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December 19, 2013

Dr. Jennifer Norris
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U.S. Fish and Wildlife Service
Endangered Species Division-Sacramento Valley Branch
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-3901

Attn: Jerry Roe

Dear Dr. Norris:

Pursuant to section 7 of the Endangered Species Act (16 U.S.C.A. Sec. 1531 et seq.), the California Department of Transportation (Caltrans) requests your concurrence that the State Route 85 (SR 85) Express Lanes Project (EA 4A7900) in Santa Clara County, California, may affect, but is not likely to adversely affect, any federally listed species or federally designated critical habitat under the United States Fish and Wildlife Service's (Service's) authority. The SR 85 Express Lanes Project (project) is located in the City of San Jose on U.S. Highway 101 (US 101) from Post Mile (PM) 23.1 to 28.6, in the Cities of Palo Alto and Mountain View on US 101 from PM 47.9 to 52.0, and from the City of San Jose to the City of Mountain View on SR 85 from PM 0.0 to 24.1 (Figure 1). Project plans are attached on CD due to their size.

Caltrans makes this request for concurrence as part of its responsibilities under the National Environmental Policy Act (NEPA) Assignment Memorandum of Agreement with the Federal Highway Administration (FHWA), effective October 1, 2012, which identifies Caltrans' participation in the Surface Transportation Project Delivery Program pursuant to 23 USC 327, as amended by the Moving Ahead for Progress in the 21st Century Act (MAP-21).

The proposed action is a covered project in the Santa Clara Valley Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP; CSC 2012). Several of the avoidance and minimization measures proposed in this letter are from the HCP/NCCP.

Following the implementation of conservation measures, Caltrans does not anticipate adverse effects to California red-legged frog (*Rana draytonii;* CRLF), California tiger salamander (*Ambystoma californiense*; CTS), bay checkerspot butterfly (*Euphydryas editha bayensis*), or Metcalf Canyon jewel-flower (*Streptanthus albidus ssp. albidus*) in the action

area.[i] These measures include restricting construction to seasonal work windows south of the SR 85/US 101 interchange in San Jose, providing environmental education to construction personnel, and installing Environmentally Sensitive Area (ESA) fencing and Wildlife Exclusion Fencing (WEF).

Description of the Proposed Action

The proposed action will convert the existing single high-occupancy vehicle (HOV) lanes on northbound and southbound SR 85 into express lane facilities. The conversion will allow single-occupant vehicles (SOVs) to pay a toll to use the lanes; HOVs will continue to use the lanes for free.

The project limits include the entire 24.1-mile length of SR 85, 4.1 miles of US 101 in Palo Alto and Mountain View, and 5.5 miles of US 101 in southern San Jose, for a total of 33.7 miles. The express lanes would extend along the length of SR 85 and a 1.5-mile segment of US 101 in San Jose between the southern end of SR 85 and Metcalf Road. The express lane facility will have one lane between US 101 in southern San Jose and State Route 87 (SR 87), two lanes between SR 87 and Interstate 280 (I-280), and one lane between I-280 and US 101 in Mountain View.

In the 4.1-mile segment of US 101 from the northern end of SR 85 in Mountain View to Oregon Expressway in Palo Alto, the project would add striping and signs but would not widen the roadway or change system or HOV lane access. No construction or staging will occur along the 2.2-mile segment of US 101 in San Jose between the southern end of SR 85 and Blossom Hill Road.

At the south end of the project in southern San Jose, both the northbound and southbound HOV direct connectors from SR 85 to US 101 will be converted to express connectors, allowing single-occupant vehicles with valid FasTrak devices to use the direct connectors. At the north end of the project in Mountain View, the express lane will end on SR 85 shortly before the SR 85/US 101 interchange. In the southbound direction, the express lane will start shortly after the direct connector terminates on SR 85.

<u>Construction Activities</u>

The following activities will take place as part of construction. No soundwalls, right-of-way (ROW) acquisitions, or in-water work is proposed.

Roadway Widening

On SR 85 between SR 87 and I-280, where the median width is approximately 46 feet, pavement widening will be conducted in the median to accommodate the second express lane. The median will be paved, and the existing thrie-beam barrier will be replaced with a Type 60 concrete barrier. In the areas where the median width is less than 46 feet, widening will occur in the available median width. Widening toward the outside shoulder is only

[i] As discussed below in the species-specific discussions, potential habitat for CRLF, CTS, bay checkerspot butterfly, and Metcalf Canyon jewel-flower only occurs in the portion of the action area south of the SR 85/US 101 interchange in San Jose.

proposed where an auxiliary lane will be added to northbound SR 85, as described further below (under "Auxiliary Lane").

Signage, Tolling, and Operations Systems
Overhead signs and tolling devices will be mounted on cantilever structures supported on cast-in-drilled-hole or driven piles. The piles for the overhead signs will be approximately 6 feet in diameter and extend to approximately 25 feet below ground surface. The piles for the tolling devices will be approximately 3.5 feet in diameter and will extend to 12 feet below ground surface.

The following Traffic Operations Systems (TOS) equipment will be installed along the outside edge of pavement within the existing ROW: approximately 25 closed circuit television cameras, 70 remote traffic monitoring station poles, 25 toll and enforcement gantries, and 120 cabinets and controllers. Approximately 70 maintenance vehicle pullouts will be installed in shoulder areas to allow access to the TOS equipment. The exact locations of these features have not been determined.

Bridge Widening
To conform to current Caltrans standards, the following bridges along SR 85 will be widened: Almaden Expressway, Camden Avenue, Oka Road, Pollard Road, Saratoga Avenue, San Tomas Aquino Creek, and Saratoga Creek. The existing gaps between the northbound and southbound bridges at these locations will be closed except at Almaden Expressway, where the northbound bridge will be widened on the inside (toward the median). No in-water work is proposed at San Tomas Aquino Creek or Saratoga Creek, and neither of the creeks contain habitat for federally listed species.

The widened bridges will be constructed using precast, prestressed concrete beams. All of the bridges will be widened in the median (the area between the two spans, northbound and southbound). The existing dimensions, number of spans, and proposed additional widths are listed in Table 1 (next page). At each bridge location, the bridge decks will likely be extended in width from the existing structures and supported by new abutments on either end to free-span the roads or creeks underneath.

At San Tomas Aquino and Saratoga creeks, the existing northbound and southbound bridge structures are cast-in-place, prestressed concrete box girders. The approximately 100-foot-long, single-span structures are supported on diaphragm type abutments founded on a single row of driven concrete piles. The proposed superstructure types for the widened structures will match the existing structures. Cast-in-place prestressed concrete box girder bridges will be constructed on falsework to span the creeks with supports located above the high water mark. New bent and falsework construction at San Tomas Aquino and Saratoga creeks will take place below the bridge deck. Small construction equipment such as a backhoe, bobcat, crane, dump truck, and compressor may be used within the construction areas (Table 2, next page). Construction will take place within the riparian zones of the creeks but above the ordinary high water marks.

Table 1: Bridges Being Widened

Bridge	Length	Width	Span
Almaden Expressway			
Northbound	236' 2 5/8'	83' and varies	Double
Widening	Inside Widening on Northbound: 12'		
Camden Avenue			
Southbound	203'-5"	89'-6" to 113'	Double
Northbound	208'	59'-6"	Double
Widening	Median Widening Width: 45'		
Pollard Road			
Southbound	195'-11 ½"	59'- 6"	Double
Northbound	182'-1 1/4"	59'- 6"	Double
Widening	Median Widening Width: 22'-6"		
Saratoga Avenue			
Southbound	189'-6 7/8"	59'- 6"	Double
Northbound	191'-6"	59'- 6"	Double
Widening	Median Widening Width: 22'-6"		
Oka Road			
Southbound	102'	56' to 63'-7"	Single
Northbound	97'	60'-6" to 64'-7"	Single
Widening	Median Widening Width: 33'		
San Tomas Aquino Creek			
Southbound	104'-7½"	59'- 6"	Single
Northbound	105'-2"	59'- 6"	Single
Widening	Median Widening Width: 22'-6"		
Saratoga Creek			
Southbound	99'-11"	56'	Single
Northbound	99'-11"	56'	Single
Widening	Median Widening Width: 22'-6"		

Table 2: Construction Areas at San Tomas Aquino and Saratoga Creeks

Location	Construction Area			
	Length (feet)	Width (feet)	Total Area	
			Square feet	Acres
San Tomas Aquino Creek, north bank	151	15	2,265	0.05
San Tomas Aquino Creek, south bank	151	8	1,208	0.03
Saratoga Creek, north bank	158	15	2,423	0.06
Saratoga Creek, south bank	158	13	2,054	0.05

The existing riprap between the abutments will be removed from the banks of San Tomas Aquino and Saratoga creeks using a backhoe positioned on the top of the bank. At Saratoga Creek, two trees (arroyo willow and big-leaf maple) and herbaceous understory vegetation in

an area of California sycamore woodland just below the top of the bank may be removed during bridge deck construction.

At Saratoga Creek, the contractor will access the north abutment from the rock/gravel area between the southbound mainline bridge and southbound off-ramp. To access the south abutment, the contractor will use the rock/gravel/dirt area between the northbound mainline bridge and the northbound on-ramp. To ensure safe access for equipment and construction personnel, the access areas will be slightly graded and, where needed, dirt will be placed on top of the existing riprap to create a smoother surface.

At San Tomas Aquino Creek, the contractor will access the abutments from the gravel/dirt area between the northbound and southbound mainline bridges. To ensure safe access for equipment and construction personnel, the access areas will be slightly graded and, where needed, dirt will be placed on top of the existing riprap to create a smoother surface.

Auxiliary Lane
An auxiliary lane will be added to a 1.1-mile segment of northbound SR 85 between the existing South De Anza Boulevard northbound on-ramp and Stevens Creek Boulevard northbound off-ramp. The existing pavement will be widened by up to 14 feet to the outside (northeast). To accommodate the auxiliary lane, sections of the existing abutments at South Stelling Road and McClellan Road overcrossings adjacent to northbound SR 85 will be removed and replaced by new retaining walls to support the embankments behind them. No culvert extensions, sound wall modifications, or additional right-of-way will be required. The depth of disturbance from the construction of roadway pavement and retaining wall foundations will be up to 5 feet.

Storm Water Treatment
Biofiltration swales are proposed to provide storm water treatment for impervious areas that will be added or reworked. The impervious areas are anticipated to total 75.4 acres. Biofiltration swales will be installed within the SR 85 interchanges at Cottle Road, Blossom Hill Road, Santa Teresa Boulevard, Almaden Expressway, Camden Avenue, Union Avenue, SR 17, South De Anza Boulevard, and I-280. All biofiltration swales are in the action area.

Culverts and Drainages
The proposed action will increase impervious area on SR 85 between I-280 and SR 87 by widening the pavement in the median and adding an auxiliary lane between South De Anza Boulevard and Stevens Creek Boulevard. To accommodate the widened pavement and additional drainage, the existing roadway drainage design will either be modified to fit with new drainage systems or be removed and replaced by new systems. Concentrated flow conveyance systems, such as ditches, berms, swales, flared end sections and outlet protection and velocity dissipation devices may be installed as part of the project. Overside drains or slope drains may be used to protect the roadbed from erosion. Outlet protection and velocity dissipation Best Management Practices (BMPs) will be placed at all drainage outlets that discharge into earth-lined ditches/basins.

Although the drainage facilities, including biofiltration swales, will be developed during the design phase, the project will not require the extension of existing culverts or the installation

of new culverts. No drainage work will occur within wetlands, non-wetland waters of the U.S. (including culverted waters of the U.S.), sensitive habitat, or on US 101 south of the SR 85 interchange in San Jose (between PM 23.1 and 28.6) or north of the SR 85 interchange in Mountain View (between PM 47.9 and 52.0).

Utility Work
Trenching will be conducted along the outside edge of pavement for installation of conduits. The maximum depth of trenching will be 3 to 5 feet below the roadway surface. Conduits will be jacked (tunneled) across the freeway to the median where needed to provide power and communication feeds to the new overhead signage, tolling equipment, and TOS equipment. The exact locations and impacts associated with the auxiliary structures will be determined during final design. There will be some deeper excavations in spot locations where casings of existing utility crossings will need to be extended.

Site Access and Staging
The proposed action will not require special haul roads. One-way traffic control and lane closures will be implemented during construction. Temporary concrete railing (K-rail) will be used with other traffic control devices to close lanes, shoulders, and median areas, and the available paved surfaces behind the K-rail will provide temporary storage, staging, or laydown areas. All equipment storage areas and staging areas south of the SR 85/US 101 interchange in San Jose will be in the median.

Areas that will be used for temporary storage, staging, or laydown are included in the project footprint.

General Conservation Measures
To reduce potential effects to federally listed species and their habitat, Caltrans proposes to incorporate construction Best Management Practices (BMPs) and avoidance and minimization measures into the proposed action. These measures will be communicated to the contractor through the use of special provisions included in the contract bid solicitation package. These measures include the following:

1. **Minimize Nighttime Work.** To the extent practicable, nighttime construction will be minimized. Except when necessary for construction, driver, or pedestrian safety, artificial lighting of the proposed project site during nighttime hours will be minimized to the maximum extent practicable.

2. **Vegetation Clearing and Weed Management.** Any vegetation that is within the project footprint will be cleared. Vegetation will be cleared only where necessary and will be cut above soil level except in areas that will be excavated for construction activities. This will allow plants that reproduce vegetatively to resprout after construction. All vegetation clearing and grubbing of woody vegetation will occur by hand or using light construction equipment such as backhoes. If vegetation clearing and grubbing occurs between February 15 and August 31, a qualified biologist(s) will survey for nesting birds within the area(s) to be disturbed including a perimeter buffer of 50 feet for passerines and 300 feet for raptors before vegetation clearing activities begin. All nest avoidance requirements of the Migratory Bird Treaty Act and

California Fish and Game Code will be observed. All cleared vegetation will be removed from the project footprint to prevent attracting animals to the project site. The contractor will be responsible for obtaining all permits, licenses and environmental clearances for properly disposing of such materials. A Service-approved biologist[ii] will be present during all vegetation clearing and grubbing activities. Prior to vegetation removal, the Service-approved biologist will thoroughly survey the area for CRLF, CTS, bay checkerspot butterfly and its host plants, and Metcalf Canyon jewel-flower. Once the Service-approved biologist has thoroughly surveyed the area, vegetation clearing and grubbing may continue without further restrictions on equipment; however, the Service-approved biologist will remain onsite to monitor for CRLF, CTS, bay checkerspot butterfly and its host plants, and Metcalf Canyon jewel-flower until all vegetation clearing and grubbing activities are complete. After project completion, all temporarily affected areas will be returned to original grade and contours to the maximum extent practicable, protected with proper erosion control materials, and revegetated with native species appropriate for the region and habitat communities on site.

3. **Construction Area Delineation Measures.** The following BMPs will be implemented during construction to ensure that disturbance to sensitive resources is limited to the maximum extent possible:
    a. Prior to construction, ESAs in the action area south of the SR 85/US 101 interchange in San Jose will be fenced off using ESA fencing. Placement of the ESA fencing will be done under the supervision of a Service-approved biologist. The ESAs will include wetlands, waters, and/or habitats that potentially support listed species and have been specifically identified to avoid during construction. ESA fencing may include, but is not limited to, temporary orange fencing to delineate the proposed limit of work in areas adjacent to sensitive resources, or to delineate and exclude sensitive resources from potential construction impacts. Contractor encroachment into ESAs will be prohibited (including the staging/operation of heavy equipment or casting of excavation materials). The ESA fencing will remain in place throughout the duration of the project, while construction activities are ongoing, and will be regularly inspected and fully maintained at all times. ESAs adjacent to the project footprint will be identified on contract plans and discussed in the Special Provisions. The final project plans will depict all locations where ESA fencing will be installed and will provide installation specifications. The bid solicitation package special provisions will clearly describe acceptable fencing material and prohibited construction-related activities including vehicle operation, material and equipment storage, access roads and other surface-disturbing activities within ESAs.
    b. Construction activity within the action area will be limited to vehicle and equipment operation within 10 feet from the edge of pavement on the segments located along US 101, north and south of the SR 85/US 101

[ii] Prior to initiation of the proposed action, the qualifications of the biological monitor(s) will be submitted to the Service and CDFW for approval. Such approved biologists are hereafter referred to as the "Service-approved biologists."

interchanges. For the segment of the project located along SR 85, construction will be limited to the ROW.

c. Before the onset of vegetation clearing, construction personnel will be informed about the importance of avoiding ground-disturbing activities outside the designated construction work area. The Resident Engineer, with support from qualified engineers, compliance specialists, and the Service-approved biologist, will monitor construction activities to successfully avoid any disturbance of sensitive resources outside the action area south of the SR 85/US 101 interchange in San Jose.

