Natural Environment Study

(Minimal Impacts)

City of San Luis Obispo Public Works
Railroad Safety Trail
San Luis Obispo, California

05-SLO-California Blvd
Federal Project ATP-5016(057)

October 2016

STATE OF CALIFORNIA
Department of Transportation

Prepared By: _____ Date: 10/25/2016

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Summary

The Railroad Safety Trail Project (Project) is located within the City of San Luis Obispo. The City of San Luis Obispo (City) proposes to construct a 1,700 foot Class I Trail on California Boulevard beginning from Taft Street to Pepper Street, which will serve both pedestrians and two-way directional traffic for bicyclists. The trail will ultimately provide a safe and direct north/south commuter route between California Polytechnic State University, San Luis Obispo (Cal Poly) and the San Luis Obispo Amtrak station. The alignment generally follows developed roadways and will result in minimal impacts to biological resources. The Project may result in the removal of several ornamental trees and one native tree, and has the potential to impact nesting birds protected under the Migratory Bird Treaty Act. Survey results for the Project did not document special-status plant species, critical habitat, natural communities of concern, or special-status wildlife; therefore, these resources are not anticipated to be impacted. The Project impacts include approximately 2.38 acres of developed habitat and 2.68 acres of ornamental tree or ruderal habitat. Implementation of avoidance and minimization measures will reduce potential impacts.

1 - Introduction

The California Department of Transportation (Caltrans) has assumed the Federal Highway Administration's (FHWA) responsibilities for Section 7 of the Federal Endangered Species Act. This action is in accordance with Section 1313, Surface Transportation Project Delivery Program, of the Moving Ahead for Progress in the 21st Century Act (MAP-21) of 2012, as described in the National Environmental Policy Act (NEPA) assignment Memorandum of Understanding between FHWA and Caltrans (effective October 1, 2012) and codified in 23 United States Code (U.S.C.) 327.

History

In June of 2001, the City adopted a preferred alignment for the Railroad Safety Trail Project. The overall Project spans 1.4 miles within the City limits and is primarily located within the Union Pacific Railroad (UPRR) right-of-way. The proposed Class I bicycle trail and multi-use pathway will serve bicyclists, pedestrians, and rollerbladers.

Project Purpose and Need

The Project area (California Boulevard corridor) is heavily travelled by pedestrians and bicyclists accessing Cal Poly. Due to safety concerns, a safe and direct pedestrian/bicycle route between Cal Poly and the San Luis Obispo Amtrak station is needed. The Trail would also promote alternative forms of transportation and provide new recreational opportunities consistent with the goals set forth in the City's Bicycle Transportation Plan.

Project Description

Trail Alignment. The proposed Project is comprised of a 1,700 foot-long segment of the Railroad Safety Trail. The Project is a Class I multi-use bike path extending from the existing bike lane on California Boulevard at Taft Street along California Boulevard and the UPRR tracks to Pepper Street. The Trail would serve both pedestrians and two-way directional traffic for bicyclists. The proposed Trail segment consists of a 12-foot-wide wide multi-use path with two foot-wide paved shoulders. The Trail would consist of a structural section of asphalt concrete laid over an aggregate base.

The proposed Trail alignment begins on the west side of California Boulevard at Taft Street and continues south and parallel to the existing UPRR right of way. The Trail would cross over U.S. Highway 101 on the existing California Boulevard overcrossing structure, then turn southwest between the California Highway Patrol property and the UPRR right of way and continue along the UPRR right-of-way to the western terminus (cul-de-sac) of Phillips Lane. The Trail alignment then continues west and crosses the UPRR tracks via a new bridge structure, where the Trail alignment meets to Pepper Street. The final portion of the Trail alignment continues south along the eastern shoulder of Pepper Street.

Drainage. The Project would result in the loss of a storm water detention basin located between the California Highway Patrol property and the UPRR tracks. To replace the function of the basin, a v-ditch would be constructed, and maintained for approximately 500 linear feet. The storm water collected in the basin currently drains to a headwall and pipe inlet near the U.S. Highway 101 right-of- way. To maintain the existing drainage pattern, the storm water collected in the

proposed v-ditch would flow to an open pipe inlet and an 18-inch diameter pipe that would connect the drainage inlet to the headwall and drain at the same location. Existing storm drain pipes that outfall from the California Highway Patrol property would be maintained and would outfall into the proposed v-ditch instead of the existing basin.

Right-of-Way. The City would need to obtain a permanent easement or right-of-way take from UPRR, Department of General Services (regarding the California Highway Patrol property) and two private properties near the Phillips Lane cul-de-sac. Temporary construction easements would be needed from UPRR and one private property.

Traffic. With the new Trail located on the existing California Boulevard/U.S. Highway 101 overcrossing there is the potential need for a traffic management plan, due to the potential effect on U.S. Highway 101 ramp operations. California Boulevard would need to be re-striped to accommodate the reduction of available space for traffic on the U.S. Highway 101 overcrossing, which would reduce the number of northbound travel lanes from two to one.

Overcrossing Modifications and Retaining Walls. The existing California Boulevard/U.S. Highway 101 overcrossing (Bridge No. 49-0079) would need to be modified to include a raised curb and picket railing to separate the Trail from vehicle traffic. Modification would only occur on the existing bridge deck. The existing sidewalk barrier (west side) would remain unmodified. Due to slopes just east of the UPRR tracks, a number of retaining walls/approach structures would be required to minimize earthwork within the UPRR right-of-way.

Bridge and Retaining Wall Construction. The Trail would cross the UPRR tracks and connect to Pepper Street using a single-span prefabricated steel truss bridge, which would be approximately 97 feet in length. A reinforced concrete abutment would support each end of the truss bridge and provide the transitions (landings) between the retaining walls/approach structures and the bridge. The bridge abutments would be supported by 84-inch diameter cast-in-drilled-hole reinforced concrete piles.

Staged Construction. A staged construction concept will be implemented. Temporary lane closures along California Boulevard across the California Boulevard Overcrossing of U.S. Highway 101, as well as Peppers Street near Phillips Lane will required. Temporary traffic control devices will be used to limit access to the bulb of the Phillips Lane cul-de-sac during the bridge and retaining wall construction. Construction staging areas will be located in multiple locations adjacent to the project alignment.

Utilities. Existing Pacific Gas and Electric (PG&E) underground electric exists within the south side sidewalk of California Boulevard. Overhead electric lines exist on the south side of Pepper Street, but do not appear to be in conflict with the Project. A sewer manhole exists along California Blvd at Taft Street. Storm drain pipe outfalls exist behind the California Highway Patrol (CHP) property visitor parking lot, as well as a pipe headwall and storm drain outfall pipe. Fiber optic lines run within the railroad right of way, and a pole with equipment on it exists at the bulb of the Phillips Lane cul-de-sac.

LEGEND:

Project Impact Area City Limit

Source: Esri Online Basemap, County of San Luis Obispo, TCR 2/16/2016
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME:
RAILROAD SAFETY TRAIL
SAN LUIS OBISPO COUNTY, CA

PROJECT NUMBER: 1502-2212

DATE: February 2016

PROJECT LOCATION MAP

FIGURE 1

Z:\Kristin\GIS Maps\Map Project\Railroad Safety Trail\Project Location Map.mxd khart 2/19/2016

LEGEND:

Project Impact Area Biological Survey Area (BSA)

0 100 200
FEET

Source: Esri Online Basemap, County of San Luis Obispo, TCR 2/16/2016
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

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ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME:
RAILROAD SAFETY TRAIL
SAN LUIS OBISPO COUNTY, CA

PROJECT NUMBER: 1502-2212

DATE: August 2016

PROJECT BIOLOGICAL STUDY AREA

FIGURE 2

Z:\Kristin\GIS Maps\Map Projects\Railroad Safety Trail\Project Biological Study Area.mxd khart 6/4/2016

2 - Study Methods

Caltrans, as part of its NEPA assignment of Federal responsibilities by the FHWA, effective October 1, 2012, and pursuant to U.S.C. Title 23, Section 326, will act as the lead Federal agency for Section 7 of the Federal Endangered Species Act.

A Biological Study Area (BSA) was established based on review of the proposed Project alignment. The BSA includes the entire alignment corridor. The Project Impact Area (PIA) encompasses the area that may be directly affected during the construction of the trail (Figure 2).

Regulatory Requirements

The proposed Project is located within residential and commercial zones of the City of San Luis Obispo (City), and is thus subject to City codes and regulations. The PIA does not include wetlands. The proposed Project will comply with Executive Order, EO 11990 – Protection of Wetlands and EO 13112 – Invasive Species, and the Migratory Bird Treaty Act of 1920.

The following is a summary of applicable laws and regulations affecting the biological resources of the Project area.

National Environmental Policy Act

Enacted in 1969, NEPA is the national policy for protection of the environment. The Act ensures that environmental information is available to public officials and citizens prior to the approval of federal actions. The intent of the Act is to guide federal actions to avoid or minimize possible adverse effects to the greatest extent feasible and protect, restore, and enhance the environment.

Federal Clean Water Act

The Federal Water Pollution Control Act Amendments of 1972 and 1987, collectively known as the Clean Water Act (CWA) (33 United States Code [USC] §1251 et seq.), establish the principal Federal statutes for water quality protection. The intent of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the nation’s water, to achieve a level of water quality which provides for recreation in and on the water, and for the propagation of fish and wildlife.”

Section 404 of the CWA assigns the ACOE jurisdiction over waters of the U.S., including wetlands. Section 404 established a permit program administered by ACOE regulating the discharge of dredged or fill material into waters of the US (including wetlands). All Federal agencies are to avoid impacts to wetlands whenever there is a practicable alternative.

Section 401 of the CWA Requires that an applicant for a Federal license or permit that allows activities resulting in a discharge to waters of the U.S. must obtain a state certification that the discharge complies with other provisions of CWA. RWQCB administer the certification program in California.

Federal Endangered Species Act (ESA)

Enacted in 1973, the Federal ESA provides for the conservation of threatened and endangered species and their habitat. The Act prohibits the "take" of threatened and endangered species except under certain circumstances and only with authorization from the USFWS through a permit under Section 4(d), 7, or 10(a) of the ESA. Under the ESA, "take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The ESA requires federal agencies to make a finding on all federal actions, including approval by an agency of a public or private action, as to the potential to jeopardize the continued existence of any listed species.

California Environmental Quality Act

Project-related adverse impacts on special-status species are likely considered significant for California Environmental Quality Act (CEQA) purposes. Section 15065 of CEQA states that a Lead Agency shall find that a project may have a significant effect on the environment and thereby require an Environmental Impact Report (EIR) to be prepared for the project where the project has the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.

Further, CEQA Appendix G states that a project will normally have a significant effect on the environment if it will:

> "(a) Conflict with adopted environmental plans and goals of the community where it is located;
>
> (b) Substantially affect a rare or endangered species of animal, plant or the habitat of the species;
>
> (c) Interfere substantially with the movement of any resident or migratory fish or wildlife species; and
>
> (d) Substantially diminish habitat for fish, wildlife or plants" (County of Santa Barbara, 2008).

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of ESA and is administered by CDFW. CESA prohibits take of any species that the California Fish and Game Commission determines to be a threatened or endangered species and allows for take incidental to otherwise lawful development projects upon approval from the CDFW. Under the California Fish and Game Code, "take" is defined as to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill. CESA includes a "rare" designation for plants only and addresses those plants that are not threatened or endangered, but that could become eligible due to decreasing numbers or further restrictions to habitat. Any anticipated Project-related impact to State-listed species would require a permit under CESA.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act (California Water Code Section 13000) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and groundwater, and to both point and non-point sources of pollution. Pursuant to the Porter-Cologne Act, it is the policy of the State:

- The quality of all the waters of the State shall be protected;
- All activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason;
- The State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation; and
- The State shall undertake all possible steps to encourage development of water recycling facilities to help meet the growing water requirements of the State.

Pursuant to the Porter-Cologne Act, the responsibility for protection of water quality in California rests with the State Water Resources Control Board, which administers Federal and State water quality regulations for California's ocean waters, and also oversees and funds the State's nine RWQCBs. The RWQCBs regulate discharges under the Porter-Cologne Act primarily through issuance of waste discharge requirements permits. Discharges to waters of the State have the potential to adversely affect biological resources.

Migratory Bird Treaty Act of 1918

The focus of the Act was the "Establishment of a Federal prohibition, unless permitted by regulations, to pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention for the protection of migratory birds, or any part, nest or egg of any such bird" (16 USC 703).

A list of migratory birds protected under the Act is contained in 50 CFR 10.13, and includes hundreds of game and non-game species. Dozens of these species nest within the region, and many could nest within or adjacent to the BSA.

Federal agencies are required to avoid or minimize adverse effects of their actions on migratory birds, and should take active steps to protect migratory birds and their habitat. The Act clearly prevents the removal of active nests of migratory bird species, which may result in the loss of eggs or nestlings. Migratory bird activity is expected within all habitats within and adjacent to the BSA.

Executive Order 11990 – Protection of Wetlands

This Order established a national policy to avoid adverse impacts on wetlands whenever there is a practicable alternative. The U. S. Department of Transportation (DOT) promulgated DOT Order 5660.1A in 1978 to comply with this direction. On Federally funded projects, impacts on wetlands must be identified. Alternatives that avoid wetlands must be considered. If wetland impacts cannot be avoided, then all practicable measures to minimize harm must be included. This must be documented in a specific Wetlands Only Practicable Alternative Finding.

An additional requirement is to provide early public involvement in projects affecting wetlands. Federal Highway Administration (FHWA) provides technical assistance (Technical Advisory 6640.8A) and reviews environmental documents for compliance.

California Fish and Game Code

The CDFW administers a number of laws and programs designed to protect fish and wildlife resources. Principal of these is the California Endangered Species Act of 1984 (CESA) Fish and Game Code Section 2050 that regulates the listing and take of State Endangered and Threatened species. CDFW also maintains lists of Candidate-Endangered species and Candidate-Threatened species. California Candidate species are afforded the same level of protection as listed species. CDFW also designates Species of Special Concern that are of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. These species do not have the same legal protection as listed species, but may be added to official lists in the future.

The CDFW also manage a Watch List that includes “Taxa to Watch” (Shuford and Gardali, 2008), which includes: 1) species not on the current Special Concern list but were on previous lists and they have not been State listed under CESA; 2) species that were previously State or federally listed and now are on neither list; or 3) species are on the list of Fully Protected species.

CDFW administers other State laws designed to protect wildlife and plants. Section 3511 of the California Fish and Game Code designates species that are afforded Fully Protected status. Fish and Game Code Sections 4700 and 5515 assign the same status to specified mammals and fish. These statutes generally provide that specifically identified birds, mammals, and fish “or parts thereof may not be taken or possessed at any time and no provision of [the Fish and Game] code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected [bird, mammal, or fish] and no permits or licenses heretofore issued shall have any force or effect” for any such purpose. Section 3503.5 protects birds-of-prey (Falconiformes and Strigiformes), their eggs, and their nests. In addition, Section 3513 provides protection to the birds listed under the MBTA, essentially all native birds.

CDFW manages the California Native Plant Protection Act of 1977 (Fish and Game Code Section 1900, et seq.), which was enacted to identify, designate and, protect rare plants. The California Native Plant Society (CNPS) operates under a Memorandum of Understanding with the CDFW and outlines broad cooperation in rare plant assessment and protection, and formalizes cooperative ventures such as data sharing and production of complementary information sources for rare plants.

Pursuant to Section 1602 of the California Fish and Game Code, CDFW requires a Lake or Streambed Alteration Agreement (LSAA) between CDFW and any State or local governmental agency, public utility, or private party before the initiation of any construction project that will: 1) divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake; 2) use materials from a streambed; or 3) result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake. Therefore, the bed, bank, and channel of a water body, including adjacent riparian vegetation, lies within the CDFW jurisdiction.

City Tree Ordinance (No. 1544)

The City Tree Ordinance requires permits for the removal of any street tree, trees within 25 feet of a creek, all trees greater than 12 inches diameter at shoulder height (DSH), and all native trees greater than 10 inches DSH are required by the City of San Luis Obispo. According to the Tree Ordinance, native trees include coast live oak (*Quercus agrifolia*), California laurel (*Umbellularia californica*), California sycamore (*Platanus racemosa*), Southern California black walnut (*Juglans californica*), arroyo willow (*Salix lasiolepis*), black cottonwood (*Populus trichocarpa*), toyon (*Heteromeles arbutifolia*), big leaf maple (*Acer macrophyllum*), box elder (*Acer negundo*), and valley oak (*Quercus lobata*). Exceptions to the tree removal permit include tree removal, within residential development zone R-1 and R-2, for tree health or hazard mitigation, of dead or dying trees, of trees that have roots damaging public or private property, for improved arboricultural practice, and of trees that will not harm the character or environment of the surrounding neighborhood.

Studies Required

Literature Search

A desktop review of the BSA was performed that included correspondence with the United States Fish and Wildlife Service (USFWS), queries of ecological databases, and review of relevant technical studies performed in the vicinity or applicable to special-status species with potential to occur with the BSA. The five most geographically and ecologically relevant quadrangles (Arroyo Grande NE, Atascadero, Lopez Mountain, San Luis Obispo and Santa Margarita 7.5' topographic quadrangle maps) were queried in the following databases:

- USFWS IPaC List;
- California Natural Diversity Data Base (CNDDB) RareFind 5; and
- California Native Plant Society (CNPS).

Field Reviews

The proposed Project occurs in residential and commercial zones with ruderal and ornamental landscapes. Therefore, field surveys to identify potential special-status plant and wildlife habitat were limited to a general habitat assessment, a follow-up aquatic survey of ephemeral pools, and botanical surveys throughout the blooming period of potentially occurring sensitive species.

Survey Methods

Padre Associates, Inc. (Padre) biologists conducted pedestrian surveys of the BSA to identify potential special-status plant and wildlife habitat. The BSA was surveyed with meandering transects, during which, all observations of wildlife and plant species were recorded. Observations were made using 7x50 binoculars, auditory cues (calls and songs), and indirect sign (tracks, scat, skeletal remains, burrows, etc.). All identifiable plant species encountered were recorded and presence of suitable habitat for special-status species was noted. Plant specimens that were not positively identified in the field were further examined using a dissecting microscope and appropriate botanical keys, including *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin *et al*., 2012) and *The Jepson Herbarium Online Interchange California Floristics* (University of California, 2015).

An additional survey was conducted within two inundated ephemeral drainages identified within the BSA. A dip net survey of the drainages was conducted to systematically survey for potential vernal pool branchiopods. Vernal pool branchiopod USFWS-protocol surveys were not conducted as part of the biological study.

Personnel Survey Dates

Padre biologists, Alyssa Berry and Michaela Hoffman, conducted a pedestrian survey on January 18, 2016. Ms. Berry has earned a B.A. in Earth and Environmental Science and has over ten years of experience as a professional biologist. Ms. Hoffman has earned a B.S. in Biology and has over five years of experience as a professional biologist. An additional aquatic survey was conducted on February 2, 2016. Padre biologists, Alyssa Berry and Christina Santala conducted botanical surveys on March 31, 2016 and May 9, 2016.

Agency Coordination and Professional Contacts

Padre requested a list of threatened and endangered species of the Project region from the USFWS on January 14, 2016. The USFWS responded in a letter dated January 14, 2016, and listed 18 federally threatened and endangered species that should be considered for an effects analysis (refer to Appendix C).

In addition, Padre consulted with USFWS representative, Julie Vanderwier in regards to the potential for vernal pool fairy shrimp (*Branchinecta lynchi*) to occur within the BSA. Ms. Vanderwier visited the BSA and determined that there was very low likelihood of vernal pool fairy shrimp to occur within the ephemeral drainages identified within the BSA. Ms. Vanderwier recommended a dip net survey of the ephemeral drainages to identify what species occurred within the drainage.

Limitations That May Influence Results

The field surveys were conducted throughout the blooming period of potentially occurring special-status plant species. Special-status plant species with the potential to occur in the Project area may be annual species that may be difficult to detect following seasons of abnormal rainfall.

Protocol level surveys for special-status wildlife were not conducted. Specific surveys to detect bats were not conducted. These factors may limit the detection of special-status wildlife within the BSA.

3 - Results: Environmental Setting

The Project is located in the City of San Luis Obispo (City) within the UPRR right-of-way, State right-of-way (U.S. Highway 101), and City's right-of-way (City streets). The surrounding land use is residential and commercial. The proposed trail alignment begins at the Taft Street and continues to Phillips Lane, at which point a bridge is proposed to connect to Pepper Street. The alignment along California Boulevard is flat. The UPRR right-of-way between U.S. Highway 101 and Phillips Lane is located at the bottom of northeast and southwest facing slopes. The northeastern slope is gradual near U.S. Highway 101 and increases toward Phillips Lane. The southwestern slope is steep. A linear drainage feature parallels the northern edge of the UPRR right-of-way from U.S. Highway 101 to Phillips Lane. The slopes are comprised of sandy loam soils; the UPRR right-of-way has been enhanced with road base and large gravel. The area has an open canopy of mature ornamental trees and scattered shrubs.

Existing Biological and Physical Conditions of the Study Area

The BSA was selected to encompass the entire undeveloped alignment corridor of the Project. The BSA was limited to the alignment due to lack of habitat beyond the undeveloped area of the UPRR right-of-way.

Physical Conditions

The BSA is isolated by residential and commercial development and transportation infrastructure. The BSA between U.S. Highway 101 and Phillips Lane is positioned at the low point between California Boulevard to the northeast and developments to the southwest. The BSA receives storm water runoff from slopes and a culvert located below Phillips Lane. An outlet culvert located near U.S. Highway 101 is blocked with vegetation, sedimentation, and refuse and has caused the drainage ditch along the northern side of the UPRR tracks to retain water. Photographs of the Project site are provided as Figure 3.

Biological Conditions in the Study Area

The BSA is comprised of ruderal and ornamental vegetation, a complete list of plant species observed is included as Appendix A. The northeastern slope is dominated by blue gum eucalyptus (*Eucalyptus globulus*) and pepper trees (*Schinus molle*). The understory is mainly comprised of leaf litter, scattered native toyon (*Heteromeles arbutifolia*), ornamental shrubs (*Cotoneaster pannosus*), and non-native annual grasses (*Bromus diandrus, Bromus madritensis*). The drainage ditch was dominated by non-native annual grasses, associated with tall sedge (*Cyperus eragrostis*), giant reed (*Arundo donax*), curly dock (*Rumex crispus*), Italian rye grass (*Festuca perennis*), and English plantain (*Plantago lanceolata*). Vegetation along the UPRR right-of-way appears to have been periodically cleared, as evident from willow (*Salix* sp.) stumps observed north of the UPRR tracks. The BSA habitat is comprised of fragmented non-native annual grassland and ornamental landscape plantings that are frequently disturbed by pedestrian traffic and refuse, and does not appear to support many native plant species.

An ephemeral drainage was observed along the north side of the railroad tracks, between the toe-of-the-slope along the existing fence-line and the railroad gravel substrate. The ephemeral drainage was reportedly created in the 1950s to manage storm water within the UPRR (Armstrong, 2016). Padre biologists identified ostracods, copepods, mosquito larva (Diptera), and Sierran treefrog (*Psuedacris sierra*) tadpoles and egg masses within the ephemeral drainage. A complete list of wildlife observed within the BSA is included as Appendix B.

Habitat Connectivity

Wildlife migration corridors are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Migration corridors may be local such as between foraging and nesting or denning areas, or they may be regional in nature. Migration corridors are not unidirectional access routes; however, reference is usually made to source and receiver areas in discussions of wildlife movement networks. "Habitat linkages" are migration corridors that contain contiguous strips of native vegetation between source and receiver areas. Habitat linkages provide cover and forage sufficient for temporary inhabitation by a variety of ground-dwelling animal species. Wildlife migration corridors are essential to the regional ecology of an area as they provide avenues of genetic exchange and allow animals to access alternative territories as fluctuating dispersal pressures dictate.

The proposed Project is located within residential and commercial zones and is adjacent to major surface streets. The habitat within the project is fragmented by a network of roadways and railroad tracks, including U.S. Highway 101 and California Boulevard. The proposed Project does not provide wildlife migration corridors or habitat linkages.

Regional Species and Habitats and Natural Communities of Concern

Regional plant and wildlife special-status species are listed in Table 1 and Table 2. No habitats or CDFW Natural Communities of Concern are located within the BSA.

