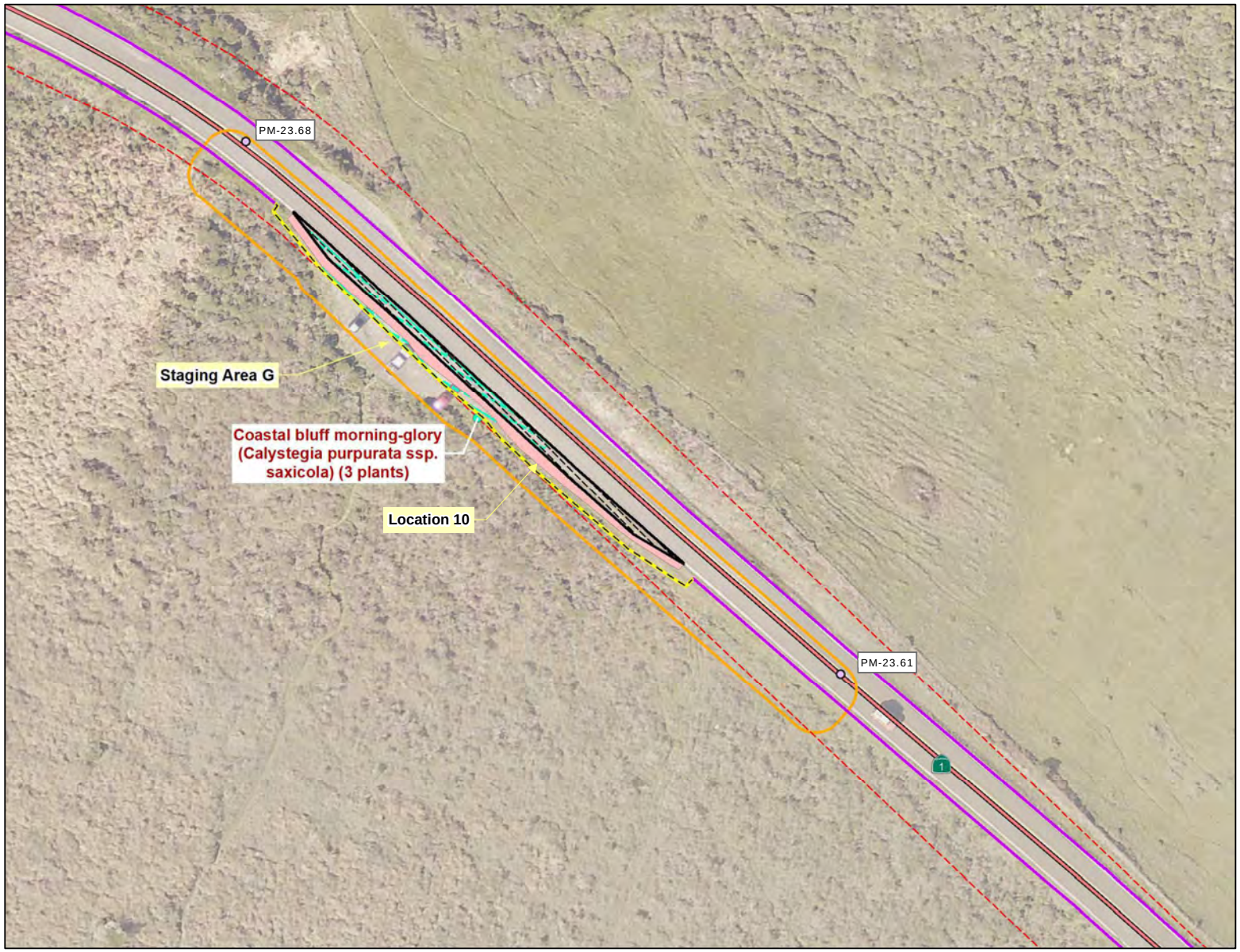
0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 13 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area
- Install Centerline Rumble Strip (Segment 4)
- Fill Area
- Shoulder Widening

Rare Plant Species

- Coastal bluff morning glory (Calystegia purpurata ssp. saxicola)

Imagery Source:
Sonoma County 2021

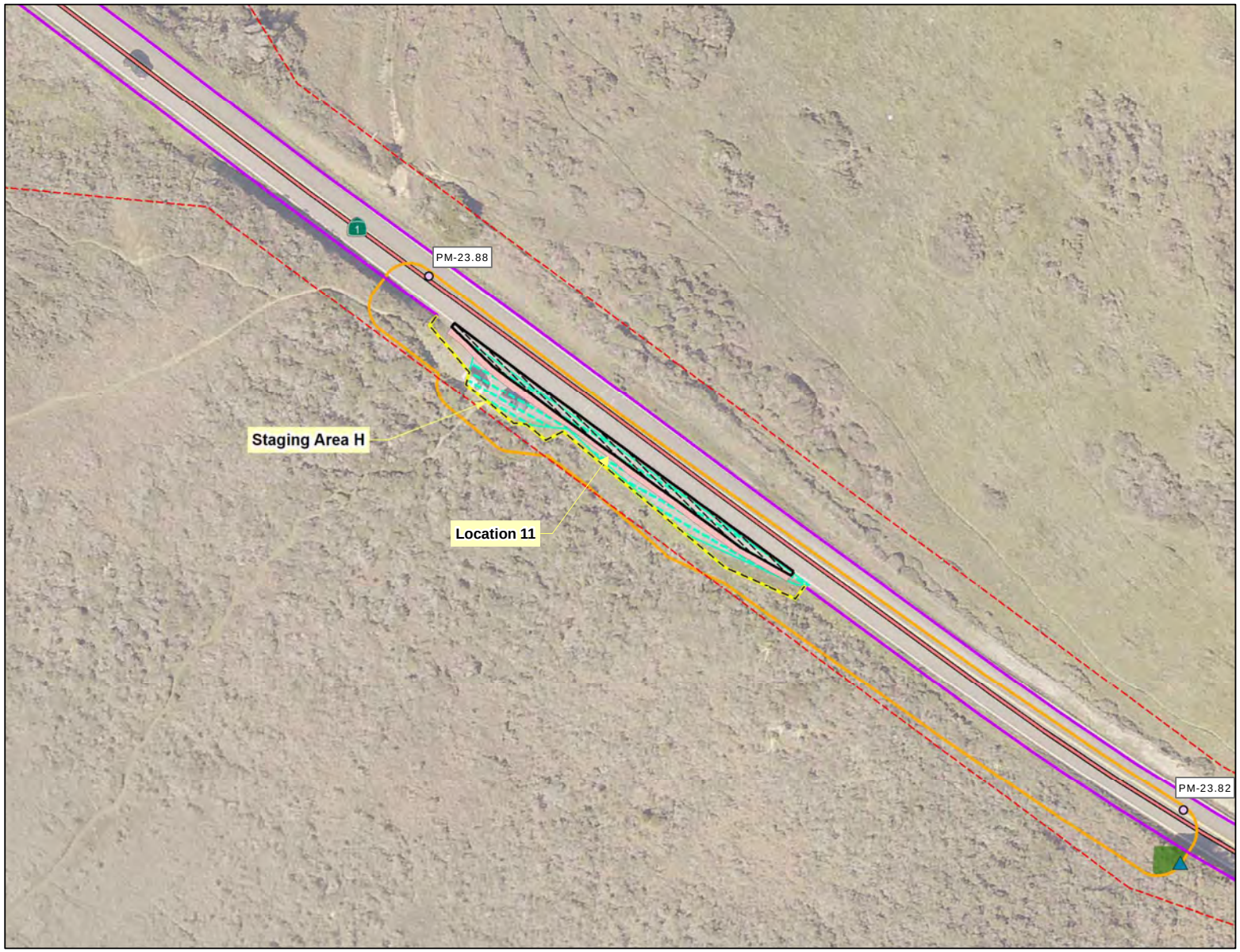
N

0 50 100
Feet

Caltrans

Figure 3-1
Map 14 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area
- Install Centerline Rumble Strip (Segment 4)
- Fill Area
- Shoulder Widening

Tree Species

- Douglas fir (*Psuedotsuga menziesii*)

Environmentally Sensitive Habitat Areas

- Douglas Fir Forest

N

0 50 100

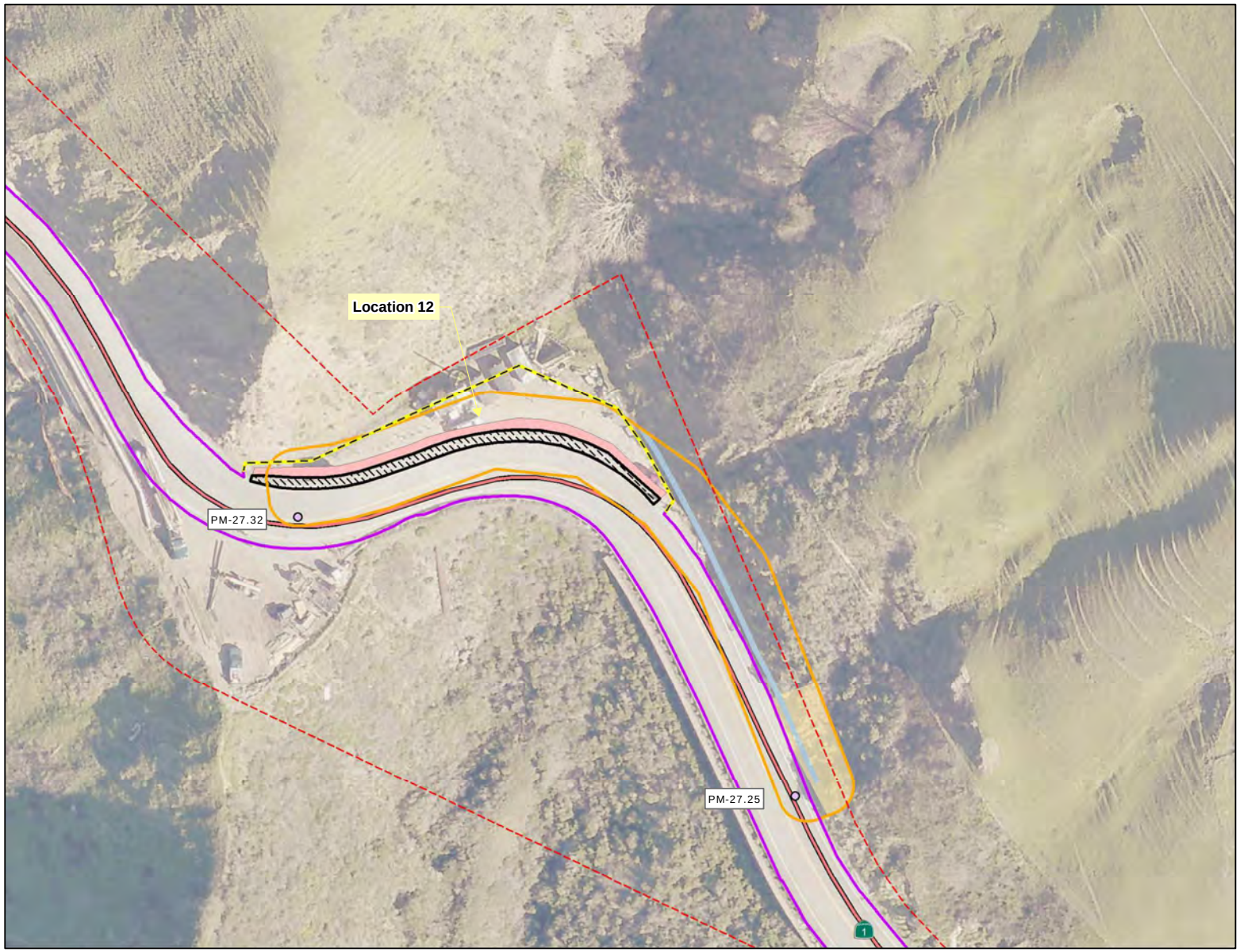
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 15 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 4)
- Fill Area
- Shoulder Widening

Environmentally Sensitive Habitat Areas

- Bush Monkeyflower Scrub
- Seasonal Wetland

N

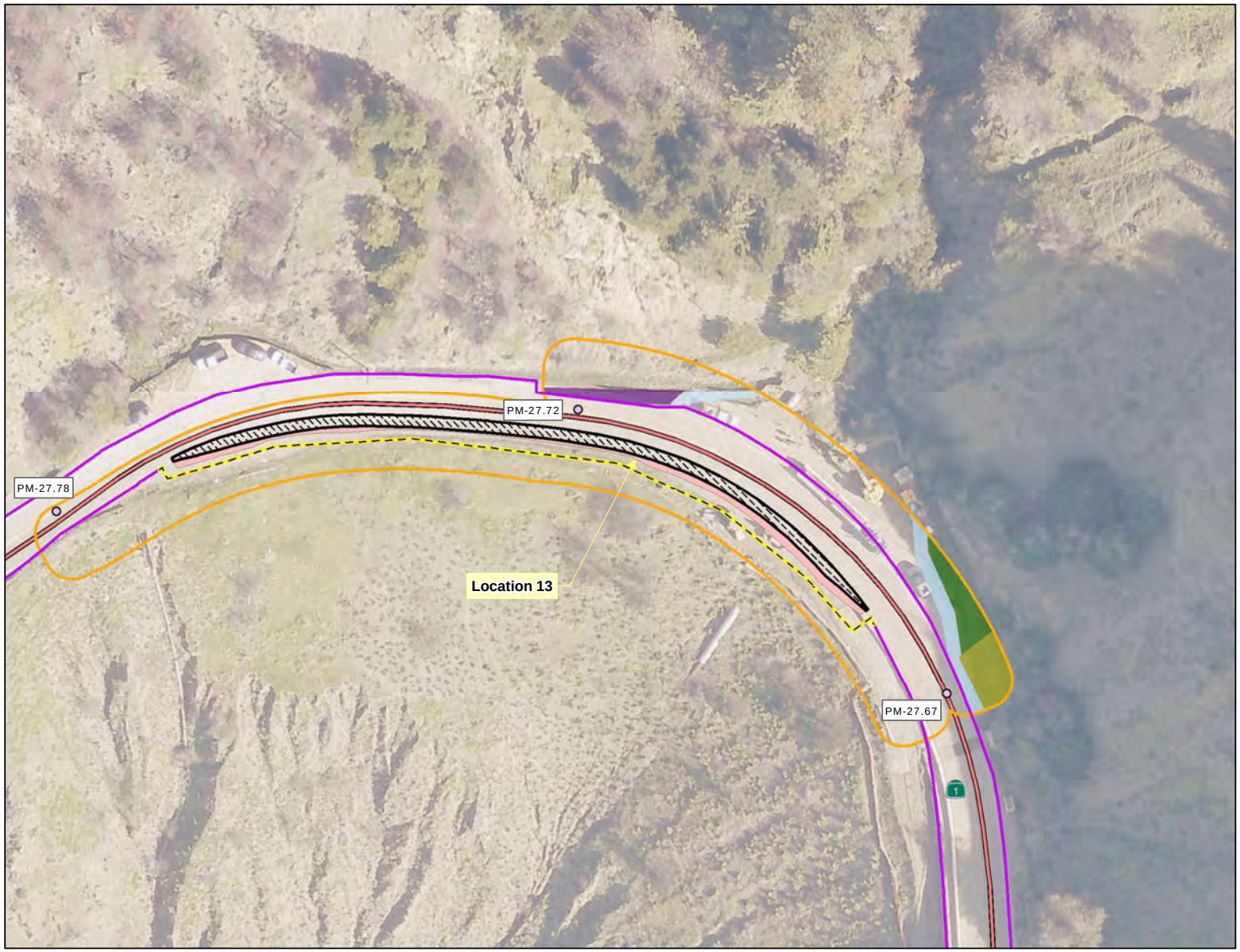
0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 16 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 4)
- Fill Area
- Shoulder Widening

Environmentally Sensitive Habitat Areas

- Cattail Marsh
- Douglas Fir Forest
- Seasonal Wetland
- Wax Myrtle Scrub

N

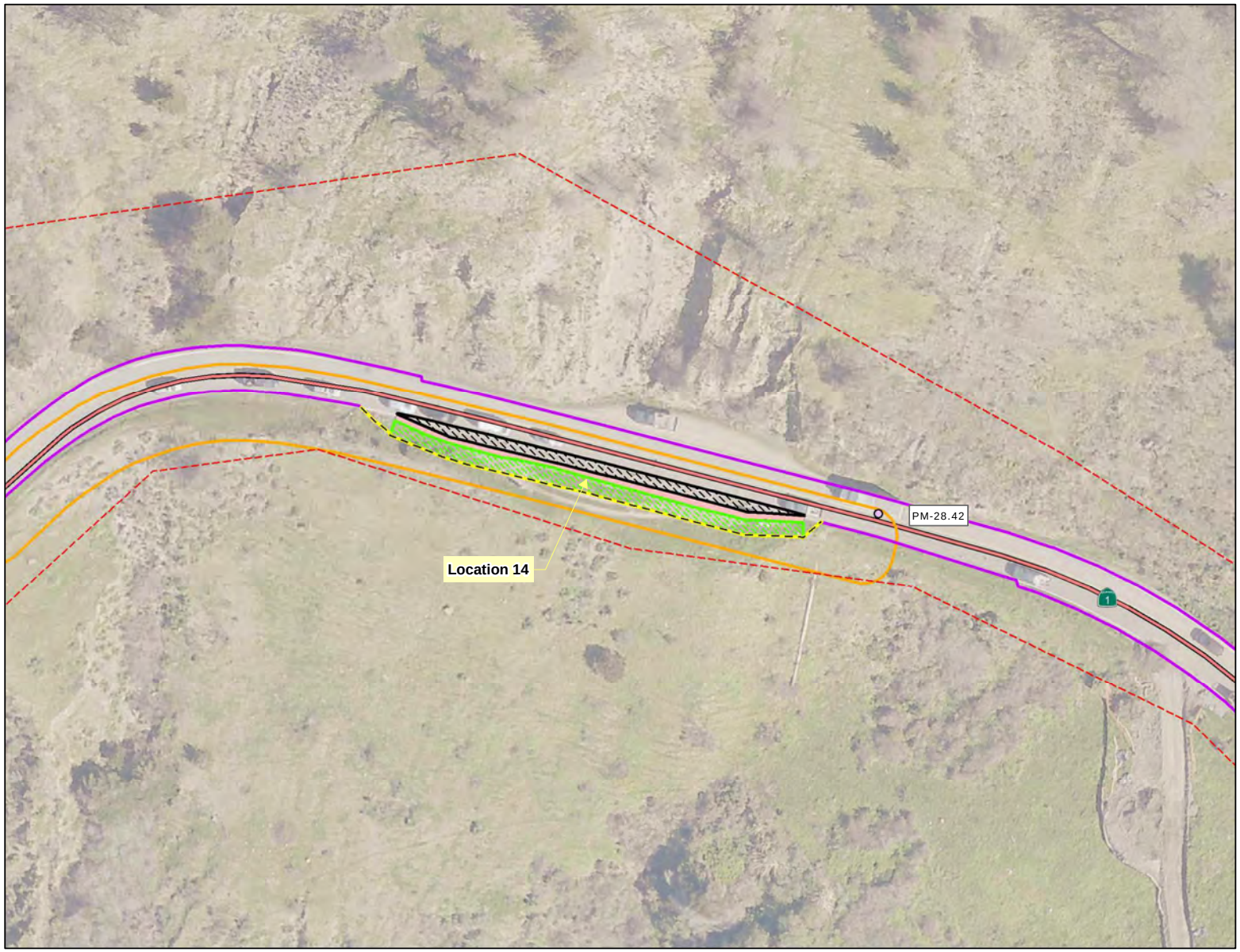
0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 17 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Biofiltration Strip
- Install Centerline Rumble Strip (Segment 4)
- Fill Area
- Shoulder Widening

N

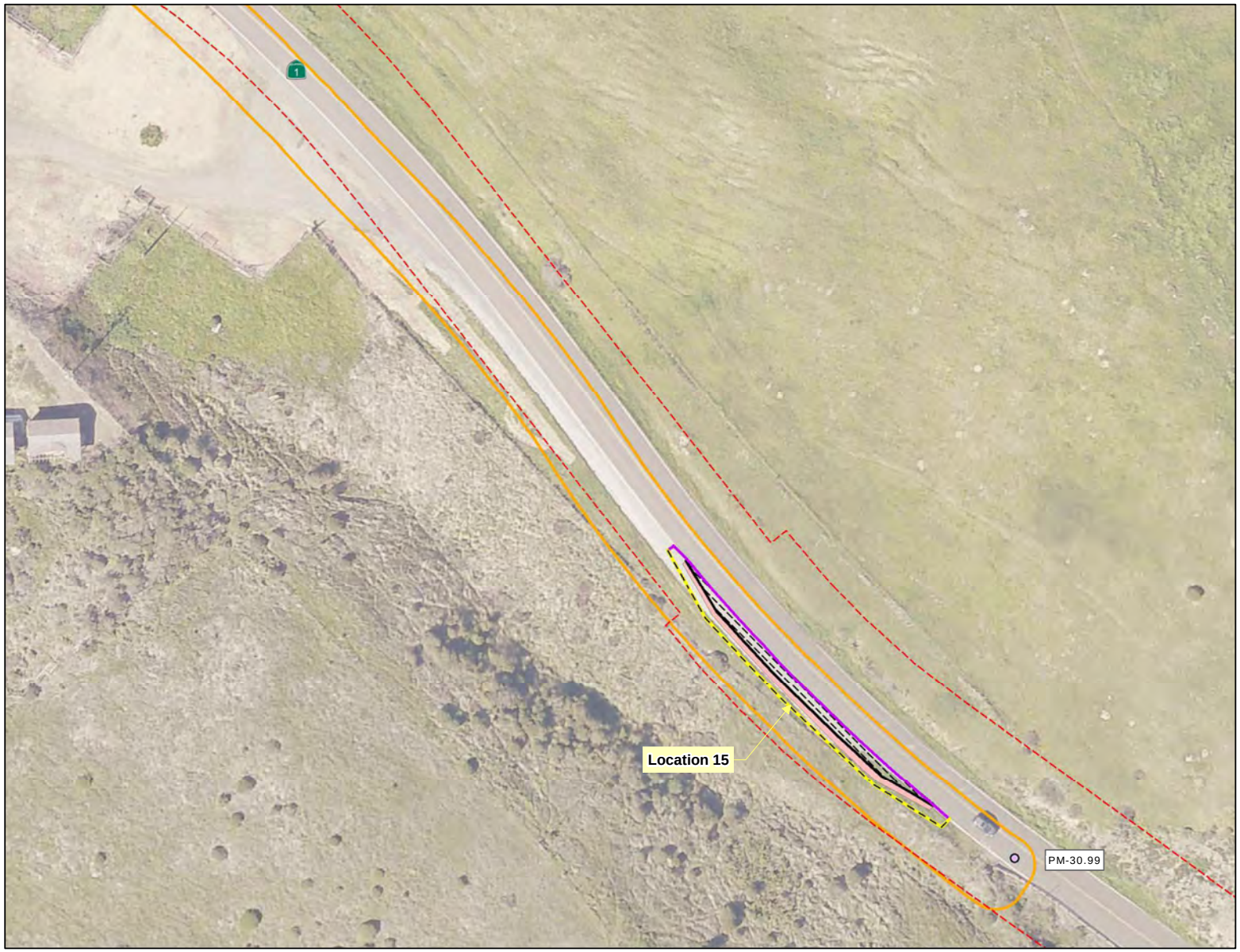
0 50 100
Feet

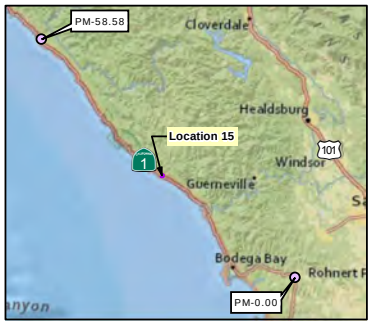
Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 18 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM





LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening

Environmentally Sensitive Habitat Areas

- Soft Rush Marsh

N

0 50 100

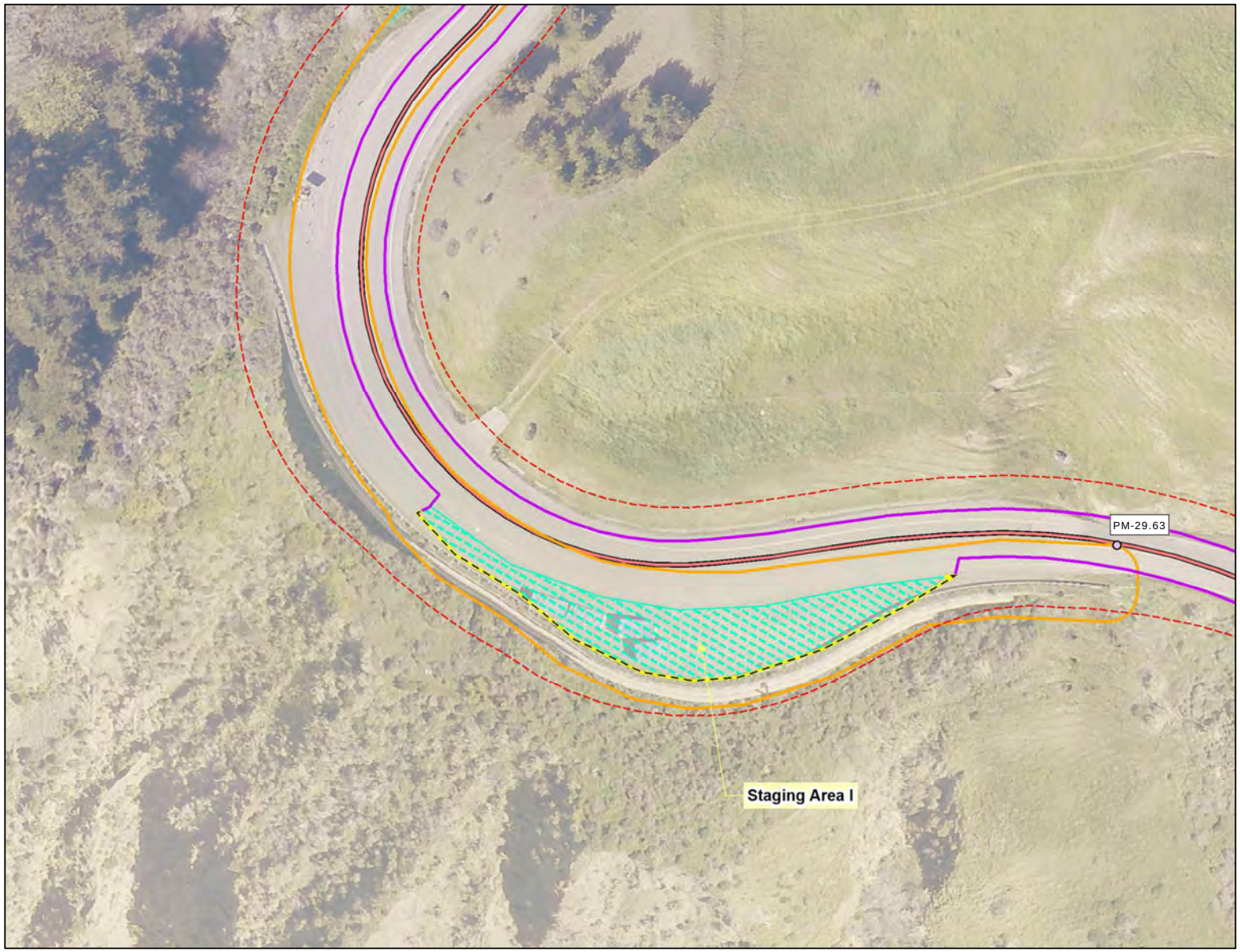
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 19 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area
- Install Centerline Rumble Strip (Segment 4)

Environmentally Sensitive Habitat Areas

- California Bay Forest

N

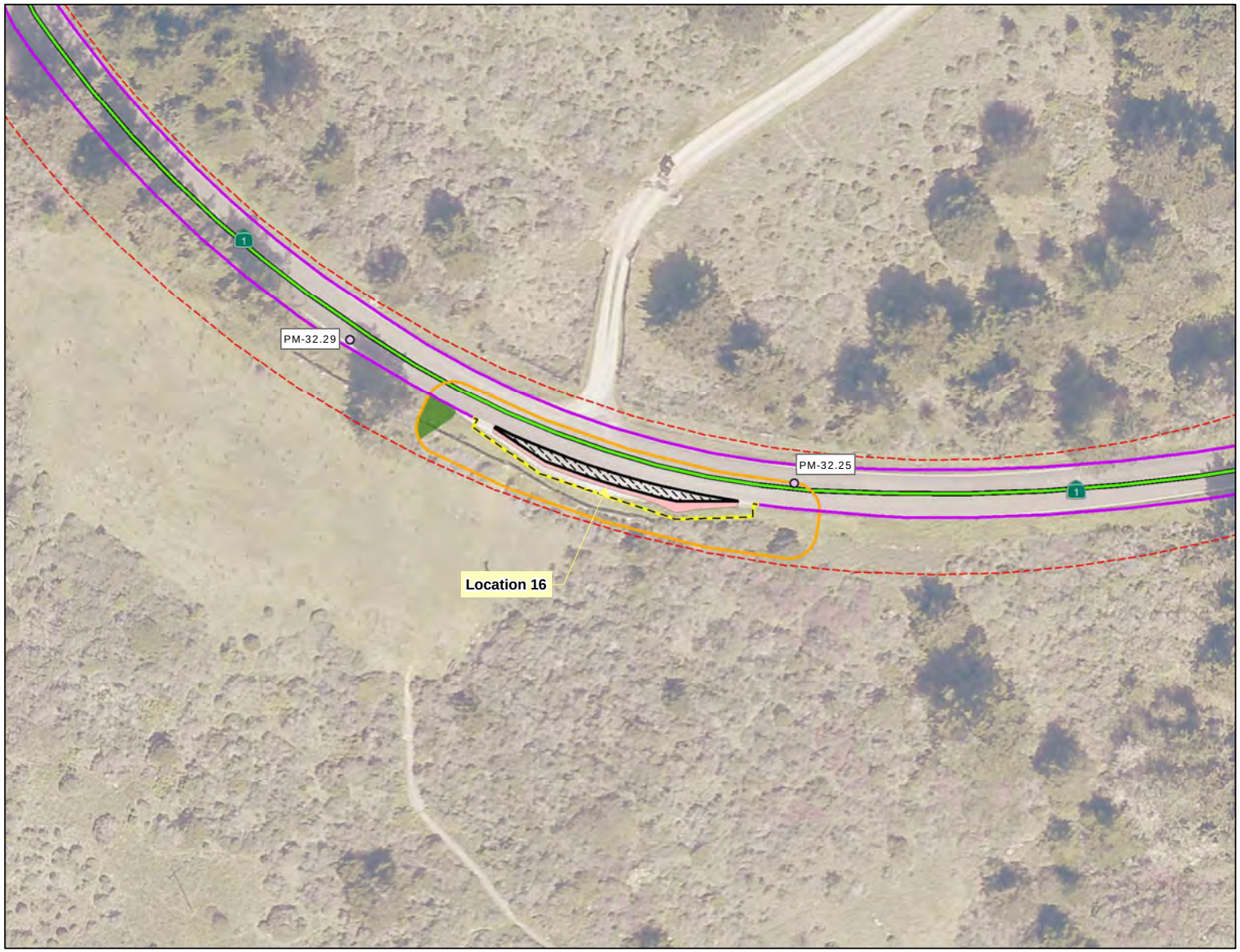
0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 20 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 5)
- Fill Area
- Shoulder Widening

Environmentally Sensitive Habitat Areas

- Douglas Fir Forest

N

0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 21 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 5)
- Fill Area
- Shoulder Widening

Environmentally Sensitive Habitat Areas

- Soft Rush Marsh

N

0 50 100

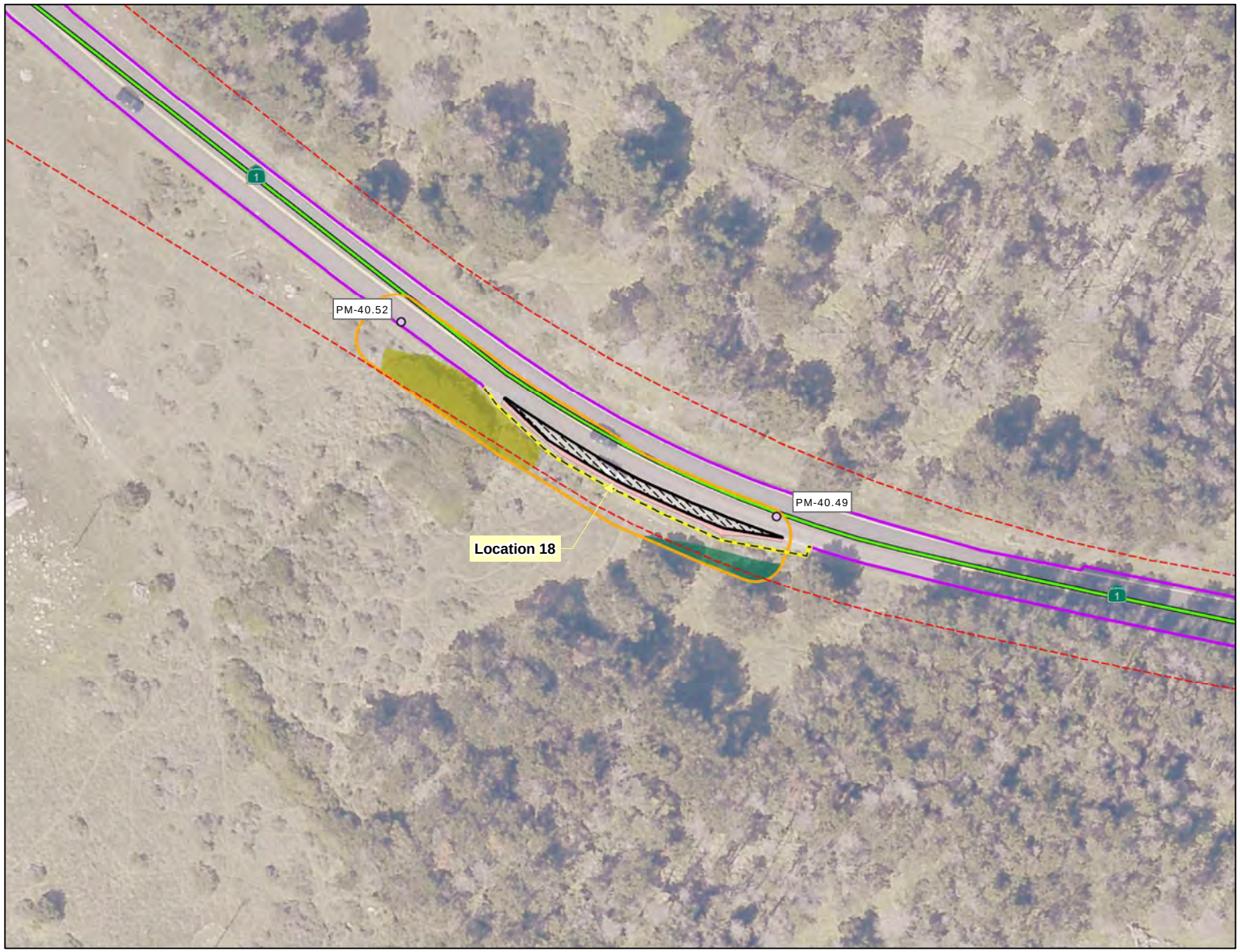
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 22 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 5)
- Fill Area
- Shoulder Widening

Environmentally Sensitive Habitat Areas

- Bishop Pine Forest
- Wax Myrtle Scrub

N

0 50 100

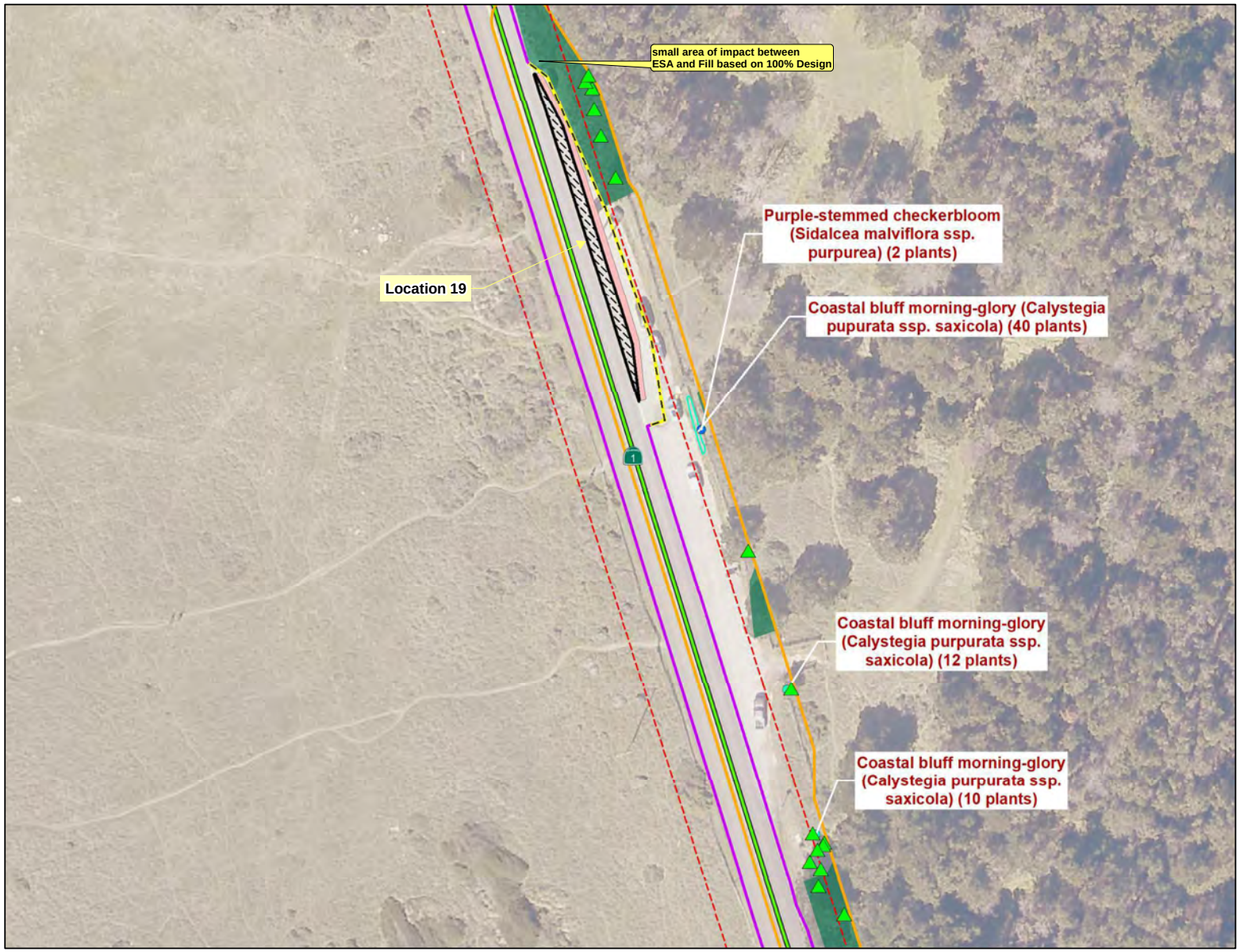
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 23 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Caltrans Right of Way
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 5)
- Fill Area
- Shoulder Widening

Tree Species

- Bishop pine (*Pinus muricata*)

Rare Plant Species

- Coastal bluff morning glory (Calystegia purpurata ssp. saxicola)
- Purple-stemmed checkerbloom (Sidalcea malviflora ssp. purpurea)

Rare Plant Species

- Coastal bluff morning glory (Calystegia pupurata ssp. saxicola)

Environmentally Sensitive Habitat Areas

- Bishop Pine Forest

N

0 50 100

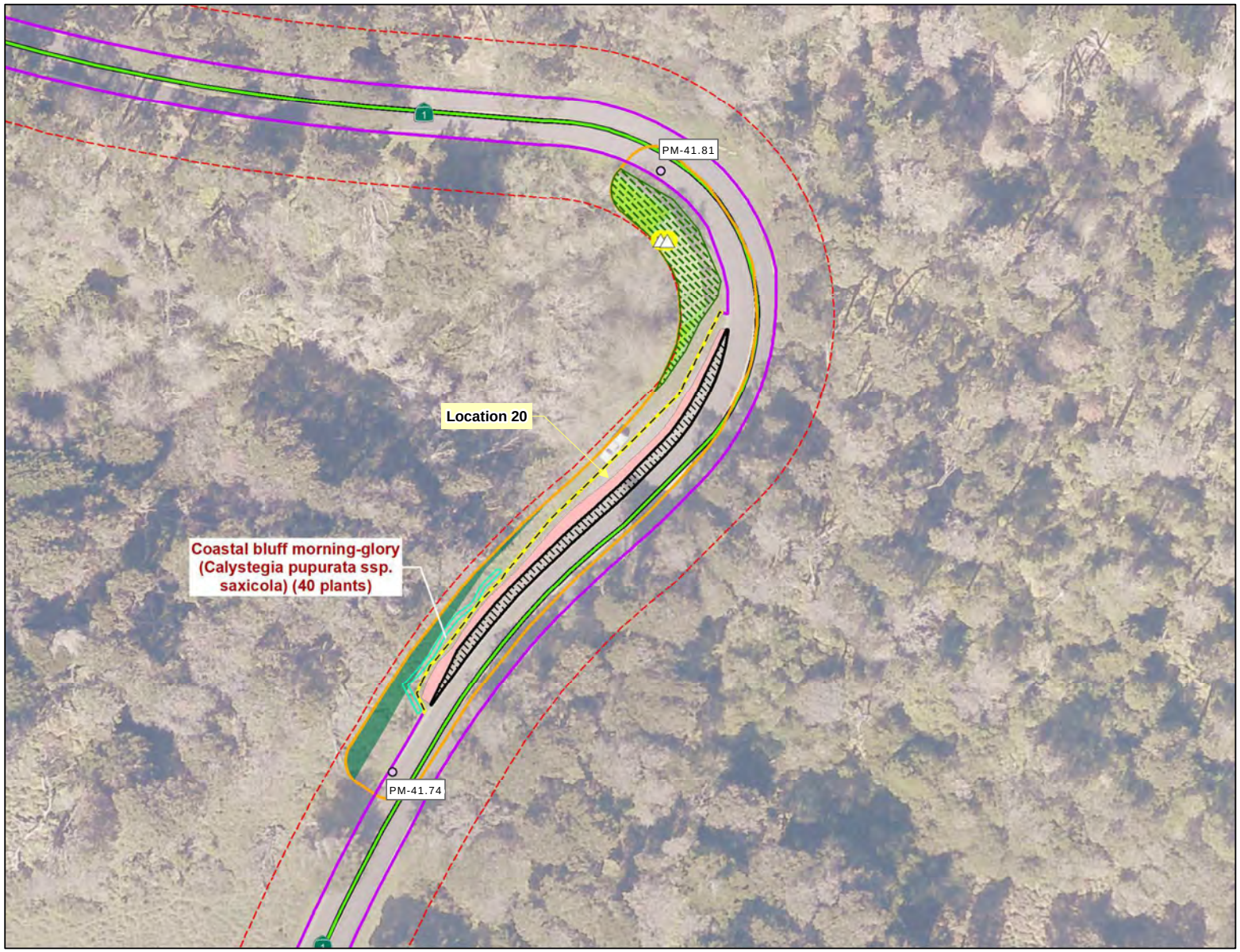
Feet

Imagery Source:
Sonoma County 2021

Caltrans

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM

Figure 3-1
Map 24 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 5)
- Fill Area
- Shoulder Widening

Tree Species

- White alder (*Alnus rhombifolia*)
- Trees within CDFW 1600 Jurisdictional Riparian Habitat
- CDFW 1600 Jurisdictional Riparian Habitat

Rare Plant Species

- Coastal bluff morning glory (Calystegia pupurata ssp. saxicola)