4. **Site Management Practices and Measures.** The following BMPs will be implemented related to general housekeeping during construction to ensure that impacts to wildlife are minimized:
    a. Project employees will be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.
    b. All food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed as necessary from the action area.

5. **On-site Soil Stabilization, Dust, and Sediment Control Measures.** A Storm Water Pollution Prevention Plan (SWPPP) and erosion and dust control measures will be developed and implemented for the project and will comply with the requirements of the Regional Water Quality Control Board (RWQCB). The SWPPP will provide guidance for design staff to include provisions in construction contracts for measures to protect sensitive areas and to prevent and minimize storm water and non-storm water discharges. In addition, the project will incorporate applicable measures specified in the HCP/NCCP (CSC 2012). These BMPs include, but are not limited to, the following.
    a. ESA fencing will be placed 5 feet away from each wetland feature.
    b. Appropriate erosion control measures will be used to reduce siltation and runoff of contaminants into wetlands and adjacent, ponds, streams, or riparian woodland/scrub habitat. The contractor will not be allowed to stockpile brush, loose soils, or other debris material on stream banks. Only native plant species will be used in erosion control or revegetation seed mix. Any hydroseed mulch used for revegetation must also be certified weed-free. Dry-farmed straw will not be used, and certified weed-free straw will be required where erosion control straw is to be used. Filter fences and mesh will be of material that will not entrap reptiles and amphibians. Erosion-control measures will be placed between a water or wetland and the outer edge of the project site (CSC 2012).
    c. All off-road construction equipment will be cleaned of potential noxious weed sources (mud, vegetation) before entry into the action area south of the SR 85/US 101 interchange in San Jose. Equipment will be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment components or specialized inspection tools is not required.
    d. Vehicles and equipment will be parked on pavement, existing roads, or

specified staging areas when not in use.

e. Trash generated by construction activities will be promptly and properly removed from the site (CSC 2012).
f. No construction or maintenance vehicles will be refueled within 200 feet of avoided wetlands and ponds unless a bermed and lined refueling area is constructed and hazardous material absorbent pads are available in the event of a spill (CSC 2012).
g. Equipment storage, fueling, and staging areas will be sited on disturbed areas or on non-sensitive nonnative grassland land cover types, when these sites are available, to minimize risk of direct discharge into riparian areas or other sensitive land cover types (CSC 2012).
h. All temporarily disturbed areas, such as staging areas, will be returned to pre-project or ecologically improved conditions within 1 year of the completing construction or the impact will be considered permanent. Alternatively, if active restoration is used to restore the site within 5 years and the restoration is successful, the impact will be considered temporary (CSC 2012).

Biological Review

A combination of database searches, a literature review, and technical field studies were conducted as part of the biological review for this project.

Database Searches and Literature Review

URS biologists reviewed the following special-status species data and literature describing biological resources in the biological study area (BSA)[iii] and vicinity:

- California Natural Diversity Data Base (CNDDB) (CDFG 2012 and CDFW 2013);
- California Native Plant Society (CNPS) online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2012);
- Service Sacramento Office's Endangered and Threatened Species list (Service 2012 and 2013, see enclosed list);
- CDFW Habitat Conservation Planning Branch (CDFG 2010);
- Western Bat Working Group's (WBWG) Regional Priority Matrix (WBWG 2007);
- Environmental Impact Statement (EIS) for the original construction of SR 85 (FHWA and Caltrans 1987);
- Biological Opinion (BO) for the US 101 Widening, SR 85/US 101 South Interchange, Riparian and Wetland Consolidated Biological Mitigation, Bailey Road Avenue Extension/US 101 Interchange, and Coyote Valley Research Park projects (USFWS # 1-1-01-F-186) (Service 2001); and
- Santa Clara Valley HCP/NCCP (CSC 2012).

[iii] The BSA is the area including and surrounding the action area that was studied by the Caltrans biologists or their representatives. The project footprint is the area directly affected by the proposed action. The action area is the area directly and indirectly affected by the proposed action. See Figure 2.

Technical Field Studies

URS biologists conducted the technical field studies for the proposed action. Survey types, dates, and personnel are presented in Table 3. Detailed descriptions of each study follow Table 3.

Table 3: Survey Type, Date, and Personnel

Survey Type and Date	*Personnel*
Site Reconnaissance and Wildlife Assessment	
July 13 , 2010	Casey Stewman (URS Botanist), Joe Bandel (URS)
October 25, 2011	Joe Bandel, Derek Jansen (URS)
Rare Plant Surveys	
July 13 and 21, 2010; August 4, 11, and 26, 2010; March 7 and 8, 2012	Casey Stewman, Joe Bandel
May 23 and 24, 2012	Emily Magnaghi (URS Botanist), Joe Bandel
Tree Surveys (Saratoga and San Tomas Aquino Creek Riparian Areas)	
March 15 and 16, 2012	Casey Stewman, Joe Bandel
Jurisdictional Delineation	
July 21, 2010; August 4, 11, and 26, 2010; September 1, 2010	Casey Stewman, Joe Bandel

Site Reconnaissance and Terrestrial Wildlife Habitat Assessment
URS biologists conducted a site reconnaissance and terrestrial wildlife habitat assessment survey of the BSA in July 2010 to characterize plant communities and wildlife habitats. An additional survey was conducted in October 2011. The availability of suitable habitat and the potential for a species to occur in the BSA were evaluated by comparing the proximity of verified species occurrences and the habitat characteristics in the BSA with habitat and life history requirements for each species. Habitat descriptions were primarily developed using digital resources available from the CDFW Wildlife Habitat Conservation Planning Branch (2010) and endangered species information from the Service Sacramento Field Office online database. Other resources included the CNDDB and the California Wildlife Habitat Relationships System (CWHR 2005).

Plant Communities and Special-Status Plants
URS biologists conducted a special-status plant survey and characterized the plant communities in the BSA. The potential for federally listed plant species to occur in the BSA was initially evaluated based on a literature review, a review of aerial photographs and information about the habitats in the BSA and project vicinity, and the range and habitat requirements of individual sensitive species. Following the initial evaluation, rare plant surveys were conducted in July and August 2010 and March and May 2012 to coincide with the blooming periods of all the special-status plants potentially occurring within the BSA.

The rare plant surveys did not include an assessment of a regional or local reference population or the preparation of a separate Rare Plant Report per the Service 1996 protocols. However, as required by the protocols, the surveys were conducted during the early, mid, and later blooming periods of the plant species expected to occur in the BSA; a vascular plant list was compiled; and the location of the observed rare plant species was recorded.

Tree Surveys
URS biologists conducted tree surveys in the San Tomas Aquino and Saratoga creek riparian corridors. Each tree within the riparian corridor was identified to species, the diameter at breast height (dbh) was measured, and the location recorded.

Jurisdictional Delineation
URS biologists delineated the project corridor in July, August, and September 2010 for jurisdictional wetlands and other waters using methodology established in the 1987 United States Army Corps of Engineers (USACE) *Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Reg*ion (USACE 2008). All features were inspected in the field for jurisdictional characteristics. Paired sample points were collected at representative locations throughout the BSA for wetlands and other waters of the United States.

Listed Species in the Action Area

According to the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) and the Service database, 11 special-status plants and 18 special-status animals appear in the United States Geological Survey quadrangles that include and surround the action area: Morgan Hill, Santa Teresa Hills, Los Gatos, San Jose West, San Jose East, Mountain View, Palo Alto, and Cupertino (Figures 3A and 3B). Table 4 (next page) lists these species and the rationale regarding their potential to occur within the project area. The project is located mainly in highly urbanized locations with high-volume traffic. The areas of construction consist primarily of paved or dirt shoulders with minimal vegetation.

The following federally listed species were determined to have potential to occur in the action area south of the SR 85/US 101 interchange in San Jose; however, no adverse effects are anticipated, as discussed in further detail below:

- California tiger salamander (*Ambystoma californiense*) – federal threatened
- California red-legged frog (*Rana draytonii*) – federal threatened
- Bay checkerspot butterfly (*Euphydryas editha bayensis*) – federal threatened
- Metcalf Canyon jewel-flower (*Streptanthus albidus* ssp. *albidus*) – federal endangered

While the Central California Coast Distinct Population Segment (DPS) steelhead is a federally listed species with potential to occur in streams that cross through the action area, it is not discussed further in this document because the species is regulated by the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS).

Table 4: Potential for Federally Listed or Proposed Species to Occur in the BSA

Scientific Name	Common name	Status[1]	General Habitat/Bloom Period/Elevation	Habitat Present/ Absent	Species Presence/Rationale
Plants					
Acanthomintha duttonii	San Mateo thornmint	FE	Serpentinite, chaparral, and Valley and foothill grassland. Blooms April-June. Elevation range 50-300 m.	Absent	Unlikely to occur in the BSA. The BSA is outside of the range of this species. No CNDDB occurrences are recorded within 1 mile of the BSA, and the species was not observed during surveys.
Castilleja affinis spp. *neglecta*	Tiburon paintbrush	FE	Valley and foothill grassland (serpentinite). Blooms April-June. Elevation range 60-4000 m.	Absent	Unlikely to occur in the BSA. Grassland habitat in the BSA is below the elevation range for this species. No CNDDB occurrences are recorded within 1 mile of the BSA, and the species was not observed during surveys.
Cirsium fontinale var. *fontinale*	Fountain thistle	FE	Serpentinite seeps, chaparral (openings), Cismontane woodland and valley and foothill grassland. Blooms May-October. Elevation range 45-175 m.	Absent	Unlikely to occur in the BSA. The BSA is outside of the range of this species. No CNDDB occurrences are recorded within 1 mile of the BSA, and the species was not observed during surveys.
Chorizanthe robusta var. *robusta*	robust spineflower	FE	Sandy or gravelly, chaparral (maritime), cismontane woodland (openings), coastal dunes, and coastal scrub.	Absent	Unlikely to occur in the BSA. Suitable habitat is not present in the BSA and the species was not observed during the surveys.
Dudleya setchellii	Santa Clara Valley dudleya	FE	Serpentinite, rocky, cismontane woodland, and valley and foothill grassland.	Absent	Serpentine rocky outcrops are not present in the BSA.,
Hesperolinon congestum	Marin dwarf-flax	FT	Serpentinite, chaparral, and valley and foothill grassland. Blooms: April-July. Elevation range 5-370 m.	Absent	Unlikely to occur in the BSA. The BSA is outside of the range of this species. No CNDDB occurrences are recorded within 1 mile of the BSA, and the species was not observed during surveys.
Holocarpha macradenia	Santa Cruz tarplant	FE	Coastal prairie, coastal scrub, valley and foothill grassland, often clay. Blooms June-October. Elevation range 10-220 m.	Absent	Unlikely to occur in the BSA. Valley and foothill grassland habitat is present in the BSA, however, the BSA is outside the known range of this species, and the species was not observed during the surveys.

Table 4: Potential for Federally Listed or Proposed Species to Occur in the BSA

Scientific Name	Common name	Status[1]	General Habitat/Bloom Period/Elevation	Habitat Present/ Absent	Species Presence/Rationale
Lasthenia conjugens	Contra Costa goldfields	FE	Cismontane woodland, playas, valley and foothill grassland, vernal pools, wet sites. Blooms March-June. Elevation range 0-470 m.	Absent	Unlikely to occur in the BSA. Valley and foothill grassland habitat is present in the BSA, however, the BSA is outside the known range of this species, and the species was not observed during the surveys.
Streptanthus albidus ssp. *albidus*	Metcalf Canyon jewel-flower	FE	Valley and foothill grassland (serpentinite).	Present	Valley and foothill grassland are present in the BSA. However, this species was not observed during the surveys.
Suaeda californica	California seablite	FE	Marshes and swamps (coastal salt).	Absent	Unlikely to occur in the BSA. No marshes or swamps suitable for this species are located in the BSA, and the species was not observed during the surveys.
Trifolium amoenum	two-fork clover	FE	Coastal bluff scrub, valley and foothill grassland, sometimes serpentinite. Blooms April-June. Elevation range 5-415 m.	Absent	Unlikely to occur in the BSA. Grassland habitat is present in the BSA, however, the BSA is outside the known range of this species and the species was not observed during the surveys.
Mammals					
Reithrodontomys raviventris	salt marsh harvest mouse	FE	Primary habitat is saline emergent wetlands with abundant pickleweed, but also requires non-submerged, salt-tolerant vegetation for escape during highest tides.	Absent	No emergent wetlands or suitable upland habitat for salt marsh harvest mouse is present in the BSA.
Vulpes macrotis mutica	San Joaquin kit fox	FE	Occurs primarily in San Joaquin Valley, with satellite populations in the southern Salinas Valley and possibly the eastern Pajaro River Valley. Inhabits valley and foothill grasslands, sparsely vegetated shrubby habitats, and some agricultural and urban areas.	Absent	The BSA is predominantly urbanized with some small open grassland areas adjacent to the freeway. No suitable habitat is present within the BSA.
Birds					
Brachyramphus marmoratus	marbled murrelet	FT	Nests inland along coast in old-growth redwood-dominated forests.	Absent	No redwood forests or suitable habitat present in the BSA.

Table 4: Potential for Federally Listed or Proposed Species to Occur in the BSA

Scientific Name	Common name	Status[1]	General Habitat/Bloom Period/Elevation	Habitat Present/ Absent	Species Presence/Rationale
Charadrius alexandrinus nivosus	western snowy plover	FT	Sandy coastal beaches, salt pans, coastal dredged spoils sites, dry salt ponds, levees, and gravel bars. Nests occur in flat, open areas with sandy or saline substrates.	Absent	Beaches, sandy areas, and gravel bars are not present within the BSA. No suitable habitat present for this species.
Rallus longirostris obsoletus	California clapper rail	FE	Salt-water and brackish water marshes traversed by tidal sloughs in the vicinity of Sand Francisco Bay. Associated with abundant growths of pickleweed (*Salicornia virginica*), but feeds away from cover on invertebrates from mud-bottomed sloughs.	Absent	No saltwater or brackish water marshes exist in the BSA. No suitable habitat is present in the BSA.
Sternula antillarum browni	California least tern	FE	Forages in shallow estuaries or lagoons where small fish are abundant. Nests on barren to sparsely vegetated sites near water, usually on sandy or gravelly substrate, and free of human or predatory disturbance.	Absent	No potential suitable nesting or foraging habitat is present in BSA.
Reptiles					
Thamnophis sirtalis tetraenia	San Francisco garter snake	FE	Heavily vegetated freshwater wetlands and ponds with available basking habitat. Known range limited to San Mateo and Santa Cruz counties. Feeds on amphibians such as California red-legged frog.	Absent	This species was observed (1987) northwest of the BSA in the San Francisquito Creek Watershed (CDFG 2010a). There are no freshwater wetlands or ponds in the BSA in the known range of this species. There is no potential suitable habitat for this species in the BSA.

Table 4: Potential for Federally Listed or Proposed Species to Occur in the BSA

Scientific Name	Common name	Status[1]	General Habitat/Bloom Period/Elevation	Habitat Present/ Absent	Species Presence/Rationale
Amphibians					
Ambystoma californiense	California tiger salamander	FT	Inhabits seasonal/semi-permanent water sources (3 to 4 months in duration) and adjacent upland habitat with small fossorial mammal activity in lowland grasslands, oak savannah, and mixed woodlands; from sea level to 3,460 feet.	Present	CNDDB occurrence of this species is recorded within 0.012 mile of the BSA along US 101 south of the SR 85/US 101 interchange in San Jose, near the Coyote Creek riparian corridor. Marginal upland and dispersal habitat may exist in the oak woodland/grassland at the very southern end of the BSA near the freeway shoulders.
Rana draytonii	California red-legged frog	FT	Occupy a range of aquatic habitats including small streams, ponds and marshy areas. Breeds in deep (0.7 m), still or slow-moving water. Often found in dense, shrubby, or emergent vegetation.	Present	Several CNDDB occurrences are listed within a few miles of southern end of BSA near US 101. Freshwater wetland in the BSA and nearby percolation/recharge ponds and Coyote Creek riparian corridor provide aquatic habitats for the species. Dense, shrubby vegetation near a wetland adjacent to US 101 in the southern end of the BSA provides potential suitable upland habitat.
Fish					
Encyclogobius newberryi	tidewater goby	FE	Found primarily in waters of coastal lagoons, estuaries, and marshes. Brackish water in shallow lagoons and in lower stream reaches where the water is fairly still but not stagnant and has high oxygen levels.	Absent	The BSA is outside of the known or potential range of this species.
Hypomesus transpacificus	delta smelt	FT	Sacramento/San Joaquin Delta, seasonally in Suisun Bay, Carquinez Strait, and San Pablo Bay.	Absent	The BSA is outside of the known or potential range of this species.