Table 1. Regionally Occurring Special-Status Plant Species

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Hoover's bent grass	*Agrostis hooveri*	1B.2	Chaparral, cismontane woodland, closed-cone coniferous forest, valley and foothill grassland.	A	Ruderal, fragmented habitat.
Arroyo de la Cruz manzanita	*Arctostaphylos cruzensis*	1B.2	Broadleafed upland forest, coastal bluff scrub, closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grassland.	A	Ruderal, fragmented habitat.
Santa Lucia manzanita	*Arctostaphylos luciana*	1B.2	Chaparral, cismontane woodland.	A	Habitat not present.
Morro manzanita	*Arctostaphylos morroensis*	FT, 1B.1	Chaparral, cismontane woodland, coastal dunes (pre-Flandrian), coastal scrub.	A	Habitat not present.
Pecho manzanita	*Arctostaphylos pechoensis*	1B.2	Closed-cone coniferous forest, chaparral, coastal scrub.	A	Habitat not present.
Santa Margarita manzanita	*Arctostaphylos pilosula*	1B.2	Closed-cone coniferous forest, chaparral, broadleaved upland forest, cismontane woodland.	A	Habitat not present.
Marsh sandwort	*Arenaria paludicola*	FE, SE, 1B.1	Marshes and swamps.	A	Habitat not present.
Miles' milk-vetch	*Astragalus didymocarpus* var*. milesianus*	1B.2	Coastal scrub.	A	Habitat not present.
Round-leaved filaree	*California macrophylla*	1B.2	Cismontane woodland, valley and foothill grassland.	A	Ruderal, fragmented habitat.
San Luis mariposa-lily	*Calochortus obispoensis*	1B.2	Chaparral, coastal scrub, valley and foothill grassland.	A	Ruderal, fragmented habitat.
La Panza mariposa-lily	*Calochortus simulans*	1B.3	Valley and foothill grassland, cismontane woodland,	A	Potential to occur within undeveloped UPRR right-of-way

Table 1. Regionally Occurring Special-Status Plant Species

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
			chaparral, lower montane coniferous forest.		
Cambria morning-glory	*Calystegia subacaulis* ssp. *episcopalis*	4.2	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland.	A	Ruderal, fragmented habitat.
Hardham's evening-primrose	*Camissoniopsis hardhamiae*	1B.2	Chaparral, cismontane woodland.	A	Habitat not present.
San Luis Obispo sedge	*Carex obispoensis*	1B.2	Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland.	A	Habitat not present.
San Luis Obispo owl's-clover	*Castilleja densiflora* var. *obispoensis*	1B.2	Valley and foothill grassland, meadows and seeps.	A	Ruderal, fragmented habitat.
California jewel flower	*Caulanthus californicus*	FE, SE, 1B.1	Shadscale scrub, valley grassland, pinyon-juniper woodland	A	Ruderal, fragmented habitat.
Congdon's tarplant	*Centromadia parryi* ssp. *congdonii*	1B.1	Valley and foothill grassland.	A	Ruderal, fragmented habitat.
Dwarf soaproot	*Chlorogalum pomeridianum* var. *minus*	1B.2	Chaparral.	A	Habitat not present.
Brewer's spineflower	*Chorizanthe breweri*	1B.3	Chaparral, cismontane woodland, coastal scrub, closed-cone coniferous forest.	A	Habitat not present.
Straight-awned spineflower	*Chorizanthe rectispina*	1B.3	Chaparral, cismontane woodland, coastal scrub.	A	Habitat not present.
San Luis Obispo fountain thistle	*Cirsium fontinale* var. *obispoense*	FE, SE, 1B.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland.	A	Ruderal, fragmented habitat.
Cuesta Ridge thistle	*Cirsium occidentale* var. *lucianum*	1B.2	Chaparral.	A	Habitat not present.
Surf thistle	*Cirsium rhothophilum*	ST, 1B.2	Coastal dunes, coastal bluff scrub.	A	Habitat not present.

Table 1. Regionally Occurring Special-Status Plant Species

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Pismo clarkia	*Clarkia speciosa* ssp. *immaculata*	FE, SR, 1B.1	Chaparral, cismontane woodland, valley and foothill grassland.	A	Ruderal, fragmented habitat.
Dune larkspur	*Delphinium parryi* ssp. *blochmaniae*	1B.2	Chaparral, coastal dunes (maritime).	A	Habitat not present.
Eastwood's larkspur	*Delphinium parryi* ssp. *eastwoodiae*	1B.2	Chaparral, valley and foothill grassland.	A	No serpentine soil present
Beach spectaclepod	*Dithyrea maritima*	ST, 1B.1	Coastal dunes, coastal scrub.	A	Habitat not present.
Betty's dudleya	*Dudleya abramsii* ssp. *bettinae*	1B.2	Coastal scrub, valley and foothill grassland, chaparral.	A	Habitat not present.
Mouse-gray dudleya	*Dudleya abramsii* ssp. *murina*	1B.3	Chaparral, cismontane woodland.	A	Habitat not present.
Blochman's dudleya	*Dudleya blochmaniae* ssp. *blochmaniae*	1B.1	Coastal scrub, coastal bluff scrub, chaparral, valley and foothill grassland.	A	No serpentine soil present
Yellow-flowered eriastrum	*Eriastrum luteum*	1B.2	Broadleafed upland forest, cismontane woodland, chaparral.	A	Habitat not present.
Hoover's button-celery	*Eryngium aristulatum* var. *hooveri*	1B.1	Vernal pools.	A	Habitat not present.
Ojai fritillary	*Fritillaria ojaiensis*	1B.2	Broadleaved upland forest (mesic), chaparral, lower montane coniferous forest, cismontane woodland.	A	Habitat not present.
San Benito fritillary	*Fritillaria viridea*	1B.2	Chaparral.	A	Habitat not present.
Mesa horkelia	*Horkelia cuneata* var. *puberula*	1B.1	Chaparral, cismontane woodland, coastal scrub.	A	Habitat not present.
Pale-yellow layia	*Layia heterotricha*	1B.1	Cismontane woodland, coastal scrub, pinyon-juniper woodland, valley and foothill grassland.	A	Ruderal, fragmented habitat.

Table 1. Regionally Occurring Special-Status Plant Species

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Jones' layia	*Layia jonesii*	1B.2	Chaparral, valley and foothill grassland.	A	Ruderal, fragmented habitat.
San Luis Obispo County lupine	*Lupinus ludovicianus*	1B.2	Chaparral, cismontane woodland.	A	Habitat not present.
Slender bush-mallow	*Malacothamnus gracilis*	1B.1	Chaparral.	A	Habitat not present.
Santa Lucia bush-mallow	*Malacothamnus palmeri* var. *palmeri*	1B.2	Chaparral.	A	Habitat not present.
Palmer's monardella	*Monardella palmeri*	1B.2	Cismontane woodland, chaparral.	A	Habitat not present.
Southern curly-leaved monardella	*Monardella sinuata* ssp. *sinuata*	1B.2	Coastal dunes, coastal scrub, chaparral, cismontane woodlands.	A	Habitat not present.
Spreading navarretia	*Navarretia fossalis*	FT, 1B.1	Shadscale, freshwater wetlands, riparian	A	Habitat not present.
Shining navarretia	*Navarretia nigelliformis* ssp. *radians*	1B.2	Cismontane woodland, valley and foothill grassland, vernal pools.	A	Ruderal, fragmented habitat.
Hooked popcornflower	*Plagiobothrys uncinatus*	1B.2	Chaparral, cismontane woodland, valley and foothill grassland.	A	Ruderal, fragmented habitat.
Adobe sanicle	*Sanicula maritima*	SR, 1B.1	Meadows and seeps, valley and foothill grassland, chaparral, coastal prairie.	A	Ruderal, fragmented habitat.
Black-flowered figwort	*Scrophularia atrata*	1B.2	Closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, riparian scrub.	A	Habitat not present.
Chaparral ragwort	*Senecio aphanactis*	2B.2	Chaparral, cismontane woodland, coastal scrub.	A	Habitat not present.
Cuesta Pass checkerbloom	*Sidalcea hickmanii* ssp. *anomala*	SR, 1B.2	Closed-cone coniferous forest, chaparral	A	Habitat not present.

Table 1. Regionally Occurring Special-Status Plant Species

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Most beautiful jewelflower	*Streptanthus albidus* ssp. *peramoenus*	1B.2	Chaparral, valley and foothill grassland, cismontane woodland.	A	Habitat not present.
Saline clover	*Trifolium hydrophilum*	1B.2	Marshes and swamps, valley and foothill grassland, vernal pools.	A	Ruderal, fragmented habitat.
Caper-fruited tropidocarpum	*Tropidocarpum capparideum*	1B.1	Valley and foothill grassland.	A	Ruderal, fragmented habitat.

Notes: Absent [A] - no habitat present and no further work needed. Habitat Present [HP] -habitat is, or may be present. The species may be present. Present [P] - the species is present. Critical Habitat [CH] - project footprint is located within a designated critical habitat unit, but does not necessarily mean that appropriate habitat is present. Status: Federal Endangered (FE); Federal Threatened (FT); Federal Proposed (FP, FPE, FPT); Federal Candidate (FC), Federal Species of Concern (FSC); State Endangered (SE); State Threatened (ST); Fully Protected (FP); State Rare (SR); State Species of Special Concern (SSC); California Native Plant Society (CNPS), US Forest Service Sensitive Species (FS-S)

Table 2. Regionally Occurring Special-Status Wildlife Species

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Invertebrates					
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT	Vernal pools, grasslands	A	Not likely to occur within ephemeral drainage because of location, water quality, and routine maintenance.
Monarch butterfly	*Danaus plexippus*	FS-S	Closed-cone coniferous forest, eucalyptus groves	HP	Eucalyptus stand present above BSA is likely not dense enough to provide sufficient microclimate regulation for overwintering but may support migration.
Kern's primrose sphinx moth	*Euproserpinus euterpe*	FT	Sandy washes	A	Distance to documented occurrences, lack of primary food plant.
Amphibians					
Foothill yellow-legged frog	*Rana boylii*	SA, FS-S	Partly-shaded, shallow streams and riffles with a rocky substrate.	A	No suitable habitat within BSA
California red-legged frog	*Rana draytonii*	FT/CH, SSC	Streams, ponds, perennial water	A, CH	No suitable habitat within BSA; no critical habitat within BSA
Western spadefoot	*Spea hammondii*	SSC	Vernal pools, grasslands, woodlands	A	No suitable habitat within BSA
Coast Range newt	*Taricha torosa*	SSC	Pools in perennial streams	A	No suitable habitat within BSA
California tiger salamander	*Ambystoma californiense*	FT, ST	Vernal pools	A	No suitable habitat within BSA
Birds					
Tricolored blackbird	*Agelaius tricolor*	SSC	Freshwater marsh	A	No suitable habitat within BSA
Grasshopper sparrow	*Ammodramus savannarum*	SSC	Valley and foothill grasslands	A	No suitable habitat within BSA
Golden eagle	*Aquila chrysaetos*	FP	Rolling foothills, mountain areas, sage-juniper flats, and desert.	A	No suitable habitat within BSA
Great blue heron	*Ardea herodias*	SSC	Marshes, riparian forest	A	No suitable habitat within BSA

Table 2. Regionally Occurring Special-Status Wildlife Species

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Burrowing owl	*Athene cunicularia*	SSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation.	A	No suitable burrows were observed within the BSA. The fragmented and urban habitat is unlikely to provide suitable forage or refugia,
Ferruginous hawk	*Buteo regalis*	WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats.	A	No suitable habitat within BSA
White-tailed kite	*Elanus leucurus*	FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland.	A	No suitable habitat within BSA
Southwestern willow flycatcher	*Empidonax traillii extimus*	FE, SE	Riparian trees and shrubs	A	No suitable habitat within BSA
California horned lark	*Eremophila alpestris actia*	WL	Coastal regions, valley and east to foothills.	HP	Scattered vegetation present within BSA
Merlin	*Falco columbarius*	WL	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts,	HP	Scattered vegetation present within BSA

Table 2. Regionally Occurring Special-Status Wildlife Species

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
			farms and ranches.		
Prairie falcon	*Falco mexicanus*	WL	Inhabits dry, open terrain, either level or hilly.	A	No suitable habitat within BSA
California condor	*Gymnogyps californianus*	FE, SE	Caves and cliff in mountains	A	No suitable habitat within BSA
Loggerhead shrike	*Lanius ludovicianus*	SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes.	A	No suitable habitat within BSA
Purple martin	*Progne subis*	SSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine.	A	No suitable habitat within BSA
California clapper rail	*Rallus longirostris obsoletus*	FE, SE	Brackish marshes	A	No suitable habitat within BSA
California Least tern	*Sterna antillarum browni*	FE, SE	Coastal beaches	A	No suitable habitat within BSA
Least Bell's vireo	*Vireo bellii pusillus*	FE, SE	Riparian forests	A	No suitable habitat within BSA
Nesting Birds	*Class Aves*	MBTA		P	
Fish					
Steelhead - south-central California coast DPS	*Oncorhynchus mykiss irideus*	FT	Fed listing refers to runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River.	A	No suitable habitat within BSA

Table 2. Regionally Occurring Special-Status Wildlife Species

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Mammals					
Pallid bat	*Antrozous pallidus*	SSC, FS-S	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting.	A	No suitable roosting habitat within BSA
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC	Throughout California in a wide variety of habitats. Most common in mesic sites.	A	No suitable roosting habitat within BSA
Giant kangaroo rat	*Dipodomys ingens*	FE, SE	Annual grassland	A	Distribution in San Luis Obispo County is limited to Carrizo Plains, Elkhorn Plain and Cuyama Valley
Western mastiff bat	*Eumops perotis californicus*	SSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral etc	A	Potential to occur in the undeveloped UPRR right-of-way.
American badger	*Taxidea taxus*	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	A	No suitable habitat within BSA
San Joaquin kit fox	*Vulpes macrotis mutica*	FE	Grasslands	A	BSA not within known distribution.
Reptiles					

Table 2. Regionally Occurring Special-Status Wildlife Species

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Silvery legless lizard	*Anniella pulchra pulchra*	SSC	Sandy or loose loamy soils under sparse vegetation.	A	Not likely to occur due to lack of shrub cover.
Western pond turtle	*Emys marmorata*	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation.	A	No suitable habitat within BSA
Blunt-nosed leopard lizard	*Gambelia silus*	FE, FP	Semiarid grasslands, alkali flats and washes	A	No suitable habitat within BSA, beyond known distribution
Coast horned lizard	*Phrynosoma blainvillii*	SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	A	No suitable habitat within BSA

Notes: Absent [A] - no habitat present and no further work needed. Habitat Present [HP] -habitat is, or may be present. The species may be present. Present [P] - the species is present. Critical Habitat [CH] - project footprint is located within a designated critical habitat unit, but does not necessarily mean that appropriate habitat is present. Status: Federal Endangered (FE); Federal Threatened (FT); Federal Proposed (FP, FPE, FPT); Federal Candidate (FC), Federal Species of Concern (FSC); State Endangered (SE); State Threatened (ST); Fully Protected (FP); State Rare (SR); State Species of Special Concern (SSC); California Native Plant Society (CNPS), US Forest Service Sensitive Species (FS-S)

4 - Results: Biological Resources, Discussion of Impacts and Mitigation

Habitats and Natural Communities of Special Concern

No Critical Habitats or CDFW Natural Communities of Special Concern were identified within the BSA during field surveys or literature review (CNDDB, 2016). The Project will impact approximately 2.38 acres of developed habitat and 2.68 acres of ornamental tree/ruderal habitat. Therefore the Project will have no impact to Critical Habitats or CNDDB Natural Communities of Special Concern.

Special-Status Plant Species

Special-status plant species are either listed as endangered or threatened under the Federal or California Endangered Species Acts, or rare under the California Native Plant Protection Act, or considered to be rare or of scientific interest (but not formally listed) by resource agencies, professional organizations (e.g., Audubon Society, California Native Plant Society [CNPS], The Wildlife Society), and the scientific community.

The literature search conducted for this impact analysis indicates that 12 special-status plant species are known to occur in the project region (within ten km of the BSA). Table 1 lists these species, their current status, and the nearest known location relative to the project BSA. The presence-absence column in Table 1 refers to suitable habitat within the BSA, and does not necessarily indicate the presence of the species.

Special-status plant species are considered unlikely to occur within the PIA, either because suitable habitat or soil was absent from the BSA, or a readily identifiable species (large perennial) was not observed during field surveys. The following discussion of survey results, Project impacts and avoidance and minimization efforts will be updated upon completion of spring botanical surveys.

Survey Results

Special-status plant species were not identified within the BSA during habitat assessment and botanical surveys. Trees that are protected under the City's Tree Ordinance, including, non-native trees, eucalyptus, pepper tree, cork oak (*Quercus suber*), ash (*Fraxinus* sp.), and one native tree, coast live oak, were observed within the BSA.

Project Impacts

Project construction will result in the removal of several non-native trees and one native tree.

Avoidance and Minimization Efforts/Compensatory Mitigation

Trees identified within the BSA will be avoided to the greatest extent feasible. If removal is required, a permit will be obtain prior to removal and the tree will be replaced in-kind as soon as feasible.

In the event that special-status plant species are observed within the BSA, all individuals will be flagged by a qualified biologist prior to construction activities, so that they may be avoided. If special-status plants cannot be avoided by Project activities, the appropriate permits will be obtained, if applicable, prior to the start of construction activities. Impacts to special-status plant species will be mitigated by salvage, transplanting, and monitoring. The top six inches of top soil around a six inch diameter and each individual plant shall be salvaged and relocated prior to Project disturbance to a pre-designated area outside of the PIA. The area will be suitable for the growth of the species. A restoration monitoring plan shall then be implemented to ensure the ongoing protection of this population.

BIO-1 Prior to construction, the City will prepare a restoration plan that provides for a 1:1 restoration ratio for temporary adverse effects, unless otherwise directed by regulatory agencies. Any revegetation will be conducted using only native plant species. The restoration plan will include specifications for invasive species abatement and monitoring.

BIO-2 Prior to construction, a Storm Water Pollution Prevention Plan or Water Pollution Control Plan for the Project will be prepared. Provisions of this plan shall be implemented during and after construction as necessary to avoid and minimize erosion and storm water pollution in and near the work area.

BIO-3 Prior to construction, all personnel will participate in an environmental awareness training program conducted by a qualified biologist. The program shall include a description of the sensitive aquatic resources within the Biological Study Area and the boundaries within which the Project may be accomplished.

BIO-4 During construction, the cleaning and refueling of equipment and vehicles will occur only within a designated staging area and at least 100 feet from wetlands or culverts that outflow to wetlands. At a minimum, equipment and vehicles will be checked and maintained on a daily basis to ensure proper operation and avoid potential leaks or spills.

Special-Status Animal Species Occurrences

The potential for special-status wildlife species to occur in the vicinity of the Project site was determined by review of sight records from other environmental documents and range maps. The presence-absence column in Table 2 refers to suitable habitat within the BSA, and does not necessarily indicate the presence of the species. All special-status wildlife species with potential to occur within the BSA are described in detail in the following sections.

VERNAL POOL FAIRY SHRIMP

Survey Results

During field surveys on January 18, 2016, an ephemeral drainage with two pool areas was identified. The surveys occurred after several rain events that accounted for a monthly total of 2.3 inches of rain. During field surveys visual observations for invertebrates swimming in the water column were made from the perimeter of the drainage. Aquatic invertebrates observed

within the pools included ostracods (seed shrimp), copepods, and Diptera (true flies) larva. No branchiopod species were observed; however, no aquatic sampling or protocol-level surveys were conducted as part of the field survey. The ephemeral depressions observed within the BSA are generally inconsistent with natural vernal pool systems; however, these topographic features can mimic the ephemeral habitat of the natural vernal pools and may serve as habitat for a variety of aquatic invertebrates including branchiopods (USFWS, 2015); therefore, the USFWS was consulted.

Following consultation with the USFWS, a dip net survey of the pools was conducted. During dip net surveys on February 2, 2016 no branchiopods were identified. Invertebrates identified included, ostracods, copepods, water fleas (*Daphnia* sp.), and Diptera larva. Reference ponds located approximately 3.5 miles from the Project were surveyed on January 22, 2016. VPFS were identified in the reference ponds, which supports the negative finding within the ephemeral drainage.

Project Impacts

Based on the water quality, the distance from known occurrences, the location, and its origin, the ephemeral drainage is unlikely to support vernal pool fairy shrimp. The drainage was man-made in the 1950s and does not connect with naturally occurring wetlands. Evidence of routine maintenance and no sign of use by potential cyst vectors (such as waterfowl) were observed during surveys. Therefore, vernal pool fairy shrimp have been determined to be absent from the BSA.

Additionally, the ephemeral drainage is located within the UPRR right-of-way and is separated from the PIA by an earthen berm. The Project alignment does not directly impact the ephemeral drainage. There is the potential for storm water runoff to impact the water quality.

Avoidance and Minimization Efforts/Compensatory Mitigation

The Project would be subject to the provisions of the general permit for discharge of construction storm water (Water Quality Order 99-08-DWQ), which requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that specifies Best Management Practices (BMP) to prevent all construction pollutants from contacting storm water with the intent of keeping all products of erosion from moving off site. Avoidance and minimization efforts would prevent impacts; therefore, compensatory mitigation is not needed.

MONARCH BUTTERFLY

Survey Results

During field surveys on January 18, 2016, approximately three individual butterflies were identified within the BSA. A row of eucalyptus trees was observed along the Project alignment but is unlikely to provide suitable roosting habitat. The low density of trees is unlikely to provide the appropriate microclimate for roosting (Leong26. 2 1990). The trees were examined during field surveys and no roosting was observed.

Project Impacts

Although eucalyptus trees may be removed during construction of the Project, significant impacts to monarch butterfly are not anticipated due to lack of roosting within the BSA.

Avoidance and Minimization Efforts/Compensatory Mitigation

The Project will obtain required tree removal permits from the City prior to removing any eucalyptus trees, and will replace each tree removed as soon as feasible, per the requirements of the permit. Avoidance and minimization efforts would prevent impacts; therefore, compensatory mitigation is not needed.

BIO-5 Prior to removal of Eucalyptus tree or other large trees, a qualified biologist will survey the trees to determine presence of roosting monarch butterflies. If roosting is identified, tree removal will be scheduled outside of the roosting period (generally November to March) (Marriott, 1997).

MERLIN, BIRDS OF PREY, AND OTHER MIGRATORY BIRD SPECIES

Survey Results

Merlins and other birds of prey were not identified during surveys, but may nest within the canopy of the ornamental trees that occur within the BSA. Birds protected under the Migratory Bird Treaty Act were observed within the BSA, including Northern mockingbird (*Mimus polyglottos*) and white-crowned sparrow (*Zonotrichia leucophrys*) and have the potential to utilize vegetation within the PIA for nesting. There is a low potential for California horned lark (*Eremophila alpestris actia*) to utilize the BSA for forage and nesting due to the level of disturbance, fragmentation of the habitat, and terrain.

Project Impacts

The Project has the potential to impact merlin, other birds of prey, and migratory bird nesting during tree removal. All trees will be replaced; therefore, there will not be a permanent loss of nesting habitat.

Avoidance and Minimization Efforts/Compensatory Mitigation

Project construction will be conducted outside of the bird breeding season, to the greatest extent feasible. However, if construction occurs during the breeding season, a breeding bird survey would be conducted prior to construction and all active nests would be protected and avoided. Avoidance and minimization efforts would prevent permanent impacts; therefore, compensatory mitigation is not needed.

BIO-6 If construction activities are proposed during the typical nesting season (February 15 to September 1), a nesting bird survey will be conducted by a qualified biologist no more than two weeks prior to the start of construction to determine presence/absence of nesting birds within the Biological Study Area and immediate vicinity. The California Department of Transportation will be notified if nesting birds are observed during the surveys and will facilitate coordination with the United

States Fish and Wildlife Service if necessary to determine an appropriate avoidance strategy. Likewise, coordination with CDFW will be facilitated by the City of San Luis Obispo if necessary to devise a suitable avoidance plan. If raptor nests are observed within the Biological Study Area during the pre-construction nesting bird surveys, the nest(s) shall be designated an Environmental Sensitive Area and protected by a minimum 500-foot avoidance buffer until the breeding season ends or until a qualified biologist determines that all young have fledged and are no longer reliant upon the nest or parental care for survival. Similarly, if active passerine nests are observed within the Biological Study Area during the pre-construction nesting bird surveys, the nest(s) shall be designated an Environmentally Sensitive Area and protected by a minimum 250-foot avoidance buffer until the breeding season ends or until a qualified biologist determines that all young have fledged and are no longer reliant upon the nest or parental care for survival. Resource agencies may consider proposed variances from these buffers if there is a compelling biological or ecological reason to do so, such as protection of a nest via concealment due to site topography.

5 - Conclusions and Regulatory Determination

Federal Endangered Species Act Consultation Summary

Caltrans has been delegated responsibility as lead agency for Section 7 consultation by the Federal Highway Administration (FHWA) through the NEPA delegation process. Based on the information presented in the NES (MI), no Federally listed species would be impacted by the project. Therefore, a "no effect" finding is appropriate and Section 7 consultation will not be required.