Environmentally Sensitive Habitat Areas

- Bishop Pine Forest
- Red Alder Forest
- Sitka Willow Thicket

N

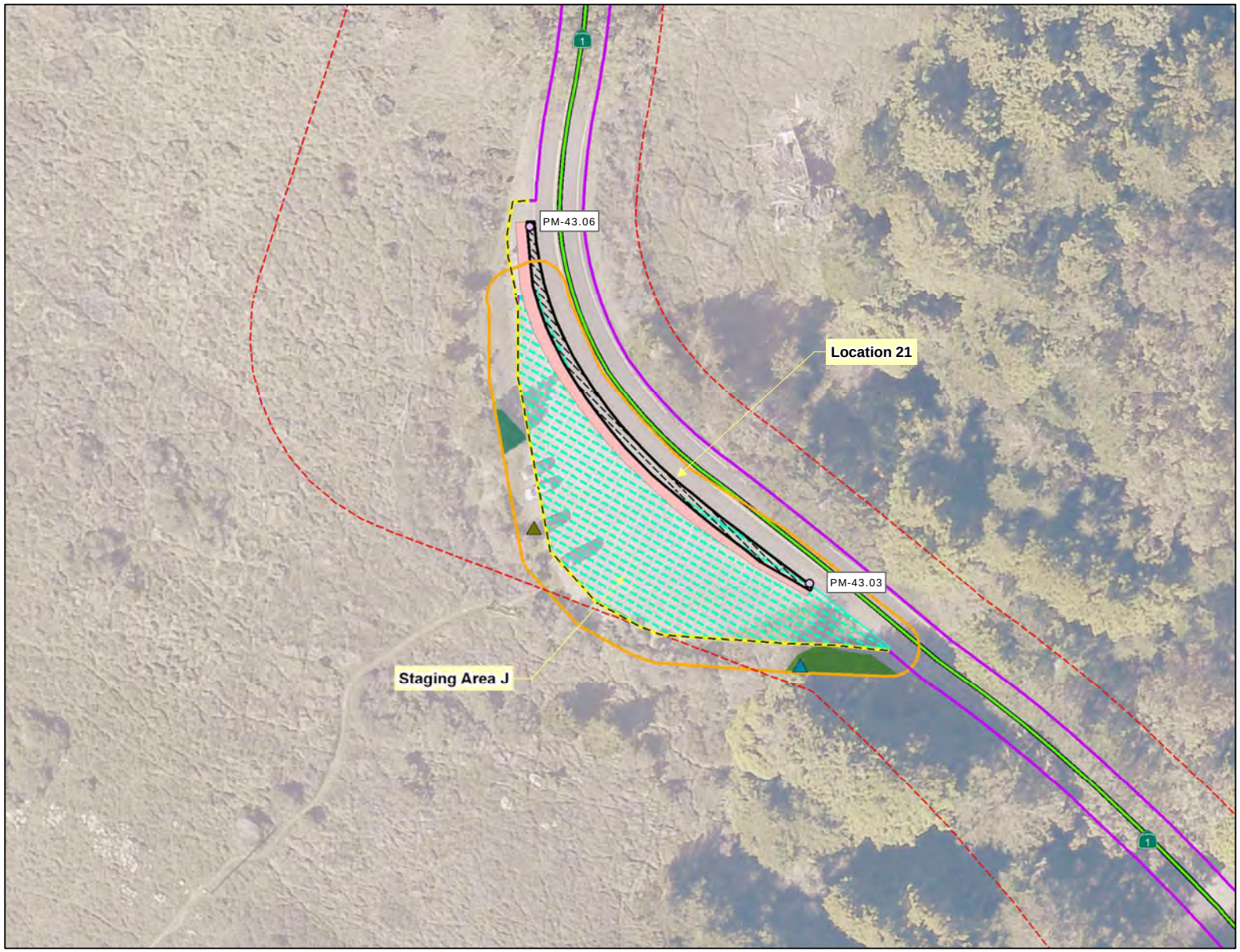
0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 25 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area
- Install Centerline Rumble Strip (Segment 5)
- Fill Area
- Shoulder Widening

Tree Species

- Douglas fir (*Psuedotsuga menziesii*)
- Tanoak (*Notholithocarpus densiflorus*)

Environmentally Sensitive Habitat Areas

- Bishop Pine Forest
- Douglas Fir Forest
- Tanoak Forest

N

0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 26 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 5)
- Fill Area
- Shoulder Widening

N

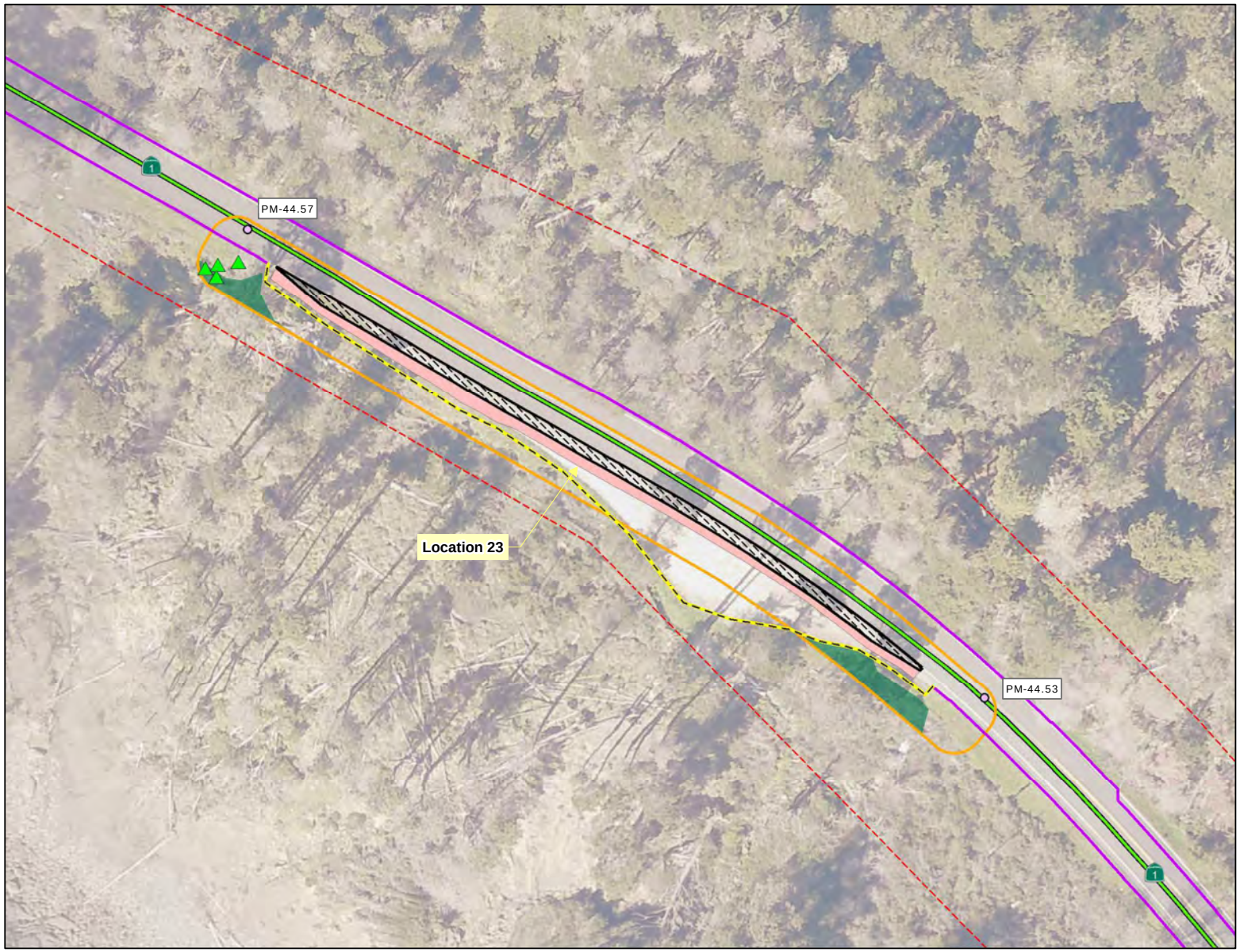
0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 27 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 5)
- Fill Area
- Shoulder Widening

Tree Species

- Bishop pine (*Pinus muricata*)

Environmentally Sensitive Habitat Areas

- Bishop Pine Forest

N

0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 28 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

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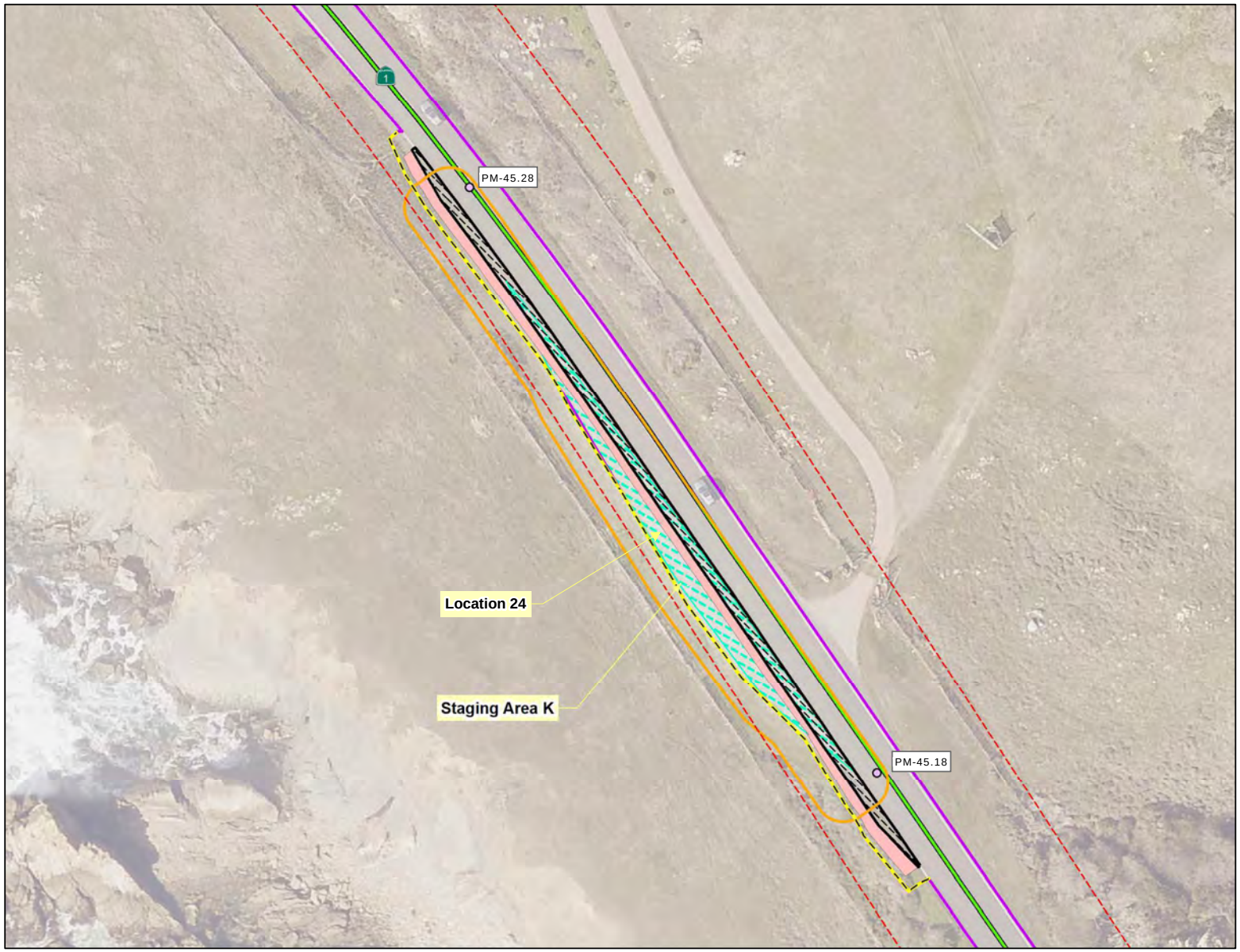


LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area
- Install Centerline Rumble Strip (Segment 5)
- Fill Area
- Shoulder Widening

N

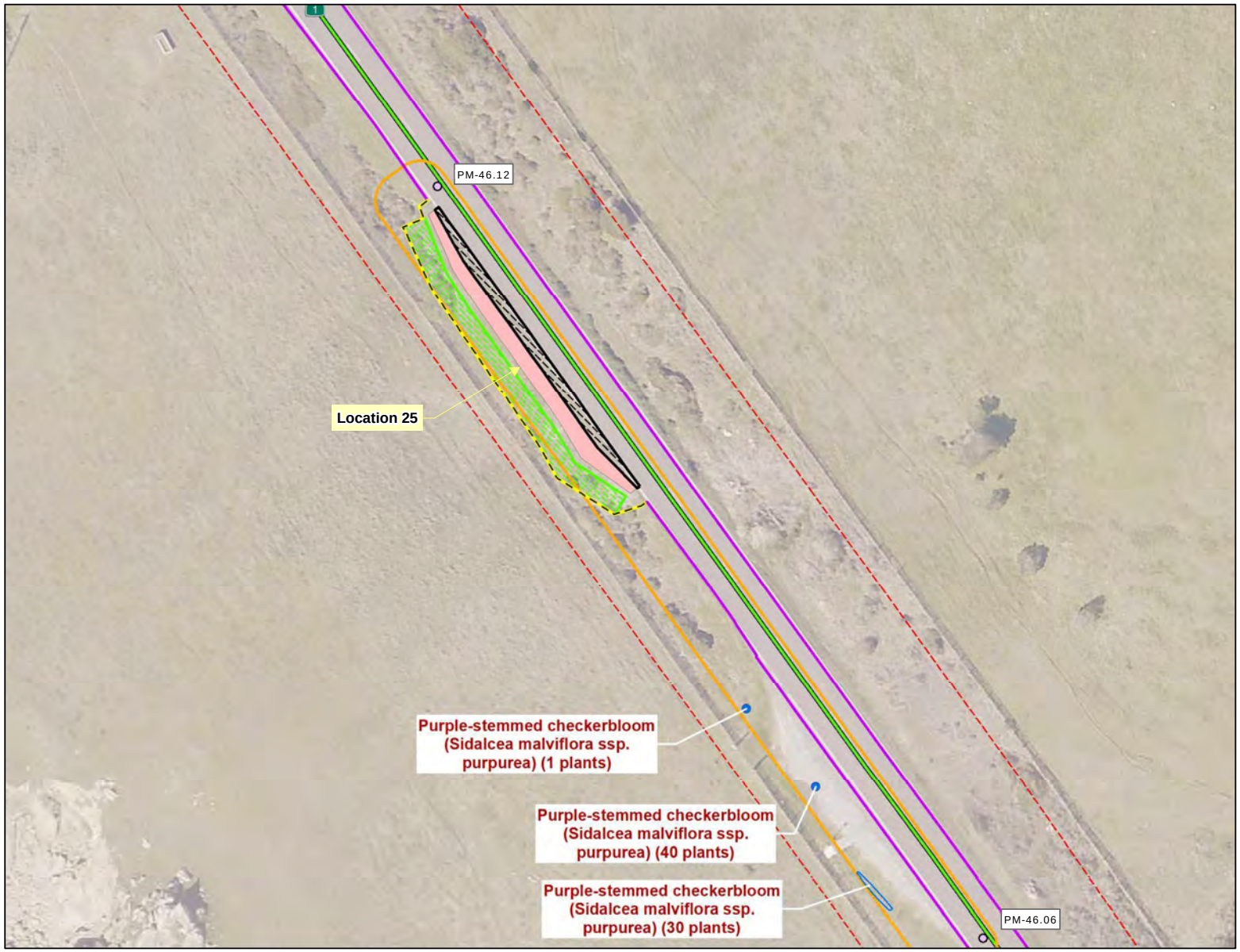
0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 29 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Biofiltration Strip
- Install Centerline Rumble Strip (Segment 5)
- Fill Area
- Shoulder Widening

Rare Plant Species

- Purple-stemmed checkerbloom (Sidalcea malviflora ssp. purpurea)

Rare Plant Species

- Purple-stemmed checkerbloom (Sidalcea malviflora ssp. purpurea)

N

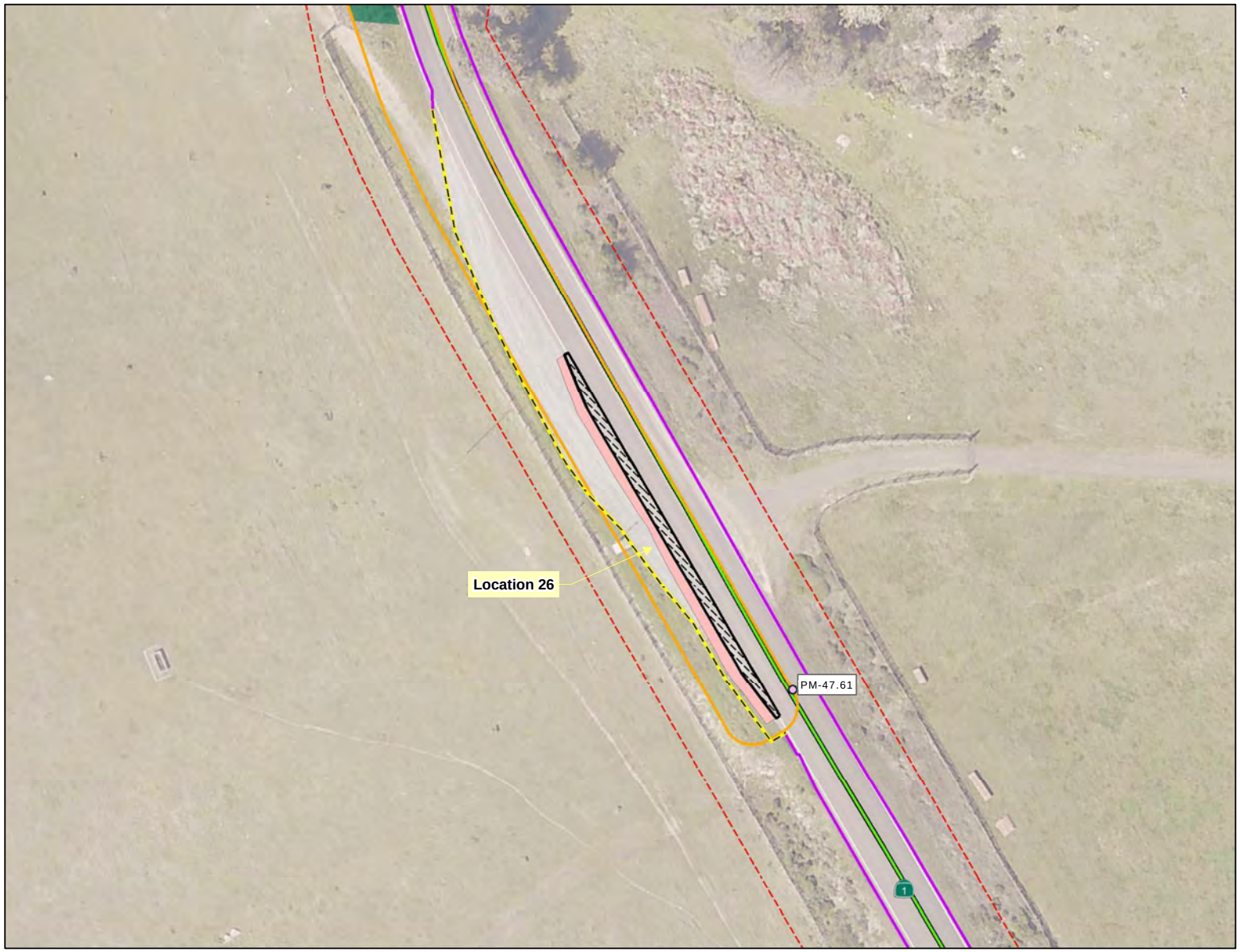
0 50 100
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 30 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 5)
- Fill Area
- Shoulder Widening

Environmentally Sensitive Habitat Areas

- Bishop Pine Forest

Imagery Source:
Sonoma County 2021

N

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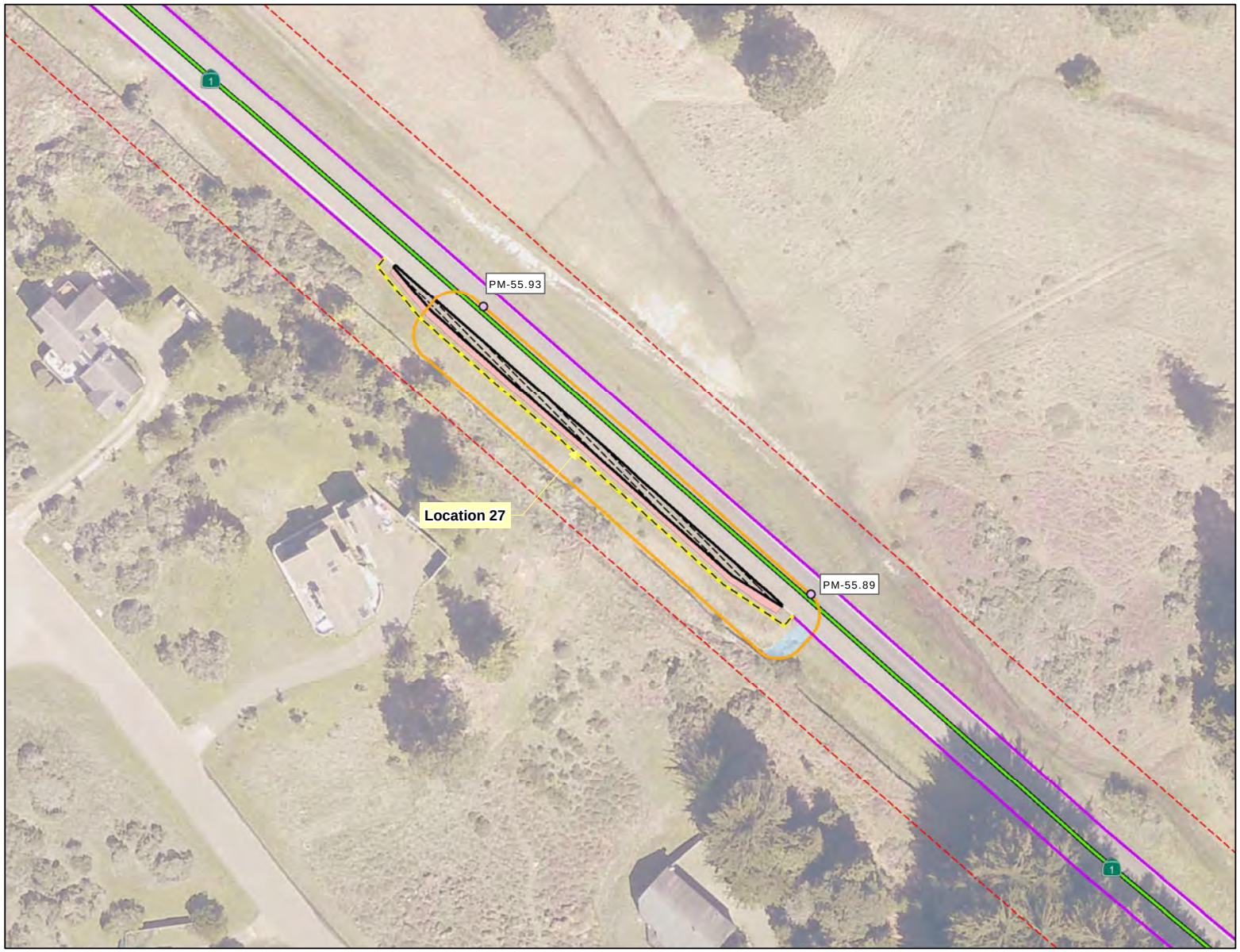
Feet