Table 4: Potential for Federally Listed or Proposed Species to Occur in the BSA

Scientific Name	Common name	Status[1]	General Habitat/Bloom Period/Elevation	Habitat Present/ Absent	Species Presence/Rationale
Oncorhynchus kisutch	Central California Coast coho salmon Evolutionarily Significant Unit (ESU)	FE	Anadromous; spawns in perennial freshwater streams; ESU includes all naturally spawned populations from Punta Gorda in northern California south to and including the San Lorenzo River in central California, as well as populations in tributaries to San Francisco Bay; Critical habitat includes all river reaches accessible to coho from Punta Gorda south to San Lorenzo River.	Absent	None of the streams that cross beneath the BSA contain suitable spawning habitat for this species. There is no potential suitable habitat for this species in the BSA.
Oncorhynchus mykiss	Central California Coast steelhead DPS	FT	Unimpeded, anadromous coastal watercourses including tributaries of San Francisco Bay.	Present	Suitable steelhead streams that cross beneath SR 85 (Stevens Creek, Coyote Creek, Guadalupe River, and Los Gatos Creek) under bridges and culverts occur in the BSA.
	Central Valley steelhead DPS	FT	Anadromous; spawns in freshwater rivers; Listing includes all naturally spawned anadromous steelhead populations below natural and manmade impassable barriers in the Sacramento and San Joaquin Rivers and their tributaries, excluding steelhead from San Francisco and San Pablo Bays and their tributaries.	Absent	The BSA is outside of the known or potential range of this species.
Oncorhynchus tshawytscha	Central Valley spring run chinook salmon ESU	FT	Anadromous; spawns in perennial freshwater streams; ESU includes all naturally spawned populations of spring-run Chinook salmon in the Sacramento River and its tributaries to the Carquinez Strait, including the Feather River.	Absent	The BSA is outside of the known or potential range of this species. None of the streams that cross beneath the freeway corridor contain suitable spawning habitat for this species. There is no potential suitable habitat for this species in the BSA.
	Sacramento River winter run chinook salmon ESU	FE	Anadromous; spawns in perennial freshwater streams; ESU includes all naturally spawned populations of winter-run Chinook salmon in the Sacramento River and its tributaries downstream to the Carquinez Strait.	Absent	The BSA is outside of the known or potential range of this species. None of the streams that cross beneath the freeway corridor contain suitable spawning habitat for this species. There is no potential suitable habitat for this species in the BSA.

Table 4: Potential for Federally Listed or Proposed Species to Occur in the BSA

Scientific Name	Common name	Status[1]	General Habitat/Bloom Period/Elevation	Habitat Present/ Absent	Species Presence/Rationale
Invertebrates					
Euphydryas editha bayensis	bay checkerspot butterfly	FT	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay; *Plantago erecta* is the primary host plant; *Castilleja densiflora* and *C. exserta* are secondary host plants.	Present	A CNDDB occurrence was recorded in serpentine grasslands adjacent to a portion of US 101 within the BSA. Serpentine grasslands and the host plants were found during the March 2012 surveys of the BSA.
Lepidurus packardi	Vernal pool tadpole shrimp	FE	Pools located within a matrix of alkali sink and alkali scrub plant communities, sandstone outcrop pools, and alkaline grassland vernal pools.	Absent	The BSA is outside of the known or potential range of this species.

California Red-Legged Frog

The California red-legged frog, federally listed as threatened (Service 2010a) and a California species of special concern, is distributed throughout 26 counties in California but is most abundant in the San Francisco Bay Area. Populations have become isolated in the Sierra Nevada, northern Coast, northern and southern Transverse, and Peninsula ranges (Jennings and Hayes 1994; Stebbins 2003). CRLF predominately inhabit permanent water sources such as streams, lakes, marshes, natural and manmade ponds, and ephemeral drainages in valley bottoms and foothills up to 4,920 feet in elevation (Jennings and Hayes 1994; Bulger et al. 2003; Stebbins 2003). Habitat for the CRLF can be found in lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. They require 11 to 20 weeks of permanent water for larval development. They must have access to aestivation habitat.

The action area south of the SR 85/US 101 interchange in San Jose is within the historic and current range of the CRLF, as well as Recovery Unit 4 (South and East San Francisco Bay) (Service 2002). The proposed action is also within the boundary of the East San Francisco Bay core area, based on the core area maps provided in the *California Red-legged Frog Recovery Plan* (Service 2002). A review of the CNDDB (CDFG 2012 and CDFW 2013) indicated that a total of 75 CNDDB occurrences of CRLF have been reported within a 10-mile radius of this portion of the action area, the closest of which is approximately 0.15 mile away. Sixteen occurrences are within 2.2 miles of this area, which is the distance recognized by the Service that CRLF can disperse to locate breeding habitat regardless of topography or vegetation type (75 CFR 12817).

No protocol-level CRLF surveys were conducted. During the October 25, 2011, survey, a CRLF individual was sighted near the BSA at a pond immediately adjacent to the Coyote Creek crossing at the SR 85/US 101 interchange in San Jose. No suitable breeding habitat was observed in the BSA during the July 2010 or October 2011 reconnaissance-level surveys. Suitable dispersal habitat is present south of the SR 85/US 101 Interchange in San Jose. This habitat consists of arroyo willow forest, California bay riparian forest, coyote brush scrub, disturbed annual grassland, ruderal California annual grassland, ruderal disturbed, and landscaped vegetation (including landscaped conifer woodland). Coyote Creek corridor likely provides dispersal and refuge habitat for CRLF.

Avoidance and Minimization Measures for California Red-Legged Frog

1. Construction activities south of the SR 85/US 101 interchange in San Jose will occur during the dry season (June 15 to October 15).
2. Prior to any construction on US 101 south of the SR 85/US 101 interchange in San Jose, a Service-approved biologist will conduct an education program for construction personnel including contractors and subcontractors. The training will include, at a minimum, a description of CRLF and their habitats; associated habitats within the action area south of the SR 85/US 101 interchange in San Jose; an explanation of the status of these species and protection under the Federal Endangered Species Act (FESA); the measures to be implemented; communication and work stoppage procedures in case a listed species is observed within the action

area south of the SR 85/US 101 interchange in San Jose; and an explanation of the ESAs and WEFs and the importance of maintaining these structures.

3. A fact sheet conveying this information will be prepared and distributed to all construction crews and project personnel entering the project area. Upon completion of the program, personnel will sign a form stating that they attended the program and understand all of the avoidance and minimization measures and implications of the FESA.
4. Only a Service-approved biologist will implement the monitoring duties including delivery of the Worker Environmental Awareness Training Program.
5. Through communication with the Resident Engineer or their designee, the biologist may stop work if deemed necessary for any reason to protect CRLF and will advise the Resident Engineer or designee on how to proceed accordingly. If a CRLF or CTS is found, work will be halted and will not resume until the species has exited the work area on its own. CRLF and CTS will not be handled without authorization by the Service and CDFW.
6. No more than two days prior to the start of ground disturbing activities, preconstruction surveys for CRLF will be completed by a Service-approved biologist in all suitable upland and dispersal habitat areas. If CRLF are found during preconstruction surveys, the Service will be contacted within one working day, and work activities along US 101 in suitable upland and dispersal habitat will be suspended until the CRLF or CTS has exited the area on its own. CRLF and CTS will not be handled without authorization by the Service and CDFW.
7. WEF will be installed prior to any construction during the dry season (June 15 through October 15), when CRLF are not actively dispersing or foraging. The WEF will be placed 10 feet from the edge of pavement along US 101, south of the SR 85/US 101 interchange in San Jose. The location, fencing materials, installation specifications, and monitoring and repair criteria will be submitted to the Service for approval prior to the start of the project. Caltrans will include the WEF specifications on the final project plans. Caltrans will include the WEF specifications including installation and maintenance criteria in the bid package special provisions. The WEF will remain in place until all project activities in the vicinity of suitable upland and dispersal habitat are completed. The WEF will be regularly inspected and fully maintained. Repairs to the WEF will be made within 24 hours of discovery. Upon completion of the project, the WEF will be completely removed and the area cleaned of debris and trash, and returned to natural conditions.
8. To prevent CRLF from becoming entangled or trapped in erosion control materials, plastic monofilament netting (erosion control matting) or similar material will not be used for erosion control. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.
9. To prevent inadvertent entrapment of CRLF and other wildlife during construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered with plywood or similar materials at the end of each work day or equipped with one or more escape ramps constructed of earth fill or wooden planks. The Service-approved biologist will inspect all holes and trenches at the beginning of each work day and before holes and trenches are filled. Materials left on-site overnight will be inspected by the Service-approved biologist before they are moved, capped and/or buried. If at any time a listed species is discovered, the Resident Engineer and the

Service-approved biologist will be notified immediately.

10. Use of rodenticides and herbicides will be utilized in such a manner to prevent primary or secondary poisoning of listed species, and depletion of prey populations on which they depend. All uses of such compounds will observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Pesticide Regulation, and other appropriate State and Federal regulations, as well as additional project-related restrictions deemed necessary by the Service or the CDFW.
11. No firearms will be allowed in the action area except for those carried by authorized security personnel, or local, State, or Federal law enforcement officials.
12. No pets will be permitted in the action area during construction.

California Tiger Salamander

The California tiger salamander, a federally and state listed threatened species, inhabits grasslands and open oak woodlands in central and northern California. The species has disappeared from a significant portion of its range due to habitat loss from agriculture and urbanization and the introduction of non-native aquatic predators. The range of CTS is from Sonoma County, especially in the Laguna de Santa Rosa (outside the floodplain), south to Santa Barbara County, in vernal pool complexes and isolated ponds along the Central Valley from Colusa County to Kern County, and in the coastal range. Habitat for CTS consists of vernal pools or other seasonal water sources for breeding, and underground refuges such as ground squirrel burrows or soil crevices in grassy upland habitat for estivating during the dry summer months. Water must remain within the vernal pools and/or ponds for at least 12 weeks, which is the approximate amount of time needed for the aquatic larvae to develop. Larvae usually complete metamorphosis within 3 to 6 months and leave for upland refugia as the ponds dry. Overland migration may extend up to 1.24 miles, but most CTS remain within 0.4 miles of breeding ponds.

The action area south of the SR 85/US 101 interchange in San Jose is located within the range of CTS. A review of the CNDDB (CDFG 2012 and CDFW 2013) found that 126 CNDDB occurrences of CTS have been reported within a 10-mile radius of this portion of the action area. There are 8 occurrences within 1.24 miles of this area, which is the distance recognized by the Service that CTS will migrate overland (Service 2005).

No protocol-level surveys for CTS were conducted in the action area south of the SR 85/US 101 interchange in San Jose, and no CTS were observed during the technical field studies. Breeding CTS are not expected to be present because of the lack of breeding ponds in the BSA. Although suitable breeding habitat for CTS was not observed in the BSA, the annual grasslands on both sides of US 101 in the BSA contain ground squirrel burrows and could provide refugia and marginal dispersal habitat.

Avoidance and Minimization Measures for California Tiger Salamander

The CRLF avoidance and minimization measures described above will serve to avoid and minimize potential adverse effects to CTS and potential CTS habitat. The construction contractor will be required to implement these measures for any ground-disturbing construction along US 101, south of the SR 85/US 101 interchange in San Jose. The preconstruction survey will be conducted for both CTS and CRLF. The exclusion fencing

will be designed and constructed in a way to keep both CTS and CRLF from entering the construction area. Worker training will include familiarizing construction personnel with both species.

Bay Checkerspot Butterfly

The bay checkerspot butterfly is federally listed as threatened. According to the most recent 5-year status review for the bay checkerspot butterfly, the Service recommended changing the species status under FESA from threatened to endangered (Service 2010b). The bay checkerspot butterfly occurs in the southeastern and eastern part of the greater San Francisco Bay Area and is associated with serpentine grasslands. Populations of the butterfly formerly occurred around San Francisco Bay from Twin Peaks and San Bruno Mountain in the west to Franklin Canyon in Contra Costa County and the Oakland hills in Alameda County in the east, and in Santa Clara County (numerous locations) in the south (Service 1998). The current bay checkerspot butterfly range is much smaller and distributed in patches. There are currently five known core areas for the bay checkerspot butterfly: one in San Mateo County at Edgewood County Park, and four in Santa Clara County. The Santa Clara County core areas are arrayed on a ridge that runs along the east side of the Santa Clara Valley between San Jose and Morgan Hill (Service 1998).

Habitat for the bay checkerspot butterfly exists on shallow, serpentine-derived or similar soils that support larval food plants and nectar sources for adults. The primary larval food plant, dwarf plantain (*Plantago erecta*), and the secondary host plant species, purple owl's clover (*Castilleja densiflora*) and exserted Indian paintbrush (*Castilleja exserta*), occur in the serpentine grasslands (USEPA 2010).

A review of the CNDDB (CDFG 2012 and CDFW 2013) found three reports of bay checkerspot butterfly within 1 mile of the action area south of the SR 85/US 101 interchange in San Jose.

Bay checkerspot butterflies and their host plants were not observed during the reconnaissance surveys of the BSA. During reconnaissance surveys for the US 101 Express Lanes Project (EA 2G7100), clusters of purple owl's clover were observed approximately 0.5 mile south of Metcalf Road, on the southbound side of US 101 next to the PG&E substation. Clusters of dwarf plantain were observed 2 miles south of Metcalf Road in the northbound cloverleaf of the Bailey Avenue intersection (Caltrans 2013). None of the host plant locations are in the action area for the SR 85 Express Lanes Project. The project has been designed to avoid serpentine grasslands, as described further below.

Avoidance and Minimization Measures for Bay Checkerspot Butterfly

1. Before construction commences, a preconstruction survey for serpentine grasslands and the bay checkerspot butterfly's host plants (dwarf plantain and purple owl's clover) will be conducted to determine the presence and extent of the host plants within the action area south of the SR 85/US 101 interchange in San Jose. The preconstruction survey will be conducted during the host plants' blooming period (March through May), when the host plants are identifiable.
2. Serpentine grassland and host plants that are present in the limits of construction will be fenced off prior to construction using ESA fencing (including a maximum 5-foot

buffer) to avoid any indirect or direct effects to bay checkerspot butterfly.

3. To avoid impacting dispersing adult butterflies, construction activities will not occur during the flight period (March through early May) (CSC 2012).
4. During ground-disturbing construction activities, the construction contractor will implement dust control measures including regular watering of exposed soils to reduce the amount of dust and particulate matter in the air. The control measures will be consistent with Caltrans Standard Specifications, Section 14-9.01 (Air Pollution Control) and Section 14-9.02 (Dust Control).

Metcalf Canyon Jewel-Flower

The Metcalf Canyon jewel-flower, a federally endangered plant species, is an annual herb that can grow up to 3 feet tall and has small, white flowers along the stem. The leaves and stem are glaucous with bristly hairs at the base. The Metcalf Canyon jewel-flower grows in serpentine grasslands and can be found on outcrops and roadcuts located in serpentine grassland areas. This species can be found at elevations between 150 and 2,625 feet and blooms between April and July (CNPS 2012). The Metcalf Canyon jewel-flower is restricted to Santa Clara County, between San Jose and Anderson Lake. Urban development and cattle grazing represent the primary threats to current populations (CSC 2012).

The closest recorded occurrence is south of Metcalf Road, approximately 230 feet from the edge of pavement on the east side of the road across from Coyote Ranch. Although serpentine grassland is present in the action area, south of the SR 85/US 101 interchange in San Jose, no Metcalf Canyon jewel-flower plants were observed during the plant surveys. The project has been designed to avoid serpentine grasslands, as described above in the *Avoidance and Minimization Measures for Bay Checkerspot Butterfly*.

Avoidance and Minimization Measures for Metcalf Canyon Jewel-Flower

1. Preconstruction surveys for Metcalf Canyon jewel-flower will be conducted between April and July, before construction begins on US 101 south of the SR 85/US 101 interchange to identify where ESA fencing should be placed.
2. Metcalf Canyon jewel-flower plants that are present in the limits of construction will be fenced off prior to construction using ESA fencing (including a maximum 5-foot buffer).

Project Effects

California Red-Legged Frog and California Tiger Salamander

Utility trenching; clearing and grubbing; construction access, staging, and laydown; and installation of TOS equipment and maintenance vehicle pullouts along US 101 between the SR 85/US 101 interchange in San Jose and Bailey Avenue could result in temporary, direct effects on up to 7.74 acres of CRLF and CTS upland and dispersal habitat (Figure 4). The habitat could include California bay riparian forest, coast live oak woodland, coyote brush scrub, disturbed annual grassland, ruderal California annual grassland, and landscaped vegetation (including landscaped conifer woodland), depending on the location. With the implementation of avoidance and minimization measures and BMPs, the possibility of death or injury (i.e., take) of an individual CRLF and CTS as a result of the proposed action is not expect to occur.