Wetlands and Other Waters Coordination Summary

The Project does not include waters of the U.S., or streambeds under the jurisdiction of the Fish and Game Code. Therefore, coordination with the U.S. Army Corps of Engineers (ACOE) and the CDFW will not be necessary.

Migratory Bird Treaty Act

The Project will comply with the Migratory Bird Treaty Act by implementing avoidance and mitigation measures (BIO-3 and BIO-6).

Invasive Species

In compliance with the Executive Order on Invasive Species, E.O. 13112, and subsequent guidance from the FHWA, any landscaping or erosion control included in the project will not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

Noxious weeds identified within the BSA include, pampas grass (*Cortaderia* sp.), castor bean (*Ricinus communis*), and giant reed. Prior to construction activities, these plants shall be removed from the PIA and properly disposed off-site in a permitted landfill to prevent invasion. Pampas grass is rated as high by Cal IPC and has the potential to expand beyond the Project area if care is not taken to prevent wind and construction related dispersal of seed. Castor bean is rated as limited by Cal IPC, spreads through seed dispersal, and may be transported by construction equipment. Prior to construction, seed heads of invasive plants will be removed, bagged, and disposed of as trash. Giant reed is rated as high by Cal IPC and spreads through seed and fragmentation of rhizomes and stems. The entire plant, including all rhizomes should be mechanically removed from the Project area and disposed of as trash.

Following construction, all landscaping and erosion control materials will be inspected to prevent the introduction of noxious weeds into the PIA. During routine erosion control inspections, the PIA will be monitored for the presence of noxious weeds and removal activities will be initiated if noxious weeds are identified. Given the urban location of the PIA and implementation of these mitigation measures, it is unlikely that spread of invasive species into wildlands would occur.

California Fish and Game Code 3500 and 3503

The Project will comply with the California Fish and Game Code 3500 and 3503 by implementing avoidance and mitigation measures (BIO-1 through BIO-6).

California Environmental Quality Act and California Endangered Species Act

The Project will comply with CEQA and CESA by implementing avoidance and mitigation measures (BIO-1 through BIO-6). No State-listed wildlife were observed or likely to occur within the BSA.

California Native Plant Protection Act

The Project will comply with the California Native Plant Protection Act by implementing avoidance measure BIO-1. All plant proposed for the restoration plan will be native to San Luis Obispo County.

6 - References

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APPENDIX A

VASCULAR PLANTS OBSERVED WITHIN THE RAILROAD SAFETY TRAIL BIOLOGICAL STUDY AREA SAN LUIS OBISPO COUNTY, CALIFORNIA

VASCULAR PLANT SPECIES LIST OBSERVED WITHIN THE BSA

Scientific Name	Common Name	Habit	Wetland Indicator	Family
*Arundo donax**	Giant reed	PG	-	Poaceae
Avena sp.*	Wild oats	AG	-	Poaceae
*Brachypodim distachyon**	False brome	PG	-	Poaceae
Brassica nigra	Black mustard	AH	-	Brassicaceae
*Bromus diandrus**	Ripgut grass	AG	-	Poaceae
*Bromus hordeaceus**	Soft chess brome	AG	FACU	Poaceae
Bromus madritensis ssp. *Rubens**	Red brome	AG	-	Poaceae
Clinopodium douglasii	Yerba buena	PH	FACU	Lamiaceae
Cortaderia sp.*	Pampas grass	PG	-	Poaceae
*Cotoneaster pannosus**	Silverleaf cotoneaster	S	-	Rosaceae
*Cynara cardunculus**	Artichoke thistle	PH	-	Asteraceae
*Cynodon dactylon**	Bermuda grass	PG	FAC	Poaceae
Cyperus eragrostis	Tall cyperus	PH	FACW	Cyperaceae
*Erodium cicutarium**	Red stem filaree	AH	-	Geraniaceae
*Eucalyptus globulus**	Blue gum	T	-	Myrtaceae
*Festuca perennis**	Italian rye grass	PG	-	Poaceae
Fraxinus sp.*	Ash	T	-	Oleaceae
*Geranium dissectum**	Cranesbill	AH	-	Geraniaceae
*Geranium molle**	Dove's foot geranium	PH	-	Geraniaceae
*Hedera helix**	English ivy	PH/S	-	Araliaceae
Helianthus sp.*	Sunflower	PH	-	Asteraceae
*Helminthotheca echioides**	Bristly ox-tongue	PH	-	Asteraceae
Heteromeles arbutifolia	Toyon	S	-	Rosaceae
*Hypochaeris glabra**	Smooth cat's ear	AH	-	Asteraceae
*Iris germanica**	Iris	PH	-	Iridaceae
*Lactuca serriola**	Prickly lettuce	AH	-	Asteraceae
*Lysimachia arvensis**	Scarlet pimpernel	AH	-	Myrsinaceae
*Malva parviflora**	Cheeseweed	AH	-	Malvaceae
*Medicago polymorpha**	Bur clover	AH	-	Fabaceae
*Melilotus indicus**	Yellow sweetclover	PH	-	Fabaceae
*Olea europaea**	Olive Tree	T	-	Oleaceae
*Oxalis pes-caprae**	Bermuda buttercup	PH	-	Oxalidaceae
Pelargonium sp.*	Ornamental geranium	PH	-	Geraniaceae
*Phalaris aquatica**	Harding rass	PG	FACU	Poaceae
*Plantago lanceolata**	English plantain	AH	FAC	Plantaginaceae
*Polypogon monspeliensis**	Annual rabbitsfoot grass	AG	FACW	Poaceae
*Prunus armeniaca**	Apricot	T	-	Rosaceae
Quercus agrifolia	Coast live oak	T	-	Fagaceae
*Quercus suber**	Cork oak	T	-	Fagaceae
*Ricinus communis**	Castor bean	S	-	Euphorbiaceae
*Rubus armeniacus**	Himalayan blackberry	PH	FACU	Rosaceae
*Rumex crispus**	Curly dock	PH	FACW	Polygonaceae
Salix lasiolepis	Arroyo willow	S	FACW	Salicaceae
*Schinus molle**	Pepper tree	T	-	Anacardiaceae
Schoenoplectus californicus	California bulrush	PH	OBL	Cyperaceae
*Silybum marianum**	Milk thistle	PH	-	Asteraceae
*Sonchus oleraceus**	Common sowthistle	AH	-	Asteraceae
*Torilis arvensis**	Tallsock destroyer	AH	-	Apiaceae
Toxicodendron diversilobum	Poison oak	S	-	Anacardiaceae
Typha sp.	Cattails	PH	OBL	Typhaceae
*Vicia sativa**	Spring vetch	AH,V	-	Fabaceae

Notes: Scientific nomenclature follows Second Edition of the Jepson Manual (Baldwin, et.al., 2012)
"*" indicates non-native species which have become naturalized or persist without cultivation.

Habit definitions:
AF = annual fern or fern ally AV = annual vine S = shrub

Scientific Name	Common Name	Habit	Wetland Indicator	Family

AG = annual grass
AH = annual herb
BH = biennial herb
PG = perennial grass
PH = perennial herb
PF = perennial fern or fern ally
T = tree

Wetland indicator status California - Arid West Region, U.S. Army Corps of Engineers (CRREL 2012):
OBL = obligate wetland species, occurs almost always in wetlands (>99% probability)
FACW = facultative wetland species, usually found in wetlands (67-99% probability).
FAC = facultative species, equally likely to occur in wetlands or non-wetlands (34-66% probability).
FACU = facultative upland species, usually occur in nonwetlands (1-33% probability).
UPL = upland species, almost always occurs in non-wetlands in the region specified (<1% probability).
A period (.) indicates that no wetland indicator status has been given.

APPENDIX B

WILDLIFE OBSERVED WITHIN THE RAILROAD SAFETY TRAIL BIOLOGICAL STUDY AREA SAN LUIS OBISPO COUNTY, CALIFORNIA

WILDLIFE OBSERVED WITHIN THE BSA

Common Name	Scientific Name	Residence Status	Protected Status
Invertebrates			
Copepod	Copepoda	Permanent	-
Monarch butterfly	*Danaus plexippus*	Winter Resident	SSC
Mosquito	Diptera	Permanent	-
Copepod	Copepoda	Permanent	-
Seed shrimp	Ostrocoda	Permanent	-
Water fleas	*Daphnia* sp.	Permanent	-
Amphibians			
Sierran treefrog	*Pseudacris sierra*	Permanent	-
Birds			
Western scrub-jay	*Aphelocoma californica*	Permanent	M
Red-shouldered hawk	*Buteo lineatus*	Permanent	M
Turkey vulture	*Cathartes aura*	Permanent	M
Anna's hummingbird	*Calypte anna*	Permanent	M
Song sparrow	*Melospiza melodia*	Permanent	M
Northern mockingbird	*Mimus polyglottos*	Permanent	M
White-crowned sparrow	*Zonotrichia leucophrys*	Winter Resident	M
Mammals			
Domestic dog	*Canis familiaris*	Permanent	-
California ground squirrel	*Spermophilus beecheyi*	Permanent	-
Botta's pocket gopher	*Thomomys bottae*	Permanent	-

Protected Status

FE	Federally Endangered	SE	State of California Endangered
FT	Federally Threatened	ST	State of California Threatened
FC	Federal Candidate	SSC	California Species of Special Concern
M	Migratory Bird Treaty Act		

APPENDIX C

UNITED STATES FISH AND WILDLIFE SERVICE OFFICIAL SPECIES LIST

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 PORTOLA ROAD, SUITE B
VENTURA, CA 93003
PHONE: (805)644-1766 FAX: (805)644-3958

Consultation Code: 08EVEN00-2016-SLI-0185 January 15, 2016
Event Code: 08EVEN00-2016-E-00309
Project Name: City of San Luis Obispo Railroad Safety Trail

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed list identifies species listed as threatened and endangered, species proposed for listing as threatened or endangered, designated and proposed critical habitat, and species that are candidates for listing that may occur within the boundary of the area you have indicated using the U.S. Fish and Wildlife Service's (Service) Information Planning and Conservation System (IPaC). The species list fulfills the requirements under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the species list should be verified after 90 days. We recommend that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists following the same process you used to receive the enclosed list. Please include the Consultation Tracking Number in the header of this letter with any correspondence about the species list.

Due to staff shortages and excessive workload, we are unable to provide an official list more specific to your area. Numerous other sources of information are available for you to narrow the list to the habitats and conditions of the site in which you are interested. For example, we recommend conducting a biological site assessment or surveys for plants and animals that could help refine the list.

If a Federal agency is involved in the project, that agency has the responsibility to review its proposed activities and determine whether any listed species may be affected. If the project is a major construction project*, the Federal agency has the responsibility to prepare a biological assessment to make a determination of the effects of the action on the listed species or critical habitat. If the Federal agency determines that a listed species or critical habitat is likely to be adversely affected, it should request, in writing through our office, formal consultation pursuant to section 7 of the Act. Informal consultation may be used to exchange information and resolve

conflicts with respect to threatened or endangered species or their critical habitat prior to a written request for formal consultation. During this review process, the Federal agency may engage in planning efforts but may not make any irreversible commitment of resources. Such a commitment could constitute a violation of section 7(d) of the Act.

Federal agencies are required to confer with the Service, pursuant to section 7(a)(4) of the Act, when an agency action is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10(a)). A request for formal conference must be in writing and should include the same information that would be provided for a request for formal consultation. Conferences can also include discussions between the Service and the Federal agency to identify and resolve potential conflicts between an action and proposed species or proposed critical habitat early in the decision-making process. The Service recommends ways to minimize or avoid adverse effects of the action. These recommendations are advisory because the jeopardy prohibition of section 7(a)(2) of the Act does not apply until the species is listed or the proposed critical habitat is designated. The conference process fulfills the need to inform Federal agencies of possible steps that an agency might take at an early stage to adjust its actions to avoid jeopardizing a proposed species.

When a proposed species or proposed critical habitat may be affected by an action, the lead Federal agency may elect to enter into formal conference with the Service even if the action is not likely to jeopardize or result in the destruction or adverse modification of proposed critical habitat. If the proposed species is listed or the proposed critical habitat is designated after completion of the conference, the Federal agency may ask the Service, in writing, to confirm the conference as a formal consultation. If the Service reviews the proposed action and finds that no significant changes in the action as planned or in the information used during the conference have occurred, the Service will confirm the conference as a formal consultation on the project and no further section 7 consultation will be necessary. Use of the formal conference process in this manner can prevent delays in the event the proposed species is listed or the proposed critical habitat is designated during project development or implementation.

Candidate species are those species presently under review by the Service for consideration for Federal listing. Candidate species should be considered in the planning process because they may become listed or proposed for listing prior to project completion. Preparation of a biological assessment, as described in section 7(c) of the Act, is not required for candidate species. If early evaluation of your project indicates that it is likely to affect a candidate species, you may wish to request technical assistance from this office.

Only listed species receive protection under the Act. However, sensitive species should be considered in the planning process in the event they become listed or proposed for listing prior to project completion. We recommend that you review information in the California Department of Fish and Wildlife's Natural Diversity Data Base. You can contact the California Department of Fish and Wildlife at (916) 324-3812 for information on other sensitive species that may occur in this area.

[*A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.]

Attachment

United States Department of Interior
Fish and Wildlife Service

Project name: City of San Luis Obispo Railroad Safety Trail

Official Species List

Provided by:

Ventura Fish and Wildlife Office
2493 PORTOLA ROAD, SUITE B
VENTURA, CA 93003
(805) 644-1766

Consultation Code: 08EVEN00-2016-SLI-0185
Event Code: 08EVEN00-2016-E-00309

Project Type: TRANSPORTATION

Project Name: City of San Luis Obispo Railroad Safety Trail
Project Description: The project is located within the City of San Luis Obispo and is a predominantly within the railroad and City right-of-way. The proposed trail is approximately 12 feet wide by 1,820 feet and will cross over Hwy 101 along the California Blvd overpass and require construction of a new bridge over the railroad tracks. The project is in the planning and design phase.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

Project Location Map:

Project Coordinates: MULTIPOLYGON (((-120.65874338150024 35.28973295460456, -120.65778851509094 35.2877975643643, -120.65757393836975 35.2869130493476, -120.65823912620543 35.287561110801256, -120.66017031669617 35.290915183796464, -120.65874338150024 35.28973295460456)))

Project Counties: San Luis Obispo, CA

Endangered Species Act Species List

There are a total of 18 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	**Status**	**Has Critical Habitat**	**Condition(s)**
California red-legged frog *(Rana draytonii)* Population: Entire	Threatened	Final designated	
California tiger Salamander *(Ambystoma californiense)* Population: U.S.A. (Central CA DPS)	Threatened	Final designated	
Birds			
California Clapper rail *(Rallus longirostris obsoletus)* Population: Entire	Endangered		
California Least tern *(Sterna antillarum browni)*	Endangered		
California condor *(Gymnogyps californianus)* Population: Entire, except where listed as an experimental population	Endangered	Final designated	
Least Bell's vireo *(Vireo bellii pusillus)* Population: Entire	Endangered	Final designated	

Southwestern Willow flycatcher *(Empidonax traillii extimus)* Population: Entire	Endangered	Final designated	
Crustaceans			
Vernal Pool fairy shrimp *(Branchinecta lynchi)* Population: Entire	Threatened	Final designated	
Flowering Plants			
California jewelflower *(Caulanthus californicus)*	Endangered		
Chorro Creek Bog thistle *(Cirsium fontinale var. obispoense)*	Endangered		
Marsh Sandwort *(Arenaria paludicola)*	Endangered		
Morro manzanita *(Arctostaphylos morroensis)*	Threatened		
Pismo clarkia *(Clarkia speciosa ssp. immaculata)*	Endangered		
Spreading navarretia *(Navarretia fossalis)*	Threatened	Final designated	
Insects			
Kern Primrose Sphinx moth *(Euproserpinus euterpe)* Population: Entire	Threatened		
Mammals			
Giant kangaroo rat *(Dipodomys ingens)*	Endangered		

Population: Entire			
San Joaquin Kit fox *(Vulpes macrotis mutica)* Population: wherever found	Endangered		
Reptiles			
Blunt-Nosed Leopard lizard *(Gambelia silus)* Population: Entire	Endangered		

Critical habitats that lie within your project area

The following critical habitats lie fully or partially within your project area.

Amphibians	Critical Habitat Type
California red-legged frog *(Rana draytonii)* Population: Entire	Final designated

APPENDIX D

SITE PHOTOGRAPHS

Photo 1: Trail alignment along California Boulevard

Aspect: West, **Date**: January 18, 2016

Photo 2: Trail alignment between CHP Office and UPRR

Aspect: West, **Date:** January 18, 2016

Photo 3: Trail alignment between CHP Office and UPRR

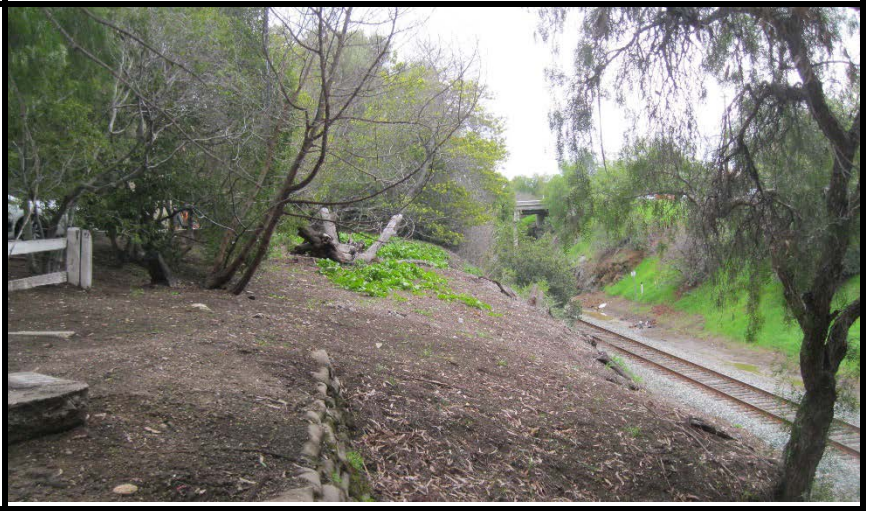
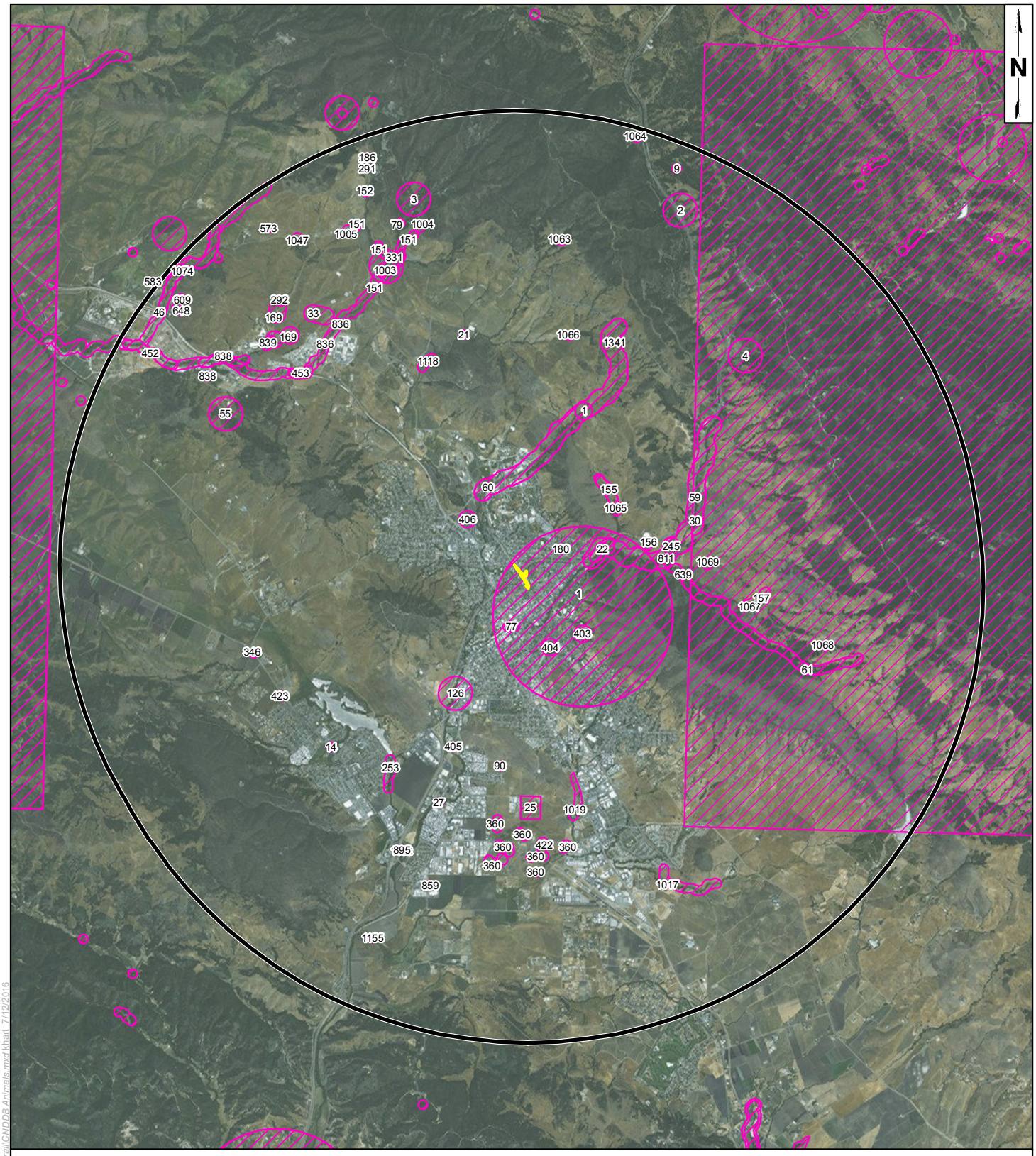


Photo 4: Trail alignment between Phillips Lane and UPRR

Aspect: East, **Date:** January 18, 2016	**Aspect:** East, **Date:** January 18, 2016

APPENDIX E

CALIFORNIA NATURAL DIVERSITY DATABASE LIST AND MAP



LEGEND:

5 mile Buffer of Project Impact Area | Project Impact Area | CNDDB Animal Occurrence

Source: Esri Online Basemap, County of San Luis Obispo, TCR 2/16/2016, CNDDB 7/2016
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

0 0.75 1.5
MILES

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME:
RAILROAD SAFETY TRAIL
SAN LUIS OBISPO COUNTY, CA

PROJECT NUMBER: 1502-2212

DATE: July 2016

CNDDB OCCURRENCES OF ANIMALS

FIGURE
E-1

Z:\Kristin\GIS Maps\Map Project\Railroad Safety Trail\CNDDB Animals.mxd khart 7/12/2016