Caltrans

Figure 3-1
Map 31 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 5)
- Fill Area
- Shoulder Widening

Environmentally Sensitive Habitat Areas

- Seasonal Wetland

N

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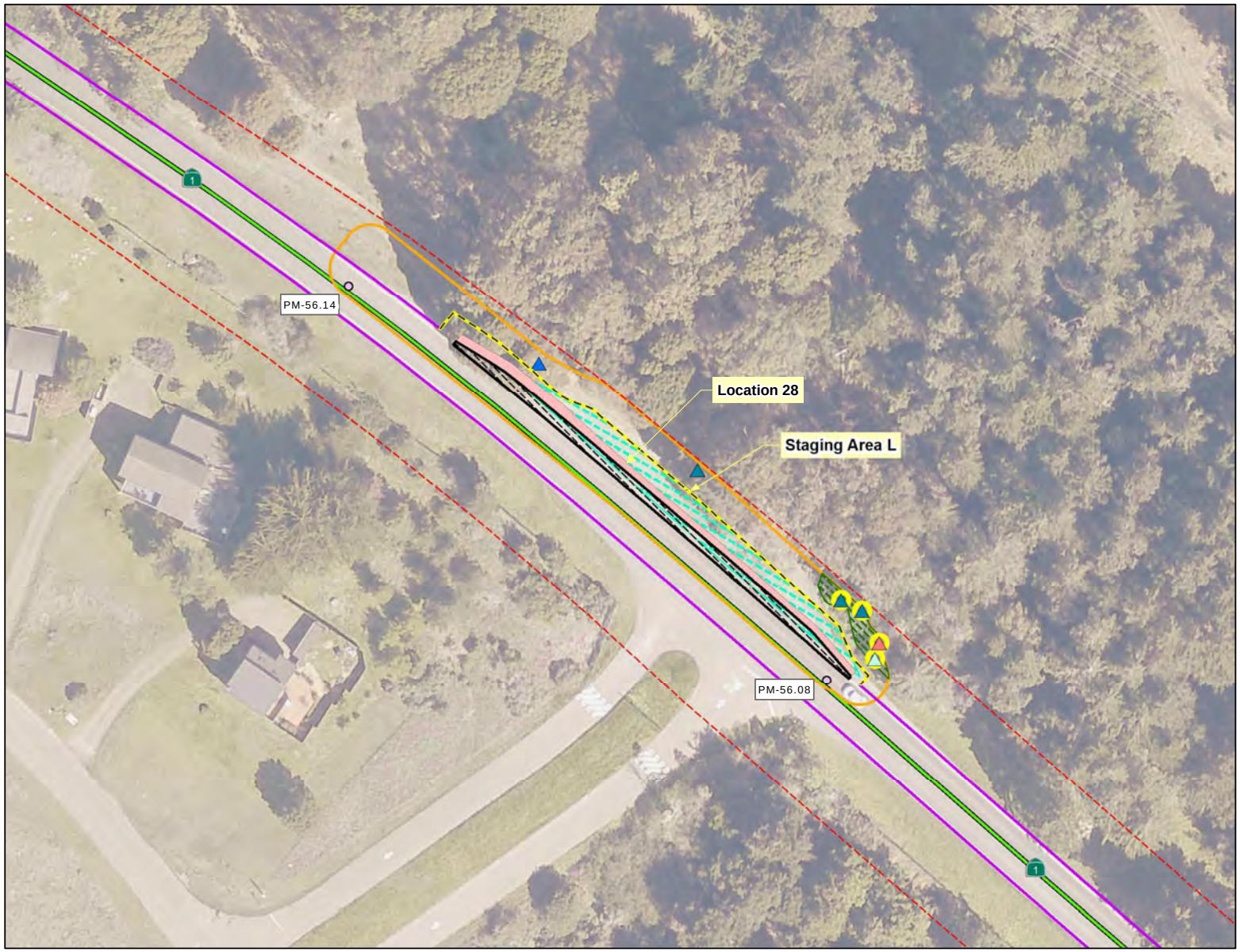
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 32 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area
- Install Centerline Rumble Strip (Segment 5)
- Fill Area
- Shoulder Widening

Tree Species

- Blue gum (*Eucalyptus globulus*)
- Douglas fir (*Psuedotsuga menziesii*)
- Pacific wax myrtle (*Morella californica*)
- Sitka willow (*Salix sitchensis*)
- Trees within CDFW 1600 Jurisdictional Riparian Habitat
- CDFW 1600 Jurisdictional Riparian Habitat

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Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 33 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Install Centerline Rumble Strip (Segment 5)
- Fill Area
- Shoulder Widening

Tree Species

- Bishop pine (*Pinus muricata*)
- Pacific madrone (*Arbutus menziesii*)

Environmentally Sensitive Habitat Areas

- Bishop Pine Forest

N

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Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-1
Map 34 of 34
Rare Plants and Environmentally Sensitive Habitat Areas (ESHAs)
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG3-1_ESHAS_4G780.MXD CARCHER 5/14/2024 7:48:56 PM

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area
- Palustrine Emergent Wetlands (USACE and CCC) (0.152 acre)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

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Feet

Caltrans

Figure 4-2
Map 01
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

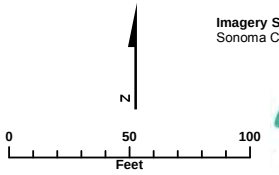
\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Palustrine Scrub-shrub Wetlands (USACE and CCC) (0.025 acre)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021



\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM

Figure 4-2
Map 02
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 1)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

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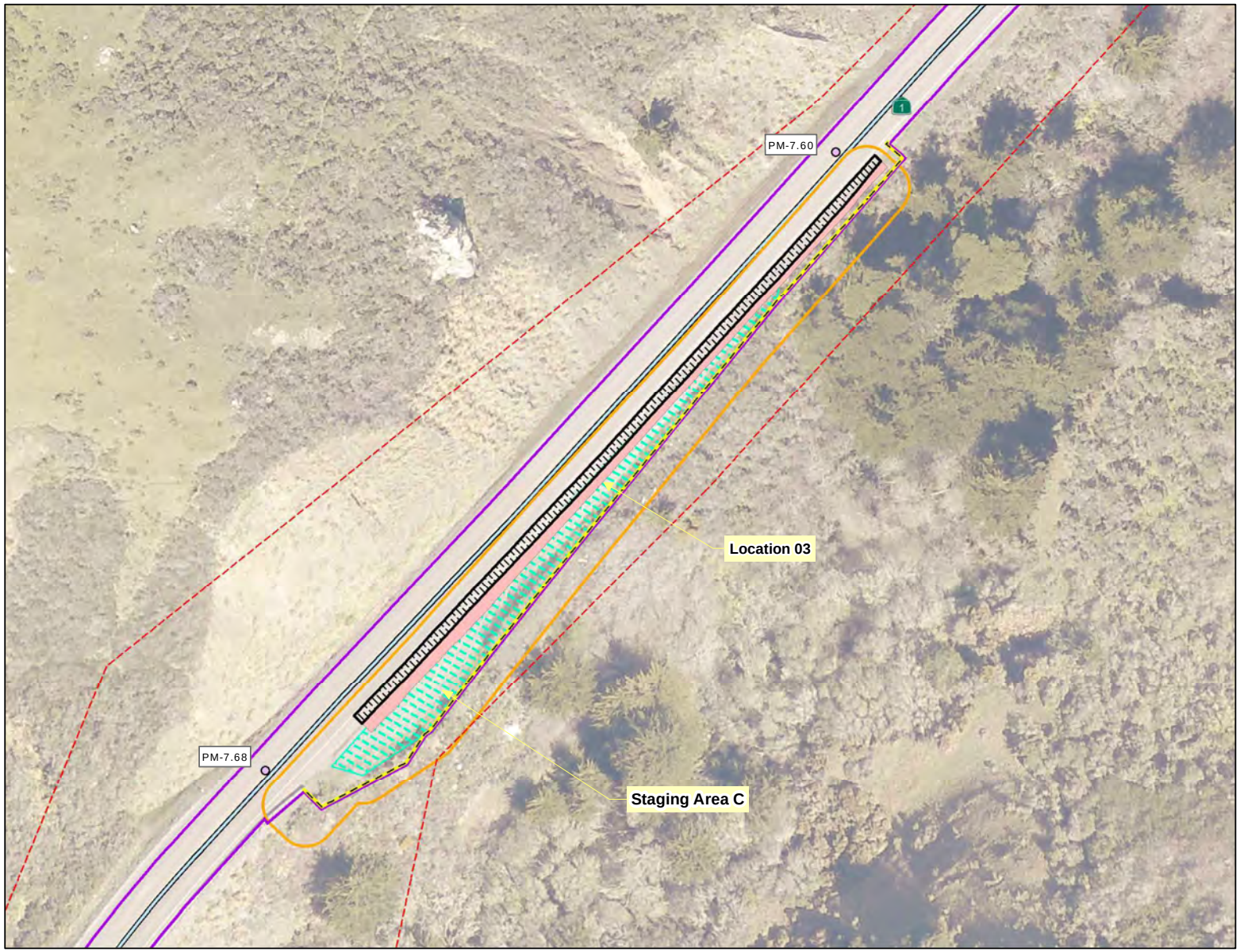
Feet

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM

Figure 4-2
Map 03
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Staging Area
- Install Centerline Rumble Strip (Segment 1)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

N

0 50 100
Feet

Caltrans

Figure 4-2
Map 04
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area
- Install Centerline Rumble Strip (Segment 1)
- Wetlands (CCC-only) (0.019 acre)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

N

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Feet

Caltrans

Figure 4-2
Map 05
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 2)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

N

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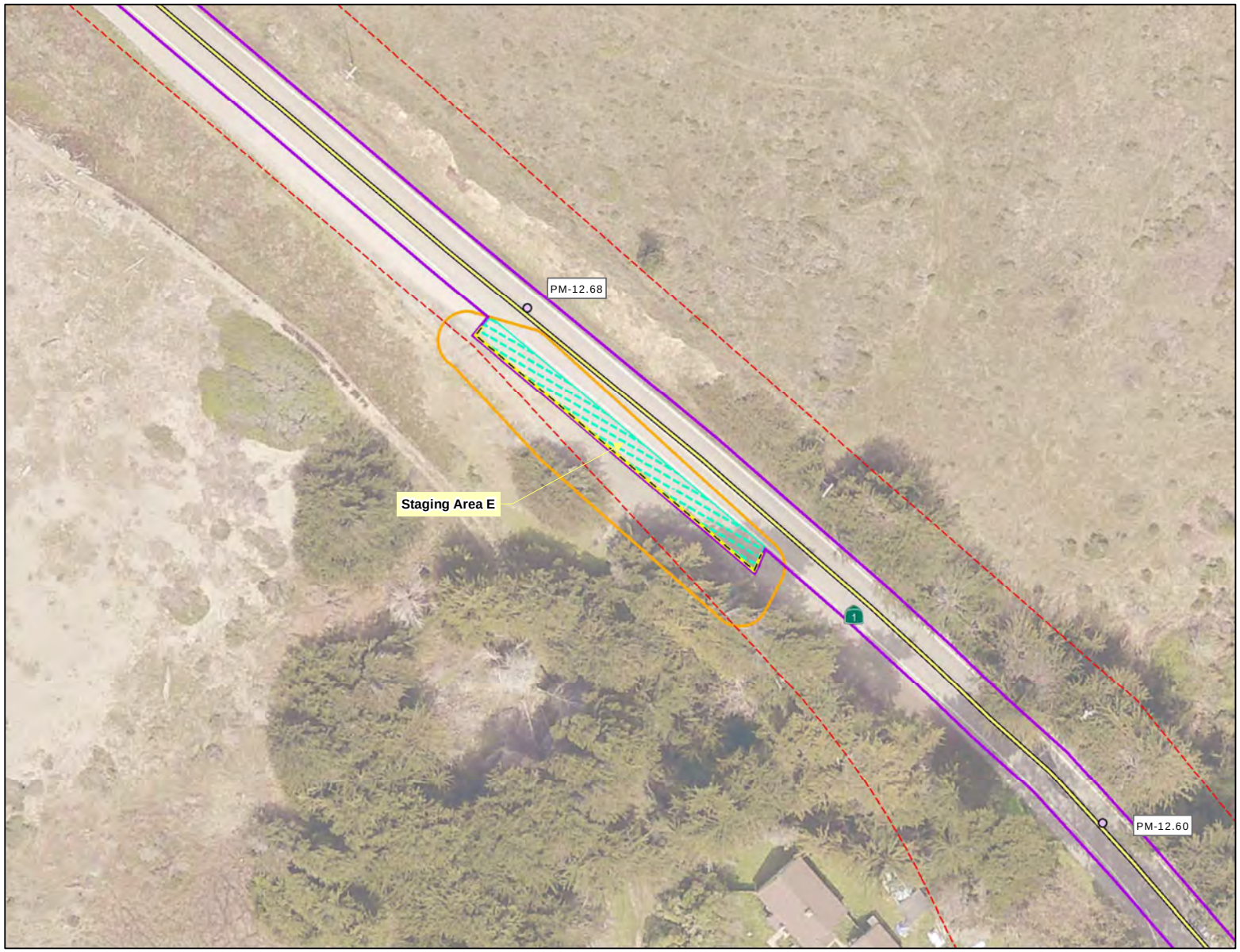
Feet

Caltrans

Figure 4-2
Map 06
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area
- Install Centerline Rumble Strip (Segment 2)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

N

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Feet

Caltrans

Figure 4-2
Map 07
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 2)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

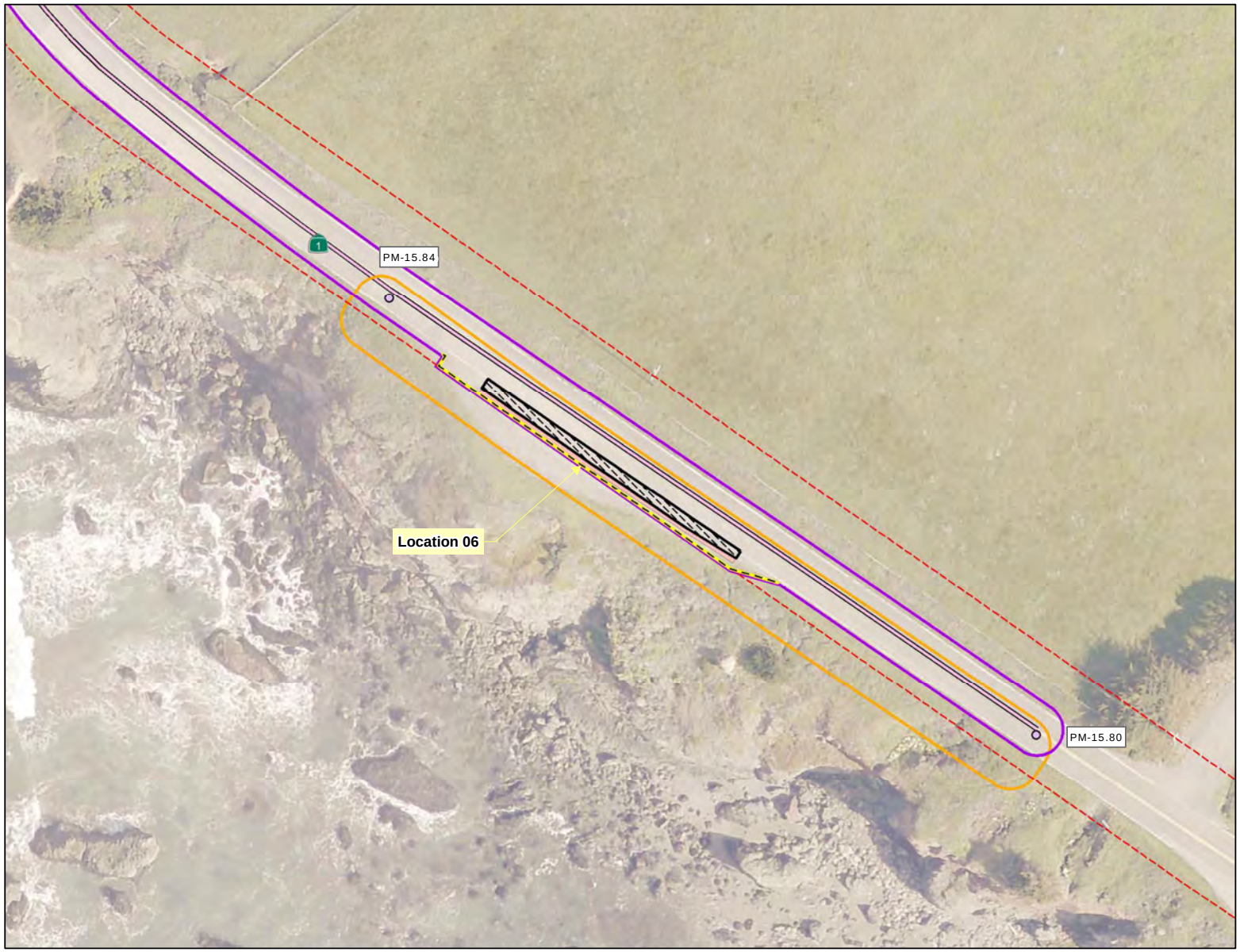
N

0 50 100
Feet

Caltrans

Figure 4-2
Map 08
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 3)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

N

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Feet

Caltrans

Figure 4-2
Map 09
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 3)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

N

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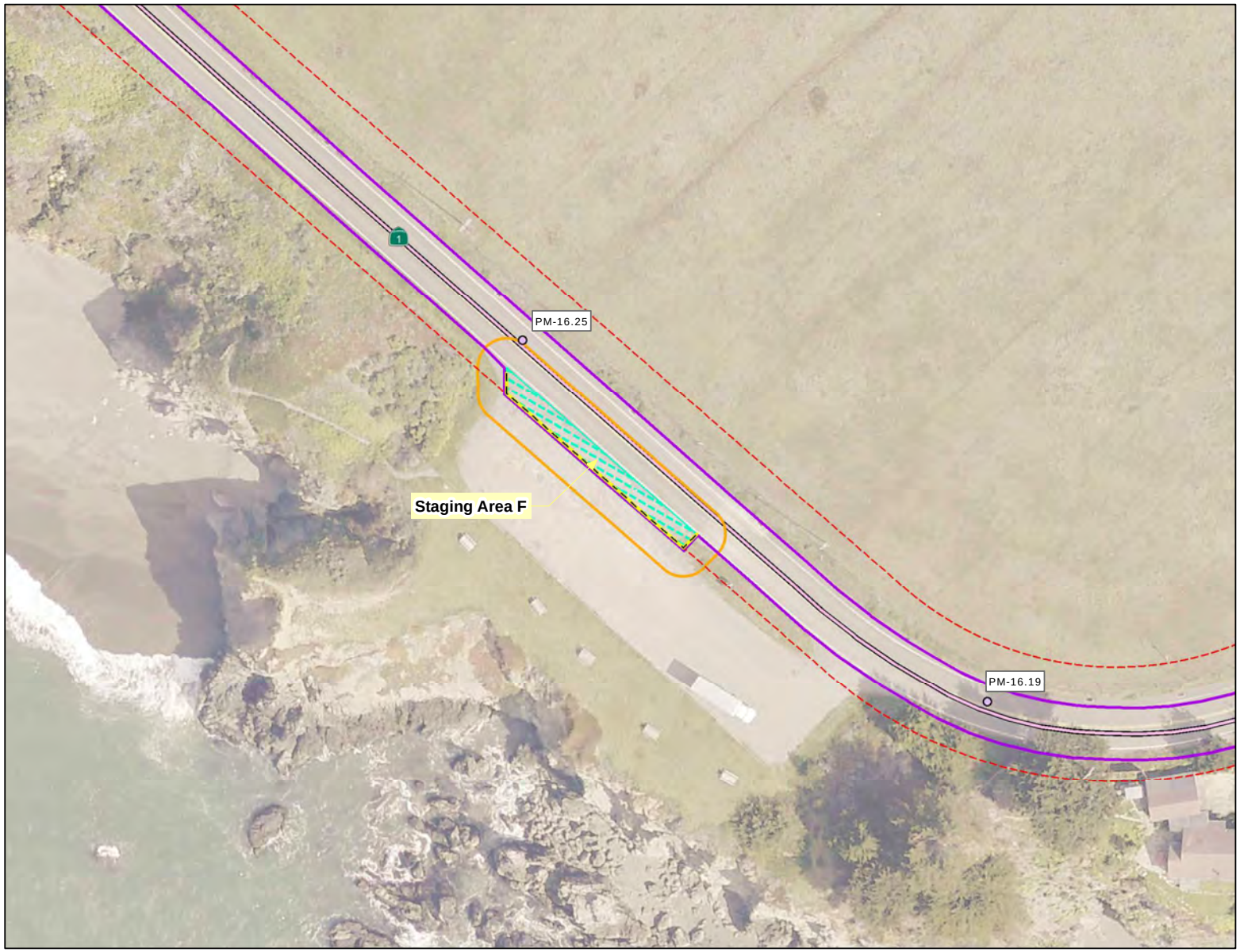
Feet

Caltrans

Figure 4-2
Map 10
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area
- Install Centerline Rumble Strip (Segment 3)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