Although overhead signs and tolling devices will be installed in the median of US 101 south of the SR 85/US 101 interchange in San Jose, the median is not considered habitat for CRLF and CTS. The median is either paved or a highly disturbed mosaic of ruderal grassland and dirt with K-rail separating the northbound and southbound lanes.

Based on the proposed avoidance and minimization measures, as well as the proposed restoration of temporarily affected areas, no indirect effects will occur as a result of the proposed action. In addition, wildlife passage corridors that CRLF and CTS may use are not expected to be affected by the proposed action because no culverts will be installed or extended.

Bay Checkerspot Butterfly

The bay checkerspot butterfly's primary host plant, dwarf plantain, and secondary host plants, purple owl's clover and exserted Indian paintbrush, are associated with serpentine grasslands. TOS equipment and maintenance vehicle pullouts will be installed along the outside edge of pavement within a 2.34-acre area (Figure 5). Although the exact locations of these features have not been determined, they will not be placed within serpentine grassland areas that provide habitat for dwarf plantain and purple's owl clover. Direct impacts to serpentine grasslands will be avoided with the implementation of the measures discussed above.

In late fall, winter, and spring, various life stages of the butterfly are susceptible to impacts from dust related to project construction. Insects breathe through spiracles that can become clogged with particulate matter. Impacts are most severe within a few hundred feet of the area where the dust is produced. Dust production in the southern segment of the project along US 101 is expected to be minimal because construction will occur in a small area for a short duration and will be further minimized as described above in the *Avoidance and Minimization Measures for Bay Checkerspot Butterfly*.

Construction activities will not take place within serpentine grasslands and will therefore not adversely affect the bay checkerspot butterfly's host plants and/or the butterfly's larval and diapause life stages. Additionally, construction activities will not take place during the adult flight period (March through early May). As a result, effects associated with construction activities will be insignificant and discountable and will not result in take of individual bay checkerspot butterflies or their host plants.

Metcalf Canyon Jewel-Flower

Direct impacts to the Metcalf Canyon jewel-flower and its serpentine grassland habitat will be avoided with the implementation of the BMPs and avoidance and minimization measures discussed above.

Determinations

Caltrans has taken every possible opportunity to incorporate reasonable and prudent measures to minimize and avoid effects to these species and their habitats. The project has been designed so that only the minimal area of disturbance is necessary. Implementation of the proposed avoidance and minimization measures and Caltrans Best Management Practices will avoid take of federally listed species. Caltrans determined that the proposed action **may**

affect, but is not likely to adversely affect, the California red-legged frog, California tiger salamander, bay checkerspot butterfly, and Metcalf Canyon jewel-flower.

Caltrans respectfully requests your prompt concurrence with this determination and delivery of your written concurrence by January 15, 2014. If you have any questions regarding this request, please contact Steve Harris (510) 286-7195.

Sincerely,

HARDEEP TAKHAR
Acting Office Chief
Office of Biological Sciences and Permits

C: Jerry Roe, U.S. Fish and Wildlife Service
Ryan Olah, U.S. Fish and Wildlife Service

Enclosures:
Figures
1. Project Location and Regional Setting
2. BSA and Action Area
3A. California Red-Legged Frog and California Tiger Salamander Occurrences within 10 Miles of the Action Area
3B. Metcalf Canyon Jewel-Flower
4. Impacts to Upland Dispersal Habitat in the Action Area
5. Bay Checkerspot Butterfly and Host Plant Occurrences in the Action Area
Service Species List
Project Plans (on CD)

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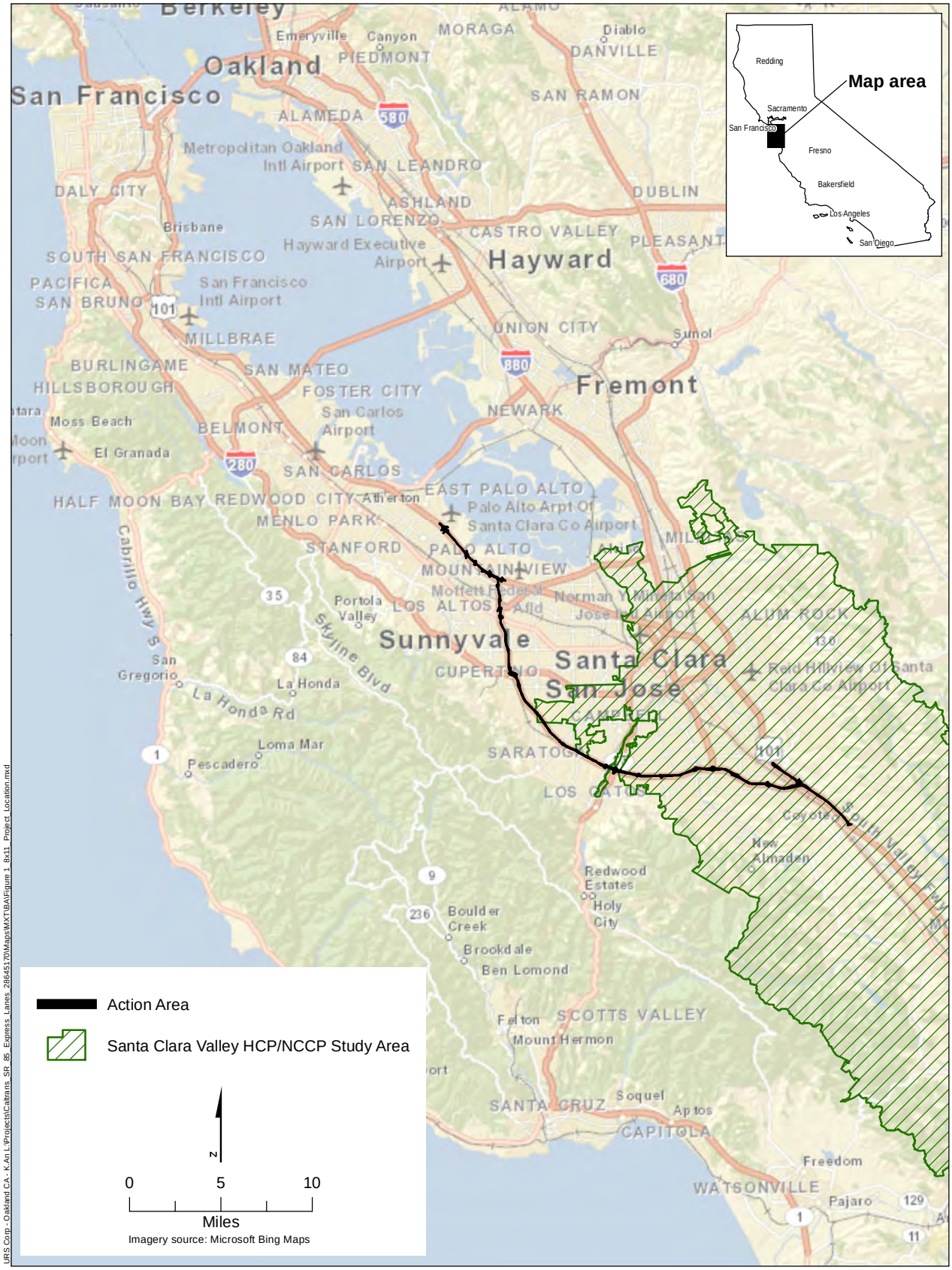
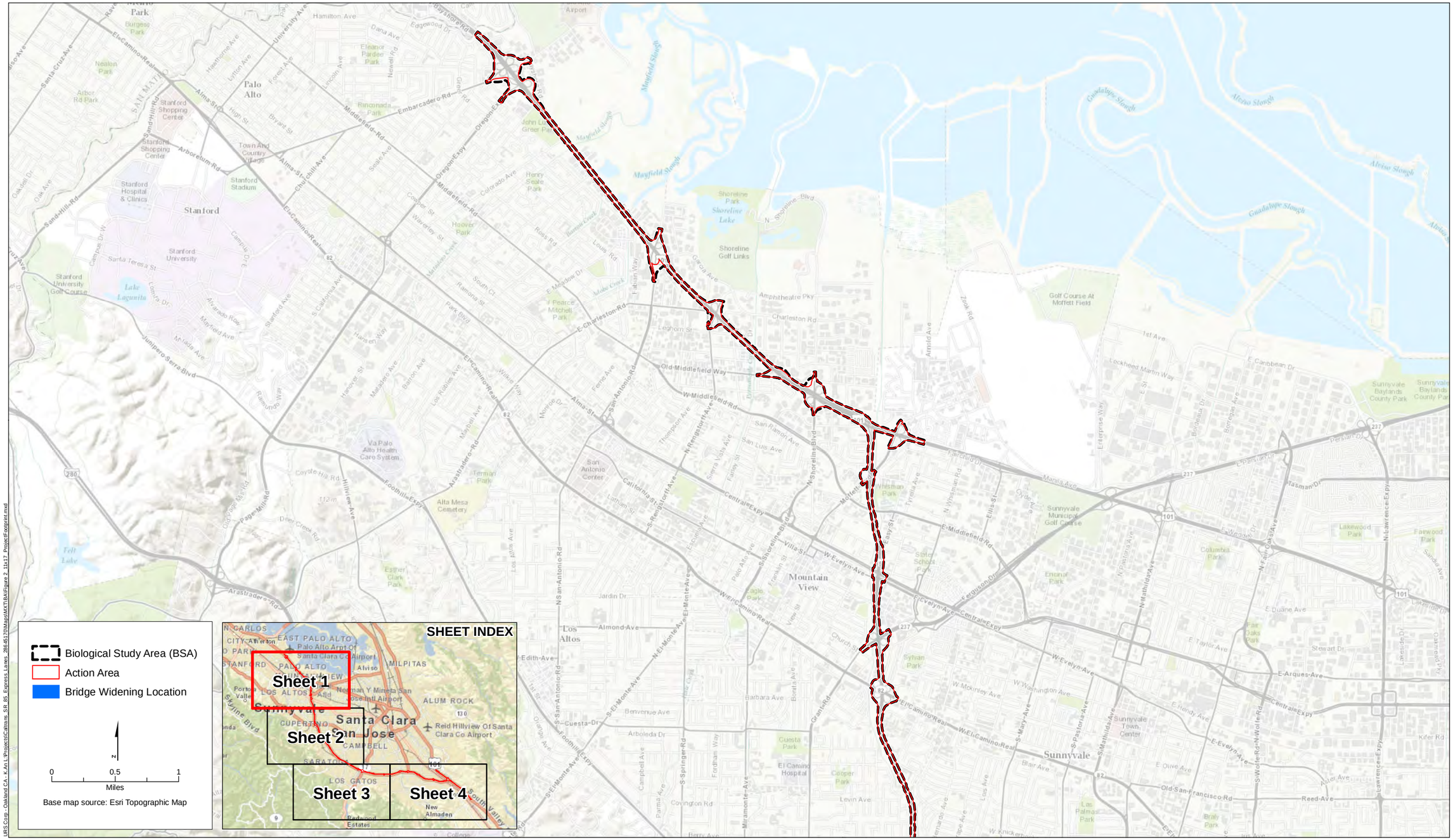
Figures



URS Corp - Oakland CA - K:\An L\Projects\Caltrans SR 85 Express Lanes 28645170\Maps\MXT\BA\Figure 1 8x11 Project Location.mxd

Caltrans
State Route 85 Express Lanes

Figure 1
Project Location and Regional Setting



Caltrans
State Route 85 Express Lanes

Figure 2, Sheet 1
BSA and Action Area

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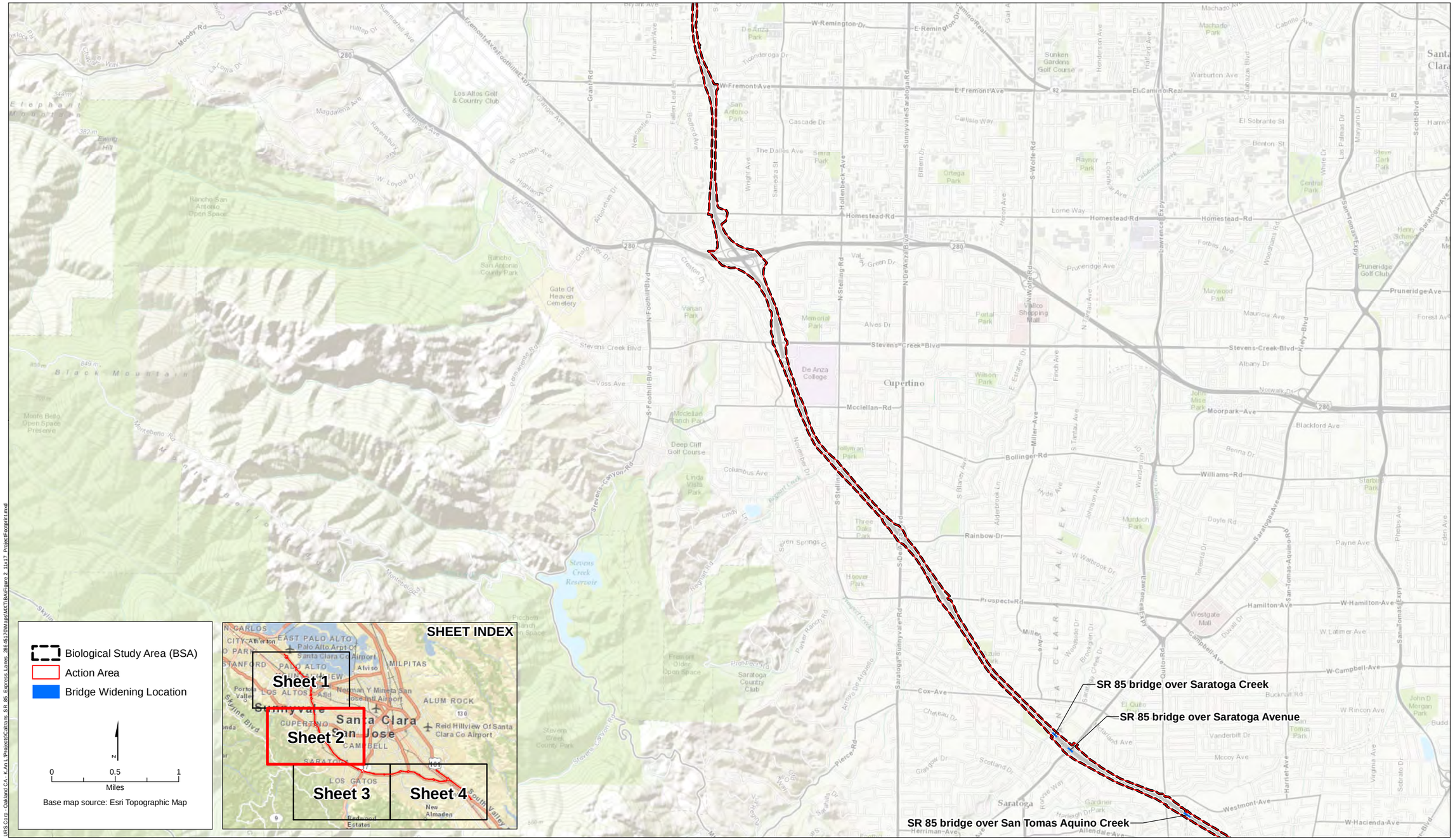