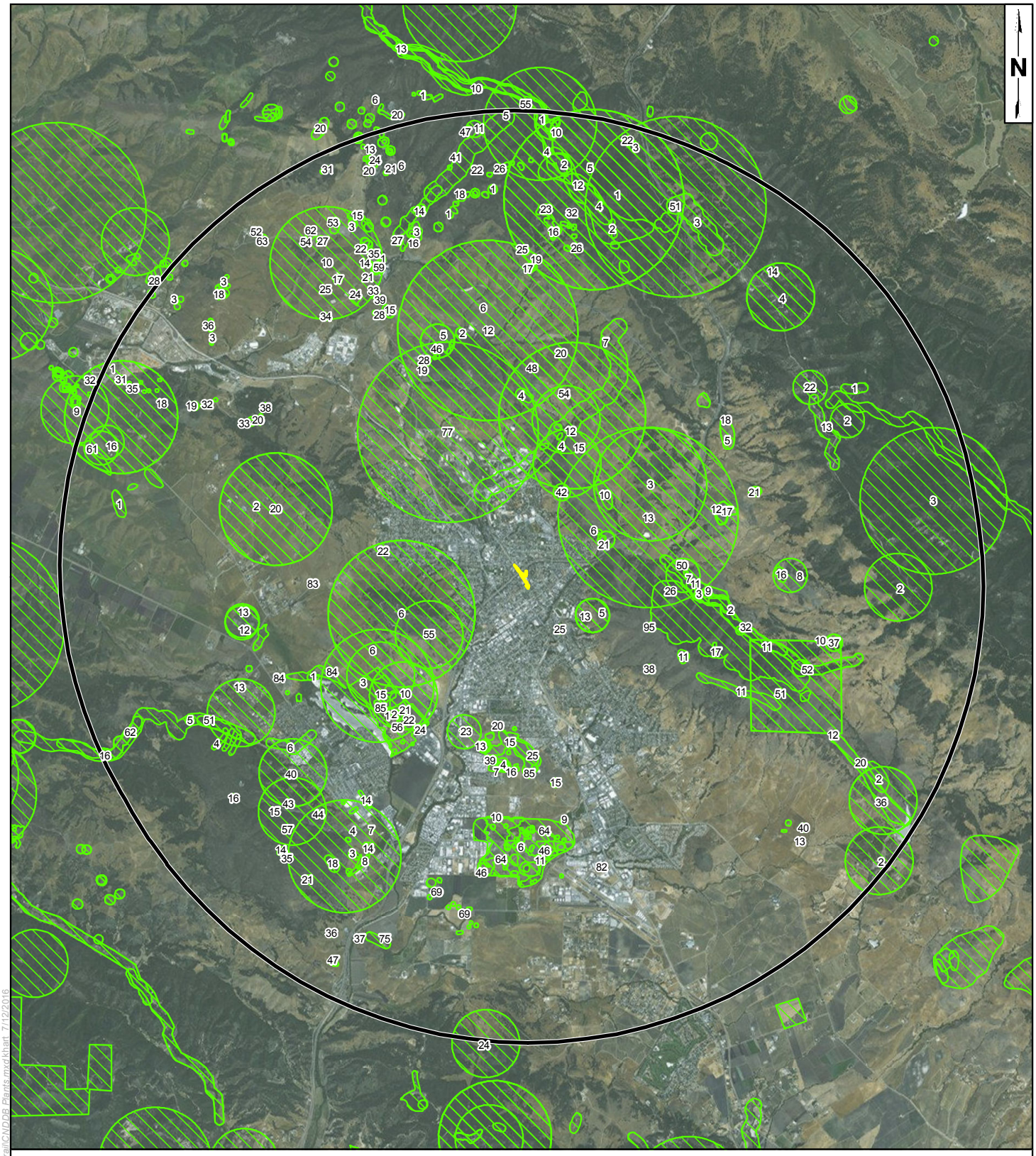
CNDDB Wildlife List

Scientific Name	Common Name	Occurrence Number	Accuracy	Occurrence Rank	Site Date	Land Owner/ Manager	Federal Listing	CA Listing	Global Rank	State Rank	CDFW Rank
Falco mexicanus	prairie falcon	297	1 mile	Unknown	1978XXXX		None	None	G5	S4	WL
Eumops perotis californicus	western mastiff bat	180	1 mile	Unknown	19910429	UNKNOWN	None	None	G5T4	S3S4	SSC
Polyphylla nubila	Atascadero June beetle	1	1 mile	Unknown	19560515	UNKNOWN	None	None	G1	S1	
Oncorhynchus mykiss irideus	steelhead - south-central California coast DPS	6	nonspecific area	Unknown	1980XXXX	PVT, DOC, SLO COUNTY, DOD	Threatened	None	G5T2Q	S2	
Taricha torosa	Coast Range newt	60	nonspecific area	Unknown	19390619	STATE LANDS COMMISSION	None	None	G4	S4	SSC
Rana draytonii	California red-legged frog	1341	nonspecific area	Unknown	19390619	STATE LANDS COMMISSION	Threatened	None	G2G3	S2S3	SSC
Oncorhynchus mykiss irideus	steelhead - south-central California coast DPS	30	nonspecific area	Unknown	19390619	UNKNOWN	Threatened	None	G5T2Q	S2	
Taricha torosa	Coast Range newt	59	nonspecific area	Unknown	19390619	UNKNOWN	None	None	G4	S4	SSC
Rana boylii	foothill yellow-legged frog	811	nonspecific area	Unknown	19530503	CITY OF SAN LUIS OBISPO, UNK	None	None	G3	S3	SSC
Taricha torosa	Coast Range newt	61	nonspecific area	Unknown	19390619	UNKNOWN	None	None	G4	S4	SSC
Rana draytonii	California red-legged frog	46	nonspecific area	Good	19960812	SLO COUNTY	Threatened	None	G2G3	S2S3	SSC
Branchinecta lynchi	vernal pool fairy shrimp	360	specific area	Good	20050805	PVT	Threatened	None	G3	S3	
Elanus leucurus	white-tailed kite	55	1/5 mile	Fair	19970324	DOD-ARMY NATIONAL GUARD	None	None	G5	S3S4	FP
Pyrgulopsis taylori	San Luis Obispo pyrg	4	1/5 mile	Fair	19940506	UNKNOWN	None	None	G1	S1	
Pyrgulopsis taylori	San Luis Obispo pyrg	3	1/5 mile	Unknown	19921110	STATE-CAMP SAN LUIS OBISPO	None	None	G1	S1	
Pyrgulopsis taylori	San Luis Obispo pyrg	2	1/5 mile	Unknown	20000624	UNKNOWN	None	None	G1	S1	
Emys marmorata	western pond turtle	1003	1/5 mile	Good	20030809	STATE-CAMP SAN LUIS OBISPO	None	None	G3G4	S3	SSC
Danaus plexippus pop. 1	monarch - California overwintering population	126	1/5 mile	Unknown	XXXXXXXX	CITY OF SAN LUIS OBISPO	None	None	G4T2T3	S2S3	
Corynorhinus townsendii	Townsend's big-eared bat	169	nonspecific area	Unknown	20011006	STATE-CAMP ROBERTS MR	None	Candidate T	G3G4	S2	SSC
Emys marmorata	western pond turtle	1017	specific area	Good	19920514	PVT-DOUGLAS MURDOCK	None	None	G3G4	S3	SSC
Rana draytonii	California red-legged frog	151	specific area	Unknown	20080513	STATE-CAMP SAN LUIS OBISPO	Threatened	None	G2G3	S2S3	SSC
Rana draytonii	California red-legged frog	452	specific area	Good	20040915	STATE-CAMP SAN LUIS OBISPO	Threatened	None	G2G3	S2S3	SSC
Rana draytonii	California red-legged frog	838	specific area	Good	20070515	STATE-CAMP SAN LUIS OBISPO	Threatened	None	G2G3	S2S3	SSC
Buteo regalis	ferruginous hawk	25	nonspecific area	Excellent	1993XXXX	UNKNOWN	None	None	G4	S3S4	WL
Eremophila alpestris actia	California horned lark	33	nonspecific area	Good	19950330	STATE-CAMP SAN LUIS OBISPO	None	None	G5T3Q	S3	WL
Rana draytonii	California red-legged frog	155	specific area	Excellent	19981001	PVT-MIOSSI	Threatened	None	G2G3	S2S3	SSC
Agelaius tricolor	tricolored blackbird	331	nonspecific area	Good	20080425	DOD-ARMY NATIONAL GUARD	None	None	G2G3	S1S2	SSC
Emys marmorata	western pond turtle	1065	nonspecific area	Excellent	19981001	PVT-MIOSSI	None	None	G3G4	S3	SSC
Emys marmorata	western pond turtle	1019	specific area	Poor	19920729	PVT-MARGARITA RANCH	None	None	G3G4	S3	SSC
Danaus plexippus pop. 1	monarch - California overwintering population	253	nonspecific area	Fair	19980107	PVT-ZAPATA FARMS	None	None	G4T2T3	S2S3	
Oncorhynchus mykiss irideus	steelhead - south-central California coast DPS	22	specific area	Poor	19970829	SLO COUNTY-PARKS DEPT	Threatened	None	G5T2Q	S2	
Emys marmorata	western pond turtle	1067	nonspecific area	Good	19950530	PVT	None	None	G3G4	S3	SSC
Pyrgulopsis taylori	San Luis Obispo pyrg	1	1/10 mile	Unknown	19940506	UNKNOWN	None	None	G1	S1	
Danaus plexippus pop. 1	monarch - California overwintering population	404	1/10 mile	Unknown	201311XX	UNKNOWN	None	None	G4T2T3	S2S3	
Danaus plexippus pop. 1	monarch - California overwintering population	406	1/10 mile	Unknown	201311XX	DPR	None	None	G4T2T3	S2S3	
Danaus plexippus pop. 1	monarch - California overwintering population	403	1/10 mile	Unknown	201411XX	UNKNOWN	None	None	G4T2T3	S2S3	
Rana draytonii	California red-legged frog	453	specific area	Unknown	20080513	STATE-CAMP SAN LUIS OBISPO	Threatened	None	G2G3	S2S3	SSC
Rana draytonii	California red-legged frog	245	1/10 mile	Unknown	19961119	UNKNOWN	Threatened	None	G2G3	S2S3	SSC
Emys marmorata	western pond turtle	1118	specific area	Fair	20020517	CSU-CAL POLY, SAN LUIS OBISPO	None	None	G3G4	S3	SSC
Phrynosoma blainvillii	coast horned lizard	609	nonspecific area	Unknown	1994XXXX	SLO COUNTY	None	None	G3G4	S3S4	SSC
Antrozous pallidus	pallid bat	77	specific area	Excellent	20000601	CITY OF SAN LUIS OBISPO	None	None	G5	S3	SSC
Rana draytonii	California red-legged frog	836	specific area	Good	20070515	STATE-CAMP SAN LUIS OBISPO	Threatened	None	G2G3	S2S3	SSC
Rana draytonii	California red-legged frog	839	specific area	Good	20080512	STATE-CAMP SAN LUIS OBISPO	Threatened	None	G2G3	S2S3	SSC
Rana draytonii	California red-legged frog	291	specific area	Excellent	20040901	DOD-ARMY NATIONAL GUARD	Threatened	None	G2G3	S2S3	SSC
Oncorhynchus mykiss irideus	steelhead - south-central California coast DPS	21	80 meters	Good	19990113	PVT	Threatened	None	G5T2Q	S2	
Phrynosoma blainvillii	coast horned lizard	583	80 meters	Good	19940330	SLO COUNTY	None	None	G3G4	S3S4	SSC
Emys marmorata	western pond turtle	1162	80 meters	Good	20060810	CITY OF SAN LUIS OBISPO	None	None	G3G4	S3	SSC
Linderiella occidentalis	California linderiella	186	80 meters	Good	20000324	DOD-CALIFORNIA NATIONAL GUARD	None	None	G2G3	S2S3	
Rana draytonii	California red-legged frog	648	80 meters	Excellent	20030510	SLO COUNTY-EL CHORRO RP	Threatened	None	G2G3	S2S3	SSC
Rana draytonii	California red-legged frog	1047	80 meters	Unknown	20060606	STATE-CAMP SAN LUIS OBISPO	Threatened	None	G2G3	S2S3	SSC
Rana draytonii	California red-legged frog	157	80 meters	Excellent	19950501	PVT	Threatened	None	G2G3	S2S3	SSC
Rana draytonii	California red-legged frog	292	80 meters	Excellent	20010515	DOD-ARMY NATIONAL GUARD	Threatened	None	G2G3	S2S3	SSC
Buteo regalis	ferruginous hawk	14	80 meters	Poor	20021101	PVT	None	None	G4	S3S4	WL
Emys marmorata	western pond turtle	1074	80 meters	Good	19960111	SLO COUNTY	None	None	G3G4	S3	SSC
Taxidea taxus	American badger	423	80 meters	Fair	20080810	CITY OF SAN LUIS OBISPO	None	None	G5	S3	SSC

CNDDB Wildlife List

Scientific Name	Common Name	Occurrence Number	Accuracy	Occurrence Rank	Site Date	Land Owner/ Manager	Federal Listing	CA Listing	Global Rank	State Rank	CDFW Rank
Taxidea taxus	American badger	346	80 meters	Good	20060417	UNKNOWN	None	None	G5	S3	SSC
Taricha torosa	Coast Range newt	9	80 meters	Good	20030327	PVT-SANTA MARGARITA CO	None	None	G4	S4	SSC
Emys marmorata	western pond turtle	1155	80 meters	Excellent	20050515	CITY OF SAN LUIS OBISPO	None	None	G3G4	S3	SSC
Oncorhynchus mykiss irideus	steelhead - south-central California coast DPS	27	80 meters	Fair	20030709	CITY OF SAN LUIS OBISPO	Threatened	None	G5T2Q	S2	
Branchinecta lynchi	vernal pool fairy shrimp	859	80 meters	Good	20131108	PVT	Threatened	None	G3	S3	
Athene cunicularia	burrowing owl	573	80 meters	Good	20030107	DOD-CALIFORNIA NATIONAL GUARD	None	None	G4	S3	SSC
Danaus plexippus pop. 1	monarch - California overwintering population	405	80 meters	Unknown	201411XX	PVT	None	None	G4T2T3	S2S3	
Taxidea taxus	American badger	422	80 meters	Excellent	20080811	UNKNOWN	None	None	G5	S3	SSC
Elanus leucurus	white-tailed kite	79	80 meters	Good	19990810	STATE-CAMP SAN LUIS OBISPO	None	None	G5	S3S4	FP
Emys marmorata	western pond turtle	1005	80 meters	Unknown	19940528	STATE-CAMP SAN LUIS OBISPO	None	None	G3G4	S3	SSC
Rana draytonii	California red-legged frog	895	80 meters	Excellent	20060809	CITY OF SAN LUIS OBISPO	Threatened	None	G2G3	S2S3	SSC
Lanius ludovicianus	loggerhead shrike	90	80 meters	Good	20050511	PVT-KING VENTURES	None	None	G4	S4	SSC
Rana draytonii	California red-legged frog	152	80 meters	Unknown	19930509	STATE-CAMP SAN LUIS OBISPO	Threatened	None	G2G3	S2S3	SSC
Emys marmorata	western pond turtle	1063	80 meters	Good	19950519	UNKNOWN	None	None	G3G4	S3	SSC
Emys marmorata	western pond turtle	1066	80 meters	Good	19950626	PVT	None	None	G3G4	S3	SSC
Emys marmorata	western pond turtle	1064	80 meters	Fair	19950413	UNKNOWN	None	None	G3G4	S3	SSC
Rana draytonii	California red-legged frog	156	80 meters	Good	19950531	UNKNOWN	Threatened	None	G2G3	S2S3	SSC
Emys marmorata	western pond turtle	1068	80 meters	Good	19950501	PVT	None	None	G3G4	S3	SSC
Emys marmorata	western pond turtle	1069	80 meters	Good	19950606	PVT	None	None	G3G4	S3	SSC
Emys marmorata	western pond turtle	1004	80 meters	Unknown	19930508	STATE-CAMP SAN LUIS OBISPO	None	None	G3G4	S3	SSC
Rana draytonii	California red-legged frog	639	specific area	Good	1991XXXX	CITY OF SAN LUIS OBISPO	Threatened	None	G2G3	S2S3	SSC

Notes: All occurrences were listed as "presumed extant" and "natural/native occurrences"; E-Endangered, T-Threatened, SSC- Species of Special Concern, WL- Watch List, FP- Fully Protected



LEGEND:

5 mile Buffer of Project Impact Area | Project Impact Area | CNDDB Plant Occurrence

Source: Esri Online Basemap, County of San Luis Obispo, TCR 2/16/2016, CNDDB 7/2016
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

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MILES

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME:			
RAILROAD SAFETY TRAIL SAN LUIS OBISPO COUNTY, CA		CNDDB OCCURRENCES OF PLANTS	FIGURE E-2
PROJECT NUMBER: 1502-2212	DATE: July 2016		

Z:\K\astm\GIS Maps\Map Project\Railroad Safety Trail\CNDDB_Plants.mxd khart 7/12/2016

CNDDB Plant List

Scientific Name	Common Name	Occurrence Number	Accuracy	Occurrence Rank	Site Date	Land Owner/Manager	Federal Listing	CA Listing	Global Rank	State Rank	CNPS Rank
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	6	nonspecific area	Fair	20030508	PVT	None	None	G3T2	S2	4.2
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	3	specific area	Fair	20020522	STATE-CAMP SAN LUIS OBISPO	None	None	G3T2	S2	4.2
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	13	specific area	Fair	20050525	PVT	None	None	G3T2	S2	4.2
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	25	80 meters	Poor	20050713	SAN LUIS COASTAL SCHOOL DIST	None	None	G3T2	S2	4.2
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	17	80 meters	Fair	20000420	STATE-CAMP SAN LUIS OBISPO	None	None	G3T2	S2	4.2
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	19	80 meters	Good	20030401	STATE-CAMP SAN LUIS OBISPO	None	None	G3T2	S2	4.2
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	18	specific area	Fair	20020618	STATE-CAMP SAN LUIS OBISPO	None	None	G3T2	S2	4.2
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	20	specific area	Fair	20020508	STATE-CAMP SAN LUIS OBISPO	None	None	G3T2	S2	4.2
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	16	specific area	Fair	20030501	STATE-CAMP SAN LUIS OBISPO	None	None	G3T2	S2	4.2
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	21	specific area	Fair	20030804	STATE-CAMP SAN LUIS OBISPO	None	None	G3T2	S2	4.2
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	22	specific area	Fair	20030804	STATE-CAMP SAN LUIS OBISPO	None	None	G3T2	S2	4.2
Centromadia parryi ssp. congdonii	Congdon's tarplant	77	1 mile	Unknown	19400811	UNKNOWN	None	None	G3T2	S2	1B.1
Horkelia cuneata var. puberula	mesa horkelia	55	3/5 mile	Unknown	19710424	USFS-LOS PADRES NF	None	None	G4T1	S1	1B.1
Sanicula maritima	adobe sanicle	1	3/5 mile	Unknown	20020423	UNKNOWN	None	Rare	G2	S2	1B.1
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	20	3/5 mile	Unknown	19470512	UNKNOWN	None	None	G3T2	S2	1B.1
Eryngium aristulatum var. hooveri	Hoover's button-celery	13	2/5 mile	Unknown	19890503	UNKNOWN	None	None	G5T1	S1	1B.1
Centromadia parryi ssp. congdonii	Congdon's tarplant	64	specific area	Fair	20100819	PVT	None	None	G3T2	S2	1B.1
Centromadia parryi ssp. congdonii	Congdon's tarplant	13	nonspecific area	Fair	20080810	CITY OF SAN LUIS OBISPO	None	None	G3T2	S2	1B.1
Eryngium aristulatum var. hooveri	Hoover's button-celery	12	1/5 mile	Unknown	20100816	PVT	None	None	G5T1	S1	1B.1
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	61	1/5 mile	Unknown	19980623	PVT	None	None	G3T2	S2	1B.1
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	28	specific area	Good	19940512	SLO COUNTY	None	None	G3T2	S2	1B.1
Centromadia parryi ssp. congdonii	Congdon's tarplant	84	specific area	Fair	20XXXXXX	CITY OF SAN LUIS OBISPO	None	None	G3T2	S2	1B.1
Centromadia parryi ssp. congdonii	Congdon's tarplant	75	specific area	Fair	20051019	CITY OF SAN LUIS OBISPO, PVT	None	None	G3T2	S2	1B.1
Centromadia parryi ssp. congdonii	Congdon's tarplant	69	specific area	Fair	20140626	PVT	None	None	G3T2	S2	1B.1
Sanicula maritima	adobe sanicle	20	specific area	Good	20130303	PVT, CITY OF SAN LUIS OBISPO	None	Rare	G2	S2	1B.1
Centromadia parryi ssp. congdonii	Congdon's tarplant	85	specific area	Fair	20XXXXXX	CITY OF SAN LUIS OBISPO	None	None	G3T2	S2	1B.1
Centromadia parryi ssp. congdonii	Congdon's tarplant	14	specific area	Fair	2002XXXX	PVT	None	None	G3T2	S2	1B.1
Sanicula maritima	adobe sanicle	15	specific area	Good	20140423	CITY OF SAN LUIS OBISPO	None	Rare	G2	S2	1B.1
Eryngium aristulatum var. hooveri	Hoover's button-celery	1	specific area	Good	20060330	CITY OF SAN LUIS OBISPO, PVT	None	None	G5T1	S1	1B.1
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	36	specific area	Fair	20020522	STATE-CAMP SAN LUIS OBISPO	None	None	G3T2	S2	1B.1
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	63	80 meters	Unknown	20050414	UNKNOWN	None	None	G3T2	S2	1B.1
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	62	80 meters	Unknown	20050415	UNKNOWN	None	None	G3T2	S2	1B.1
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	39	80 meters	Fair	20000615	STATE-CAMP SAN LUIS OBISPO	None	None	G3T2	S2	1B.1
Eryngium aristulatum var. hooveri	Hoover's button-celery	10	specific area	Fair	20030909	CITY OF SAN LUIS OBISPO	None	None	G5T1	S1	1B.1
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	38	specific area	Fair	20020508	STATE-CAMP SAN LUIS OBISPO	None	None	G3T2	S2	1B.1
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	35	specific area	Unknown	20020423	STATE-CAMP SAN LUIS OBISPO	None	None	G3T2	S2	1B.1
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	25	specific area	Good	20000515	STATE-CAMP SAN LUIS OBISPO	None	None	G3T2	S2	1B.1
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	18	specific area	Unknown	19870926	PVT	None	None	G3T2	S2	1B.1
Centromadia parryi ssp. congdonii	Congdon's tarplant	83	specific area	Fair	20XXXXXX	CITY OF SAN LUIS OBISPO	None	None	G3T2	S2	1B.1
Eryngium aristulatum var. hooveri	Hoover's button-celery	11	specific area	Fair	20030909	CITY OF SAN LUIS OBISPO	None	None	G5T1	S1	1B.1
Centromadia parryi ssp. congdonii	Congdon's tarplant	82	specific area	Fair	20XXXXXX	CITY OF SAN LUIS OBISPO	None	None	G3T2	S2	1B.1
Arctostaphylos pilosula	Santa Margarita manzanita	51	1 mile	Unknown	19720823	UNKNOWN	None	None	G2?	S2?	1B.2
Arctostaphylos cruzensis	Arroyo de la Cruz manzanita	13	1 mile	Unknown	19660117	PVT	None	None	G3	S3	1B.2
Carex obispoensis	San Luis Obispo sedge	12	1 mile	Unknown	19590429	UNKNOWN	None	None	G2G3	S2S3	1B.2
Cirsium occidentale var. lucianum	Cuesta Ridge thistle	6	1 mile	Unknown	20090521	UNKNOWN	None	None	G3G4T2	S2	1B.2
Fritillaria ojaiensis	Ojai fritillary	32	1 mile	Unknown	1991XXXX	USFS-LOS PADRES NF?	None	None	G2?	S2?	1B.2
Fritillaria viridea	San Benito fritillary	5	1 mile	Unknown	19640415	UNKNOWN	None	None	G2	S2	1B.2
Chlorogalum pomeridianum var. minus	dwarf soaproot	1	1 mile	Unknown	19650608	UNKNOWN	None	None	G5T2T3	S2S3	1B.2
Astragalus didymocarpus var. milesianus	Miles' milk-vetch	6	4/5 mile	Unknown	18860526	UNKNOWN	None	None	G5T2	S2	1B.2
Cirsium occidentale var. lucianum	Cuesta Ridge thistle	3	4/5 mile	Unknown	19640605	USFS-LOS PADRES NF	None	None	G3G4T2	S2	1B.2
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	48	4/5 mile	Unknown	19670414	UNKNOWN	None	None	G2T2	S2	1B.2
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	10	3/5 mile	Unknown	20000418	UNKNOWN	None	None	G4T2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	3	3/5 mile	Unknown	1988XXXX	PVT	None	None	G2	S2	1B.2
Layia jonesii	Jones' layia	4	3/5 mile	Unknown	19880319	PVT	None	None	G2	S2	1B.2