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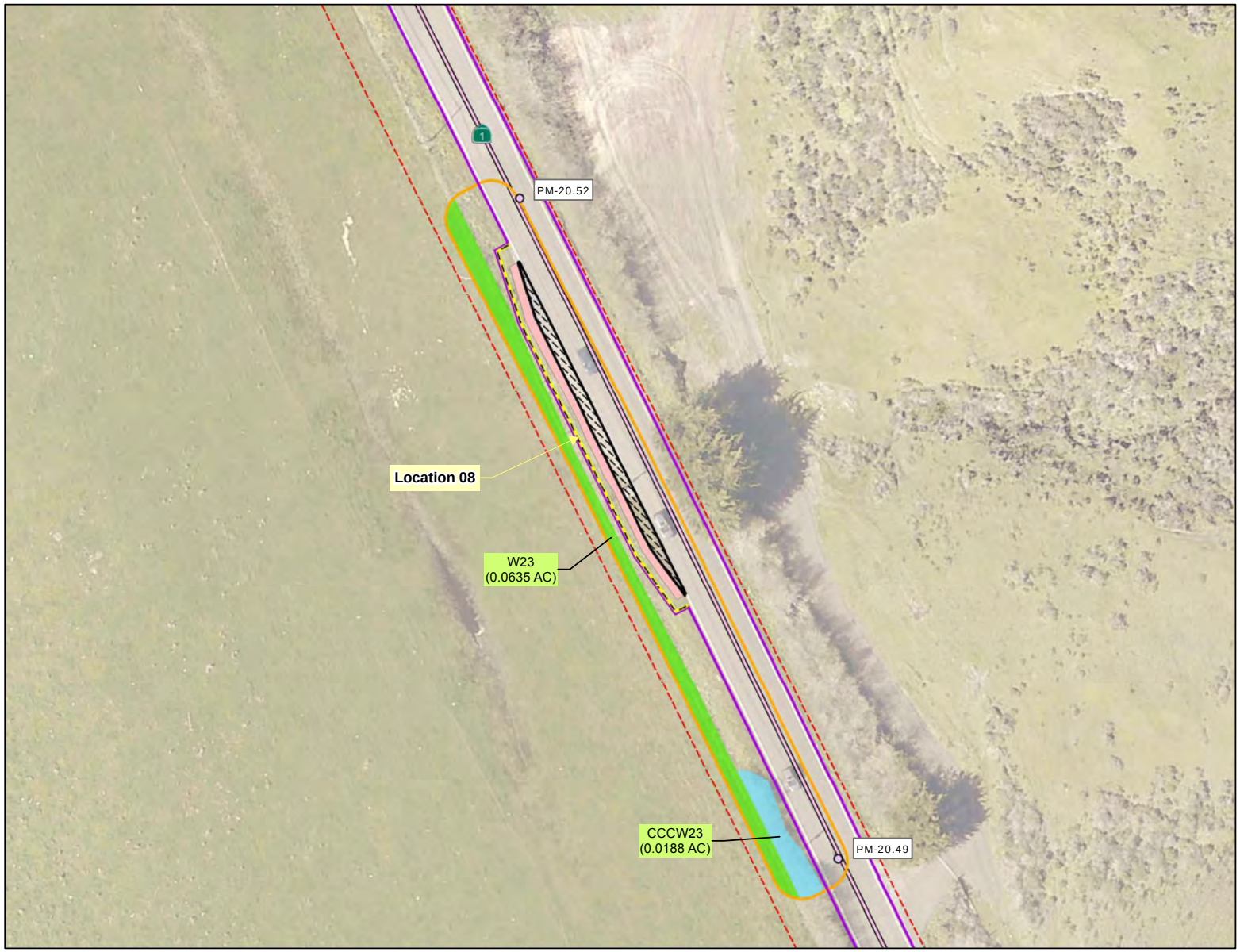
0 50 100
Feet

Caltrans

Figure 4-2
Map 11
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 3)
- Palustrine Emergent Wetlands (USACE and CCC) (0.152 acre)
- Wetlands (CCC-only) (0.019 acre)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

N

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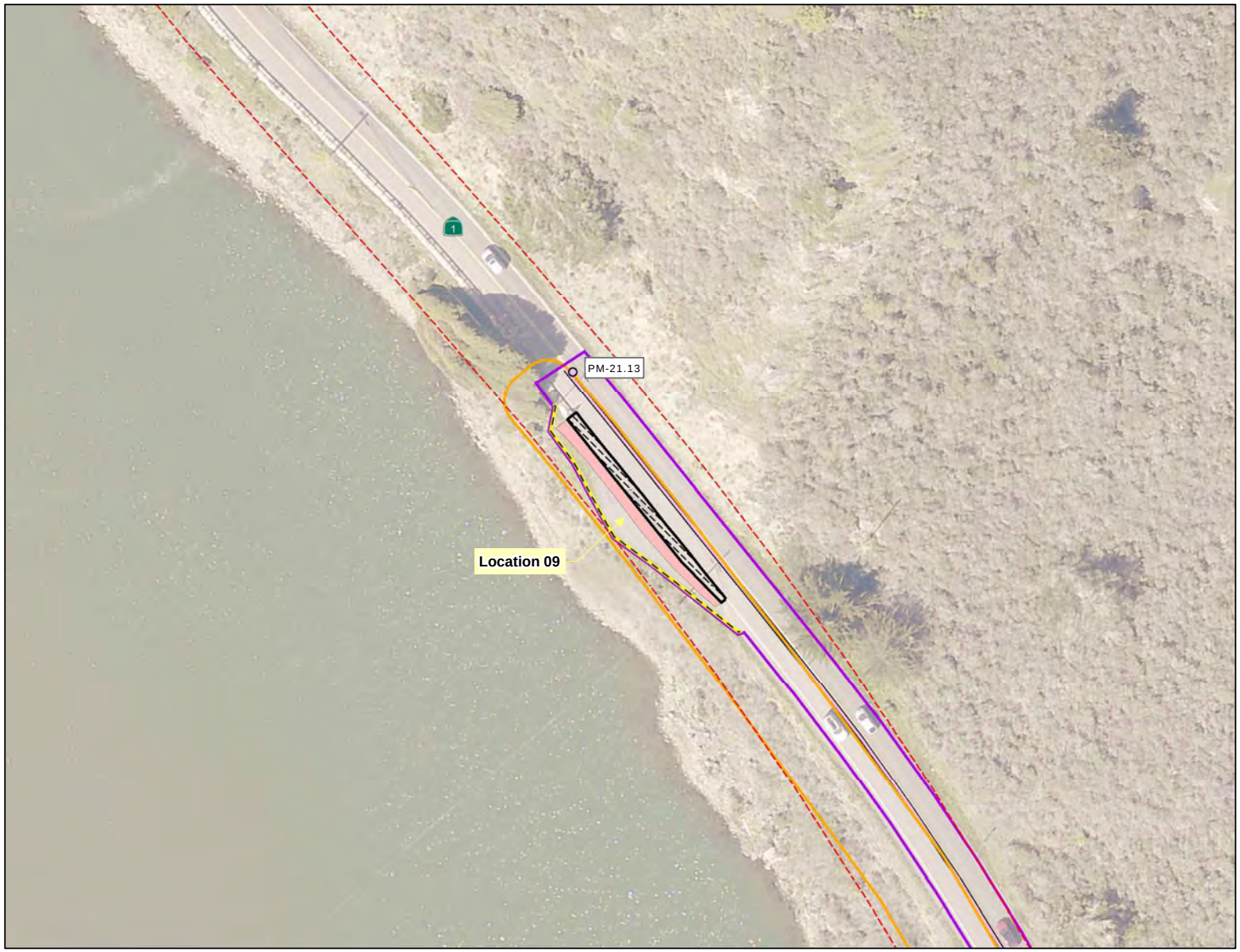
Feet

Caltrans

Figure 4-2
Map 12
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 3)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

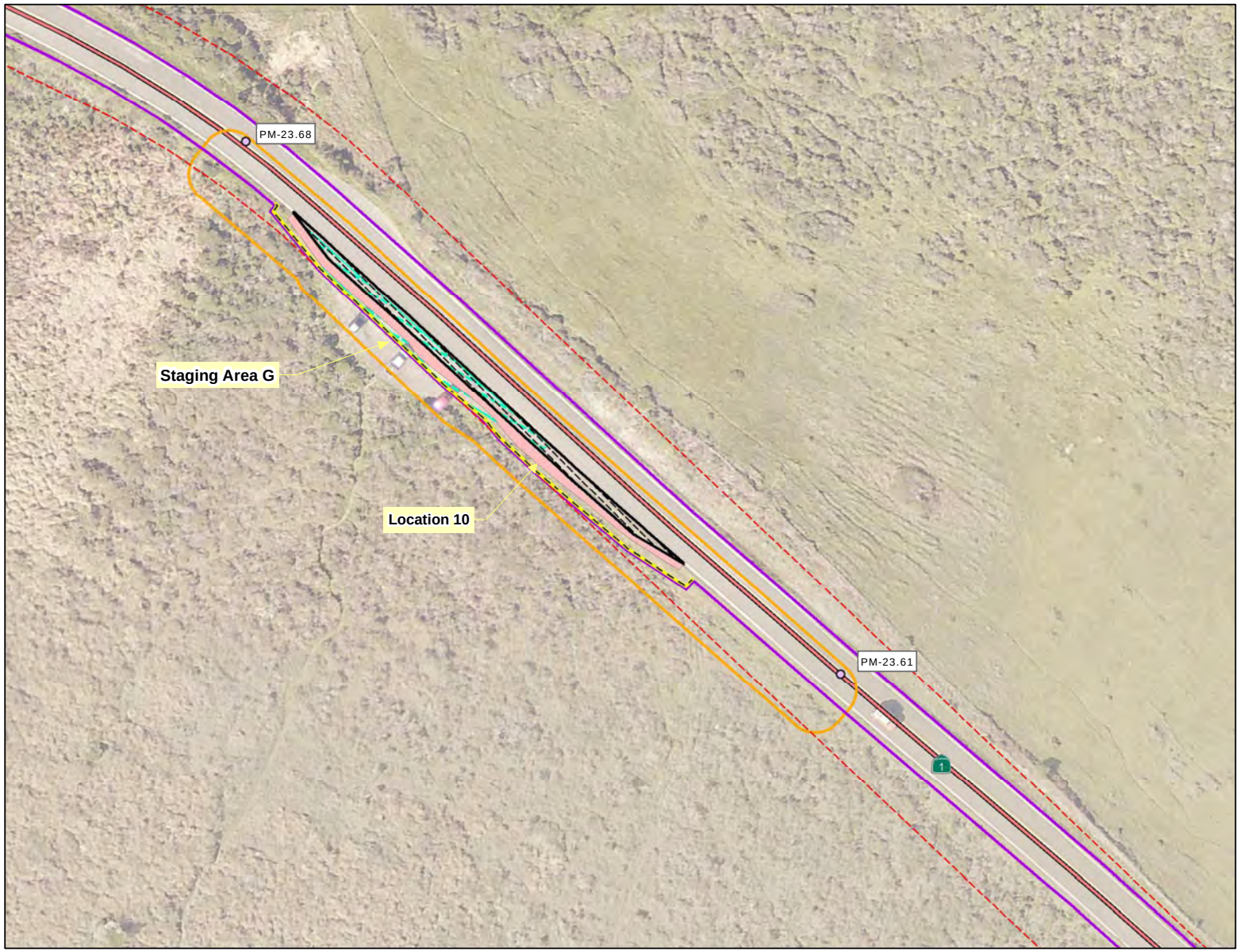
N

0 50 100
Feet

Caltrans

Figure 4-2
Map 13
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Staging Area
- Install Centerline Rumble Strip (Segment 4)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

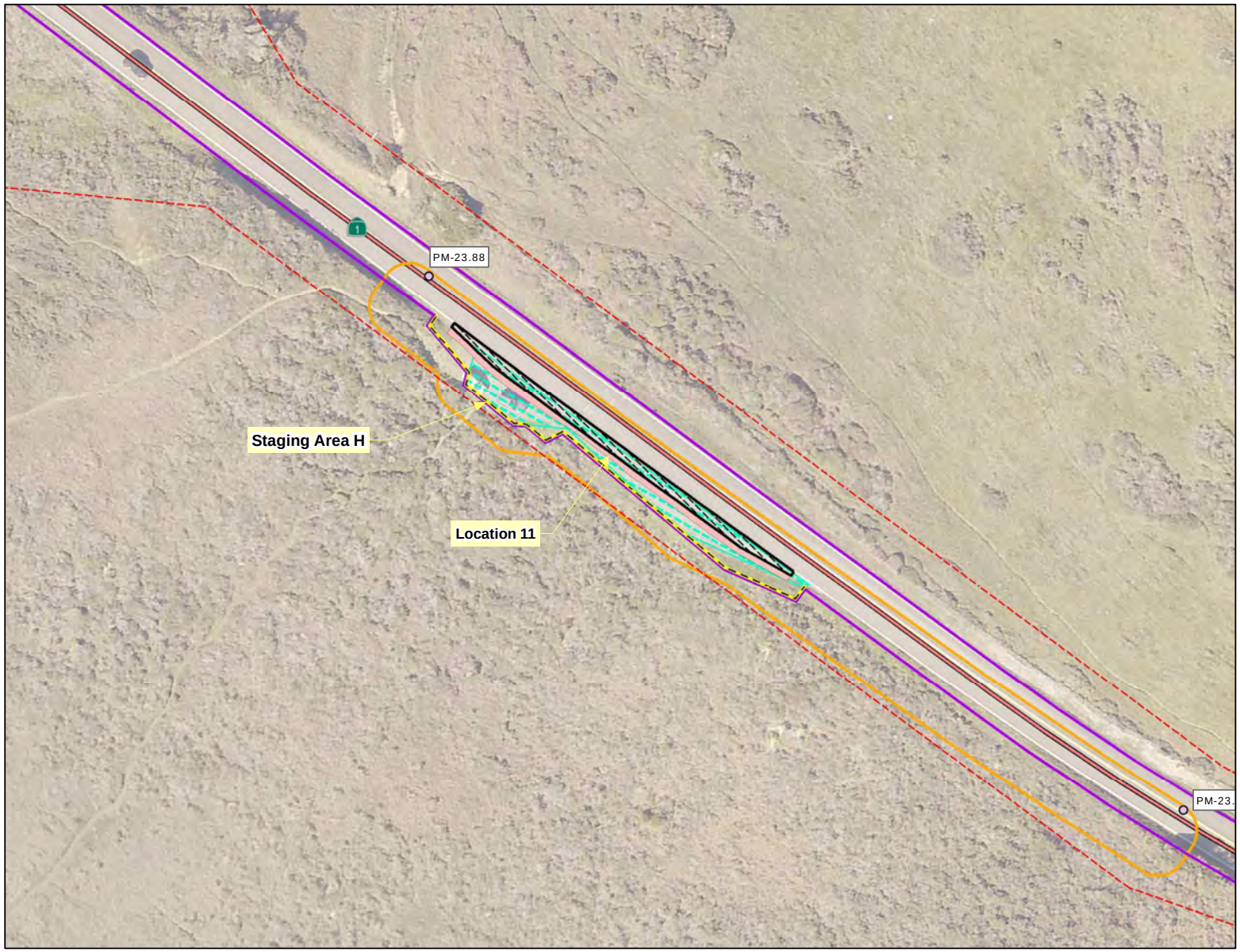
N

0 50 100
Feet

Caltrans

Figure 4-2
Map 14
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Staging Area
- Install Centerline Rumble Strip (Segment 4)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

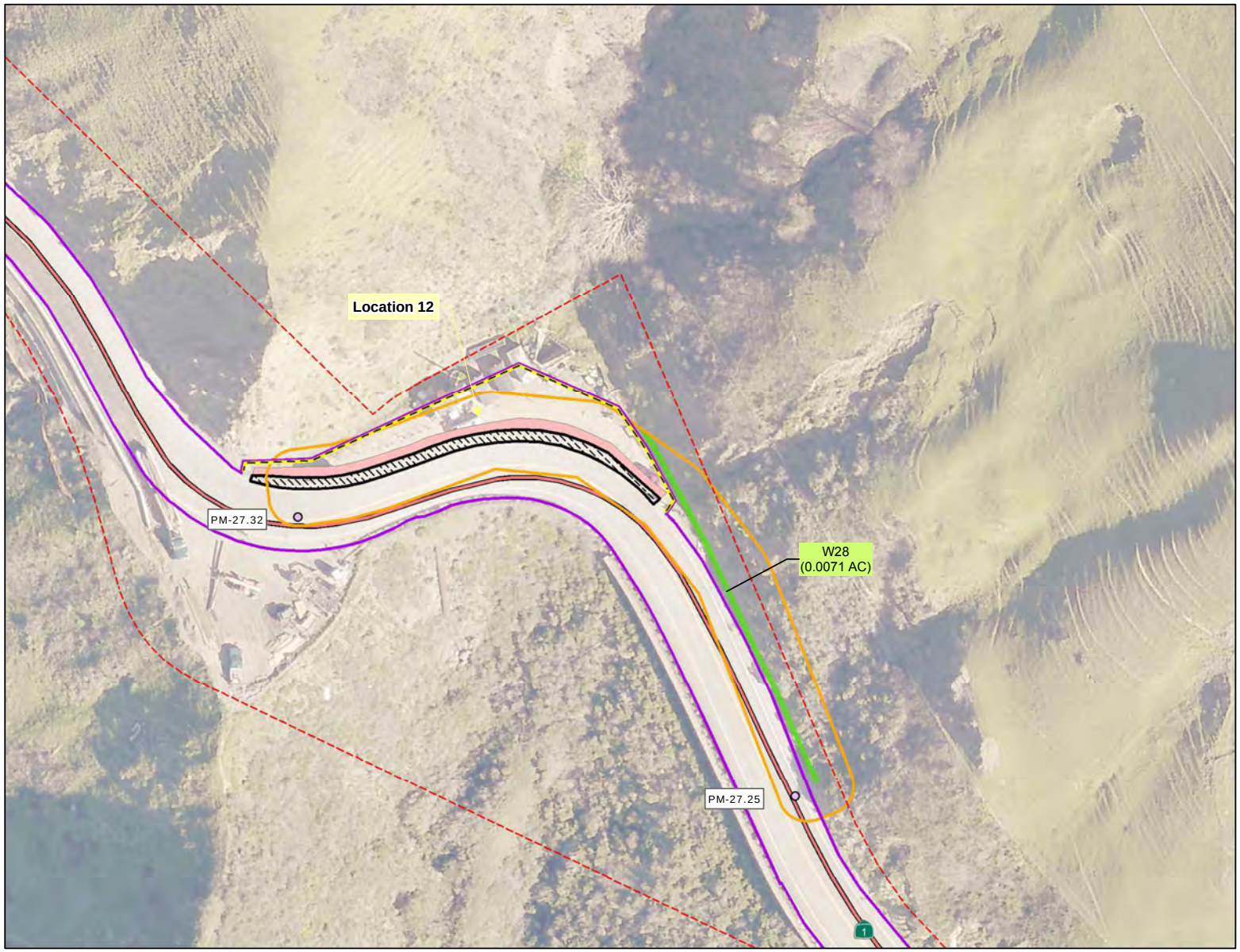
N

0 50 100
Feet

Caltrans

Figure 4-2
Map 15
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 4)
- Palustrine Emergent Wetlands (USACE and CCC) (0.152 acre)

Note:
AC = acre
LF = linear feet

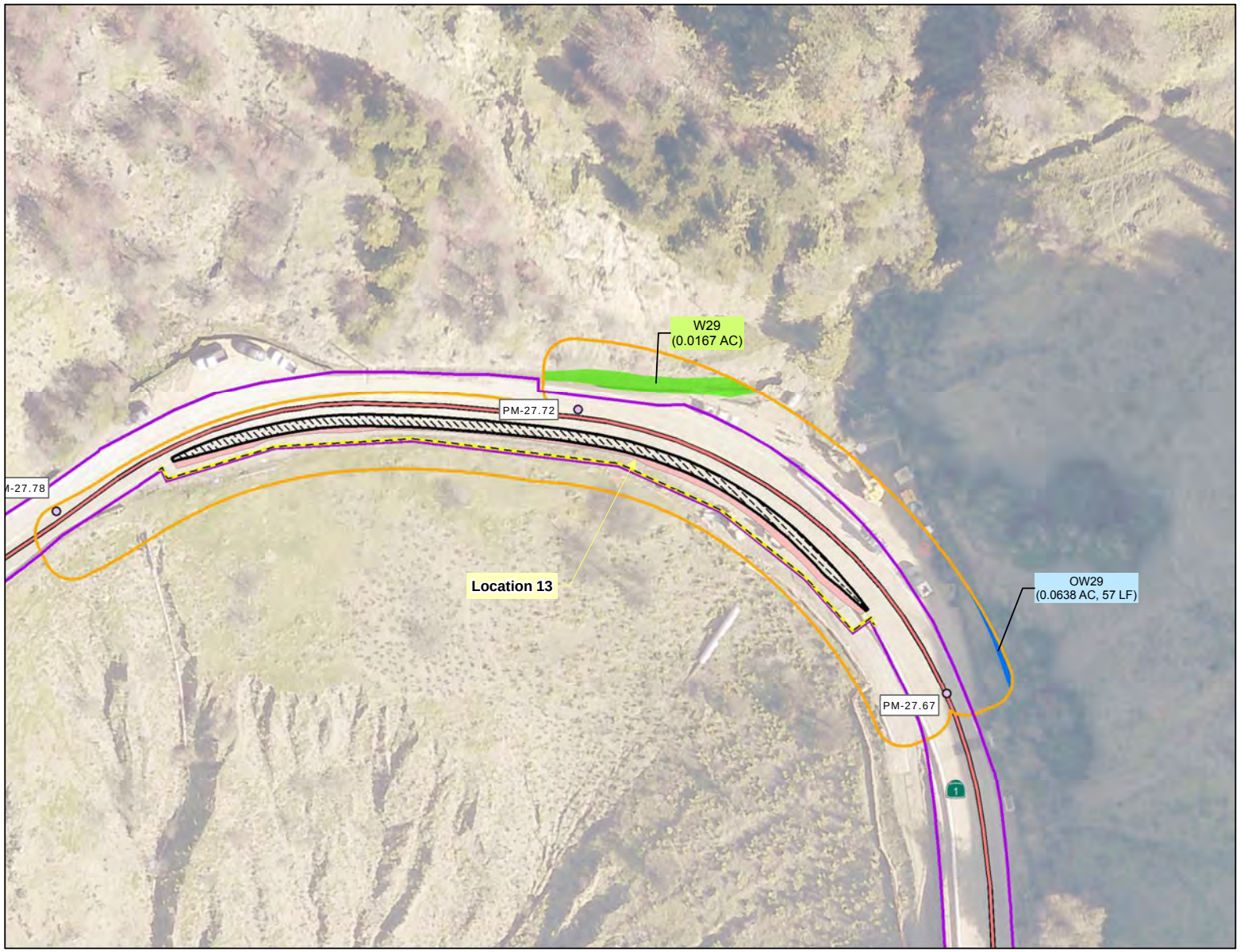
Imagery Source:
Sonoma County 2021

N

0 50 100
Feet

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM

Figure 4-2
Map 16
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California