Caltrans
State Route 85 Express Lanes

Figure 2, Sheet 2
BSA and Action Area

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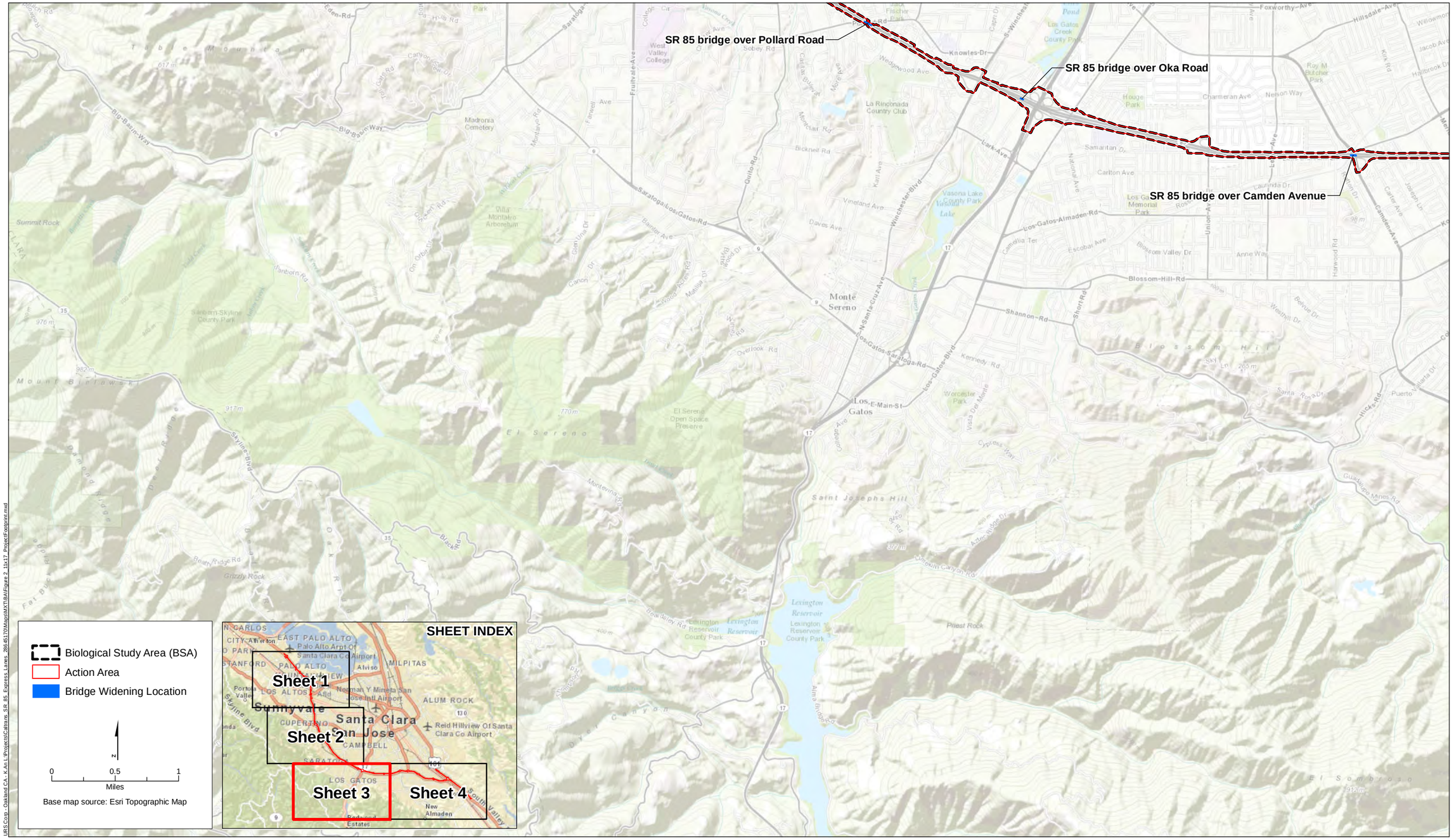

Caltrans
State Route 85 Express Lanes

Figure 2, Sheet 3
BSA and Action Area

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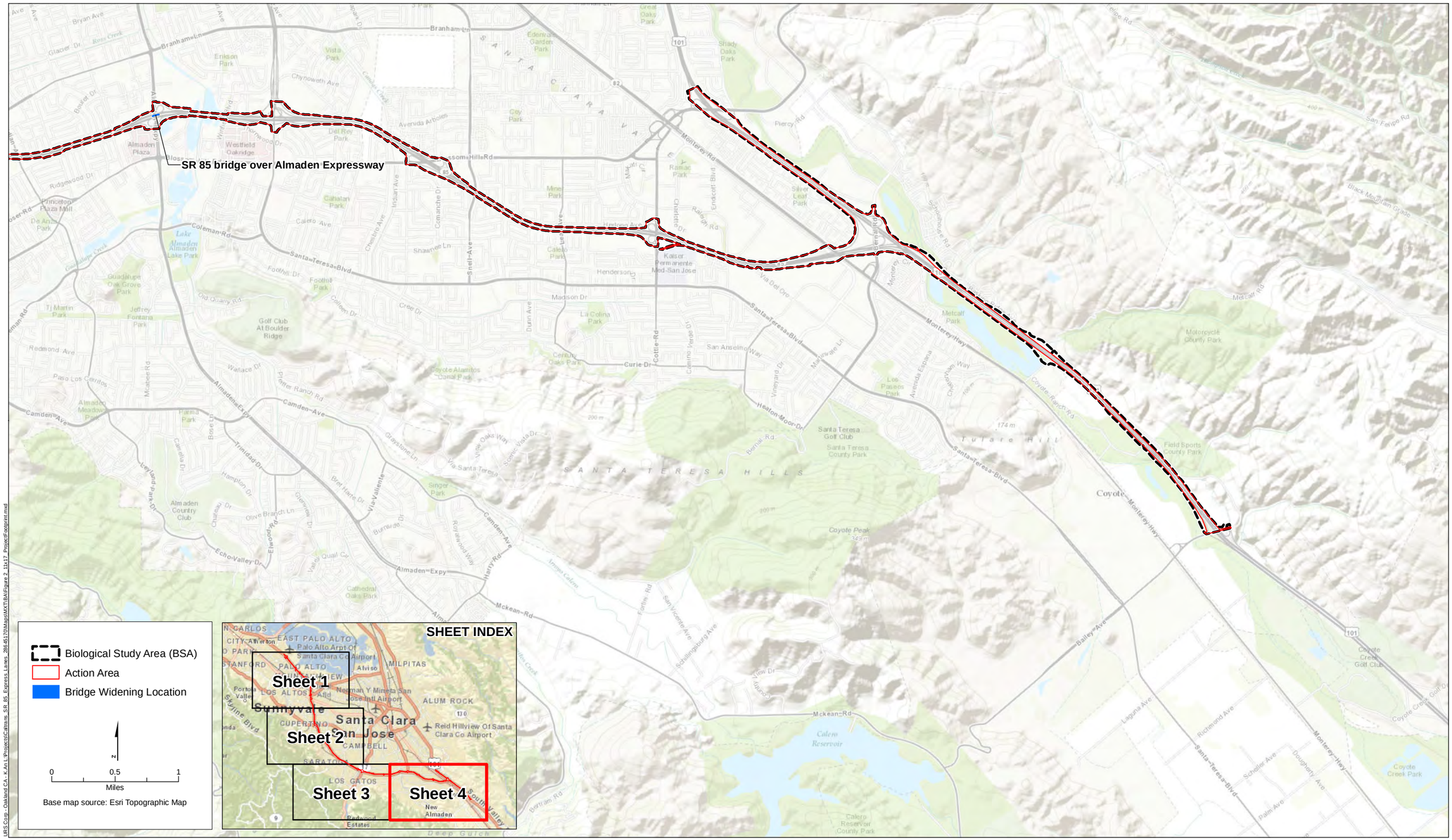
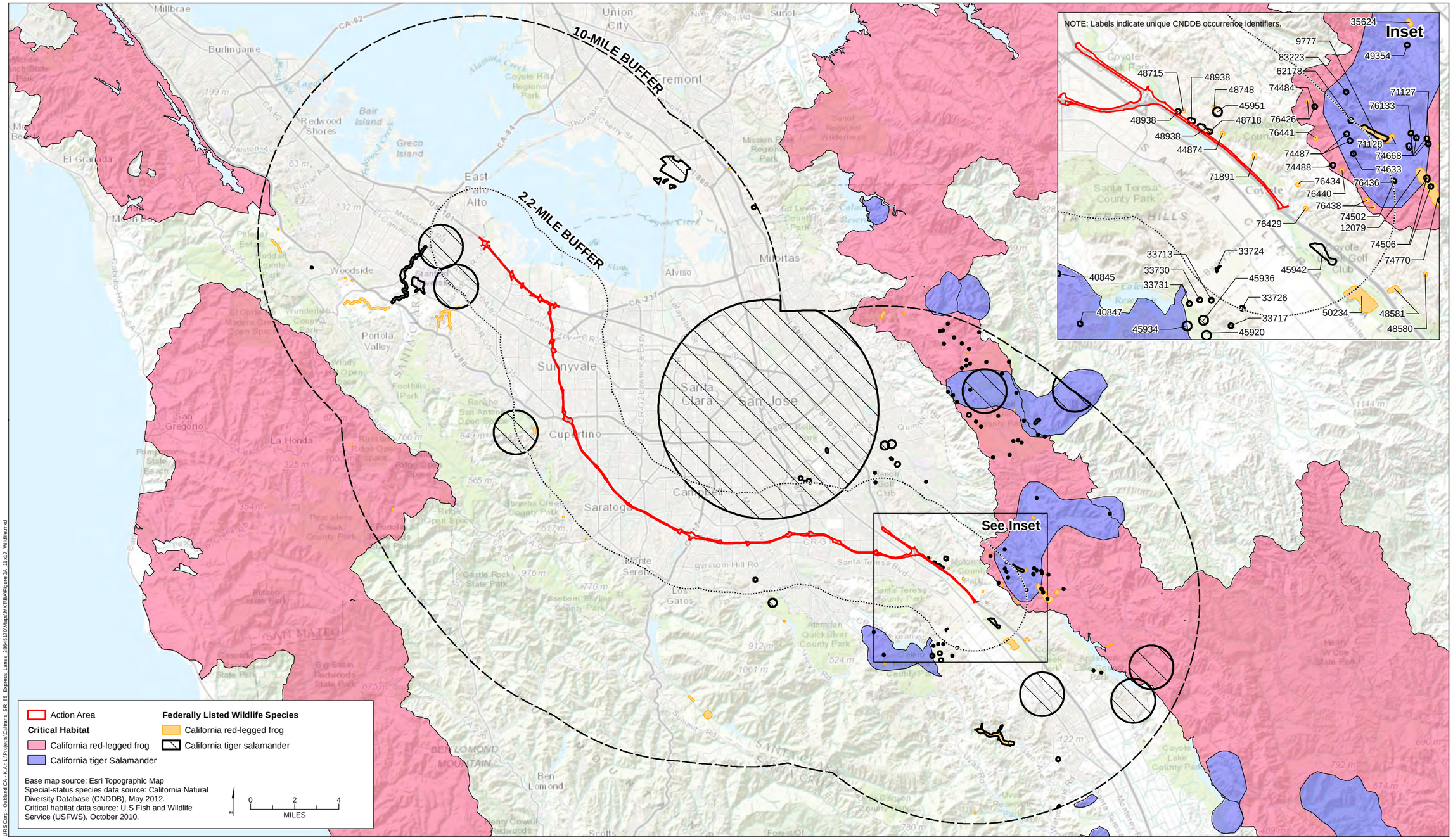


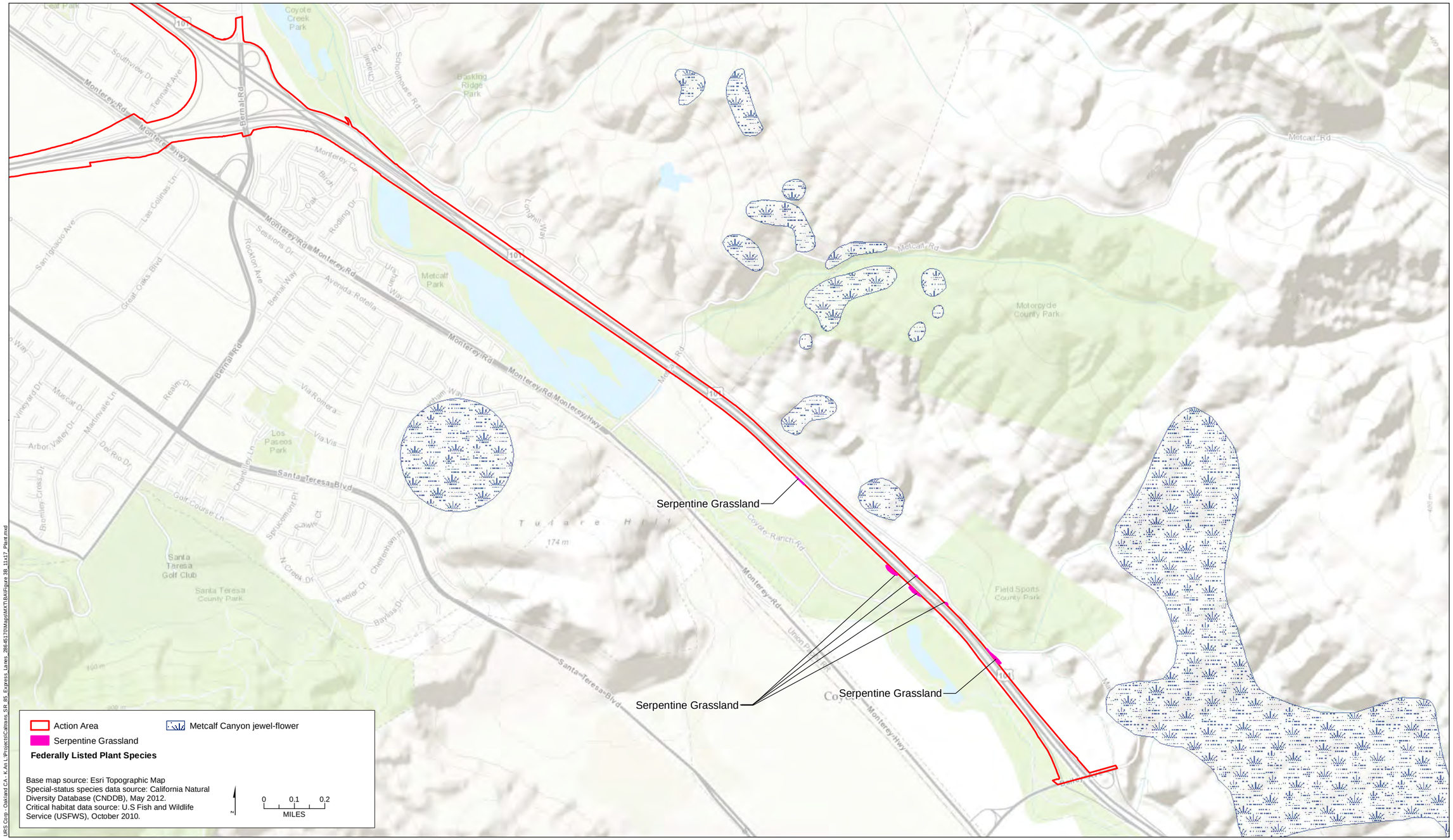
Caltrans
State Route 85 Express Lanes

Figure 2, Sheet 4
BSA and Action Area



Caltrans
State Route 85 Express Lanes

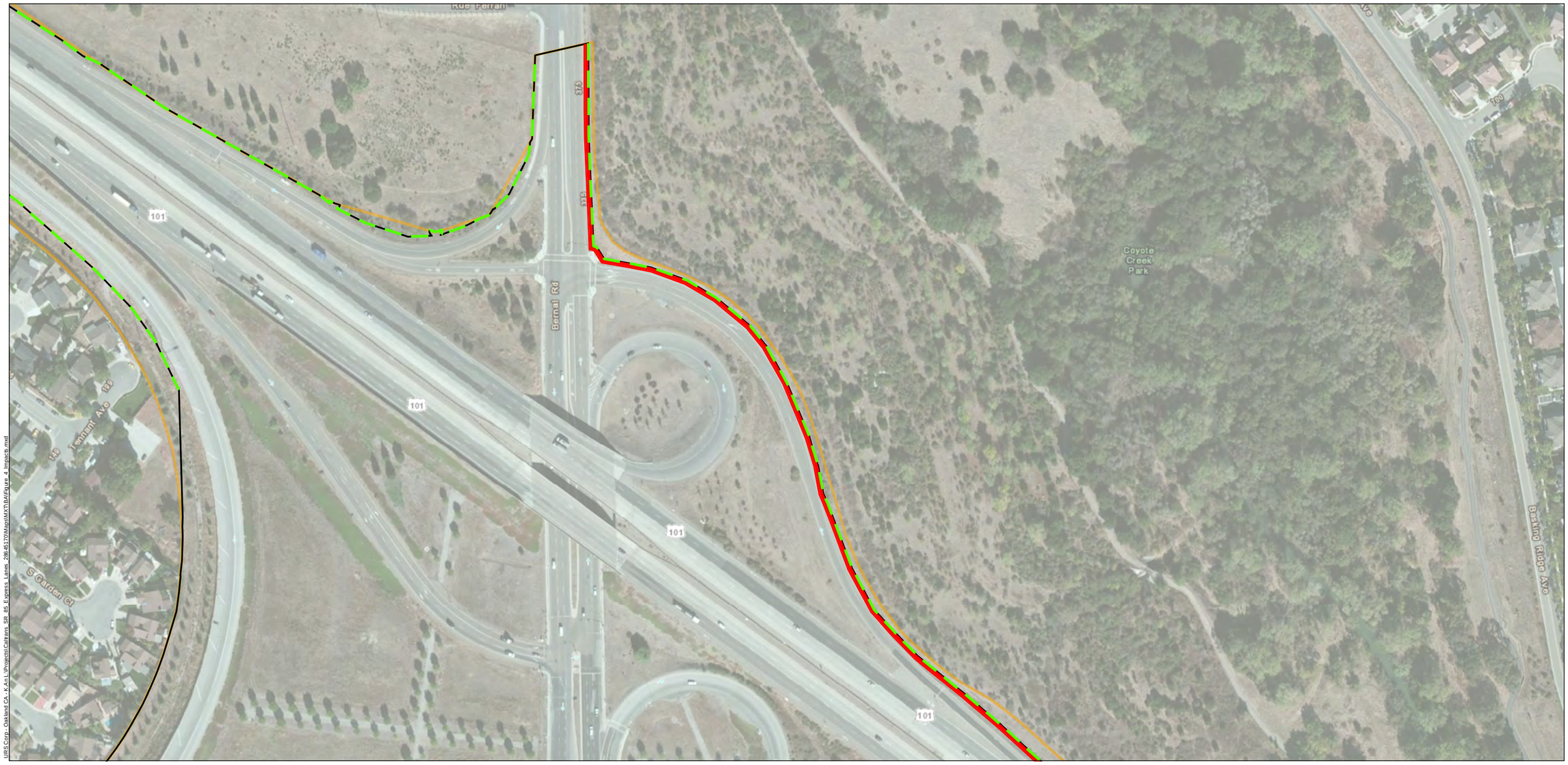
Figure 3A
California Tiger Salamander and California Red-Legged Frog
Occurrences within 10 miles of the Action Area