CNDDB Plant List

Scientific Name	Common Name	Occurrence Number	Accuracy	Occurrence Rank	Site Date	Land Owner/Manager	Federal Listing	CA Listing	Global Rank	State Rank	CNPS Rank
Layia jonesii	Jones' layia	3	3/5 mile	Unknown	19820507	UNKNOWN	None	None	G2	S2	1B.2
Layia jonesii	Jones' layia	2	3/5 mile	Unknown	19480422	PVT, DPR-MORRO BAY SP	None	None	G2	S2	1B.2
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	3	nonspecific area	Unknown	19530503	UNKNOWN	None	None	G4T2	S2	1B.2
Delphinium parryi ssp. blochmaniae	dune larkspur	11	nonspecific area	Unknown	19360327	UNKNOWN	None	None	G4T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	51	nonspecific area	Unknown	19360327	UNKNOWN	None	None	G5T2	S2	1B.2
Carex obispoensis	San Luis Obispo sedge	26	nonspecific area	Unknown	19870804	UNKNOWN	None	None	G2G3	S2S3	1B.2
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	7	nonspecific area	Unknown	190605XX	UNKNOWN	None	None	G4T2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	1	specific area	Good	20130523	USFS-LOS PADRES NF, DOD	None	None	G2	S2	1B.2
Dudleya abramsii ssp. bettinae	Betty's dudleya	10	2/5 mile	Unknown	19940526	UNKNOWN	None	None	G4T1	S1	1B.2
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	6	2/5 mile	Unknown	19820507	UNKNOWN	None	None	G4T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	57	2/5 mile	Unknown	20110611	CITY OF SAN LUIS OBISPO	None	None	G5T2	S2	1B.2
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	2	2/5 mile	Unknown	19360520	UNKNOWN	None	None	G4T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	54	2/5 mile	Unknown	19950401	CSU-CAL POLY, SAN LUIS OBISPO	None	None	G5T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	55	2/5 mile	Unknown	195605XX	UNKNOWN	None	None	G5T2	S2	1B.2
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	9	2/5 mile	Unknown	20020508	UNKNOWN	None	None	G4T2	S2	1B.2
Arctostaphylos pilosula	Santa Margarita manzanita	24	2/5 mile	Unknown	19360210	TNC	None	None	G2?	S2?	1B.2
Layia jonesii	Jones' layia	15	2/5 mile	Unknown	19890421	CSU-CAL POLY, SAN LUIS OBISPO	None	None	G2	S2	1B.2
Arctostaphylos luciana	Santa Lucia manzanita	4	2/5 mile	Unknown	19660217	USFS-LOS PADRES NF, UNKNOWN	None	None	G3	S3	1B.2
Agrostis hooveri	Hoover's bent grass	14	2/5 mile	Unknown	19640605	USFS-LOS PADRES NF, UNKNOWN	None	None	G2	S2	1B.2
Arctostaphylos luciana	Santa Lucia manzanita	2	2/5 mile	Unknown	19360504	UNKNOWN	None	None	G3	S3	1B.2
Carex obispoensis	San Luis Obispo sedge	16	nonspecific area	Unknown	19380614	UNKNOWN	None	None	G2G3	S2S3	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	56	nonspecific area	Unknown	20060521	CITY OF SAN LUIS OBISPO	None	None	G5T2	S2	1B.2
Monardella palmeri	Palmer's monardella	4	specific area	Unknown	19900726	USFS-LOS PADRES NF?	None	None	G2	S2	1B.2
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	4	nonspecific area	Unknown	19840210	UNKNOWN	None	None	G4T2	S2	1B.2
Cirsium occidentale var. lucianum	Cuesta Ridge thistle	4	nonspecific area	Unknown	19890628	USFS-LOS PADRES NF	None	None	G3G4T2	S2	1B.2
Sidalcea hickmanii ssp. anomala	Cuesta Pass checkerbloom	5	nonspecific area	Unknown	19100417	UNKNOWN	None	Rare	G3T1	S1	1B.2
Carex obispoensis	San Luis Obispo sedge	10	specific area	Excellent	19980615	USFS-LOS PADRES NF	None	None	G2G3	S2S3	1B.2
Arctostaphylos luciana	Santa Lucia manzanita	3	nonspecific area	Unknown	19660217	UNKNOWN	None	None	G3	S3	1B.2
Calochortus obispoensis	San Luis mariposa-lily	20	specific area	Excellent	19920528	PVT	None	None	G2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	15	specific area	Good	20140622	CITY OF SAN LUIS OBISPO, PVT	None	None	G2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	22	specific area	Good	20050604	CITY OF SAN LUIS OBISPO	None	None	G2	S2	1B.2
Arctostaphylos pechoensis	Pecho manzanita	16	nonspecific area	Unknown	19700129	UNKNOWN	None	None	G2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	46	specific area	Good	20080513	PVT	None	None	G5T2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	13	1/5 mile	Unknown	1988XXXX	UNKNOWN	None	None	G2	S2	1B.2
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	5	1/5 mile	Unknown	19980510	UNKNOWN	None	None	G4T2	S2	1B.2
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	46	1/5 mile	Unknown	190905XX	UNKNOWN	None	None	G2T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	5	1/5 mile	Unknown	XXXXXXXX	UNKNOWN	None	None	G5T2	S2	1B.2
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	50	1/5 mile	Unknown	19060521	UNKNOWN	None	None	G2T2	S2	1B.2
Layia jonesii	Jones' layia	16	1/5 mile	Unknown	19980623	PVT	None	None	G2	S2	1B.2
Cirsium occidentale var. lucianum	Cuesta Ridge thistle	2	1/5 mile	Unknown	19950502	USFS-LOS PADRES NF	None	None	G3G4T2	S2	1B.2
Agrostis hooveri	Hoover's bent grass	22	1/5 mile	Unknown	19950528	USFS-LOS PADRES NF	None	None	G2	S2	1B.2
Arctostaphylos pechoensis	Pecho manzanita	13	nonspecific area	Unknown	19780128	USFS-LOS PADRES NF	None	None	G2	S2	1B.2
Dudleya abramsii ssp. bettinae	Betty's dudleya	1	specific area	Excellent	19980529	PVT	None	None	G4T1	S1	1B.2
Carex obispoensis	San Luis Obispo sedge	27	nonspecific area	Unknown	19930320	DOD-ARMY NATIONAL GUARD	None	None	G2G3	S2S3	1B.2
Sidalcea hickmanii ssp. anomala	Cuesta Pass checkerbloom	2	specific area	Good	19980615	USFS-LOS PADRES NF	None	Rare	G3T1	S1	1B.2
Monardella palmeri	Palmer's monardella	2	nonspecific area	Unknown	19870701	UNKNOWN	None	None	G2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	6	nonspecific area	Unknown	19670514	UNKNOWN	None	None	G5T2	S2	1B.2
Chlorogalum pomeridianum var. minus	dwarf soaproot	2	specific area	Excellent	19920528	PVT	None	None	G5T2T3	S2S3	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	4	specific area	Good	20050909	PVT, CITY OF SAN LUIS OBISPO	None	None	G5T2	S2	1B.2
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	51	nonspecific area	Unknown	20000420	UNKNOWN	None	None	G2T2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	26	specific area	Good	20090706	CITY OF SAN LUIS OBISPO, PVT	None	None	G2	S2	1B.2
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	62	nonspecific area	Unknown	20010429	PVT, SCL COUNTY	None	None	G2T2	S2	1B.2
Cirsium occidentale var. lucianum	Cuesta Ridge thistle	5	nonspecific area	Unknown	20110602	UNKNOWN	None	None	G3G4T2	S2	1B.2
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	3	specific area	Good	2012XXXX	DOD-CALIFORNIA NATIONAL GUARD	E	E	G2T2	S2	1B.2

CNDDB Plant List

Scientific Name	Common Name	Occurrence Number	Accuracy	Occurrence Rank	Site Date	Land Owner/Manager	Federal Listing	CA Listing	Global Rank	State Rank	CNPS Rank
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	4	specific area	Excellent	20070610	CITY OF SAN LUIS OBISPO	E	E	G2T2	S2	1B.2
Layia jonesii	Jones' layia	12	specific area	Good	19870426	PVT	None	None	G2	S2	1B.2
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	10	specific area	Good	19970611	PVT	E	E	G2T2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	2	specific area	Good	19880705	USFS-LOS PADRES NF	None	None	G2	S2	1B.2
Arctostaphylos luciana	Santa Lucia manzanita	1	nonspecific area	Unknown	19950620	UNKNOWN	None	None	G3	S3	1B.2
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	11	1/10 mile	Unknown	19870701	UNKNOWN	E	E	G2T2	S2	1B.2
Carex obispoensis	San Luis Obispo sedge	11	1/10 mile	Unknown	19930221	DOD-ARMY NATIONAL GUARD	None	None	G2G3	S2S3	1B.2
Calochortus obispoensis	San Luis mariposa-lily	42	1/10 mile	Unknown	195406XX	CSU-CAL POLY, SAN LUIS OBISPO	None	None	G2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	18	specific area	Good	19880524	PVT	None	None	G2	S2	1B.2
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	2	specific area	Excellent	20150526	CITY OF SAN LUIS OBISPO	E	E	G2T2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	25	specific area	Good	20080615	PVT	None	None	G2	S2	1B.2
Layia jonesii	Jones' layia	1	specific area	Unknown	19810516	PVT	None	None	G2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	4	specific area	Good	19880604	CSU-CAL POLY, SAN LUIS OBISPO	None	None	G2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	53	specific area	Unknown	20050412	STATE-CAMP SAN LUIS OBISPO	None	None	G5T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	24	specific area	Good	20030429	STATE-CAMP SAN LUIS OBISPO	None	None	G5T2	S2	1B.2
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	59	nonspecific area	Unknown	200304XX	DOD-CALIFORNIA NATIONAL GUARD	None	None	G2T2	S2	1B.2
Sidalcea hickmanii ssp. anomala	Cuesta Pass checkerbloom	6	specific area	Good	20030515	STATE-CAMP ROBERTS MR	None	Rare	G3T1	S1	1B.2
Calochortus obispoensis	San Luis mariposa-lily	12	specific area	Good	19940610	CSU-CAL POLY, SAN LUIS OBISPO	None	None	G2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	21	specific area	Good	19870508	PVT	None	None	G2	S2	1B.2
Carex obispoensis	San Luis Obispo sedge	21	specific area	Good	20030804	STATE-CAMP SAN LUIS OBISPO	None	None	G2G3	S2S3	1B.2
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	8	specific area	Good	2012XXXX	PVT	E	E	G2T2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	24	specific area	Fair	20020617	STATE-CAMP SAN LUIS OBISPO	None	None	G2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	28	specific area	Fair	20080615	PVT	None	None	G2	S2	1B.2
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	85	80 meters	Good	20070419	PVT	None	None	G2T2	S2	1B.2
Layia jonesii	Jones' layia	14	80 meters	Fair	20030403	STATE-CAMP SAN LUIS OBISPO	None	None	G2	S2	1B.2
Fritillaria ojaiensis	Ojai fritillary	2	80 meters	Fair	20130330	CITY OF SAN LUIS OBISPO	None	None	G2?	S2?	1B.2
Trifolium hydrophilum	saline clover	1	80 meters	Excellent	19980519	CITY OF SAN LUIS OBISPO	None	None	G2	S2	1B.2
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	13	80 meters	Good	2012XXXX	PVT	E	E	G2T2	S2	1B.2
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	5	80 meters	Fair	2011XXXX	PVT	E	E	G2T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	52	80 meters	Unknown	20050414	STATE-CAMP SAN LUIS OBISPO	None	None	G5T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	3	80 meters	Unknown	20130330	UNKNOWN	None	None	G5T2	S2	1B.2
Monardella palmeri	Palmer's monardella	3	80 meters	Fair	19930803	PVT	None	None	G2	S2	1B.2
Monardella palmeri	Palmer's monardella	18	80 meters	Good	20000612	STATE-CAMP SAN LUIS OBISPO	None	None	G2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	33	80 meters	Fair	20020508	STATE-CAMP SAN LUIS OBISPO	None	None	G5T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	40	80 meters	Fair	20050525	PVT	None	None	G5T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	31	80 meters	Fair	20020422	STATE-CAMP SAN LUIS OBISPO	None	None	G5T2	S2	1B.2
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	21	80 meters	Unknown	2012XXXX	PVT	E	E	G2T2	S2	1B.2
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	95	80 meters	Fair	20130330	CITY OF SAN LUIS OBISPO	None	None	G2T2	S2	1B.2
Astragalus didymocarpus var. milesianus	Miles' milk-vetch	7	80 meters	Good	20050429	PVT-KING VENTURES	None	None	G5T2	S2	1B.2
Chlorogalum pomeridianum var. minus	dwarf soaproot	18	80 meters	Poor	20010614	STATE-CAMP SAN LUIS OBISPO	None	None	G5T2T3	S2S3	1B.2
Calochortus obispoensis	San Luis mariposa-lily	33	specific area	Fair	20000611	STATE-CAMP SAN LUIS OBISPO	None	None	G2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	11	specific area	Good	19880528	CITY OF SAN LUIS OBISPO	None	None	G2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	47	specific area	Excellent	XXXXXXXX	CITY OF SAN LUIS OBISPO	None	None	G5T2	S2	1B.2
Carex obispoensis	San Luis Obispo sedge	22	specific area	Good	20020618	STATE-CAMP SAN LUIS OBISPO	None	None	G2G3	S2S3	1B.2
Calochortus obispoensis	San Luis mariposa-lily	41	specific area	Unknown	201305XX	STATE-CAMP SAN LUIS OBISPO	None	None	G2	S2	1B.2
Dudleya abramsii ssp. bettinae	Betty's dudleya	9	specific area	Unknown	2008XXXX	PVT-CHEVRON	None	None	G4T1	S1	1B.2
Calochortus obispoensis	San Luis mariposa-lily	44	specific area	Unknown	XXXXXXXX	CITY OF SAN LUIS OBISPO	None	None	G2	S2	1B.2
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	17	specific area	Good	20131117	CITY OF SAN LUIS OBISPO	E	E	G2T2	S2	1B.2
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	14	specific area	Excellent	2011XXXX	CITY OF SAN LUIS OBISPO	E	E	G2T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	34	specific area	Fair	20020326	STATE-CAMP SAN LUIS OBISPO	None	None	G5T2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	35	specific area	Excellent	XXXXXXXX	CITY OF SAN LUIS OBISPO	None	None	G2	S2	1B.2
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	16	specific area	Excellent	2011XXXX	CITY OF SAN LUIS OBISPO	E	E	G2T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	32	specific area	Fair	20030401	STATE-CAMP SAN LUIS OBISPO	None	None	G5T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	35	specific area	Fair	20000418	STATE-CAMP SAN LUIS OBISPO	None	None	G5T2	S2	1B.2

CNDDB Plant List

Scientific Name	Common Name	Occurrence Number	Accuracy	Occurrence Rank	Site Date	Land Owner/Manager	Federal Listing	CA Listing	Global Rank	State Rank	CNPS Rank
Calochortus obispoensis	San Luis mariposa-lily	36	specific area	Good	XXXXXXXX	CITY OF SAN LUIS OBISPO	None	None	G2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	43	specific area	Unknown	XXXXXXXX	CITY OF SAN LUIS OBISPO	None	None	G2	S2	1B.2
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	15	specific area	Excellent	2011XXXX	CITY OF SAN LUIS OBISPO	E	E	G2T2	S2	1B.2
Calochortus obispoensis	San Luis mariposa-lily	37	specific area	Good	XXXXXXXX	CITY OF SAN LUIS OBISPO	None	None	G2	S2	1B.2
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	7	specific area	Fair	2012XXXX	PVT	E	E	G2T2	S2	1B.2
Dudleya abramsii ssp. murina	mouse-gray dudleya	22	4/5 mile	Unknown	19500512	UNKNOWN	None	None	G4T2	S2	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	20	4/5 mile	Unknown	19940610	CSU-CAL POLY, SAN LUIS OBISPO	None	None	G4T2	S2	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	32	3/5 mile	Unknown	19780619	UNKNOWN	None	None	G4T2	S2	1B.3
Chorizanthe breweri	Brewer's spineflower	40	2/5 mile	Unknown	20110611	PVT?	None	None	G3	S3	1B.3
Chorizanthe breweri	Brewer's spineflower	36	2/5 mile	Unknown	19870507	UNKNOWN	None	None	G3	S3	1B.3
Chorizanthe breweri	Brewer's spineflower	13	specific area	Excellent	20110704	USFS-LOS PADRES NF	None	None	G3	S3	1B.3
Calochortus simulans	La Panza mariposa-lily	52	nonspecific area	Unknown	19800503	UNKNOWN, STATE, WILDL	None	None	G2	S2	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	12	specific area	Excellent	19920528	PVT	None	None	G4T2	S2	1B.3
Chorizanthe breweri	Brewer's spineflower	12	nonspecific area	Unknown	19870617	USFS-LOS PADRES NF	None	None	G3	S3	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	8	1/5 mile	Excellent	19930520	PVT	None	None	G4T2	S2	1B.3
Chorizanthe breweri	Brewer's spineflower	32	nonspecific area	Unknown	19930520	UNKNOWN	None	None	G3	S3	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	11	specific area	Good	19870508	PVT	None	None	G4T2	S2	1B.3
Chorizanthe breweri	Brewer's spineflower	20	specific area	Good	20130828	STATE-CAMP SAN LUIS OBISPO	None	None	G3	S3	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	15	specific area	Good	20090608	STATE-CAMP SAN LUIS OBISPO	None	None	G4T2	S2	1B.3
Chorizanthe breweri	Brewer's spineflower	18	specific area	Excellent	19870508	PVT	None	None	G3	S3	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	5	specific area	Good	19870427	UNKNOWN	None	None	G4T2	S2	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	25	specific area	Good	20120609	CITY OF SAN LUIS OBISPO, PVT	None	None	G4T2	S2	1B.3
Chorizanthe breweri	Brewer's spineflower	3	specific area	Fair	20030501	STATE-CAMP SAN LUIS OBISPO	None	None	G3	S3	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	6	specific area	Good	19870508	PVT	None	None	G4T2	S2	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	9	specific area	Good	19870219	UNKNOWN	None	None	G4T2	S2	1B.3
Chorizanthe breweri	Brewer's spineflower	17	specific area	Excellent	19870426	PVT	None	None	G3	S3	1B.3
Chorizanthe breweri	Brewer's spineflower	37	1/10 mile	Unknown	19870701	UNKNOWN	None	None	G3	S3	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	21	1/10 mile	Unknown	19800604	UNKNOWN	None	None	G4T2	S2	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	13	specific area	Fair	20020617	STATE-CAMP SAN LUIS OBISPO	None	None	G4T2	S2	1B.3
Chorizanthe breweri	Brewer's spineflower	27	specific area	Good	20090608	STATE-CAMP SAN LUIS OBISPO	None	None	G3	S3	1B.3
Chorizanthe breweri	Brewer's spineflower	23	specific area	Good	2009XXXX	CITY OF SAN LUIS OBISPO, PVT?	None	None	G3	S3	1B.3
Chorizanthe breweri	Brewer's spineflower	16	specific area	Excellent	19870426	PVT	None	None	G3	S3	1B.3
Chorizanthe breweri	Brewer's spineflower	39	specific area	Good	20050429	CITY OF SAN LUIS OBISPO, PVT	None	None	G3	S3	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	3	specific area	Unknown	19870926	PVT	None	None	G4T2	S2	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	19	specific area	Fair	20090620	PVT	None	None	G4T2	S2	1B.3
Chorizanthe breweri	Brewer's spineflower	4	specific area	Unknown	19840423	CSU-CAL POLY, SAN LUIS OBISPO	None	None	G3	S3	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	23	specific area	Good	19880625	UNKNOWN	None	None	G4T2	S2	1B.3
Chorizanthe breweri	Brewer's spineflower	6	specific area	Unknown	19840427	PVT	None	None	G3	S3	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	10	specific area	Unknown	1987XXXX	UNKNOWN	None	None	G4T2	S2	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	14	specific area	Fair	20010517	STATE-CAMP SAN LUIS OBISPO	None	None	G4T2	S2	1B.3
Chorizanthe breweri	Brewer's spineflower	21	80 meters	Unknown	20080510	CITY OF SAN LUIS OBISPO	None	None	G3	S3	1B.3
Chorizanthe breweri	Brewer's spineflower	22	80 meters	Fair	19930803	PVT	None	None	G3	S3	1B.3
Chorizanthe breweri	Brewer's spineflower	38	80 meters	Unknown	20110315	UNKNOWN	None	None	G3	S3	1B.3
Chorizanthe breweri	Brewer's spineflower	2	80 meters	Unknown	20050514	PVT	None	None	G3	S3	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	24	80 meters	Good	20050604	CITY OF SAN LUIS OBISPO?	None	None	G4T2	S2	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	16	80 meters	Good	2009XXXX	CITY OF SAN LUIS OBISPO	None	None	G4T2	S2	1B.3
Calochortus simulans	La Panza mariposa-lily	16	80 meters	Good	20050429	PVT	None	None	G2	S2	1B.3
Chorizanthe breweri	Brewer's spineflower	28	80 meters	Fair	20000611	STATE-CAMP SAN LUIS OBISPO	None	None	G3	S3	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	27	80 meters	Unknown	19930526	STATE-CAMP SAN LUIS OBISPO	None	None	G4T2	S2	1B.3
Chorizanthe breweri	Brewer's spineflower	26	80 meters	Good	20020618	STATE-CAMP SAN LUIS OBISPO	None	None	G3	S3	1B.3
Chorizanthe breweri	Brewer's spineflower	19	specific area	Good	20080615	PVT	None	None	G3	S3	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	17	specific area	Good	20080615	DWR, PVT-SPRR	None	None	G4T2	S2	1B.3
Chorizanthe breweri	Brewer's spineflower	7	specific area	Unknown	19840425	CITY OF SAN LUIS OBISPO	None	None	G3	S3	1B.3
Dudleya abramsii ssp. murina	mouse-gray dudleya	31	specific area	Unknown	201305XX	UNKNOWN	None	None	G4T2	S2	1B.3

CNDDB Plant List

Scientific Name	Common Name	Occurrence Number	Accuracy	Occurrence Rank	Site Date	Land Owner/Manager	Federal Listing	CA Listing	Global Rank	State Rank	CNPS Rank
Chorizanthe breweri	Brewer's spineflower	14	specific area	Unknown	19870926	PVT	None	None	G3	S3	1B.3
Chorizanthe breweri	Brewer's spineflower	47	specific area	Unknown	20130828	UNKNOWN	None	None	G3	S3	1B.3
Calochortus simulans	La Panza mariposa-lily	54	specific area	Good	20090605	DOD-CALIFORNIA NATIONAL GUARD	None	None	G2	S2	1B.3
Calochortus simulans	La Panza mariposa-lily	53	specific area	Fair	20090608	DOD-CALIFORNIA NATIONAL GUARD	None	None	G2	S2	1B.3
Senecio aphanactis	chaparral ragwort	13	1 mile	Unknown	19400320	UNKNOWN	None	None	G3	S2	2B.2
Senecio aphanactis	chaparral ragwort	12	1/5 mile	Unknown	19270410	UNKNOWN	None	None	G3	S2	2B.2
Senecio aphanactis	chaparral ragwort	35	specific area	Fair	20020226	STATE-CAMP ROBERTS MR	None	None	G3	S2	2B.2

Notes: All occurrences were listed as "presumed extant" and "natural/native occurrences"; E-Endangered

APPENDIX F

PROJECT DESIGN PLANS

CITY OF SAN LUIS OBISPO

PROJECT PLANS FOR THE CONSTRUCTION OF THE RAILROAD SAFETY TRAIL TAFT TO PHILLIPS PROJECT

SPECIFICATION NUMBER 91111

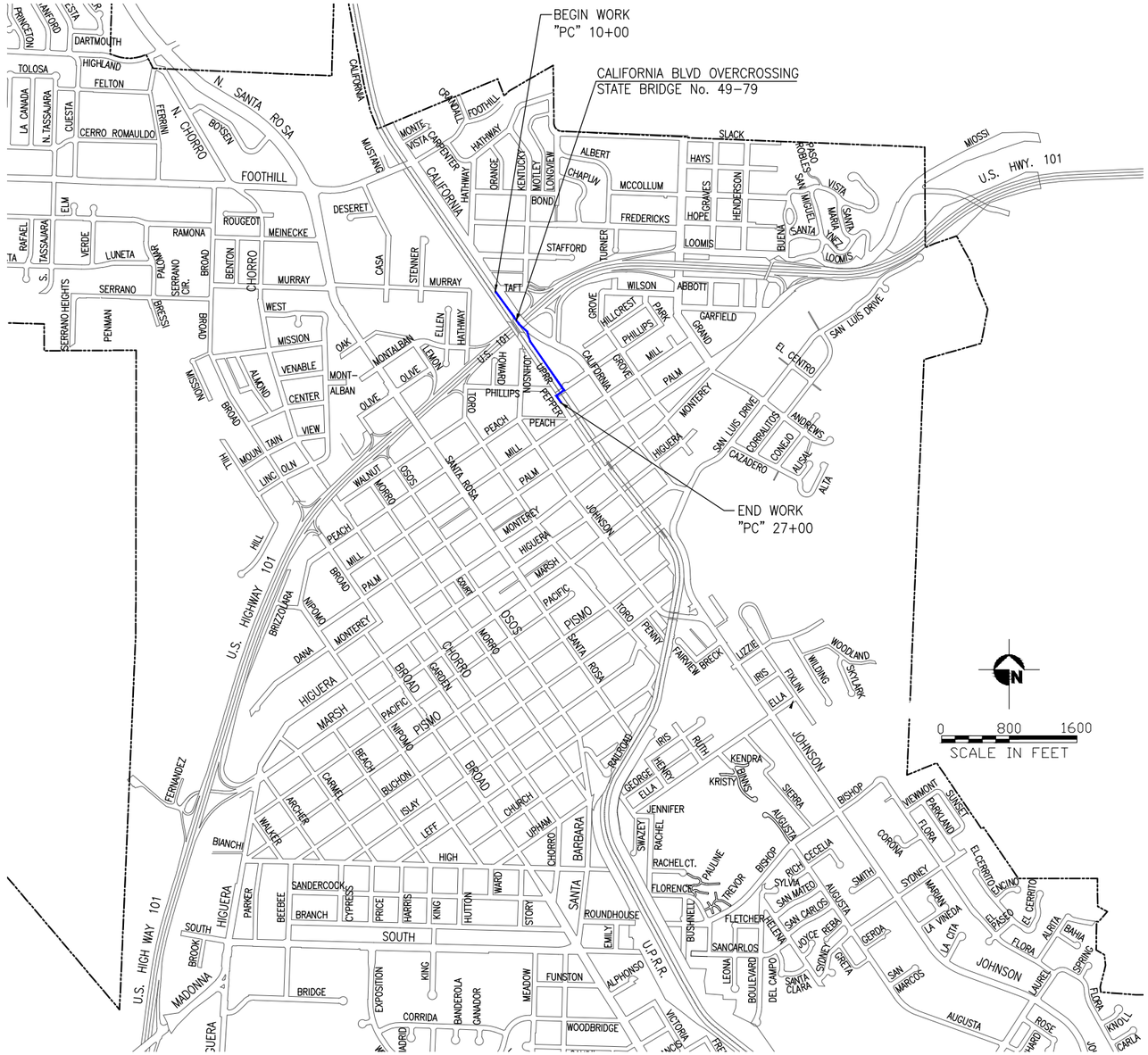
abbreviations

PVI – POINT OF VERTICAL INTERSECTION
LVC – LENGTH OF VERTICAL CURVE
"PC" – PROPOSED CENTERLINE ALIGNMENT
OG – ORIGINAL GROUND
PG – PROFILE GRADE
BB – BEGIN BRIDGE
EB – END BRIDGE
ELEV – ELEVATION
BVCE – BEGIN VERTICAL CURVE ELEVATION
BVCS – BEGIN VERTICAL CURVE STATION
STA – STATION
EVCE – END VERTICAL CURVE ELEVATION
EVCS – END VERTICAL CURVE STATION
LVC – LENGTH OF VERTICAL CURVE
K – HORIZONTAL DISTANCE REQUIRED FOR 1% CHANGE IN SLOPE OF A VERTICAL CURVE
PCC – PORTLAND CEMENT CONCRETE
BC – BACK OF CURB OR BEGIN CURVE
PRC – POINT OF REVERSE CURVE
TC – TOP OF CURB
FG – FINISHED GRADE
LIP – LIP OF GUTTER
FL – FLOWLINE
ELEV – ELEVATION
Exist – EXISTING
Eng – ENGINEERING
Std – STANDARD

general notes

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR PERMITTEE TO CONTACT "UNDERGROUND SERVICE ALERT U.S.A." TOLL FREE AT 1–800–227–2600 FORTY–EIGHT (48) HOURS PRIOR TO START OF CONSTRUCTION, FOR LOCATION OF POWER, TELEPHONE, OIL AND NATURAL GAS UNDERGROUND FACILITIES. CONTRACTOR OR PERMITEE SHALL ALSO CONTACT THE APPROPRIATE AGENCY FOR THE LOCATION OF CABLE T.V., WATER, SEWER, DRAINAGE OR UNDERGROUND FACILITIES.