LEGEND

- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 4)
- Other Waters (0.029 acre, 330 linear feet)
- Palustrine Emergent Wetlands (USACE and CCC) (0.152 acre)

Note:
AC = acre
LF = linear feet

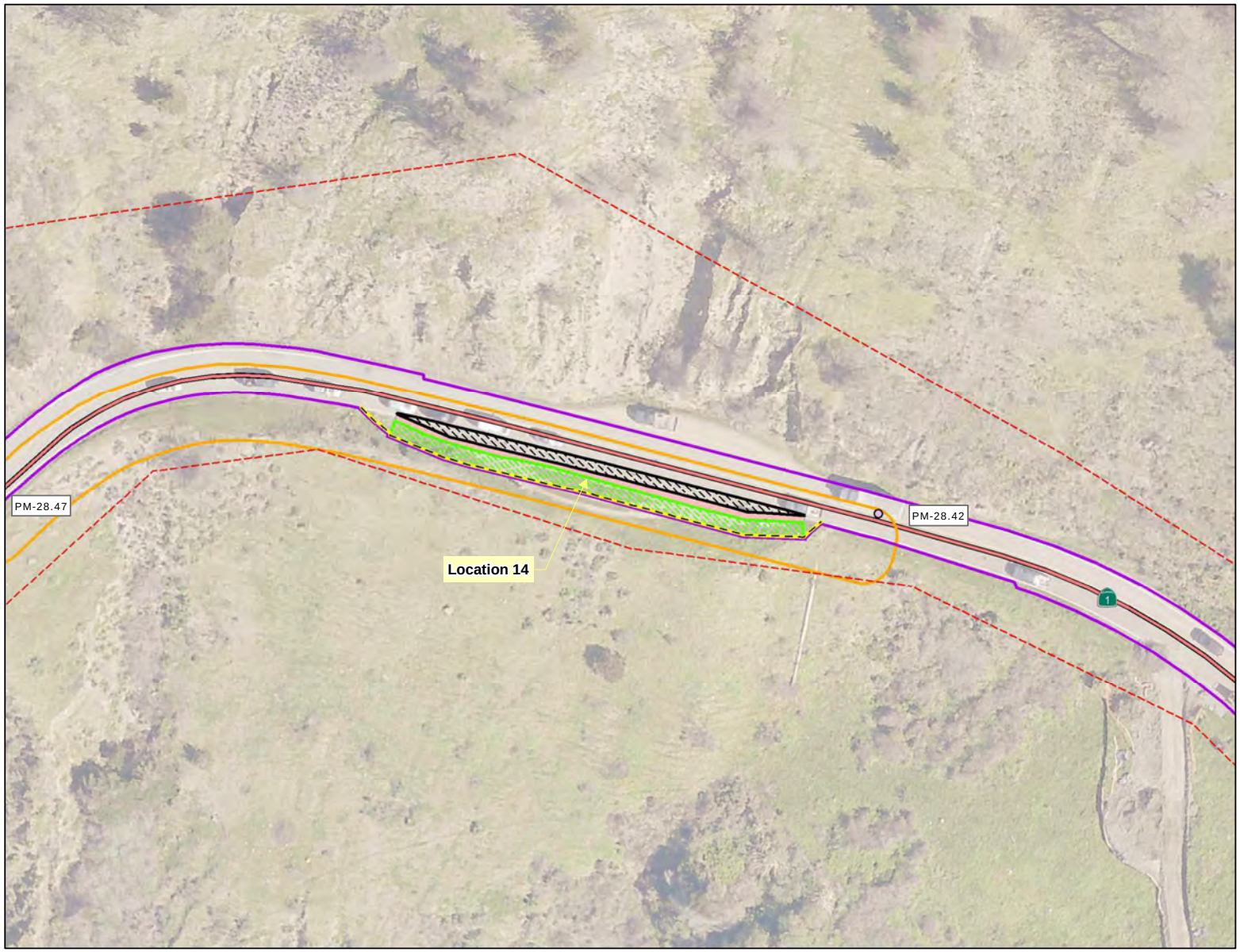
Imagery Source:
Sonoma County 2021

N

0 50 100
Feet

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM

Figure 4-2
Map 17
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Biofiltration Strip
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 4)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

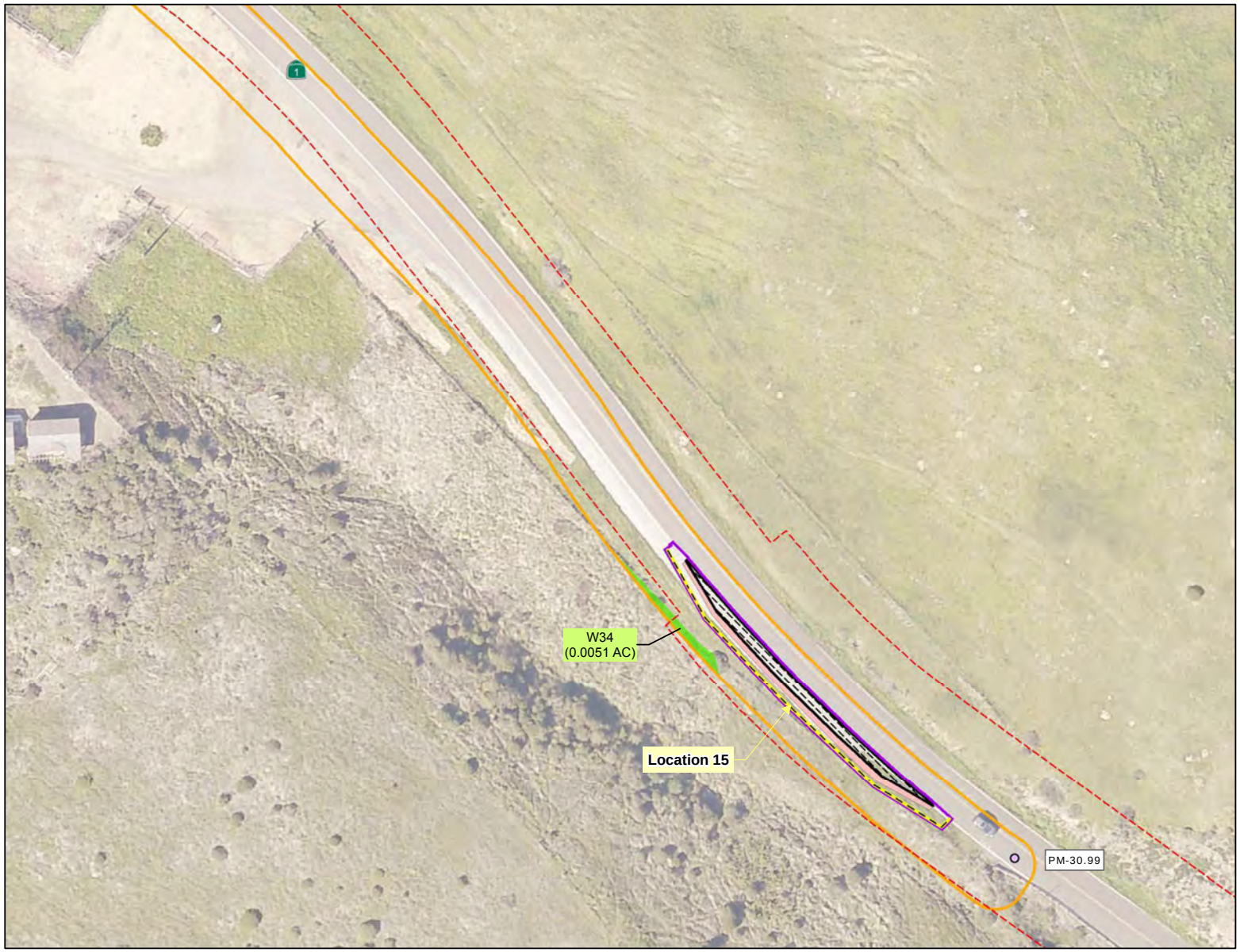
N

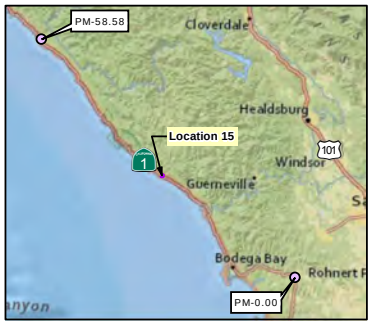
0 50 100
Feet

Caltrans

Figure 4-2
Map 18
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM





LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Palustrine Emergent Wetlands (USACE and CCC) (0.152 acre)

Note:
AC = acre
LF = linear feet

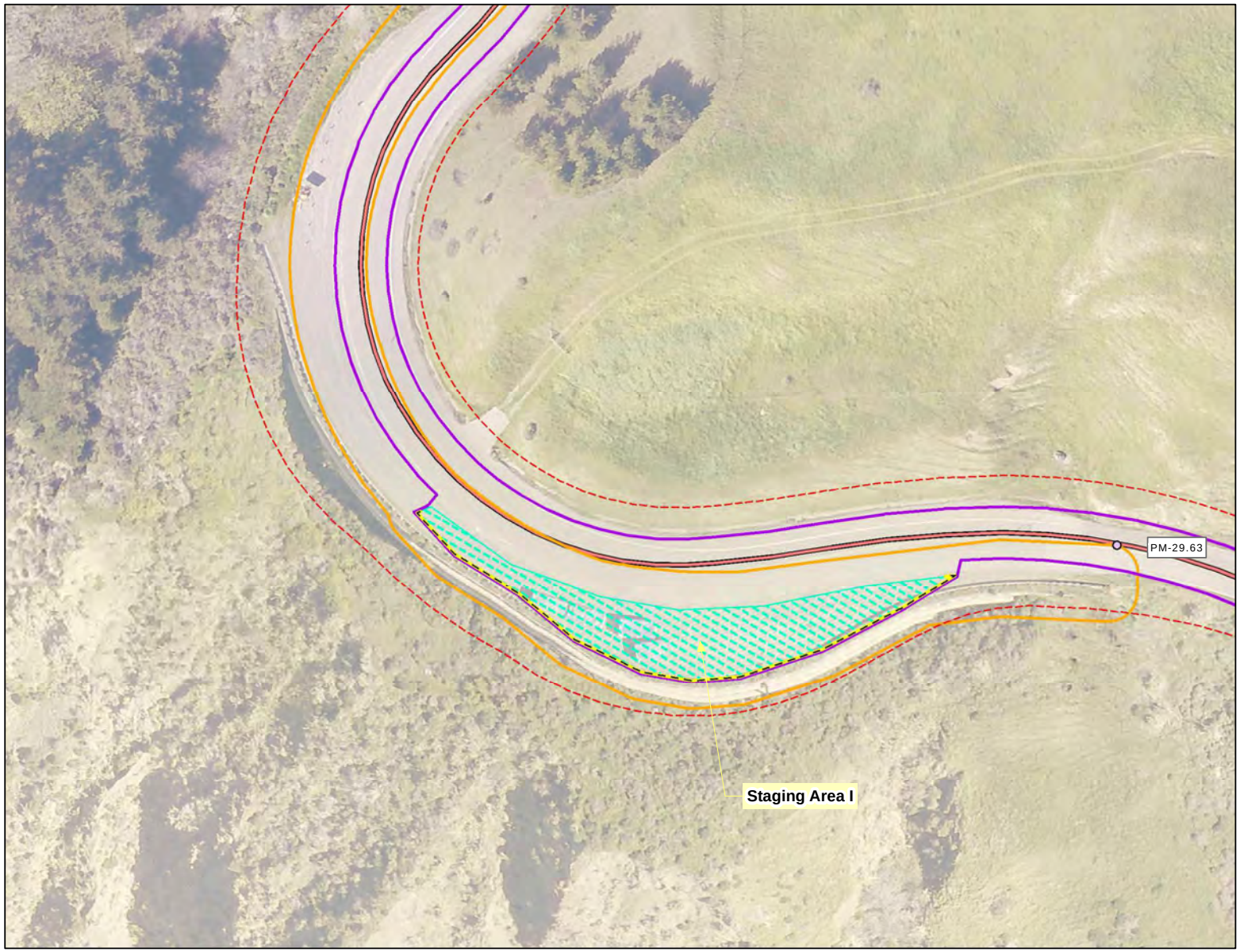
Imagery Source:
Sonoma County 2021

N

0 50 100
Feet

Figure 4-2
Map 19
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Staging Area
- Install Centerline Rumble Strip (Segment 4)

Note:
AC = acre
LF = linear feet

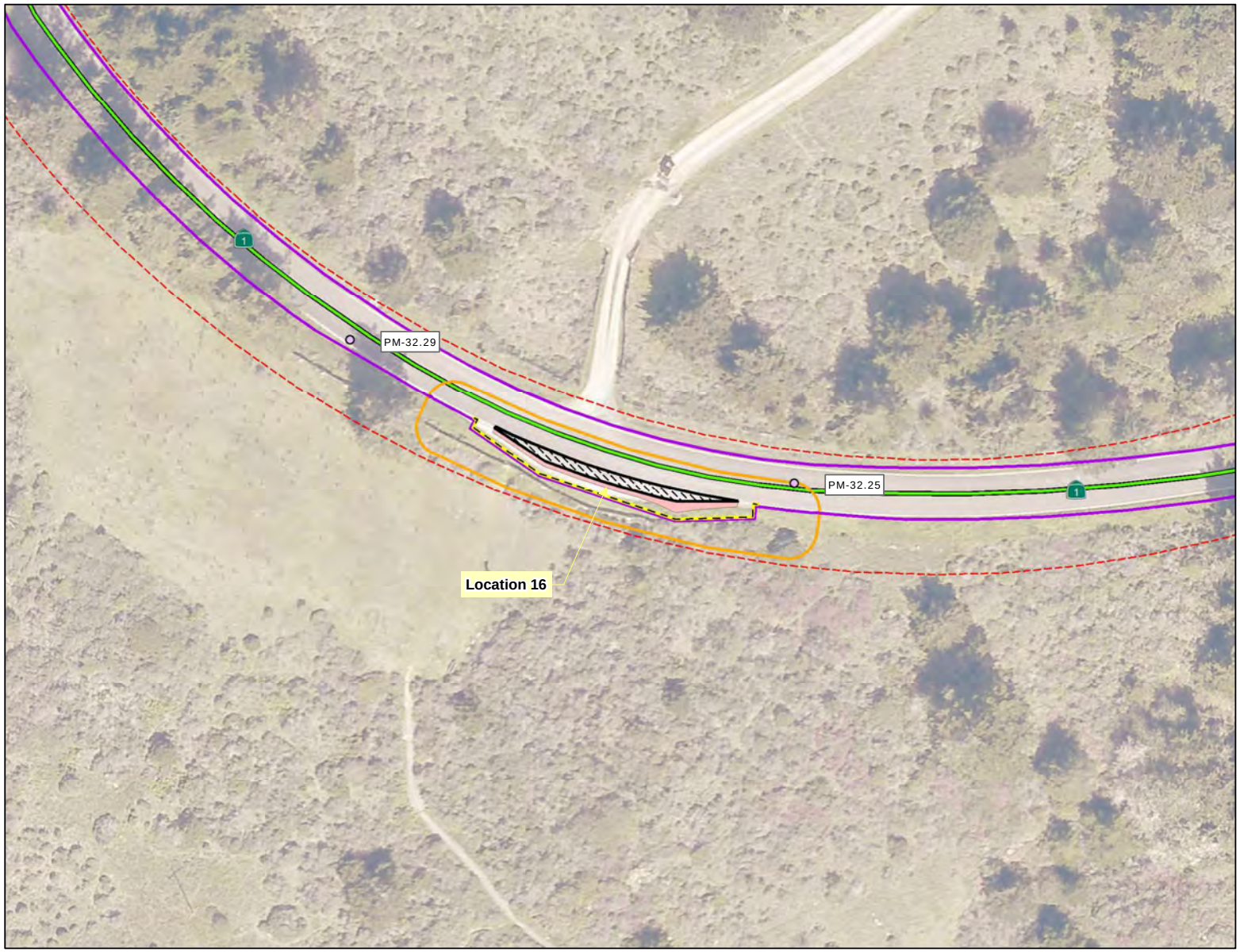
Imagery Source:
Sonoma County 2021

N

0 50 100
Feet

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM

Figure 4-2
Map 20
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 5)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

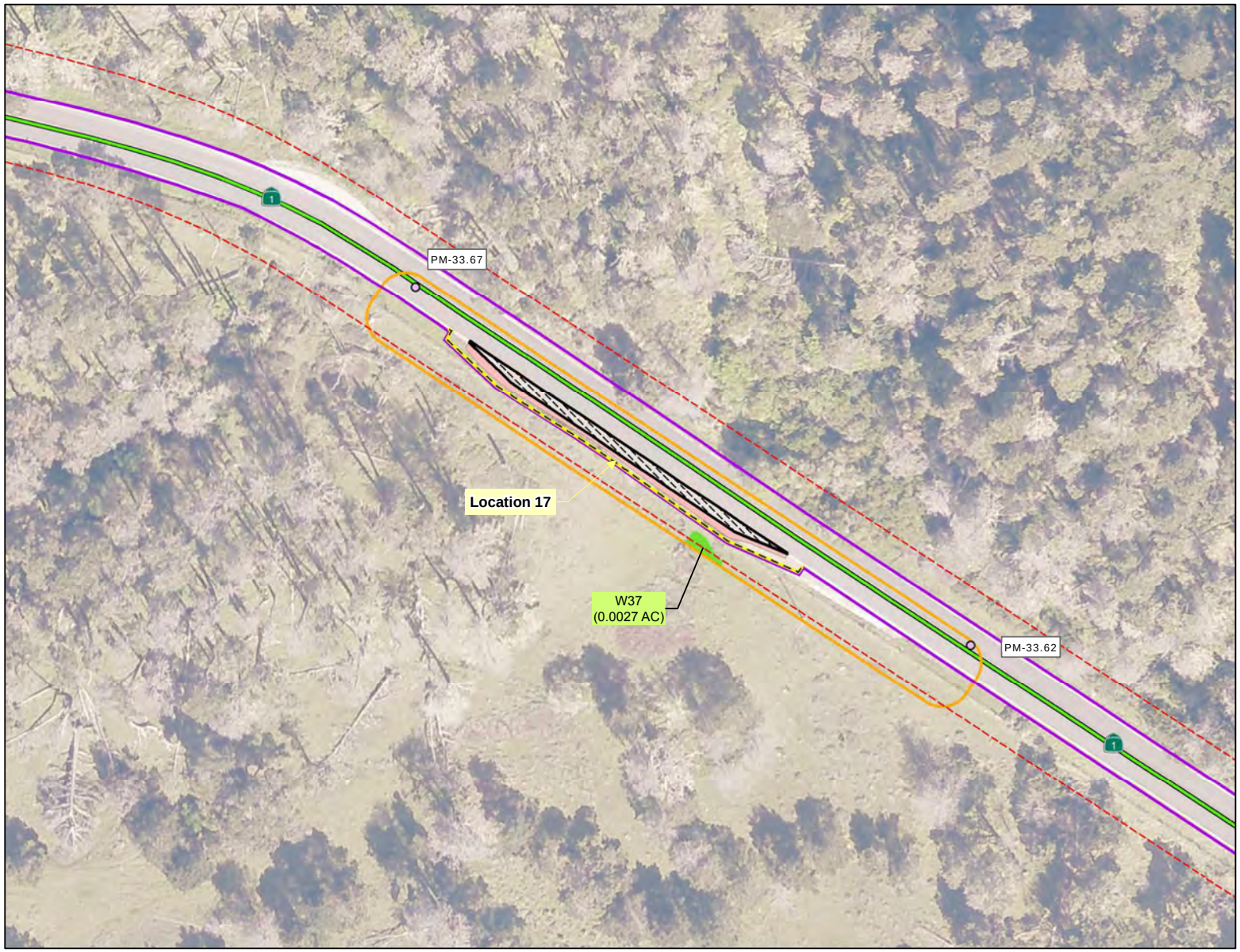
N

0 50 100
Feet

Caltrans

Figure 4-2
Map 21
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 5)
- Palustrine Emergent Wetlands (USACE and CCC) (0.152 acre)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