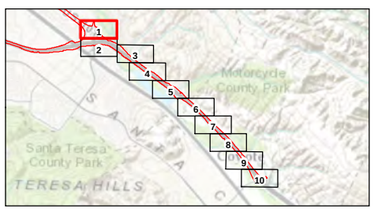


Caltrans
State Route 85 Express Lanes

Figure 3B
Metcalf Canyon Jewel-Flower

URS Corp - Oakland CA - K:\An L\Projects\Caltrans-SR_85_Express_Lanes_28645170\Maps\MXT\BA\Figure 3B_11x17_Plant.mxd





N

0 100 200

Feet

Imagery source: Esri 2013

Action Area

Biological Study Area (BSA)

Temporary Impact to Upland Habitat

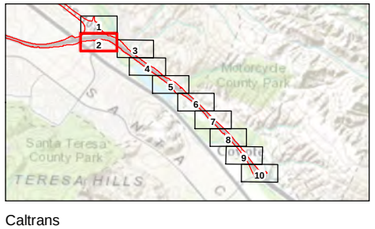
Environmentally Sensitive Area (ESA) Fencing

Caltrans
State Route 85 Express Lanes

Figure 4
Sheet 1
Impacts to Upland Dispersal Habitat in the Action Area
(South of SR 85/US 101 Interchange in San Jose)

URS Corp - Oakland CA - K:\n1 \Projects\Caltrans_SR_85_Express_Lanes_28645170\Maps\MXT\BA\Figure 4_Impacts.mxd

URS Corp - Oakland CA - K Ant L:\Projects\Caltrans SR 85 Express Lanes 28645170\Maps\MXT\BA\Figure 4 Impacts.mxd



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Feet

Imagery source: Esri 2013

Action Area

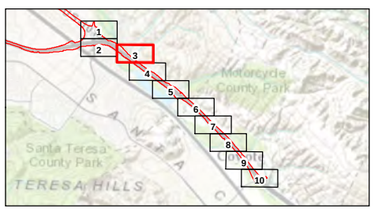
Biological Study Area (BSA)

Temporary Impact to Upland Habitat

Environmentally Sensitive Area (ESA) Fencing

Caltrans
State Route 85 Express Lanes

Figure 4
Sheet 2
Impacts to Upland Dispersal Habitat in the Action Area
(South of SR 85/US 101 Interchange in San Jose)



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Feet

Imagery source: Esri 2013

Action Area

Biological Study Area (BSA)

Temporary Impact to Upland Habitat

Environmentally Sensitive Area (ESA) Fencing

Caltrans
State Route 85 Express Lanes

Figure 4
Sheet 3
Impacts to Upland Dispersal Habitat in the Action Area
(South of SR 85/US 101 Interchange in San Jose)

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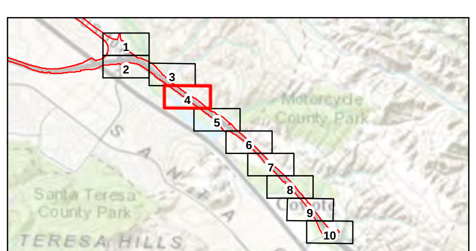

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Feet

Imagery source: Esri 2013

Action Area

Biological Study Area (BSA)

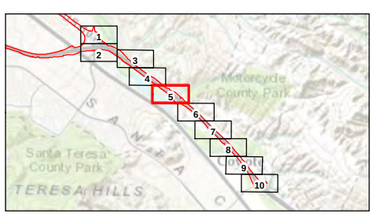
Temporary Impact to Upland Habitat

Environmentally Sensitive Area (ESA) Fencing

Caltrans
State Route 85 Express Lanes

Figure 4
Sheet 4
Impacts to Upland Dispersal Habitat in the Action Area
(South of SR 85/US 101 Interchange in San Jose)

URS Corp., Oakland CA - K:\Art_\Projects\Caltrans_SR_85_Express_Lanes_29645170\Maps\MXT\BA\Figure_4_Impacts.mxd



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Feet

Imagery source: Esri 2013

Action Area

Biological Study Area (BSA)

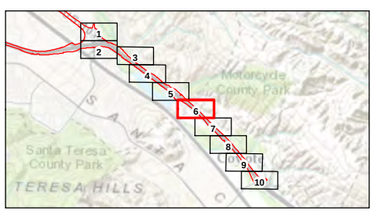
Temporary Impact to Upland Habitat

Environmentally Sensitive Area (ESA) Fencing

Caltrans
State Route 85 Express Lanes

Figure 4
Sheet 5
Impacts to Upland Dispersal Habitat in the Action Area
(South of SR 85/US 101 Interchange in San Jose)

URS Corp., Oakland CA - K.Arri, \Projects\Caltrans_SR_85_Express_Lanes_29845170\Maps\MXT\BA\Figure_4_Impacts.mxd



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Feet

Imagery source: Esri 2013

Action Area

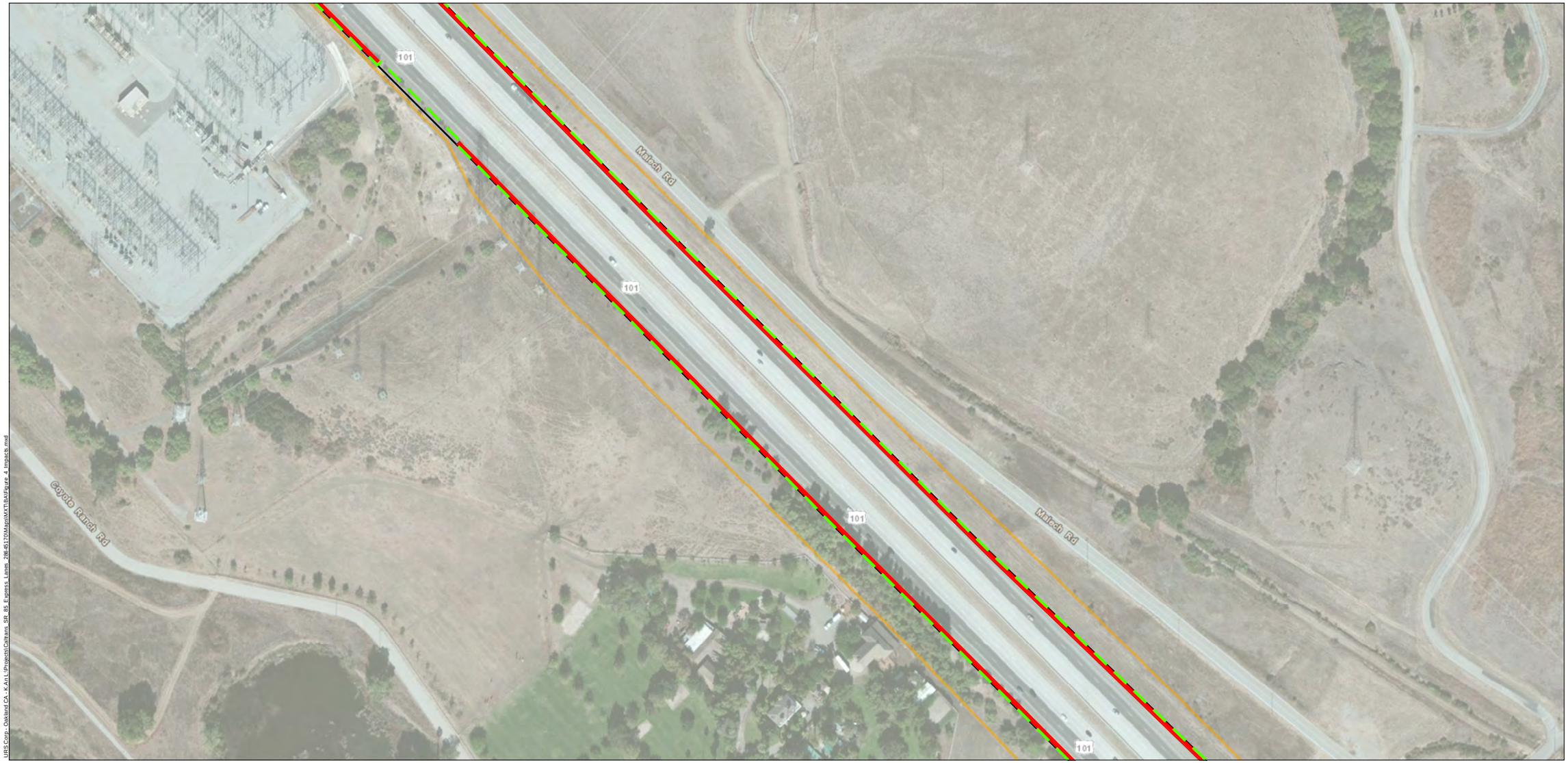
Biological Study Area (BSA)

Temporary Impact to Upland Habitat

Environmentally Sensitive Area (ESA) Fencing

Caltrans
State Route 85 Express Lanes

Figure 4
Sheet 6
Impacts to Upland Dispersal Habitat in the Action Area
(South of SR 85/US 101 Interchange in San Jose)



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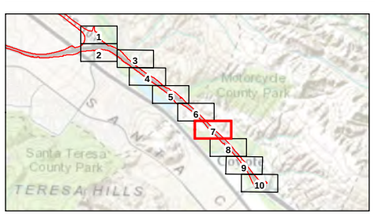

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Feet

Imagery source: Esri 2013

Action Area

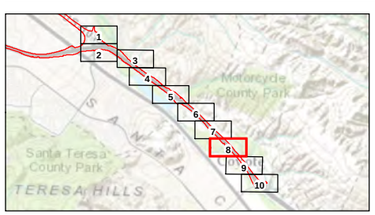
Biological Study Area (BSA)

Temporary Impact to Upland Habitat

Environmentally Sensitive Area (ESA) Fencing

Caltrans
State Route 85 Express Lanes

Figure 4
Sheet 7
Impacts to Upland Dispersal Habitat in the Action Area
(South of SR 85/US 101 Interchange in San Jose)



Caltrans
State Route 85 Express Lanes

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Feet

Imagery source: Esri 2013

Action Area

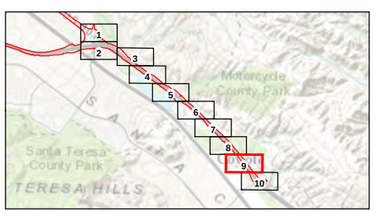
Biological Study Area (BSA)

Temporary Impact to Upland Habitat

Environmentally Sensitive Area (ESA) Fencing

Figure 4
Sheet 8
Impacts to Upland Dispersal Habitat in the Action Area
(South of SR 85/US 101 Interchange in San Jose)

URS Corp. Oakland CA - K:\Art_\Projects\Caltrans_SR_85_Express_Lanes_29645170\Maps\MXT\BA\Figure_4_Impacts.mxd



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Feet

Imagery source: Esri 2013

Action Area

Biological Study Area (BSA)

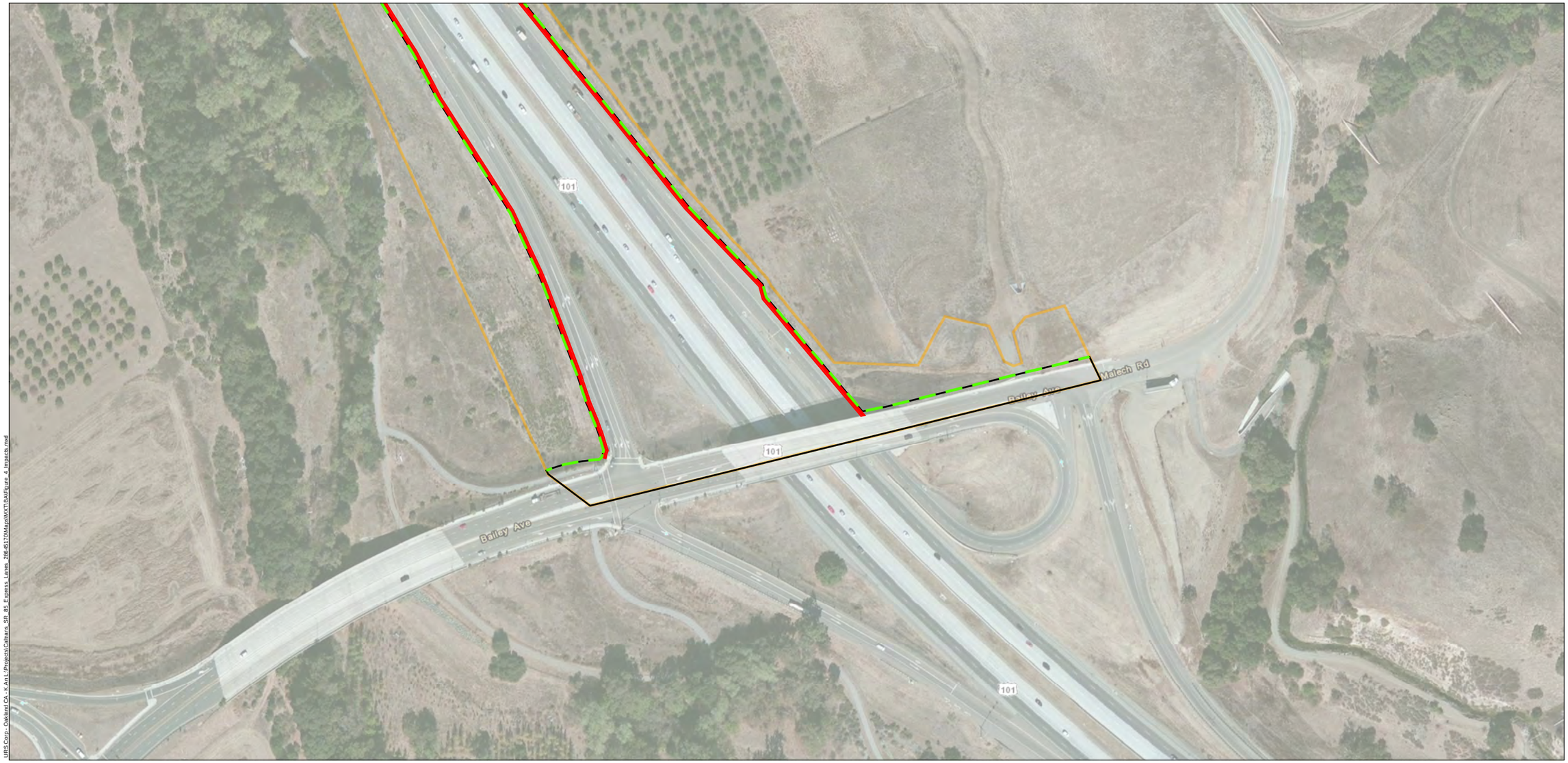
Temporary Impact to Upland Habitat

Environmentally Sensitive Area (ESA) Fencing

Caltrans
State Route 85 Express Lanes

Figure 4
Sheet 9
Impacts to Upland Dispersal Habitat in the Action Area
(South of SR 85/US 101 Interchange in San Jose)