2. THE CONTRACTOR SHALL POSSESS A CLASS "A" LICENSE AT THE TIME THE CONTRACT IS AWARDED.



index to plans

Reference Documents:
City Standard Specifications – February 2014 Edition
City Engineering Standards – February 2014 Edition
Caltrans Standard Plans – 2010
Caltrans Standard Specifications – 2010

CITY OF SAN LUIS OBISPO
san luis obispo county, california
TRC
10680 White Rock Rd., Suite 100
Rancho Cordova, California 95670

REGISTERED PROFESSIONAL ENGINEER — No. ____ Exp. ____ CIVIL — STATE OF CALIFORNIA

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

NO.	DATE	REVISION DESCRIPTION	APPROVED
△			
△			
△			

APPROVED BY CITY OF SAN LUIS OBISPO

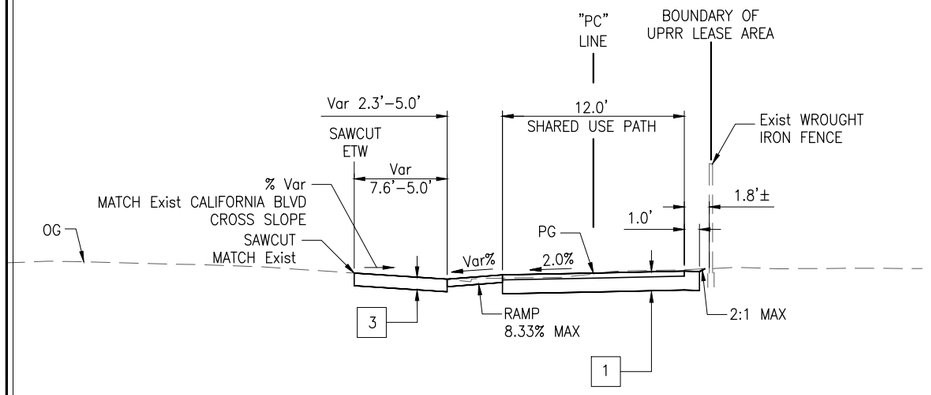
CITY ENGINEER

REGISTERED PROFESSIONAL ENGINEER — BARBARA LYNCH — No. C 53418 — CIVIL — STATE OF CALIFORNIA

DATE 2/3/16

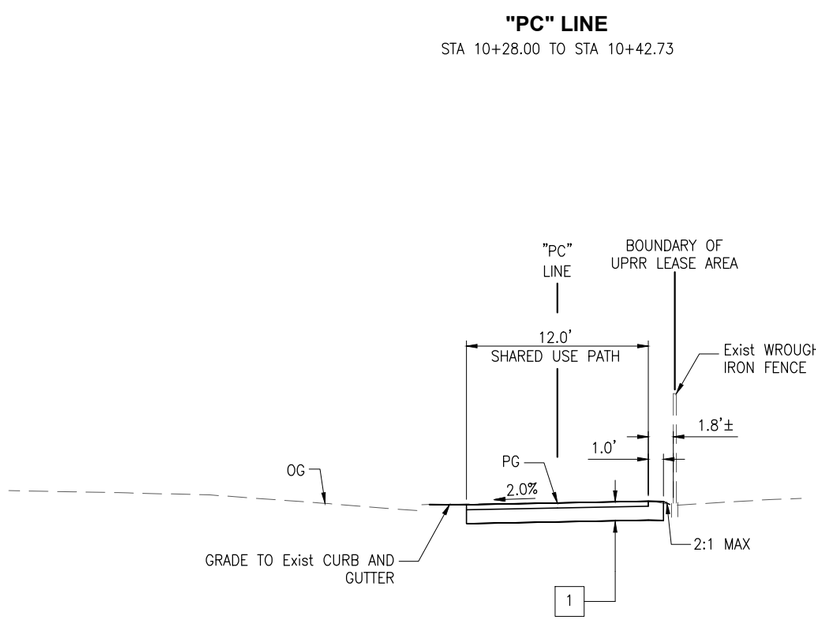
FILE NO./LOCATION

SHEET 1 OF 13



"PC" LINE

STA 10+28.00 TO STA 10+42.73



"PC" LINE

STA 10+00.00 TO STA 10+28.00

PAVEMENT STRUCTURAL SECTIONS

1 — 0.33' HOT MIX ASPHALT (TYPE A)
1.0' AB (CLASS 2) WITH TRIAXIAL GEOGRID (TENSAR TX 140 OR EQUAL) INSTALLED AT THE BOTTOM OF THE CLASS 2 BASE

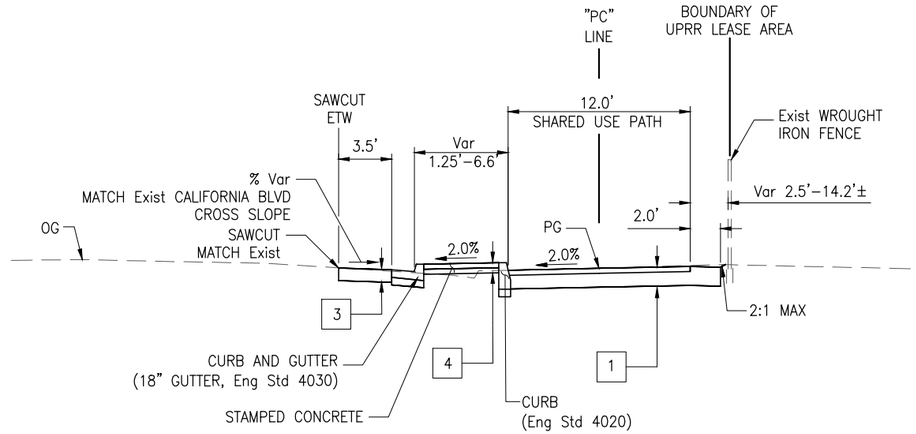
2 — 0.33' PCC CONCRETE
0.33' AB (CLASS 2)

3 — 0.83' HOT MIX ASPHALT (TYPE A)

4 — 0.33' PCC STAMPED CONCRETE
0.33' AB (CLASS 2)

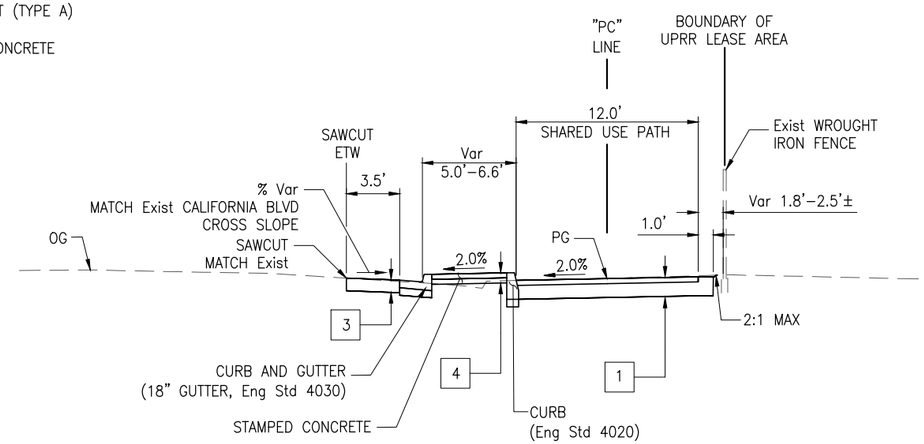
NOTES:

1. ETW IDENTIFIES THE LOCATION OF THE OUTER EDGE LINE TRAFFIC STRIPE.
2. ALL CURBS TO BE 6" HIGH AS MEASURED FROM ADJACENT PAVEMENT SURFACE.
3. THE TRIAXIAL GEOGRID TO BE BID AS AN ADDITIVE ALTERNATE.



"PC" LINE

STA 11+00.00 TO STA 12+61.35



"PC" LINE

STA 10+42.73 TO STA 11+00.00

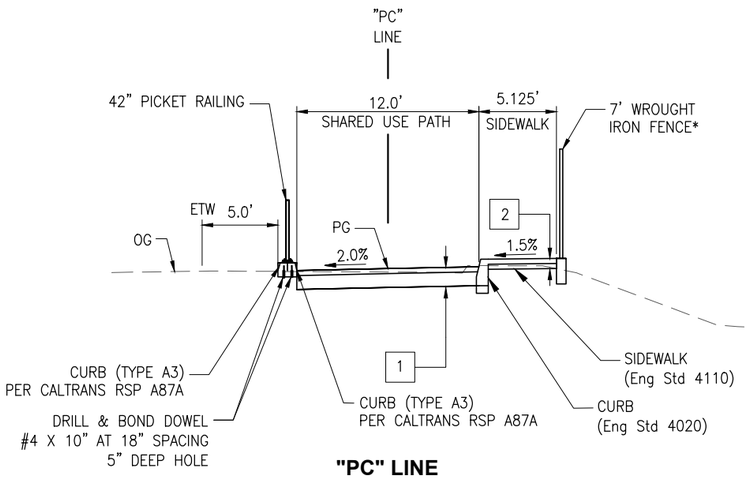
REGISTERED PROFESSIONAL ENGINEER
GLENN ARMSTRONG
No. 71443
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

CITY OF SAN LUIS OBISPO

PROJECT TITLE: RAILROAD SAFETY TRAIL - TAFT TO PEPPER

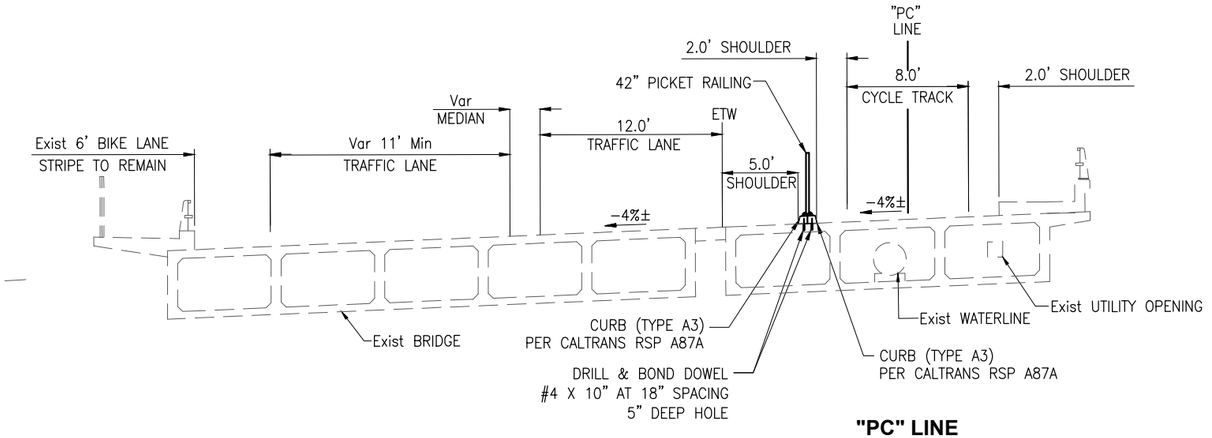
SHEET TITLE: TYPICAL SECTIONS

DESIGNED BY:	A. BEDAL
DRAWN BY:	A. BEDAL
CHECKED BY:	G. ARMSTRONG
APPROVED BY:	M. IMBRIANI
DATE:	2/3/16
CITY SPECIFICATION NO.	91111
SCALE:	NTS
SHEET NO.	2 of 13



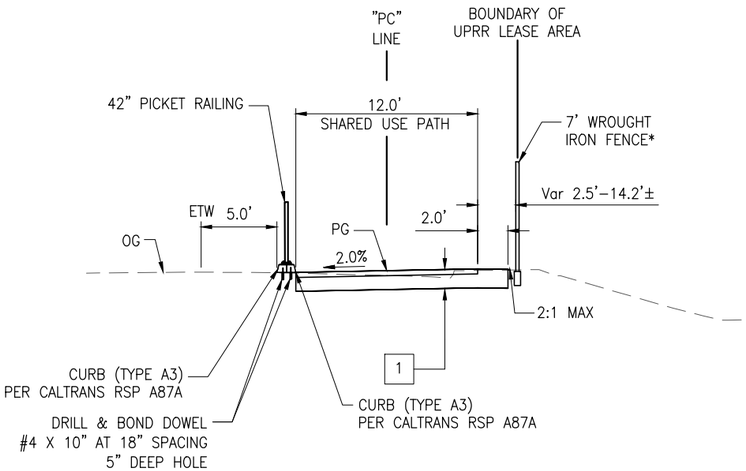
"PC" LINE

STA 12+75.00 TO STA 14+16.54



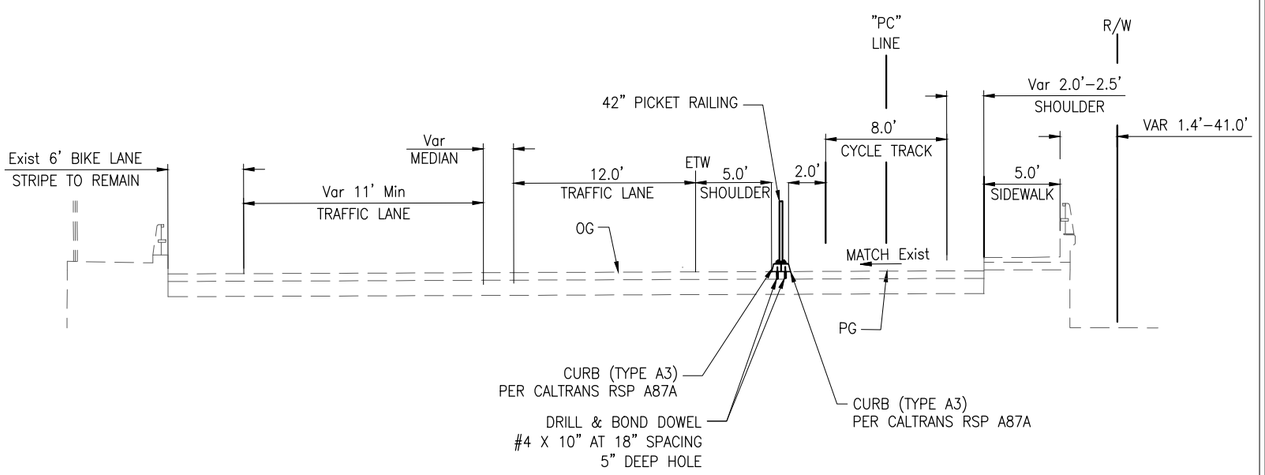
"PC" LINE

STA 14+56.97 TO STA 15+88.81



"PC" LINE

STA 12+61.35 TO STA 12+75.00



"PC" LINE

STA 14+16.54 TO STA 14+56.97
STA 15+88.81 TO STA 16+28.84

X-2

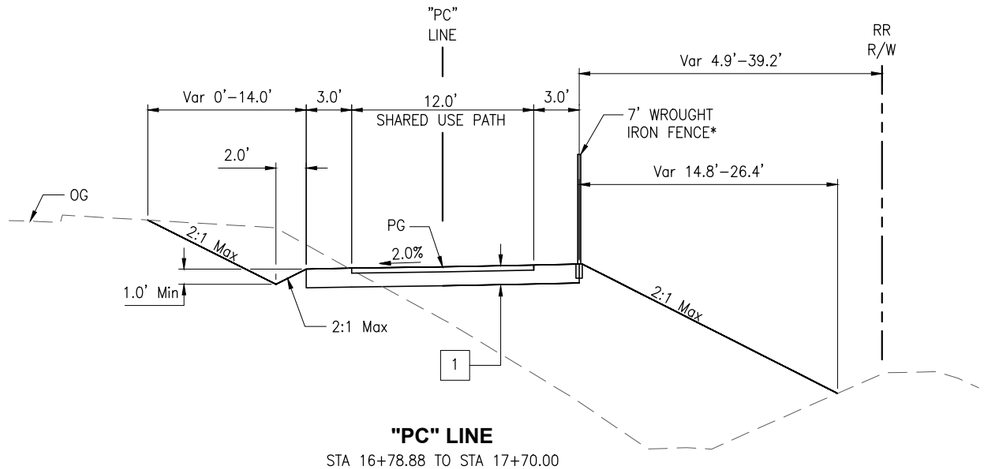
REGISTERED PROFESSIONAL ENGINEER
GLENN ARMSTRONG
No. 71443
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

CITY OF SAN LUIS OBISPO

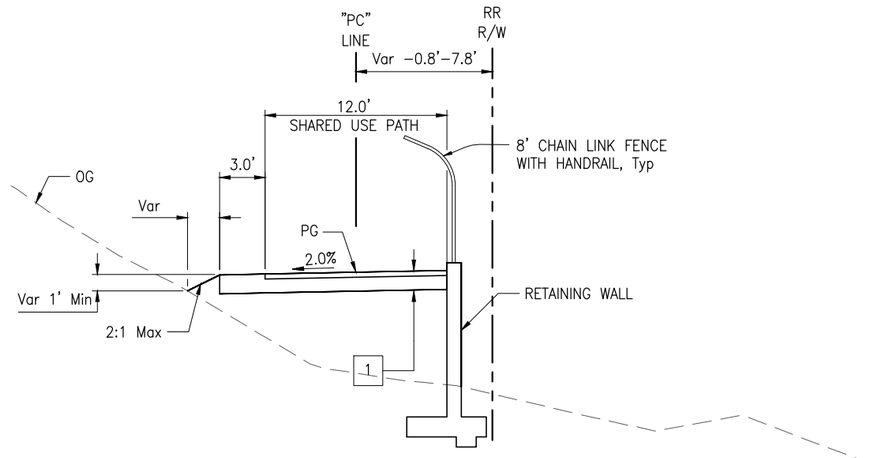
PROJECT TITLE: RAILROAD SAFETY TRAIL - TAFT TO PEPPER

SHEET TITLE: TYPICAL SECTIONS

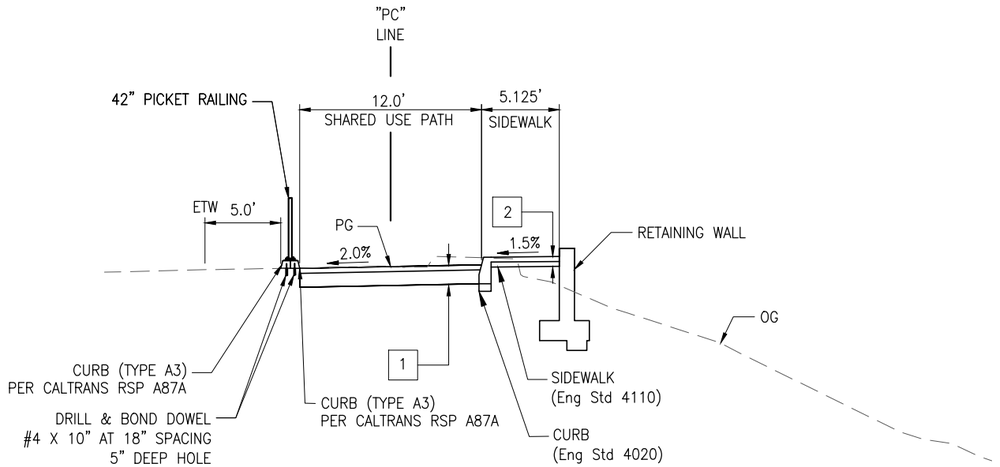
DESIGNED BY:	A. BEDAL
DRAWN BY:	A. BEDAL
CHECKED BY:	G. ARMSTRONG
APPROVED BY:	M. IMBRIANI
DATE:	2/3/16
CITY SPECIFICATION NO.	91111
SCALE:	NTS
SHEET NO.	3 of 13



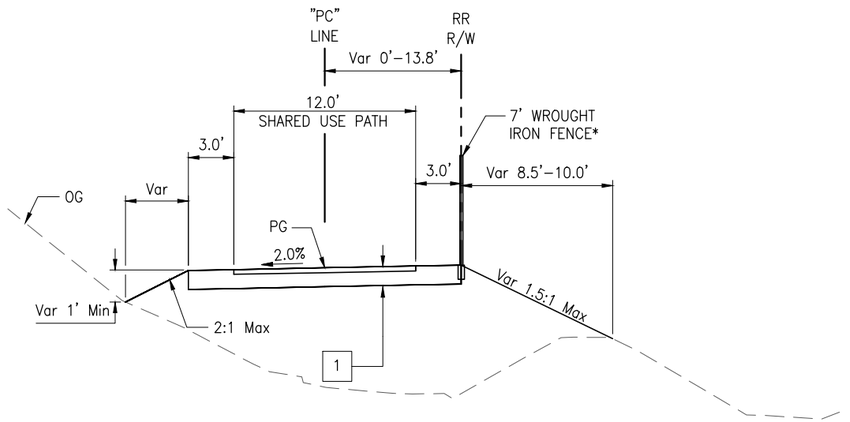
"PC" LINE
STA 16+78.88 TO STA 17+70.00



"PC" LINE
STA 21+25.00 TO STA 22+60.00
STA 18+70.00 TO STA 18+95.00



"PC" LINE
STA 16+28.84 TO STA 16+78.88



"PC" LINE
STA 17+70.00 TO STA 18+70.00
STA 18+95.00 TO STA 21+25.00

X-3

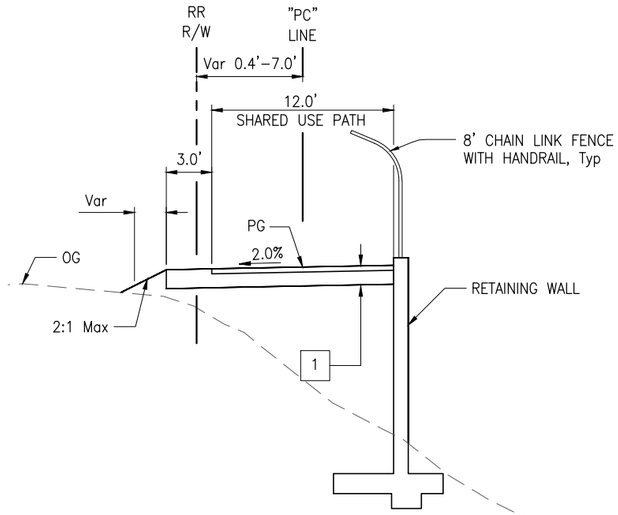
REGISTERED PROFESSIONAL ENGINEER
GLENN ARMSTRONG
No. 71443
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