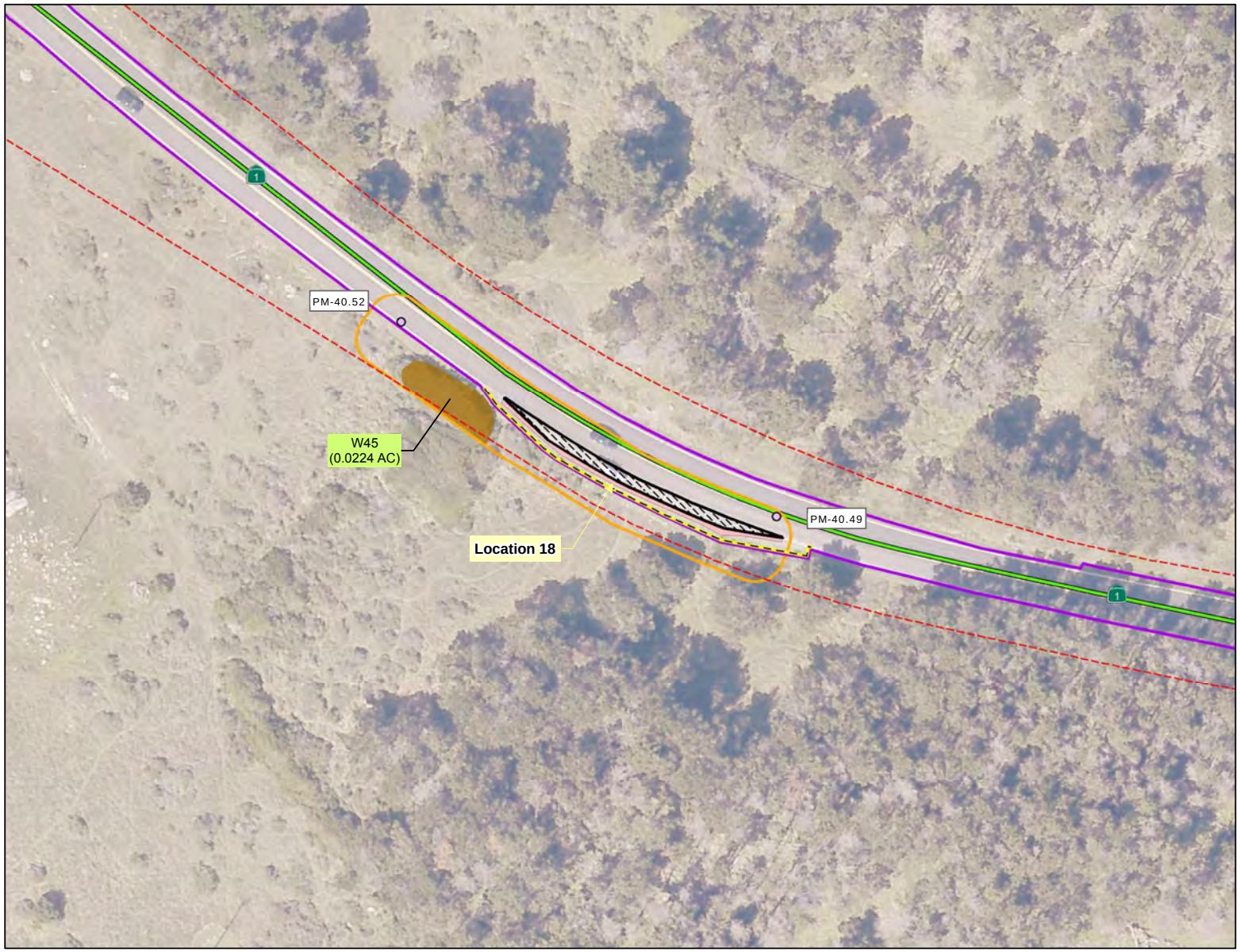
N

0 50 100
Feet

Caltrans

Figure 4-2
Map 22
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 5)
- Palustrine Scrub-shrub Wetlands (USACE and CCC) (0.025 acre)

Note:
AC = acre
LF = linear feet

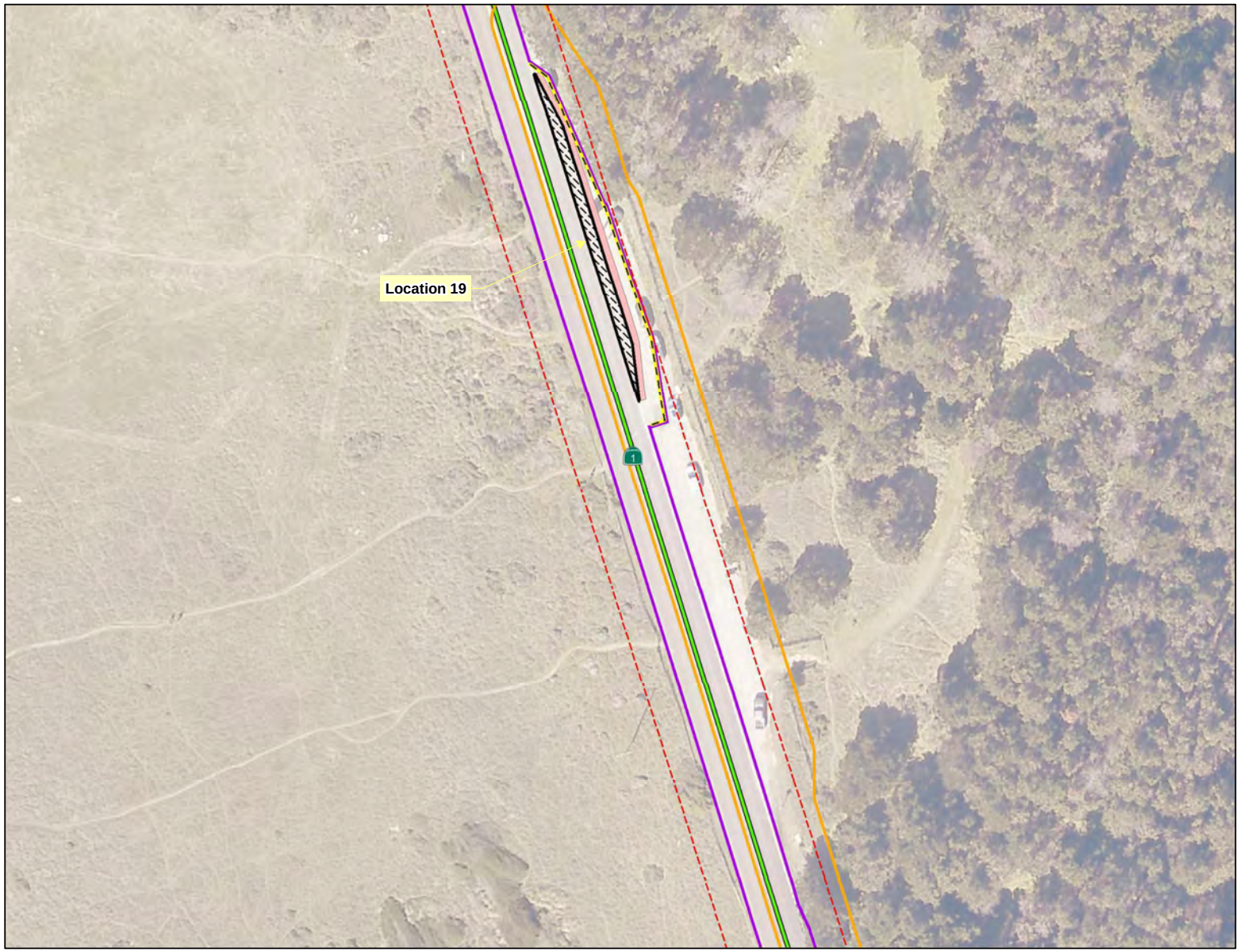
Imagery Source:
Sonoma County 2021

N

0 50 100
Feet

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM

Figure 4-2
Map 23
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California



LEGEND

- Caltrans Right of Way
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 5)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

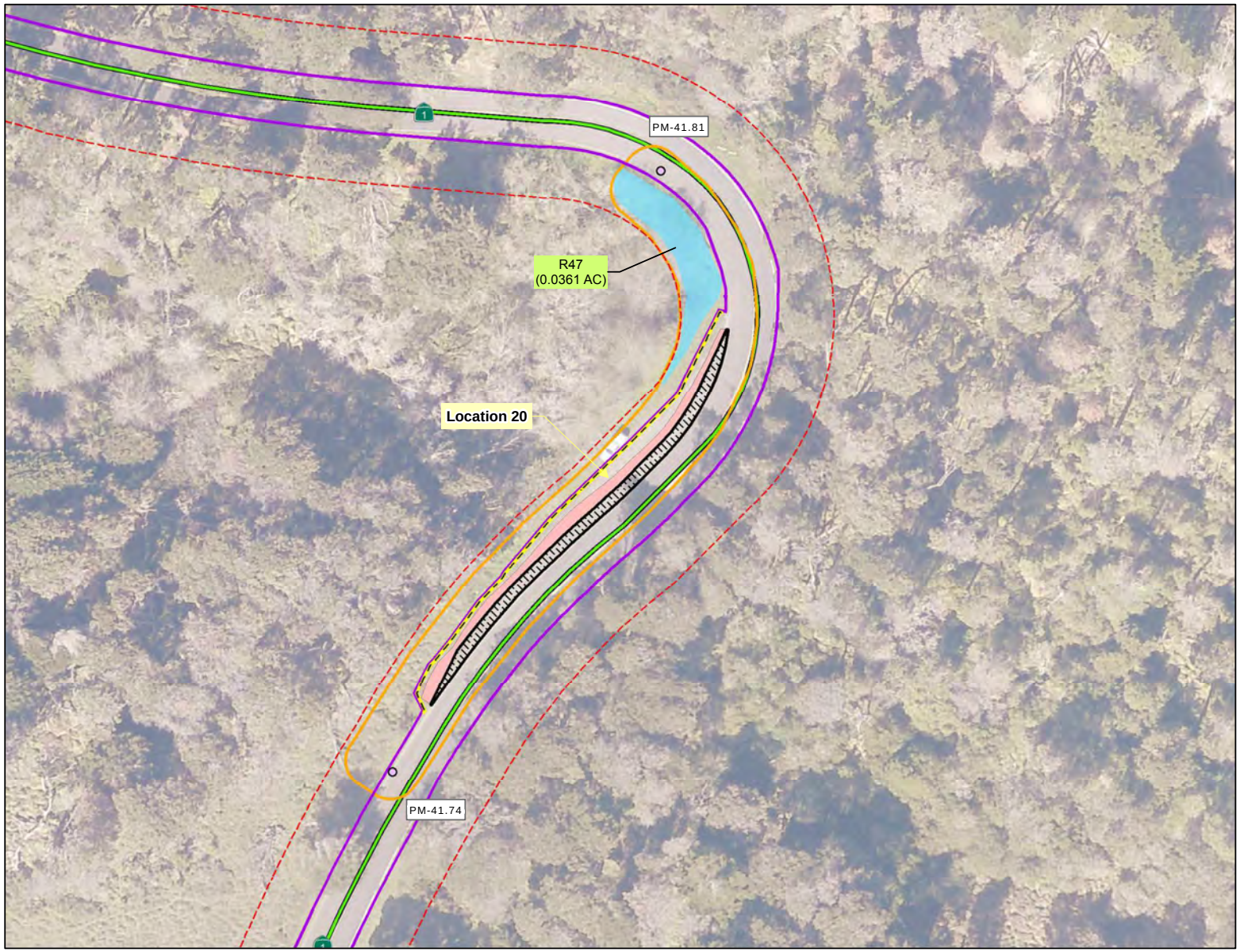
N

0 50 100
Feet

Caltrans

Figure 4-2
Map 24
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 5)
- Wetlands (CCC-only) (0.019 acre)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

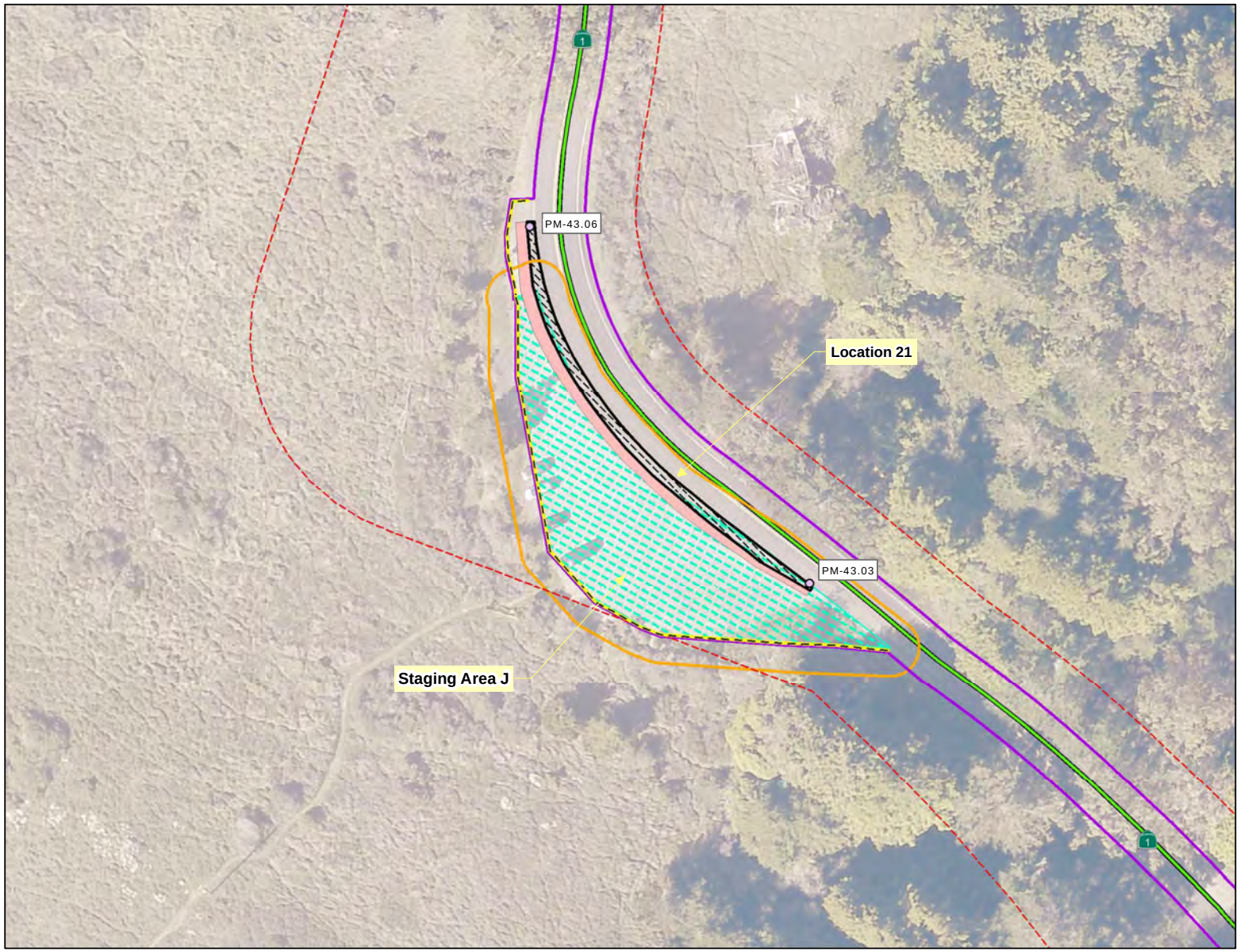
N

0 50 100
Feet

Caltrans

Figure 4-2
Map 25
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Staging Area
- Install Centerline Rumble Strip (Segment 5)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

N

0 50 100
Feet

Caltrans

Figure 4-2
Map 26
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 5)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

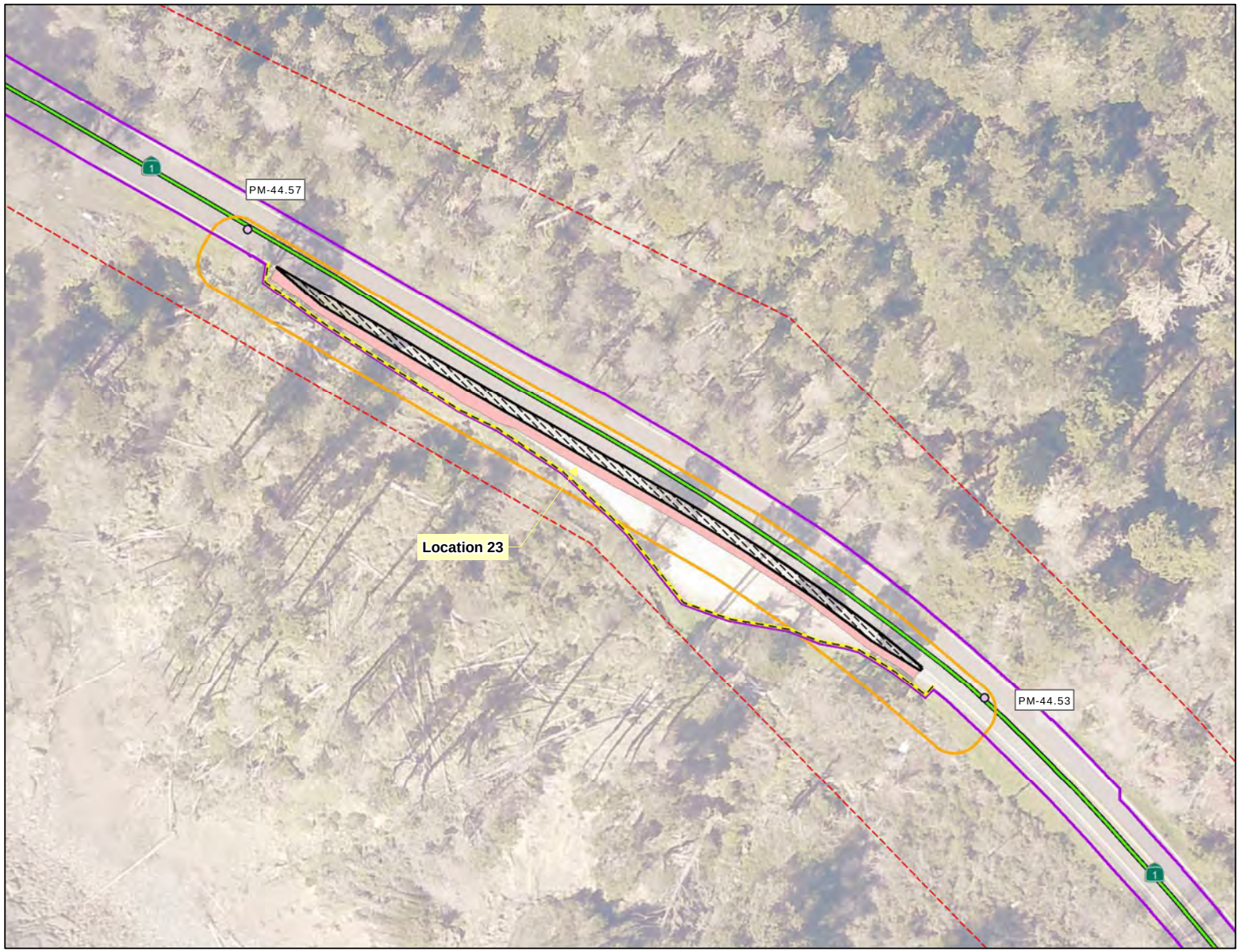
N

0 50 100
Feet

Caltrans

Figure 4-2
Map 27
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 5)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

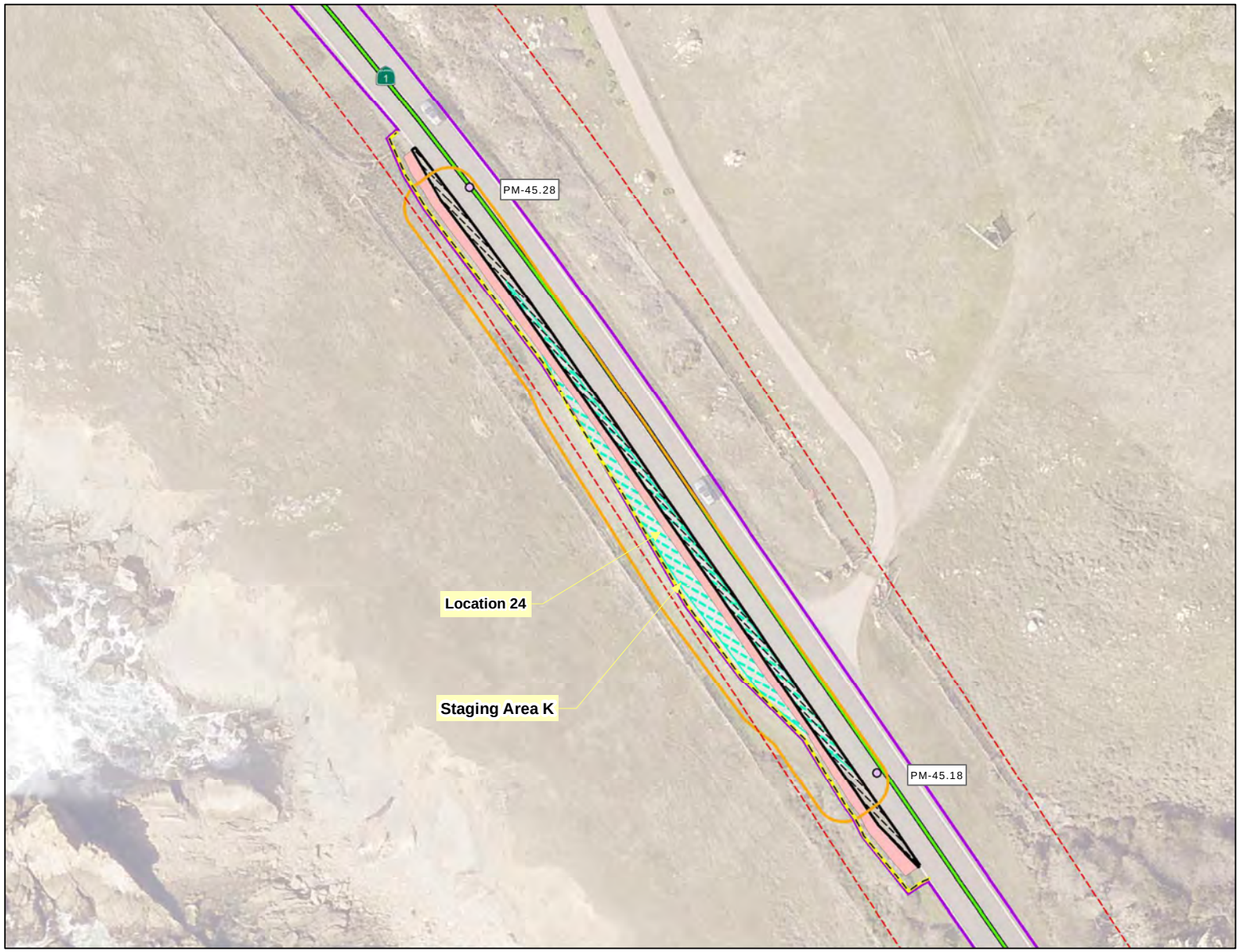
N

0 50 100
Feet

Caltrans

Figure 4-2
Map 28
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Staging Area
- Install Centerline Rumble Strip (Segment 5)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