URS Corp - Oakland CA - K:\Art\Projects\Caltrans_SR_85_Express_Lanes_2864517\Maps\MXD\BA\Figure_4_Impacts.mxd



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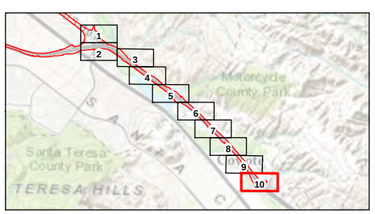

Caltrans
State Route 85 Express Lanes

N

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Feet

Imagery source: Esri 2013

Action Area

Biological Study Area (BSA)

Temporary Impact to Upland Habitat

Environmentally Sensitive Area (ESA) Fencing

Figure 4
Sheet 10
Impacts to Upland Dispersal Habitat in the Action Area
(South of SR 85/US 101 Interchange in San Jose)

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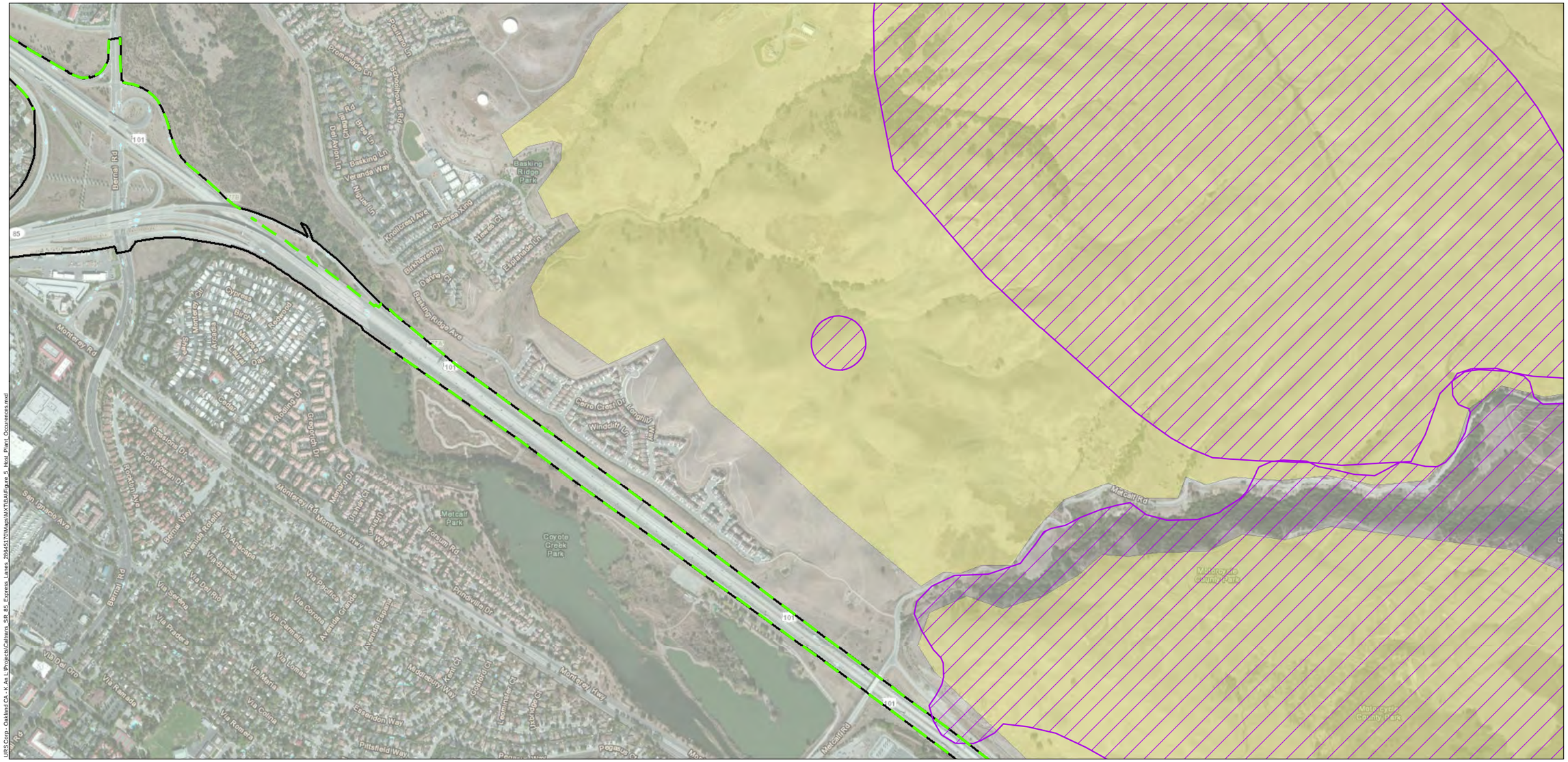

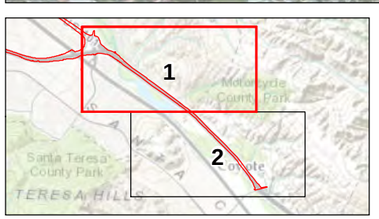

Caltrans
State Route 85 Express Lanes

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0 400 800
Feet
Imagery Source: Esri 2013

Action Area

Purple owl's clover

Serpentine Grassland

Environmentally Sensitive Area (ESA) Fencing

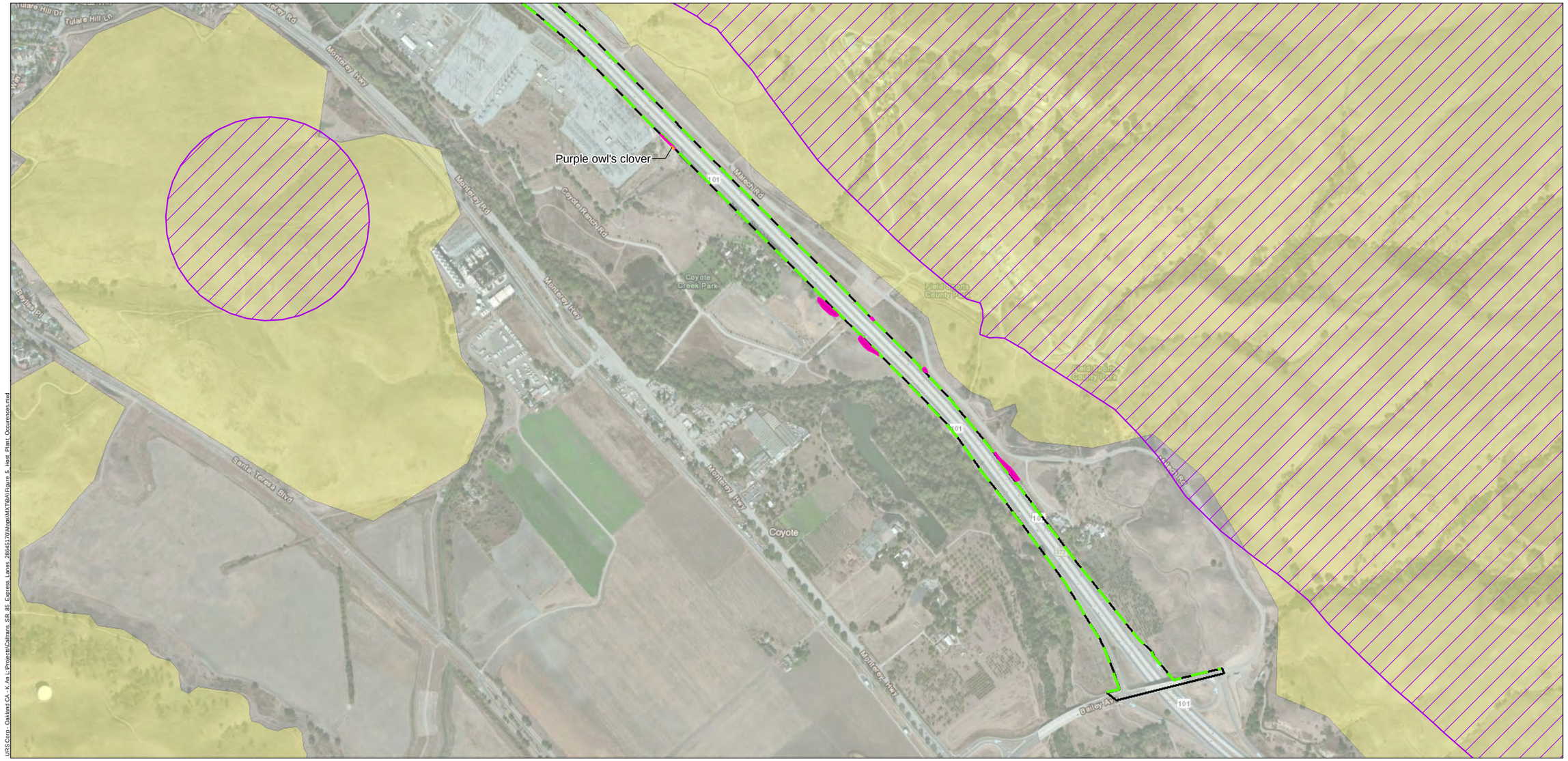
Critical Habitat

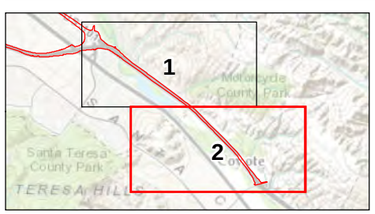
Bay checkerspot butterfly

CNDDB Special Status Wildlife Occurrences

Bay checkerspot butterfly

Figure 5
Sheet 1
Bay Checkerspot Butterfly and Host Plant Occurrences in the Action Area





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Feet
Imagery Source: Esri 2013

Action Area

Purple owl's clover

Serpentine Grassland

Environmentally Sensitive Area (ESA) Fencing

Critical Habitat

Bay checkerspot butterfly

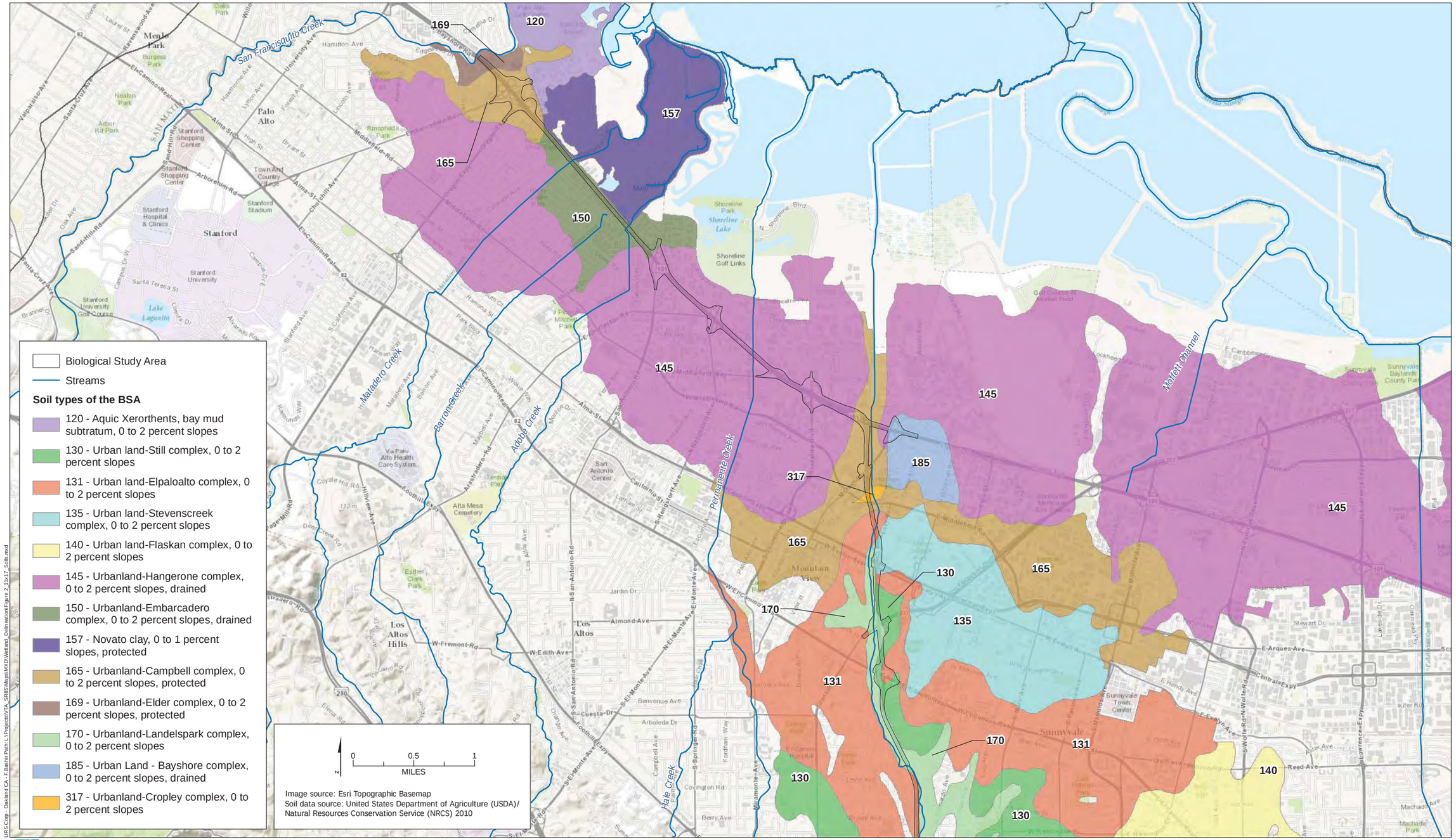
CNDDB Special Status Wildlife Occurrences

Bay checkerspot butterfly

Caltrans
State Route 85 Express Lanes

Figure 5
Sheet 2
Bay Checkerspot Butterfly and Host Plant Occurrences in the Action Area

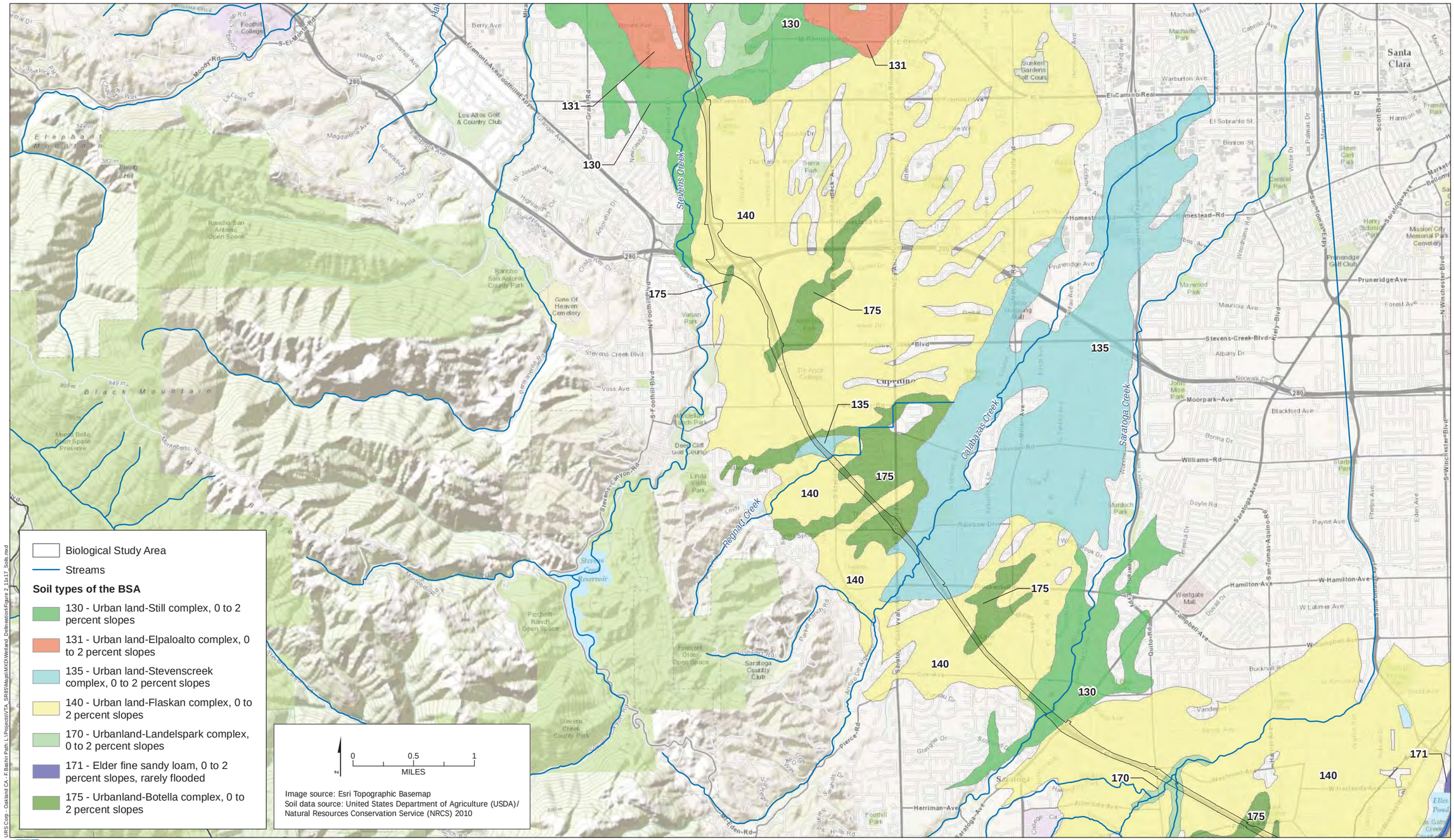
URS Corp - Oakland CA - K:\An L\Projects\Caltrans_SR 85_Express_Lanes_28645170\Maps\MXD\BA\Figure 5_Host Plant_Occurences.mxd