CITY OF SAN LUIS OBISPO

PROJECT TITLE:
RAILROAD SAFETY TRAIL - TAFT TO PEPPER

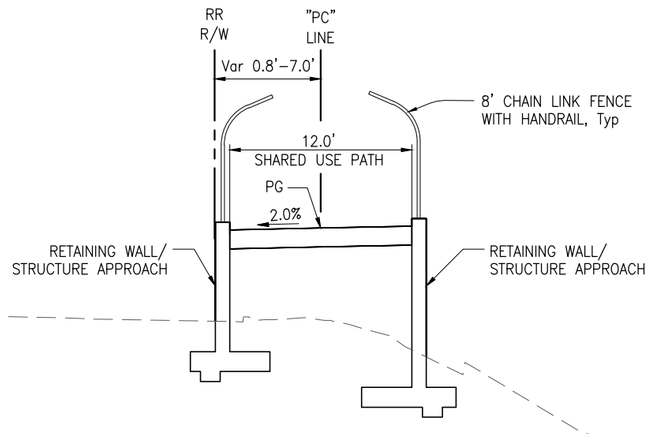
SHEET TITLE:
TYPICAL SECTIONS

DESIGNED BY:	A. BEDAL
DRAWN BY:	A. BEDAL
CHECKED BY:	G. ARMSTRONG
APPROVED BY:	M. IMBRIANI
DATE:	2/3/16
CITY SPECIFICATION NO.	91111
SCALE:	NTS
SHEET NO.	4 of 13



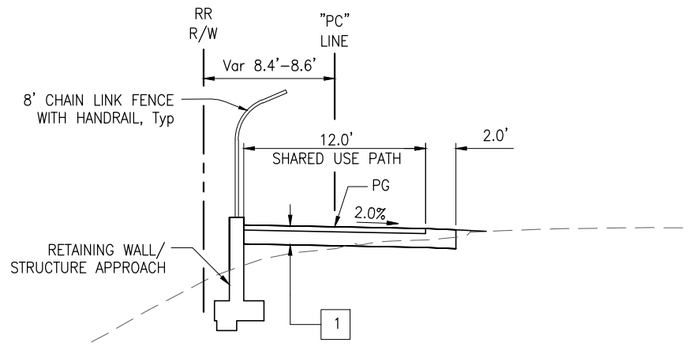
"PC" LINE

STA 23+95.00 TO STA 24+35.68



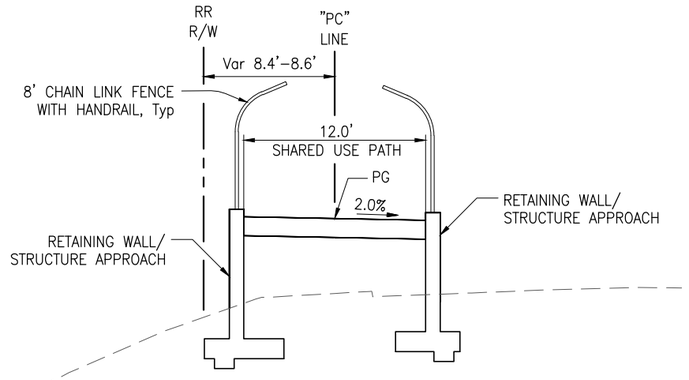
"PC" LINE

STA 22+60.00 TO STA 23+95.00



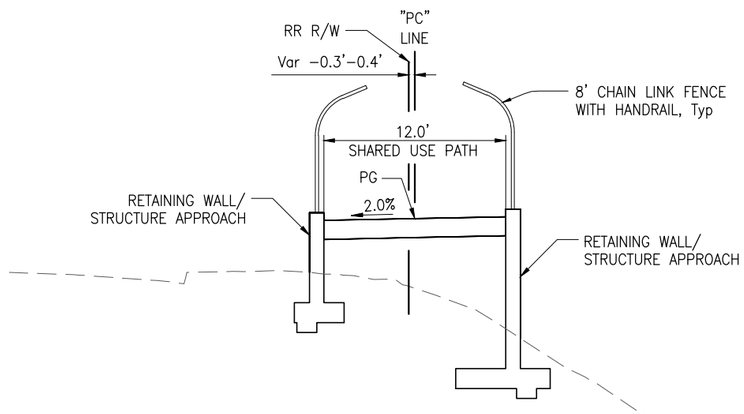
"PC" LINE

STA 26+89.00 TO STA 27+00.00



"PC" LINE

STA 25+88.00 (EB) TO STA 26+89.00



"PC" LINE

STA 24+35.68 TO STA 24+91.00 (BB)

X-4

REGISTERED PROFESSIONAL ENGINEER
GLENN ARMSTRONG
No. 71443
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

CITY OF SAN LUIS OBISPO

PROJECT TITLE: RAILROAD SAFETY TRAIL - TAFT TO PEPPER

SHEET TITLE: TYPICAL SECTIONS

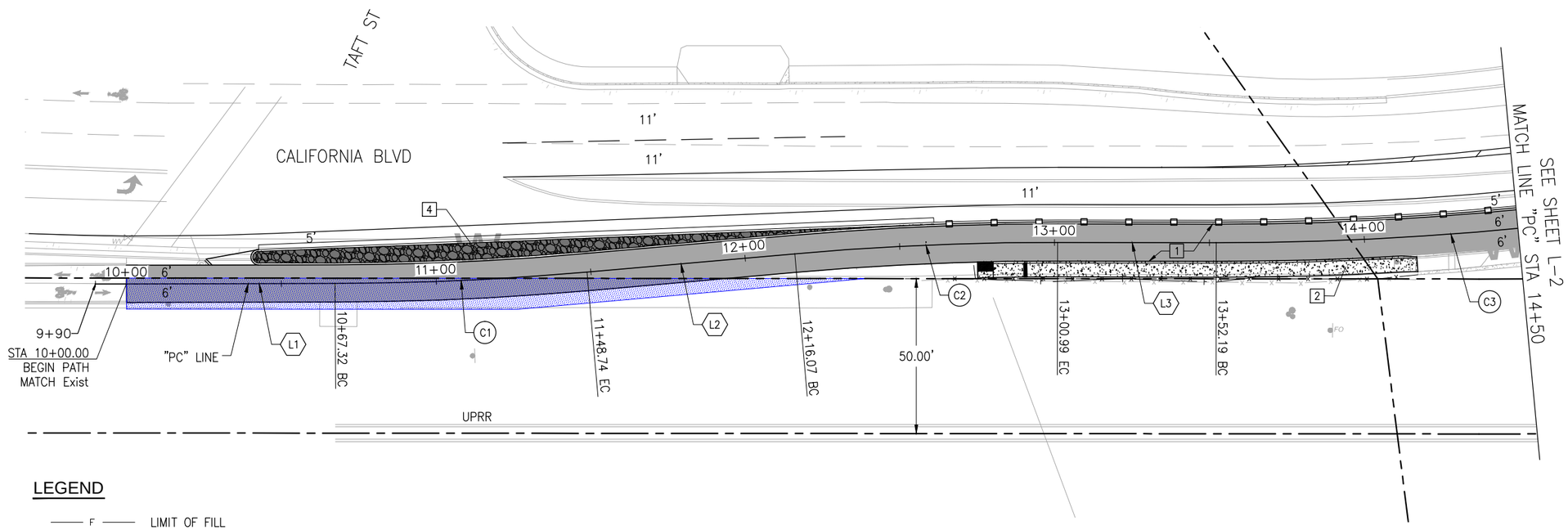
DESIGNED BY:	A. BEDAL
DRAWN BY:	A. BEDAL
CHECKED BY:	G. ARMSTRONG
APPROVED BY:	M. IMBRIANI
DATE:	2/3/16
CITY SPECIFICATION NO.	91111
SCALE:	NTS
SHEET NO.	5 of 13

CURVE DATA				
CURVE	R	Δ	T	L
C1	950.00'	4°54'38.52"	40.74'	81.42'
C2	950.00'	5°07'18.12"	42.49'	84.92'
C3	994.00'	14°29'20.04"	126.35'	251.36'

LINE TABLE		
LINE	DISTANCE	BEARING
L1	77.32'	S34°29'33"E
L2	67.33'	S39°24'11"E
L3	51.20'	S34°16'53"E

0 10' 20' 40'

SCALE:1"=20'



LEGEND

- F — LIMIT OF FILL
- C — LIMIT OF CUT
- x—x — WROUGHT IRON FENCE
- Exist R/W
- CENTERLINE OF Exist RAILROAD TRACKS
- PAVEMENT SAWCUT
- RETAINING WALL/STRUCTURE APPROACH
- PATH
- STAMPED CONCRETE
- SIDEWALK
- UPRR R/W PERMANENT EASEMENT
- UPRR T.C.E.
- CHP R/W TAKE

PLAN
1"=20'

L-1

REGISTERED PROFESSIONAL ENGINEER
GLENN ARMSTRONG
No. 71443
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

CITY OF SAN LUIS OBISPO

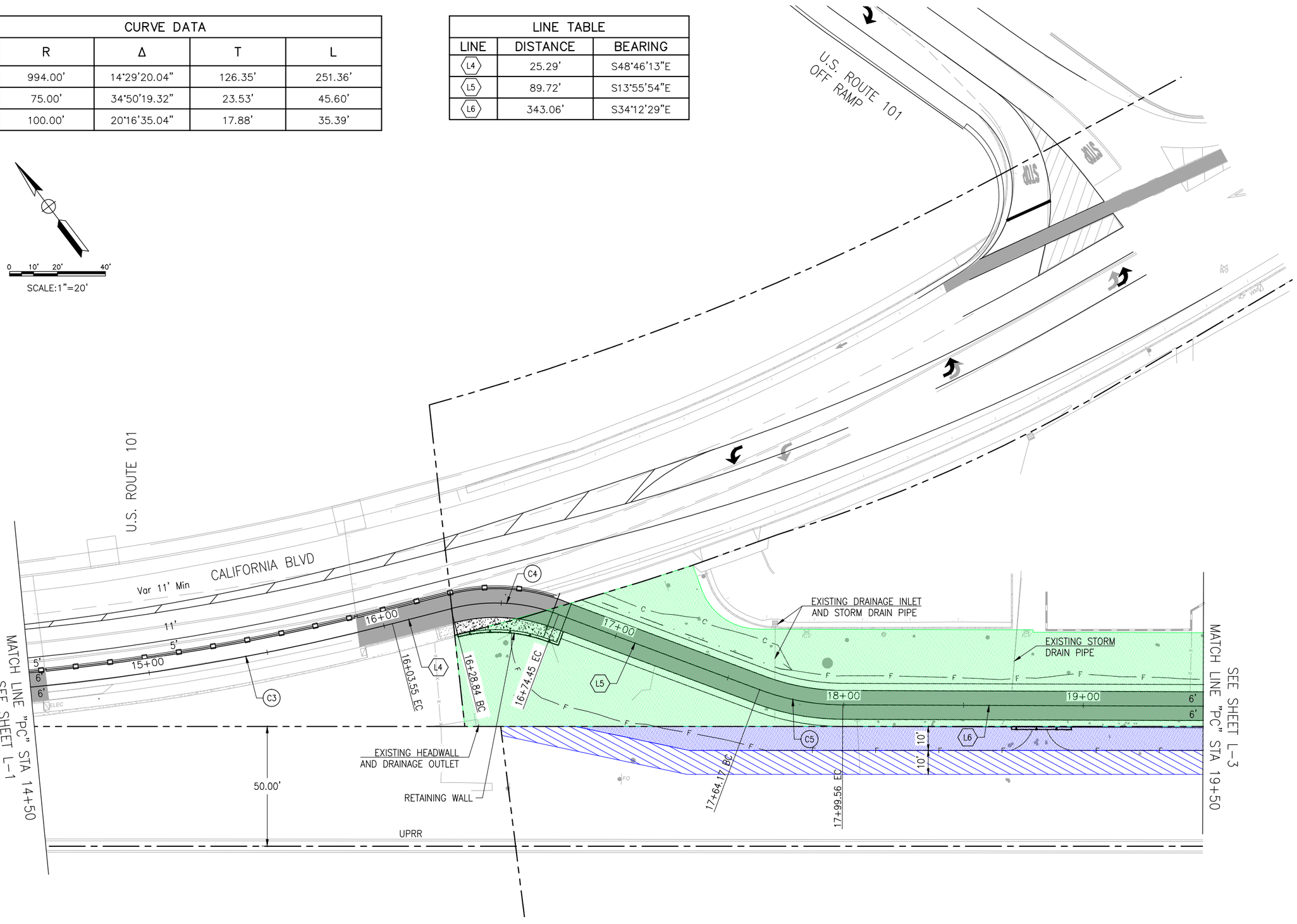
PROJECT TITLE: RAILROAD SAFETY TRAIL - TAFT TO PEPPER

SHEET TITLE: LAYOUT

DESIGNED BY: A. BEDAL
DRAWN BY: A. BEDAL
CHECKED BY: G. ARMSTRONG
APPROVED BY: M. IMBRIANI
DATE: 2/3/16
CITY SPECIFICATION NO. 91111
SCALE: 1" = 20'
SHEET NO. 6 of 13

CURVE DATA				
CURVE	R	Δ	T	L
C3	994.00'	14°29'20.04"	126.35'	251.36'
C4	75.00'	34°50'19.32"	23.53'	45.60'
C5	100.00'	20°16'35.04"	17.88'	35.39'

LINE TABLE		
LINE	DISTANCE	BEARING
L4	25.29'	S48°46'13"E
L5	89.72'	S13°55'54"E
L6	343.06'	S34°12'29"E



PLAN
1"=20'

L-2

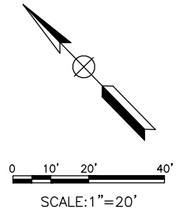
REGISTERED PROFESSIONAL ENGINEER
GLENN ARMSTRONG
No. 71443
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

CITY OF SAN LUIS OBISPO

PROJECT TITLE: **RAILROAD SAFETY TRAIL - TAFT TO PEPPER**

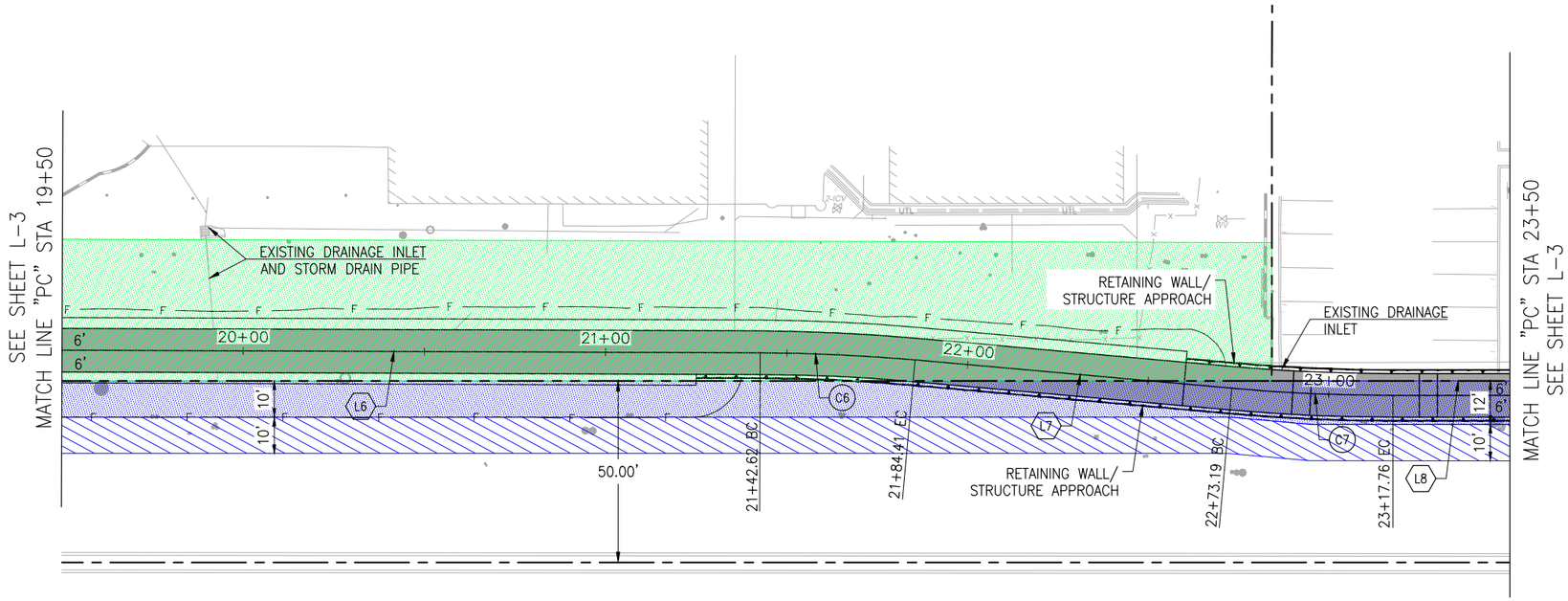
SHEET TITLE: LAYOUT

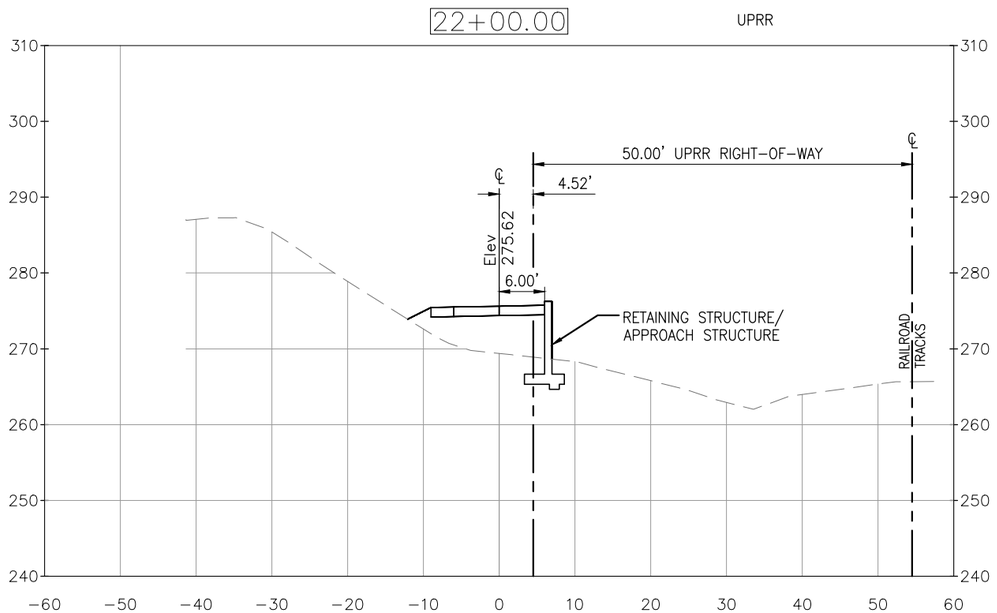
DESIGNED BY: A. BEDAL
DRAWN BY: A. BEDAL
CHECKED BY: G. ARMSTRONG
APPROVED BY: M. IMBRIANI
DATE: 2/3/16
CITY SPECIFICATION NO. 91111
SCALE: 1" = 20'
SHEET NO. 7 of 13

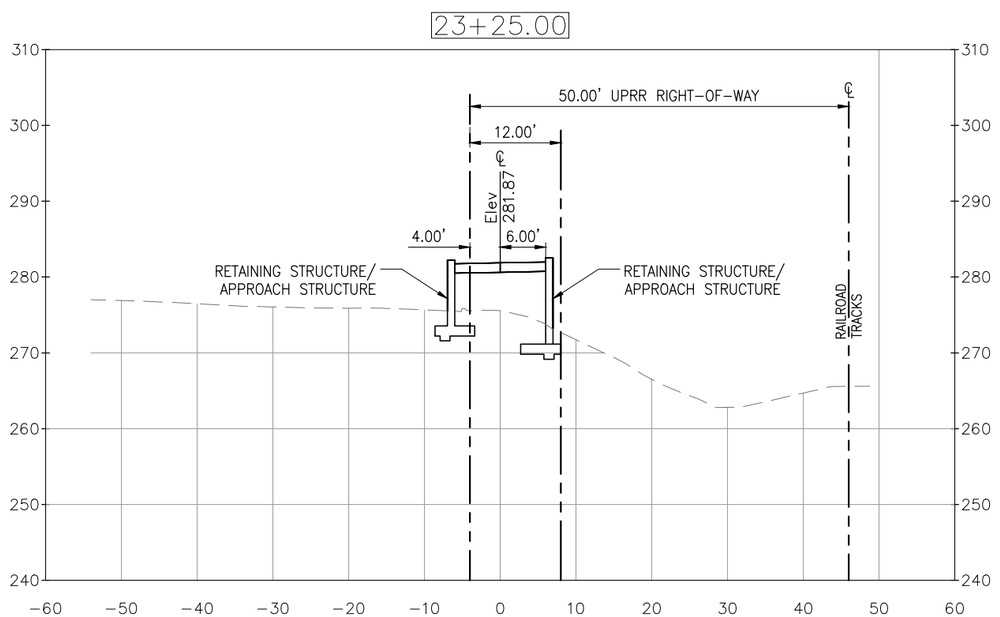


CURVE DATA				
CURVE	R	Δ	T	L
C6	500.00'	4°54'13.32"	21.41'	42.79'
C7	500.00'	5°06'23.76"	22.30'	44.56'
C8	100.00'	5°34'19.92"	4.87'	9.73'
C9	100.00'	5°34'19.92"	4.87'	9.73'

LINE TABLE		
LINE	DISTANCE	BEARING
L6	343.06'	S34°12'29"E
L7	87.78'	S29°18'15"E
L8	78.05'	S34°24'39"E
L9	31.46'	S39°58'59"E







L-3

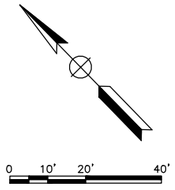
REGISTERED PROFESSIONAL ENGINEER
GLENN ARMSTRONG
No. 71443
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