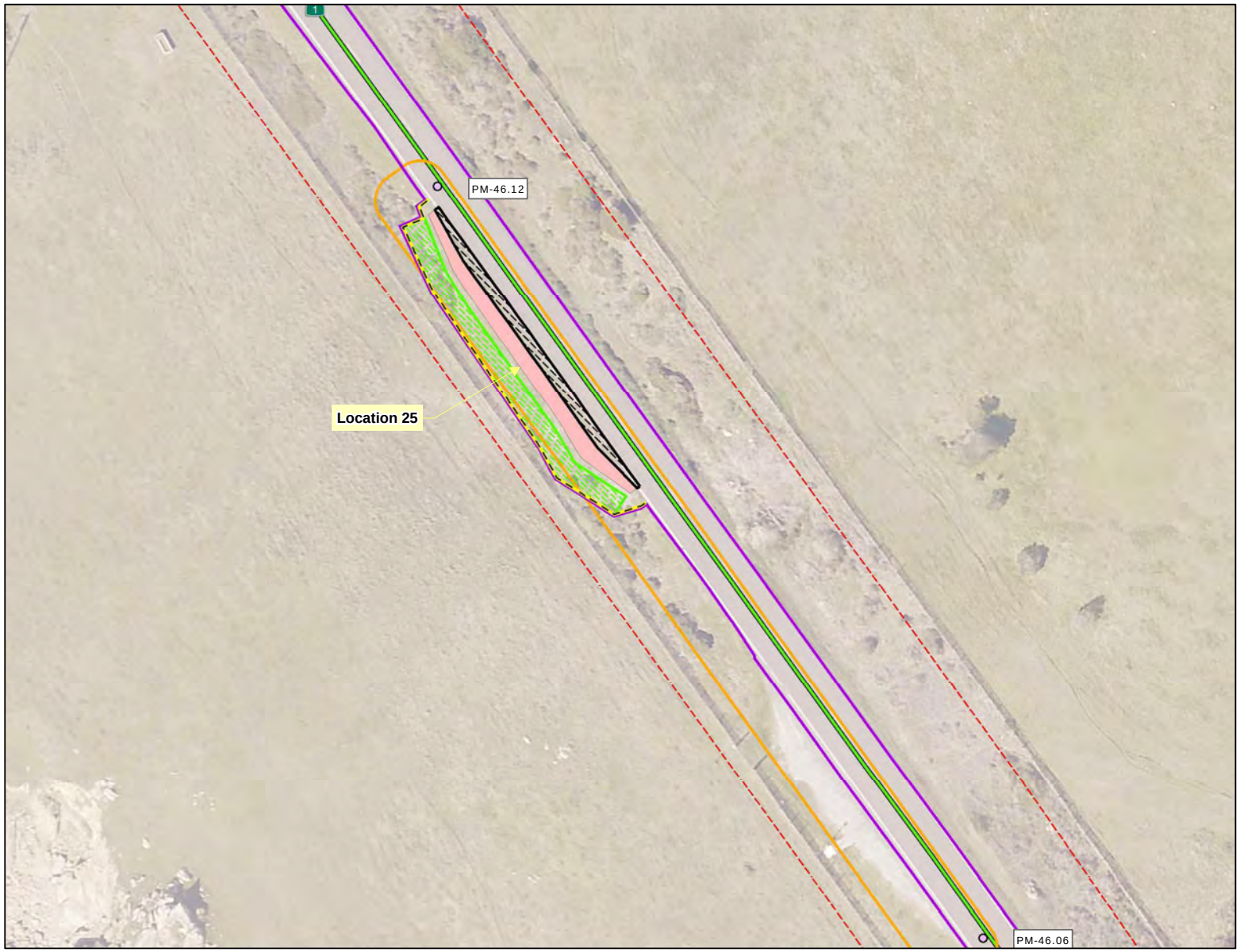
N

0 50 100
Feet

Caltrans

Figure 4-2
Map 29
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Biofiltration Strip
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 5)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

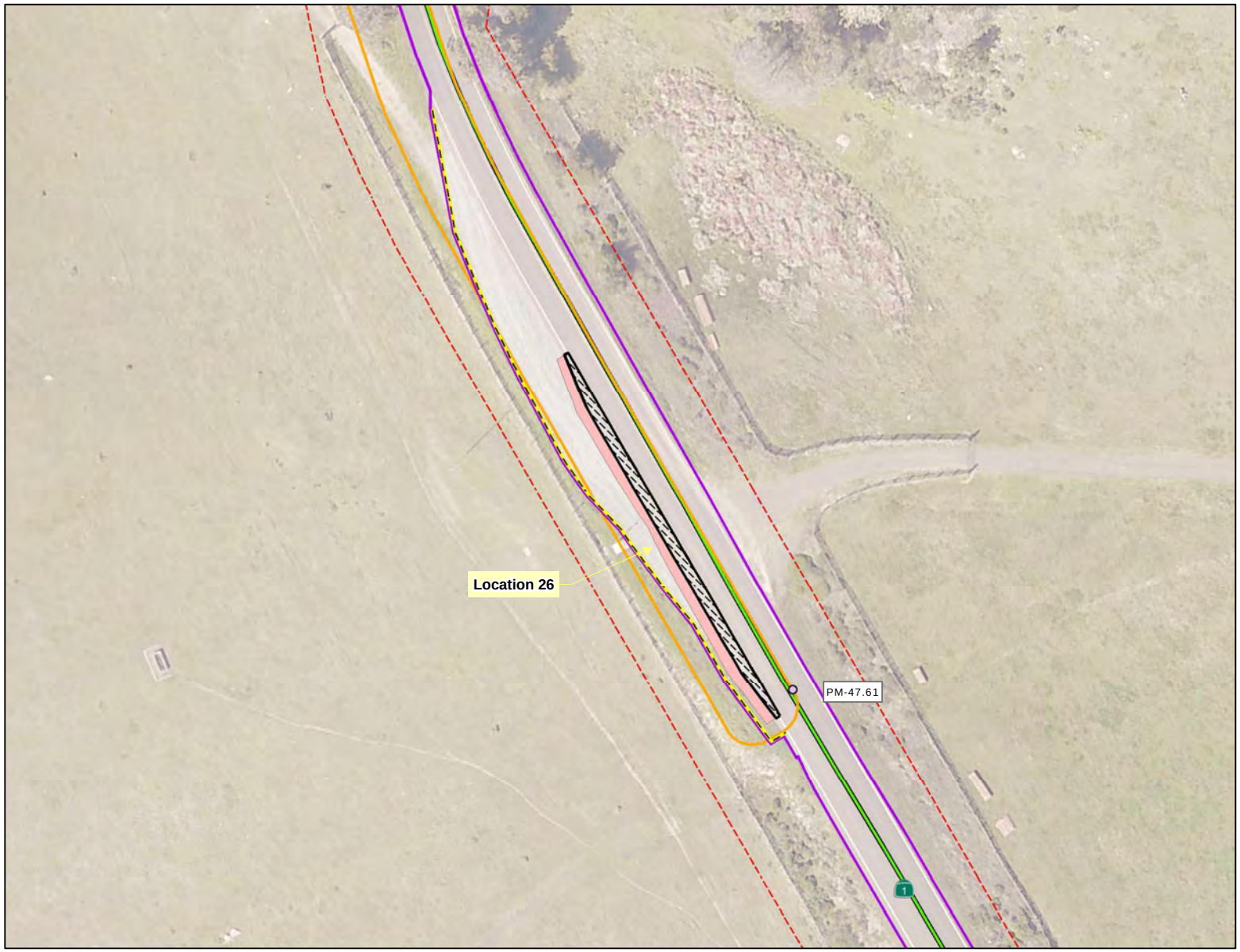
N

0 50 100
Feet

Caltrans

Figure 4-2
Map 30
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 5)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

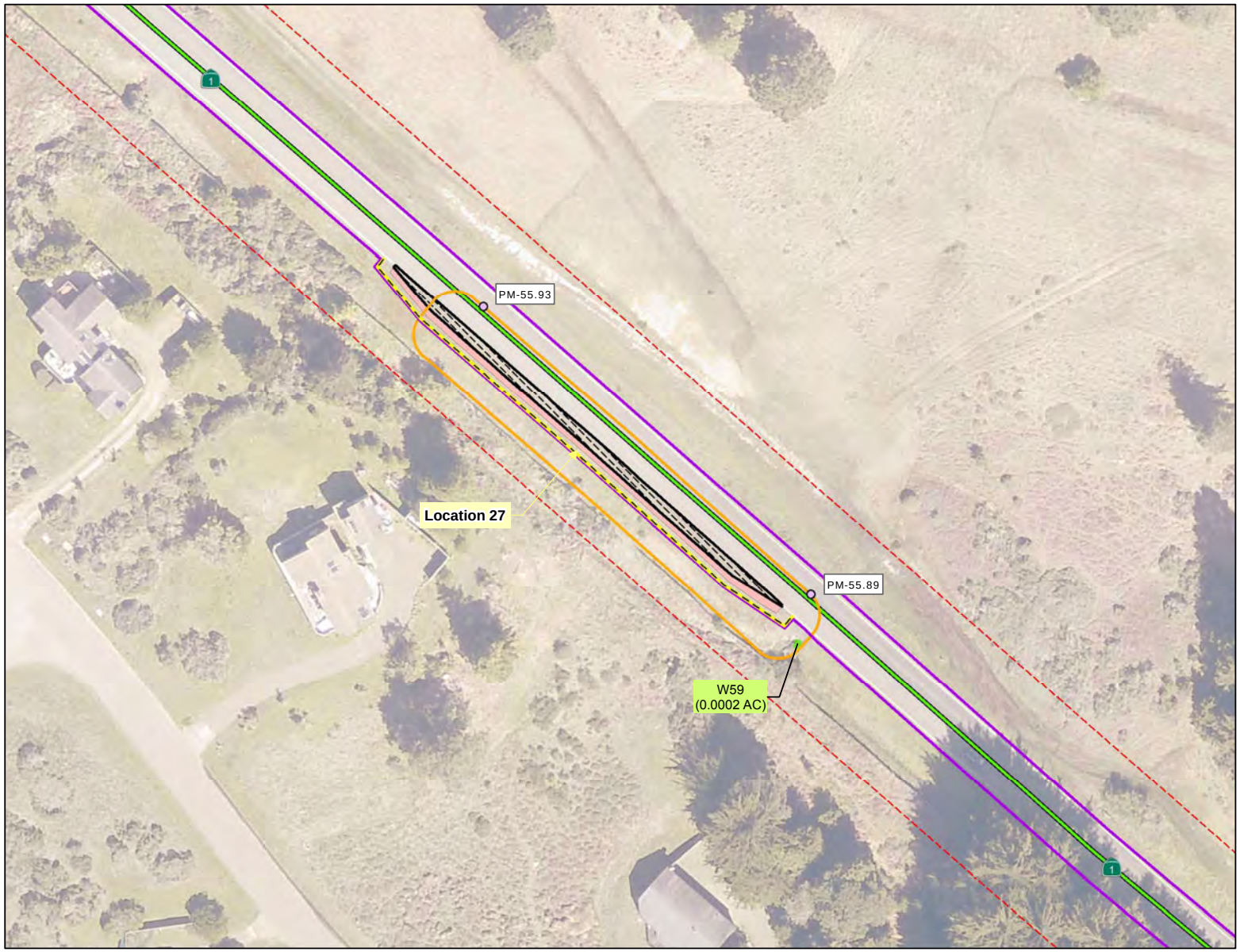
N

0 50 100
Feet

Caltrans

Figure 4-2
Map 31
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 5)
- Palustrine Emergent Wetlands (USACE and CCC) (0.152 acre)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

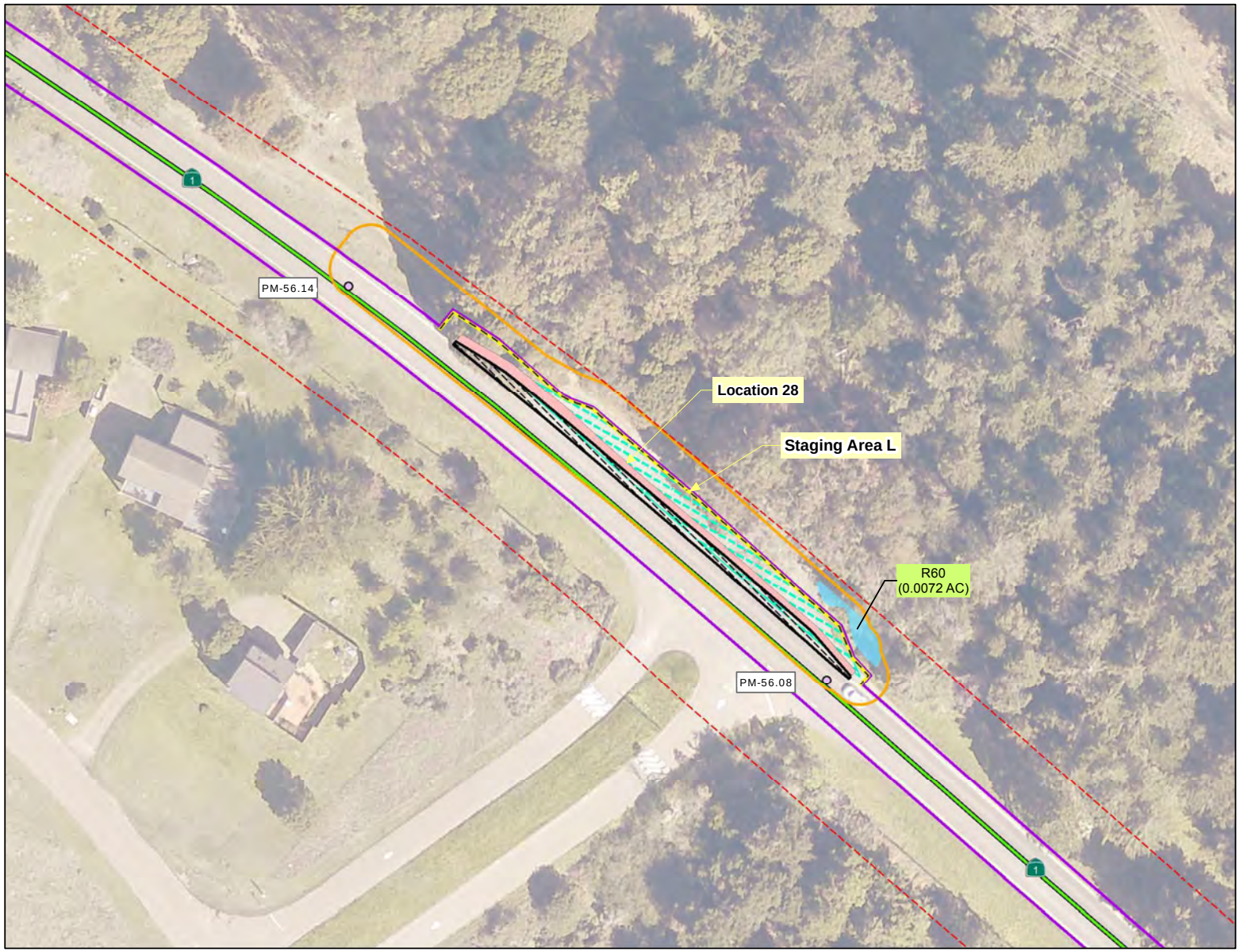
N

0 50 100
Feet

Caltrans

Figure 4-2
Map 32
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM



LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Staging Area
- Install Centerline Rumble Strip (Segment 5)
- Wetlands (CCC-only) (0.019 acre)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

N

0 50 100
Feet

Caltrans

Figure 4-2
Map 33
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM

LEGEND

- Caltrans Right of Way
- Post Mile
- Biological Study Area (20.08 acres)
- Project Footprint (156.3 acres)
- Temporary Reinforced Silt Fence
- Fill Area
- Shoulder Widening
- Install Centerline Rumble Strip (Segment 5)

Note:
AC = acre
LF = linear feet

Imagery Source:
Sonoma County 2021

N

0 50 100
Feet

Caltrans

Figure 4-2
Map 34
Potential Aquatic Resources
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2024\NES\05_MAY\FIG4-2_POTENTIAL_AQUATIC_RESOURCES_4G780.MXD CARCHER 5/14/2024 8:37:32 PM

California Department of Transportation

DISTRICT 4
P.O. BOX 23660, MS–1A | OAKLAND, CA 94623-0660
(510) 286-5900 | FAX (510) 286-6301 | TTY 711
www.dot.ca.gov

May 15, 2024

Marlene Alvarado
Senior Coastal Planner
California Coastal Commission
301 Ocean Boulevard, Suite 300
Long Beach, CA 90802

Re: EA 4G780 – STATE ROUTE 1 CENTERLINE RUMBLE STRIP PROJECT: 6-FOOT SHOULDER WIDENINGS

Dear Ms. Alvarado:

The State Route (SR) 1 Centerline Rumble Strip Project (Project) would install ground-in centerline rumble strip, install wet-night visibility striping, widen the existing shoulder at 29 spot locations, and install two biofiltration strips between Post Miles (PM) 0.00 and 58.58 in Sonoma County. Within the Project corridor, the highway is a two-lane rural conventional highway with 10 to 12 foot wide travel lanes, no centerline rumble strips, and shoulders varying from 0 to 8 feet in width. The purpose of the Project is to reduce the number and severity of head-on, cross-centerline, and run-off-the-road collisions in order to provide safe traffic operations on SR 1 and to provide refuge areas for bicyclists to use when being passed by motorists.

At the onset of this Project, shoulder widening was proposed at 61 locations along the Project corridor. During the development of the Initial Study with Negative Declaration (IS/ND), proposed shoulder widening locations decreased from 61 to 50 because some locations either had existing 6 foot shoulders already, had right of way (ROW) constraints to widening, or were eliminated to lessen impacts to sensitive environmental resources identified within the Project study area. The final design phase of Caltrans project development process resulted in the Project team further reducing the number of shoulder widenings to 29 locations in order to avoid and minimize impacts to environmentally sensitive habitat areas (ESHAs) adjacent to the Project corridor, for design constraints, and/or due to potential conflicts with another project.

Throughout the initial planning of the Project, early coordination with permitting agencies and other internal/external groups determined there was interest in supporting improvements that enhance safe access for bicyclists. These shoulder

improvements were selected based on their expected benefit to cyclists, limited environmental impact, and limited ROW concerns. The 29 shoulder widening spot locations would provide sufficient shoulder width to serve as refuge areas for bicyclists when being passed by motorists. This would increase safety for not only bicyclists but all multi-modal users of the transportation facility in support of Caltrans and local agency goals as these shoulder widening locations will provide all multi-modal users with slightly more space for safe passage by motor vehicles.

The Final Sonoma State Route 1 Repair Guidelines (Guidelines) provide Caltrans staff and stakeholders with a consistent vision and direction when working on or reviewing damage repair (permanent restoration) projects along the portion of SR 1 through Sonoma County. The Guidelines were used to help inform the design decision making to improve safety for all users while protecting environmental resources. The Guidelines state that shoulders wider or narrower than 4-feet in a rural environment should also consider the actual or expected volume of bicycle and pedestrian traffic, taking into account site-specific topography and particular user needs from a corridor perspective. Pedestrians and bicyclists should be accommodated in all projects (Caltrans 2019).

In compliance with the Guidelines, Caltrans took into consideration the Bicycle and Pedestrian Master Plan (Master Plan) that the Sonoma County Transportation Authority (SCTA) updated in 2014. The Master Plan proposes Class II bicycle lanes from the Marin County line to Meyer's Grade Road (north of Jenner) and from Kruse Ranch Road (near Salt Point State Park) to the Mendocino County line. The segment between Meyer's Grade Road and Kruse Ranch Road is proposed as a Class III bicycle route. This Project has been designed to accommodate the Master Plan in accordance with the Guidelines by incorporating 6-foot shoulders on SR 1 where Class II bicycle lanes are proposed and 4-foot shoulders where a Class III bike route is proposed in the Master Plan (SCTA 2014). Class II bicycle lanes provide a striped lane for one-way bike travel on a street or highway. Class III bicycle lanes provides shared use with pedestrians or motor vehicles. Because this Project is a safety project that is proposing to provide safe refuge to bicyclists traveling through the Project corridor, Caltrans determined that 6 foot wide shoulders will provide the greatest safety to bicyclists and other multi-modal users of the highway, even where Class III bicycle lanes are being proposed. Six foot wide shoulders would allow enough room for bicyclists and other multi-modal users to find refuge while allowing sufficient space to accommodate other roadway design features like drainage or broadband. With the implementation of 6 foot shoulders, Caltrans has determined that the Project will be consistent with the Guidelines and local plans.

The average daily traffic (ADT) for SR 1 varies from 1,250 to 17,400 vehicles. Per Design Information Bulleting (DIB) 79, all segments of SR 1 in Sonoma County require either 4

foot wide (ADT of 1,001 to 3,000) or 8 foot wide (ADT more than 3,001) shoulders. Due to the length of the Project limits on SR 1, the ADT within the Project corridor ranges from 2,100 to 8,300 vehicles (Caltrans 2023). In accordance with DIB 79, the ADT experienced within the Project corridor on SR 1 requires 8 foot wide shoulders. However, due to the rural nature of the Project corridor and in consideration of both context sensitivity on SR 1 and decision factors and guidance provided in the Guidelines, design exceptions for shoulder widths in this Project were proposed and approved, and Caltrans determined that all proposed shoulder widening locations be 6 feet in width, in lieu of the required 8 feet.

Additionally, during the circulation of the Draft IS/ND, public comments were submitted from representatives of the Sonoma County Bicycle Coalition and Sonoma County Regional Parks supporting the proposed shoulder widenings and their proposed widths. However, Caltrans would like to note that these groups also requested that a dedicated bikeway be installed along the entire corridor, which Caltrans could not accommodate due to the potential for significant impacts. Comments from members of the Sonoma County Bicycle Coalition can be found on pages F-7 through F-10 in Appendix F in the Final IS/ND. Comments from Sonoma County Regional Parks can be found on page 10 of Appendix F in the Final IS/ND.

As detailed above, considering the safety implications, the Guidelines, and the public and agency supportive feedback, Caltrans has elected to proceed with the 6 foot shoulder widths at the 29 bicycle refuge locations as proposed in the Project.

Thank you for your work on our Coastal Development Permit for this Project. If you have any questions about this letter, the shoulder widths for this Project, or any other questions, please do not hesitate to reach out to me. We look forward to our continued collaboration.

Sincerely,

Lawrence E. Bonner
Office Chief, Office of Environmental Analysis
District 4

c: David J. Moore, Senior Environmental Scientist, Caltrans
Chris Pincetich, Branch Chief, Caltrans
Gezahegn Tizazu, Sonoma County Regional Project Manager, Caltrans

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