CITY OF SAN LUIS OBISPO

PROJECT TITLE:
RAILROAD SAFETY TRAIL - TAFT TO PEPPER

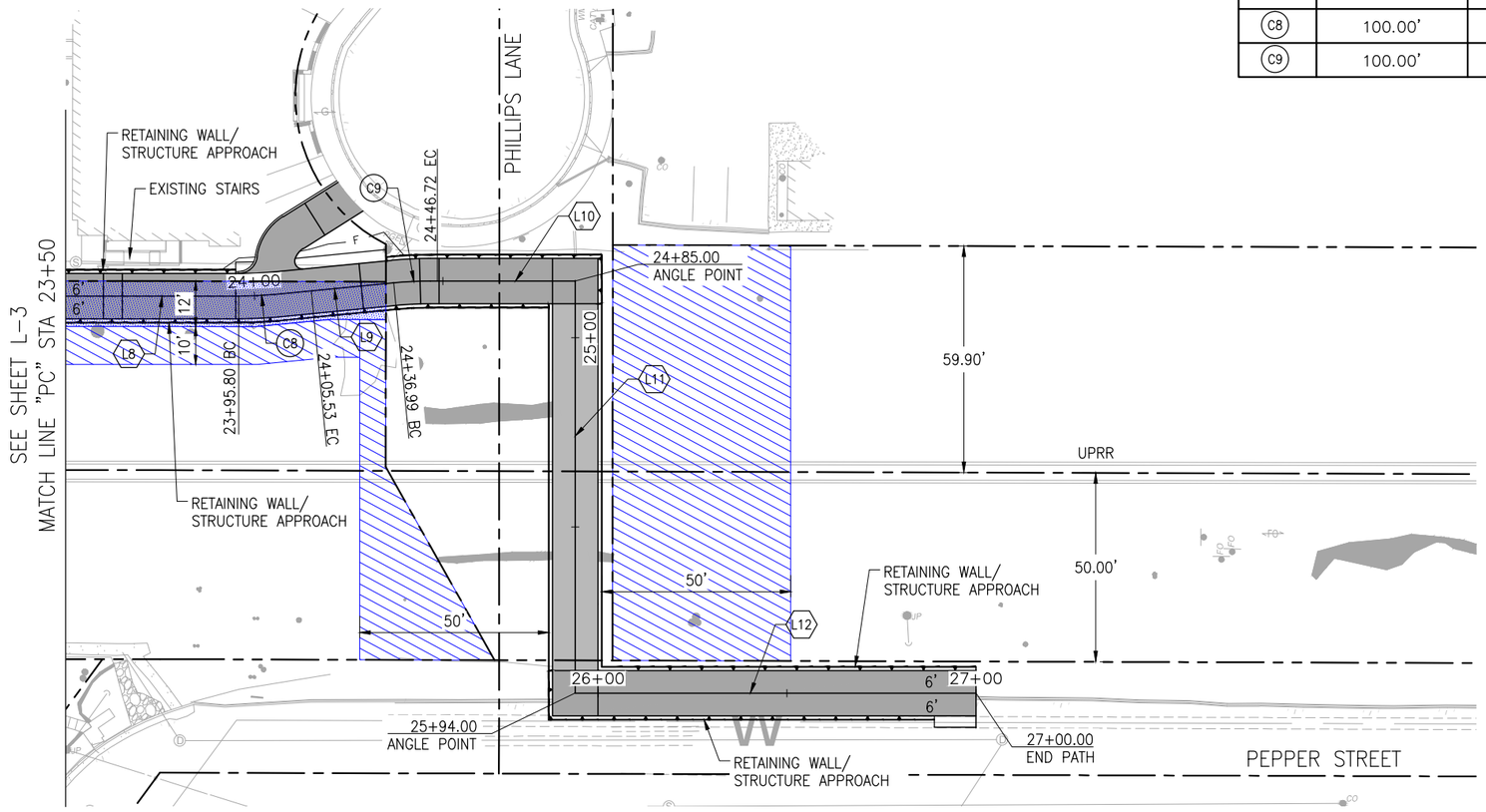
SHEET TITLE:
LAYOUT

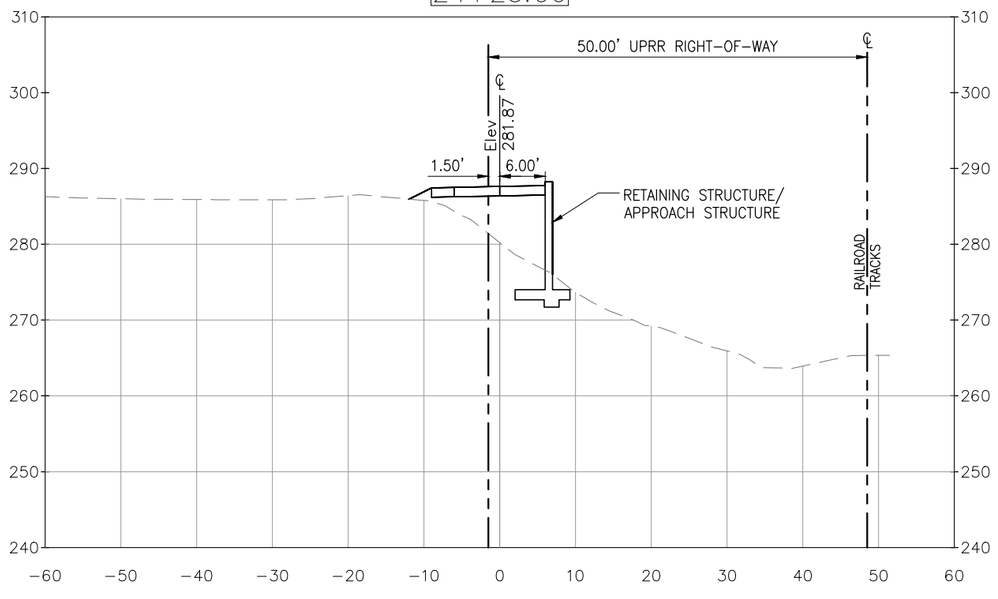
DESIGNED BY:	A. BEDAL
DRAWN BY:	A. BEDAL
CHECKED BY:	G. ARMSTRONG
APPROVED BY:	M. IMBRIANI
DATE:	2/3/16
CITY SPECIFICATION NO.	91111
SCALE:	1" = 20'
SHEET NO.	8 of 13

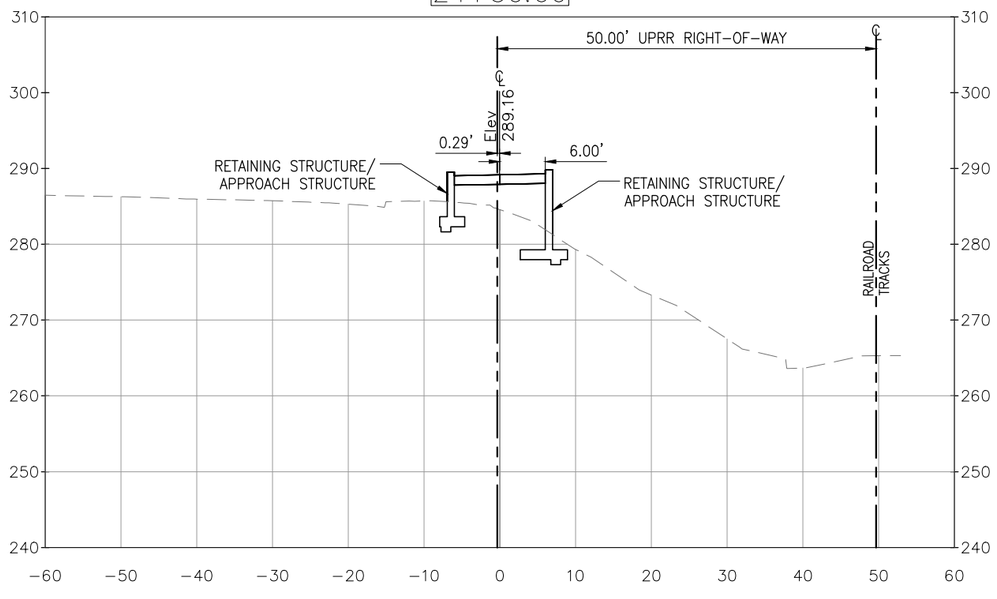


CURVE DATA				
CURVE	R	Δ	T	L
C8	100.00'	5°34'19.92"	4.87'	9.73'
C9	100.00'	5°34'19.92"	4.87'	9.73'

LINE TABLE		
LINE	DISTANCE	BEARING
L10	38.28'	S34°24'39"E
L11	109.00'	S55°35'21"E
L12	106.00'	S34°24'39"E







L-4

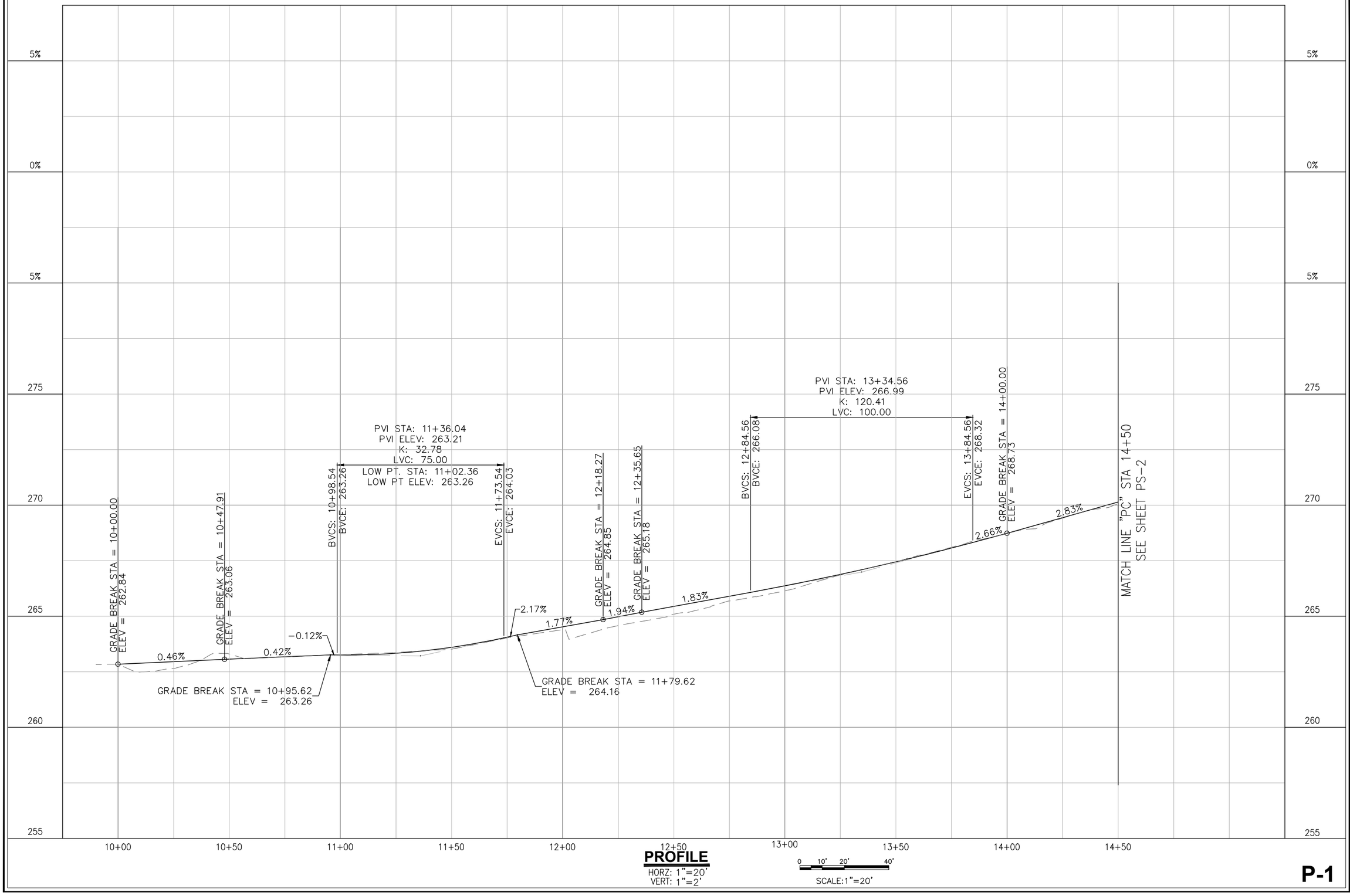
REGISTERED PROFESSIONAL ENGINEER
GLENN ARMSTRONG
No. 71443
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

CITY OF SAN LUIS OBISPO

PROJECT TITLE:
RAILROAD SAFETY TRAIL - TAFT TO PEPPER

SHEET TITLE:
LAYOUT

DESIGNED BY: A. BEDAL
DRAWN BY: A. BEDAL
CHECKED BY: G. ARMSTRONG
APPROVED BY: M. IMBRIANI
DATE: 2/3/16
CITY SPECIFICATION NO. 91111
SCALE: 1" = 20'
SHEET NO. 9 of 13



PROFILE
HORZ: 1"=20'
VERT: 1"=2'

0 10' 20' 40'
SCALE:1"=20'

P-1

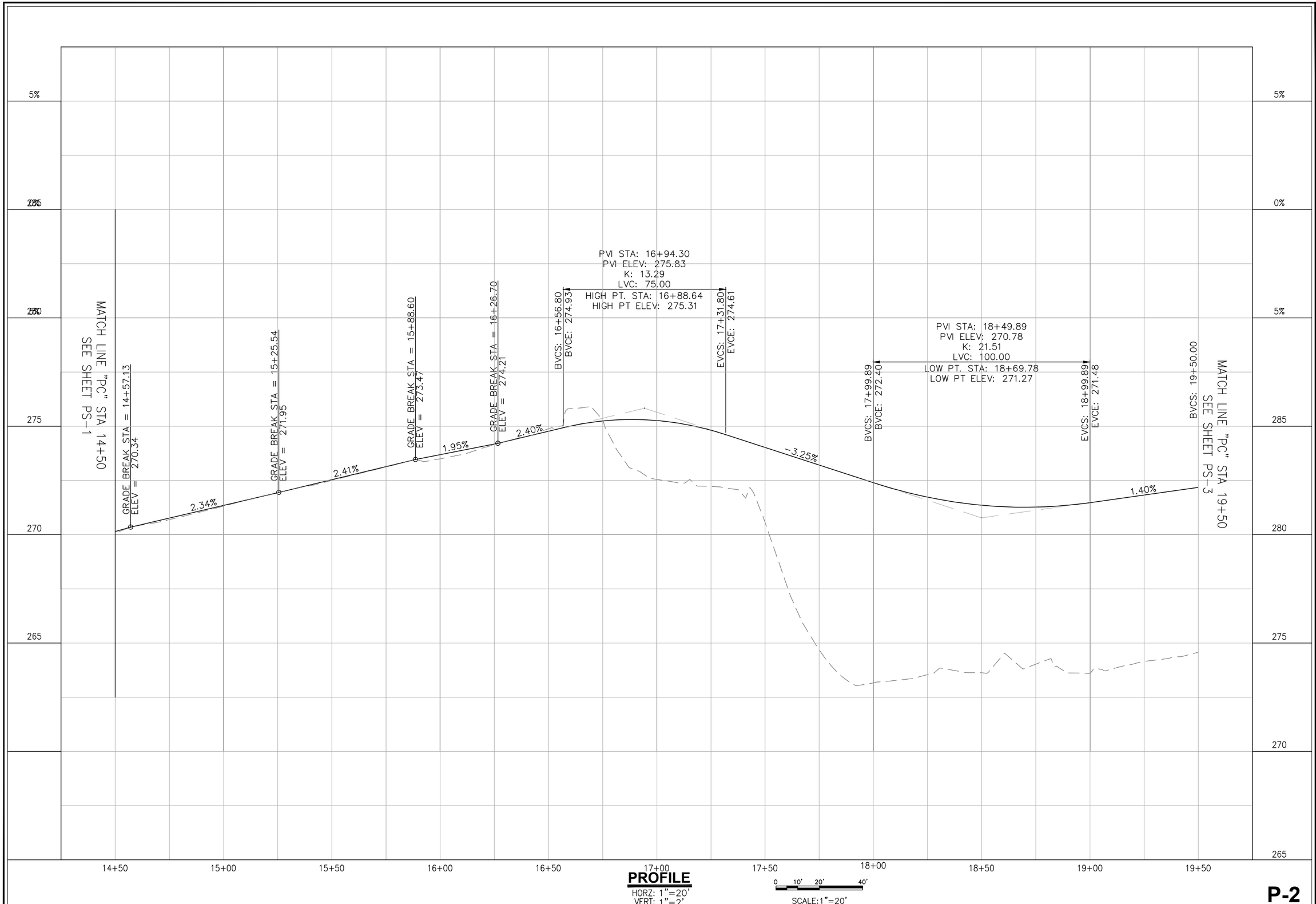
REGISTERED PROFESSIONAL ENGINEER
GLENN ARMSTRONG
No. 71443
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

CITY OF SAN LUIS OBISPO

PROJECT TITLE: **RAILROAD SAFETY TRAIL TAFT TO PHILLIPS**

SHEET TITLE: PROFILE

DESIGNED BY:	A. BEDAL
DRAWN BY:	A. BEDAL
CHECKED BY:	G. ARMSTRONG
APPROVED BY:	M. IMBRIANI
DATE:	2/3/16
CITY SPECIFICATION NO.	91111
H / V SCALE RATIO	1/10
SHEET NO.	10 of 13



PROFILE
HORZ: 1"=20'
VERT: 1"=2'

0 10' 20' 40'
SCALE:1"=20'

P-2

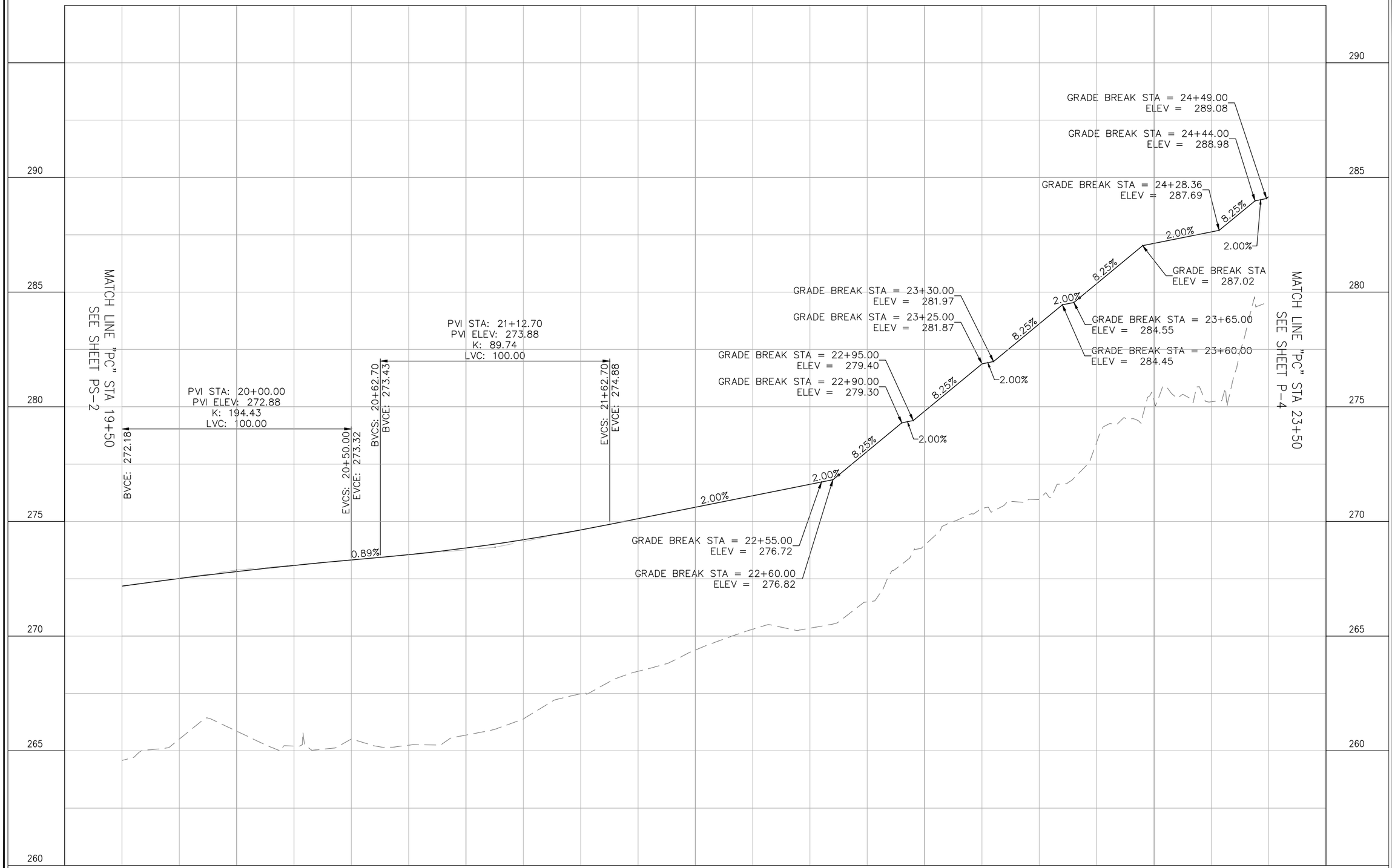
REGISTERED PROFESSIONAL ENGINEER
GLENN ARMSTRONG
No. 71443
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

CITY OF SAN LUIS OBISPO

PROJECT TITLE: **RAILROAD SAFETY TRAIL TAFT TO PHILLIPS**

SHEET TITLE: PROFILE

DESIGNED BY:	A. BEDAL
DRAWN BY:	A. BEDAL
CHECKED BY:	G. ARMSTRONG
APPROVED BY:	M. IMBRIANI
DATE:	2/3/16
CITY SPECIFICATION NO.	91111
H / V SCALE RATIO	1/10
SHEET NO.	11 of 13



PROFILE
HORZ: 1"=20'
VERT: 1"=2'

0 10' 20' 40'
SCALE:1"=20'

P-3

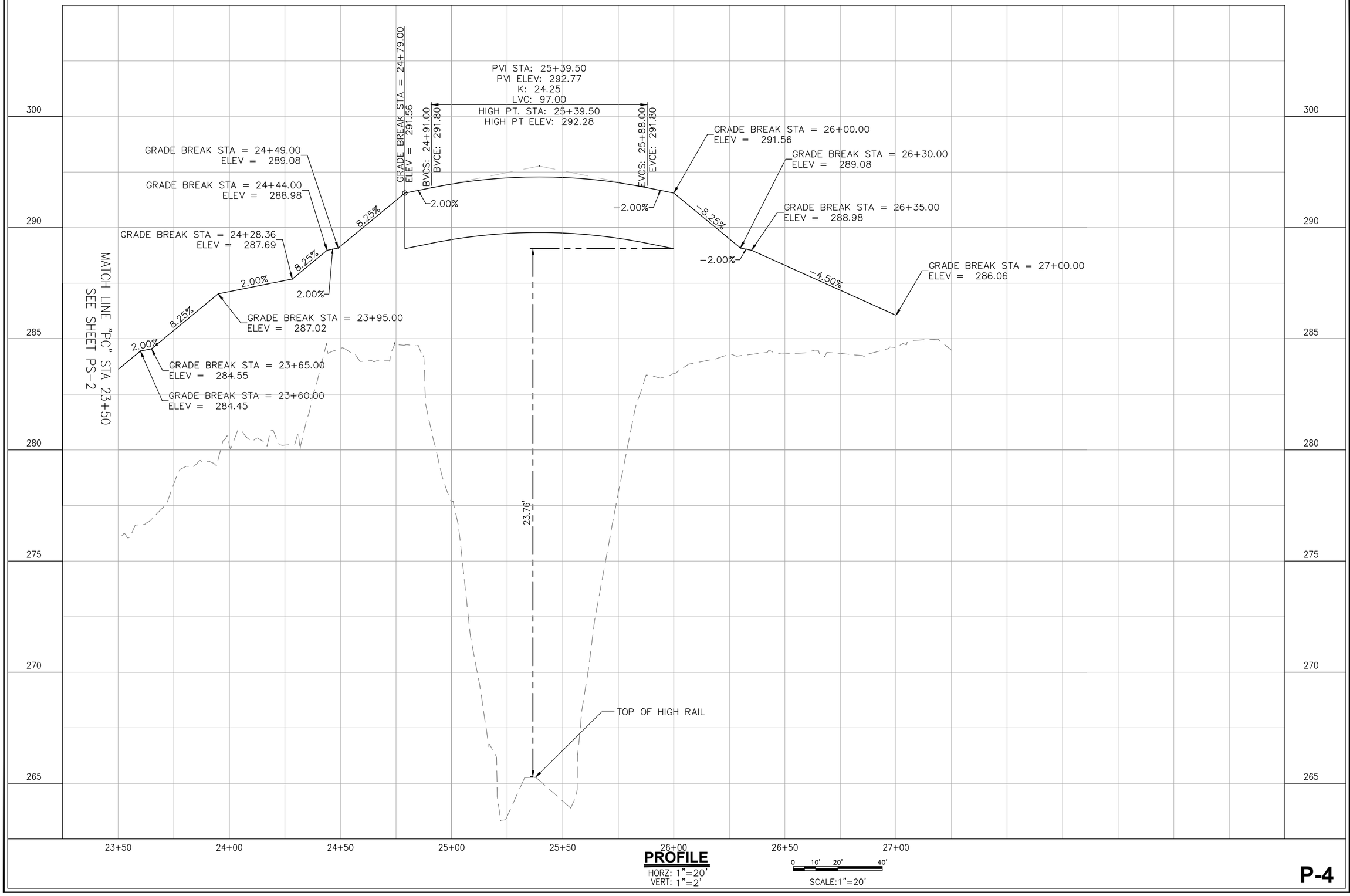
REGISTERED PROFESSIONAL ENGINEER
GLENN ARMSTRONG
No. 71443
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

CITY OF SAN LUIS OBISPO

PROJECT TITLE: RAILROAD SAFETY TRAIL TAFT TO PHILLIPS

SHEET TITLE: PROFILE

DESIGNED BY:	A. BEDAL
DRAWN BY:	A. BEDAL
CHECKED BY:	G. ARMSTRONG
APPROVED BY:	M. IMBRIANI
DATE:	2/3/16
CITY SPECIFICATION NO.	91111
H / V SCALE RATIO	1/10
SHEET NO.	12 of 13



PROFILE
HORZ: 1"=20'
VERT: 1"=2'

0 10' 20' 40'
SCALE:1"=20'

P-4

REGISTERED PROFESSIONAL ENGINEER
GLENN ARMSTRONG
No. 71443
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

CITY OF SAN LUIS OBISPO

PROJECT TITLE: **RAILROAD SAFETY TRAIL TAFT TO PHILLIPS**

SHEET TITLE: PROFILE

DESIGNED BY:	A. BEDAL
DRAWN BY:	A. BEDAL
CHECKED BY:	G. ARMSTRONG
APPROVED BY:	M. IMBRIANI
DATE:	2/3/16
CITY SPECIFICATION NO.	91111
H / V SCALE RATIO	1/10
SHEET NO.	13 of 13