URS Corp - Oakland CA - F:\Bashir Path: L:\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Figure 2_11x17_Soils.mxd

Caltrans
State Route 85 Express Lanes

Sheet 1 of 4
Soils in the BSA



Caltrans
State Route 85 Express Lanes

Sheet 2 of 4
Soils in the BSA

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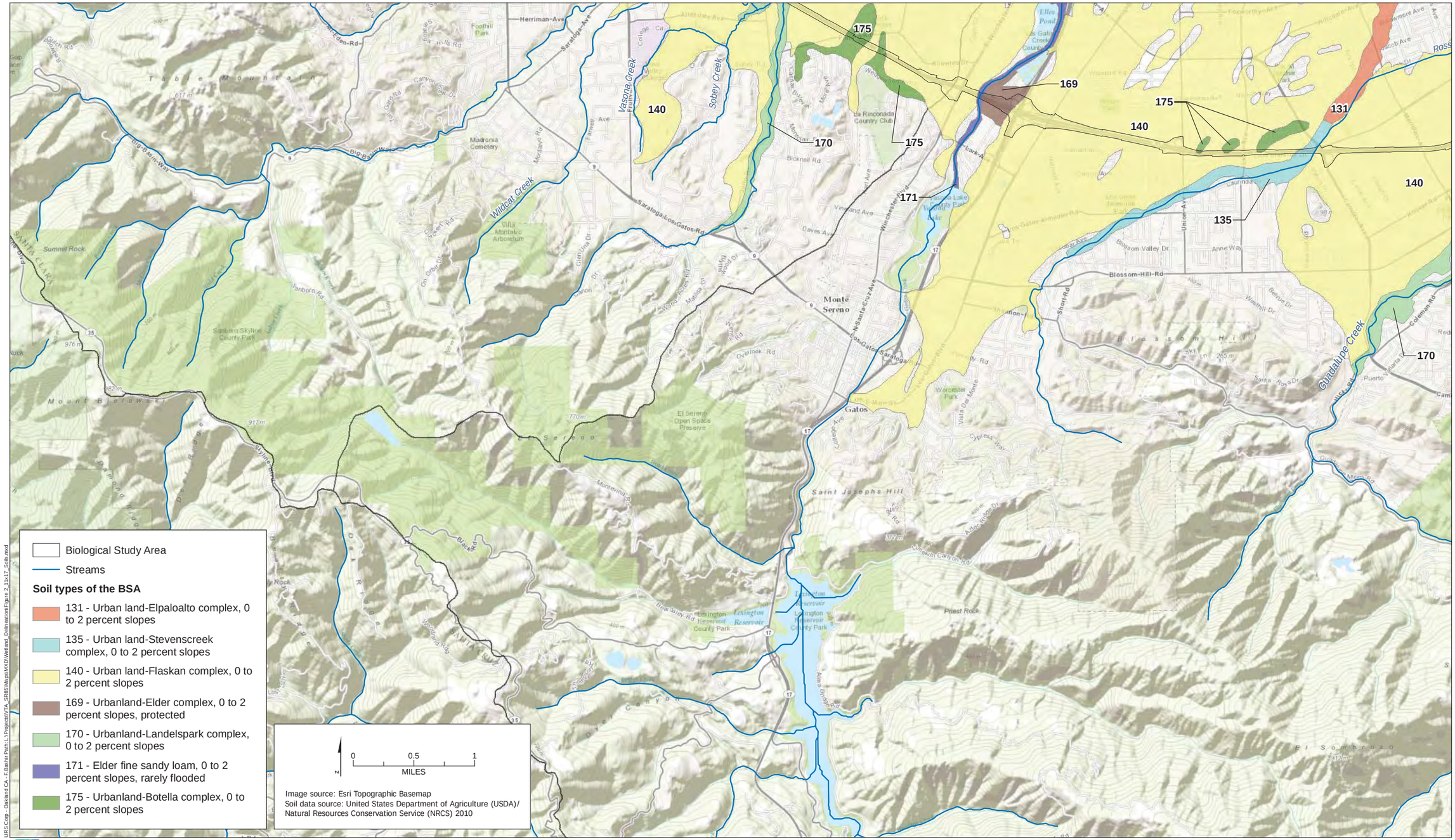
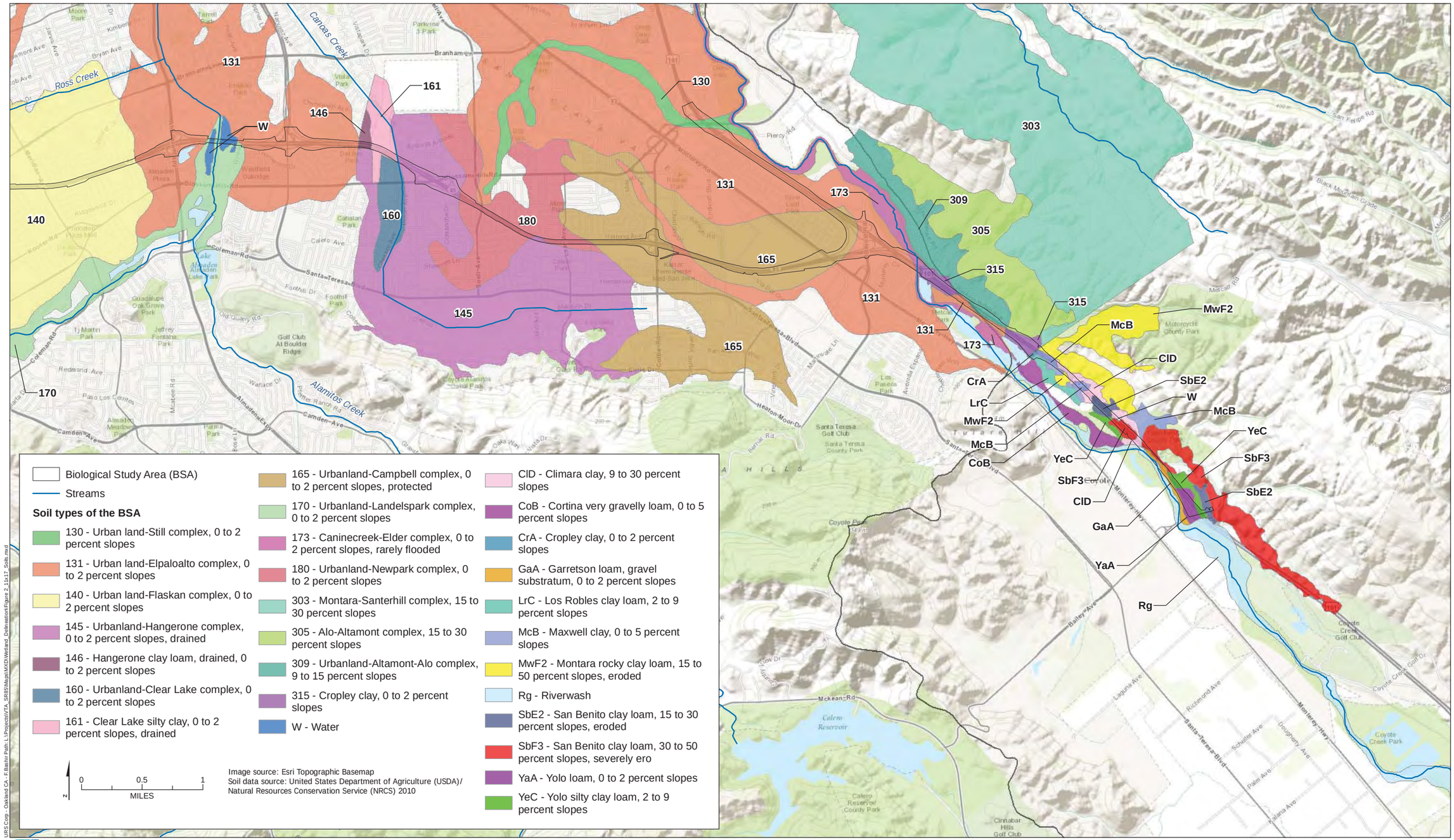


URS Corp - Oakland CA - F:\Biehir Path: L:\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Figure 2_11x17_Soils.mxd

Caltrans
State Route 85 Express Lanes

Sheet 3 of 4
Soils in the BSA



Caltrans
State Route 85 Express Lanes

Sheet 4 of 4
Soils in the BSA

URS Corp - Oakland CA - F:\Bashir Path: L:\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Figure 2_11x17_Soils.mxd

Service Species List

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825

December 5, 2013

Document Number: 131205052039

Nicole Rucker
URS
1333 Broadway Suite 800
Oakland, CA 94612

Subject: Not specified

Dear: Ms. Rucker

We are sending this official species list in response to your December 5, 2013 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be March 05, 2014.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found here.

Endangered Species Division

U.S. Fish & Wildlife Service

Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 131205052039

Database Last Updated: September 18, 2011

Quad Lists

Listed Species

Invertebrates

Euphydryas editha bayensis

bay checkerspot butterfly (T)

Critical habitat, bay checkerspot butterfly (X)

Lepidurus packardi

vernal pool tadpole shrimp (E)

Fish

Acipenser medirostris

green sturgeon (T) (NMFS)

Eucyclogobius newberryi

tidewater goby (E)

Hypomesus transpacificus

delta smelt (T)

Oncorhynchus kisutch

coho salmon - central CA coast (E) (NMFS)

Oncorhynchus mykiss

Central California Coastal steelhead (T) (NMFS)

Central Valley steelhead (T) (NMFS)

Critical habitat, Central California coastal steelhead (X) (NMFS)

Oncorhynchus tshawytscha

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense

California tiger salamander, central population (T)

Critical habitat, CA tiger salamander, central population (X)

Rana draytonii

California red-legged frog (T)

Critical habitat, California red-legged frog (X)

Reptiles

Thamnophis sirtalis tetrataenia

San Francisco garter snake (E)

Birds

Brachyramphus marmoratus
marbled murrelet (T)

Charadrius alexandrinus nivosus
western snowy plover (T)

Pelecanus occidentalis californicus
California brown pelican (E)

Rallus longirostris obsoletus
California clapper rail (E)

Sternula antillarum (=Sterna, =albifrons) browni
California least tern (E)

Mammals

Reithrodontomys raviventris
salt marsh harvest mouse (E)

Vulpes macrotis mutica
San Joaquin kit fox (E)

Plants

Acanthomintha duttonii
San Mateo thornmint (E)

Castilleja affinis ssp. neglecta
Tiburon paintbrush (E)

Ceanothus ferrisae
Coyote ceanothus (E)

Chorizanthe robusta var. robusta
robust spineflower (E)

Cirsium fontinale var. fontinale
fountain thistle (E)

Dudleya setchellii
Santa Clara Valley dudleya (E)

Hesperolinon congestum
Marin dwarf-flax (=western flax) (T)

Lasthenia conjugens
Contra Costa goldfields (E)

Streptanthus albidus ssp. albidus
Metcalf Canyon jewelflower (E)

Suaeda californica
California sea blite (E)

Trifolium amoenum
showy Indian clover (E)

Quads Containing Listed, Proposed or Candidate Species:

MORGAN HILL (406B)
SANTA TERESA HILLS (407A)
LOS GATOS (407B)
SAN JOSE WEST (427C)
SAN JOSE EAST (427D)

MOUNTAIN VIEW (428A)
PALO ALTO (428B)
CUPERTINO (428D)

County Lists

No county species lists requested.

Key:

(E) *Endangered* - Listed as being in danger of extinction.

(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.

(C) *Candidate* - Candidate to become a proposed species.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.

(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our Protocol and Recovery Permits pages.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting

Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

  During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

  Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates

was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be March 05, 2014.

Project Plans (on CD)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER — CIVIL — STATE OF CALIFORNIA

URS Corporation
100 W San Fernando St
Suite 200
San Jose, CA 95113

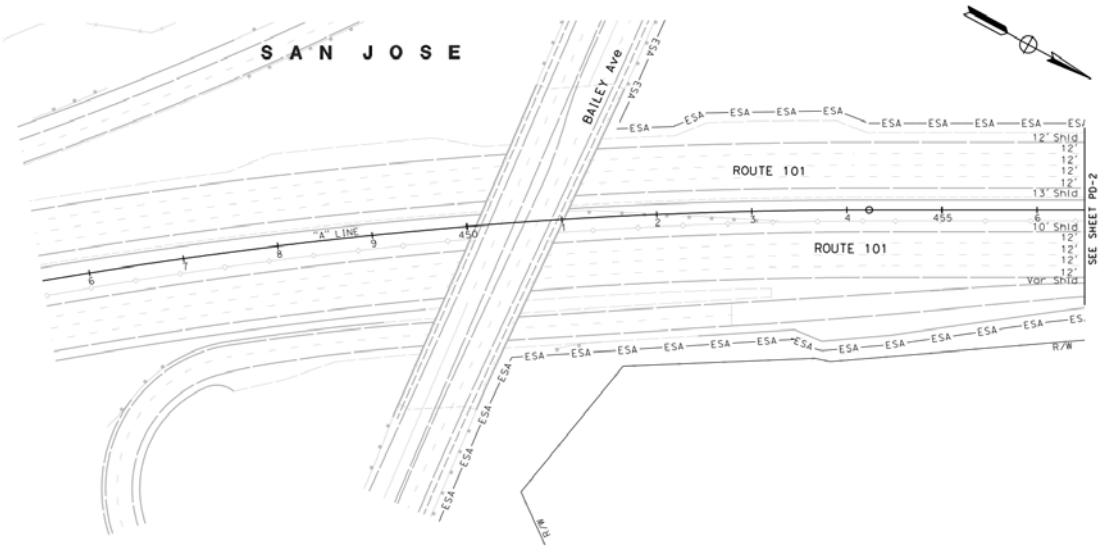
Santa Clara Valley Transportation Authority
3331 N First Street
San Jose, CA 95134

NOTES:

1. FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. ALL STRIPES AND PAVEMENT MARKINGS ARE TO BE THERMOPLASTIC, EXCEPT FOR THOSE MARKED PAINT.
3. CONTRACTOR SHALL REMOVE ANY EXISTING CONFLICTING STRIPING, PAVEMENT MARKERS, MARKINGS, AND DELINEATORS.
4. FOR OVERHEAD SIGN DETAILS, REFER TO CONCEPTUAL SIGNING PLANS (PROJECT REPORT - APPENDIX D)

LEGEND:

- (No.) STANDARD PAVEMENT DELINEATION DETAIL No.
- CHANGE OF PAVEMENT DELINEATION DETAIL
- HOV LANE
- I_F DELINEATOR (CLASS 1) WITH TYPE DESIGNATION
- I_G DELINEATOR (CLASS 1) WITH TYPE DESIGNATION
- OM-3R OR OM-3L MARKERS
- TYPE I 18' ARROW
- TYPE II (R OR L) ARROW
- TYPE III (R OR L) ARROW
- TYPE VI ARROW
- TYPE V ARROW
- CONCRETE MEDIAN BARRIER MARKER
- MEDIAN BARRIER POSTMILE MARKING
- DIRECTIONAL ARROW



LOCATIONS OF CONSTRUCTION

No	COUNTY	ROUTE	PM
1	SCI	85	0.0-24.1
2	SCI	101	23.1-28.6
3	SCI	101	47.9-52.0

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-1

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: Chadi Chazbek

CALCULATED-DESIGNED BY: Cassidy Grillon

CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

DATE PLOTTED => DATE
TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010

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DGN FILE => $REQUEST

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT xxxx

PROJECT NUMBER & PHASE 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	85, 101	Var		

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PLANS APPROVAL DATE

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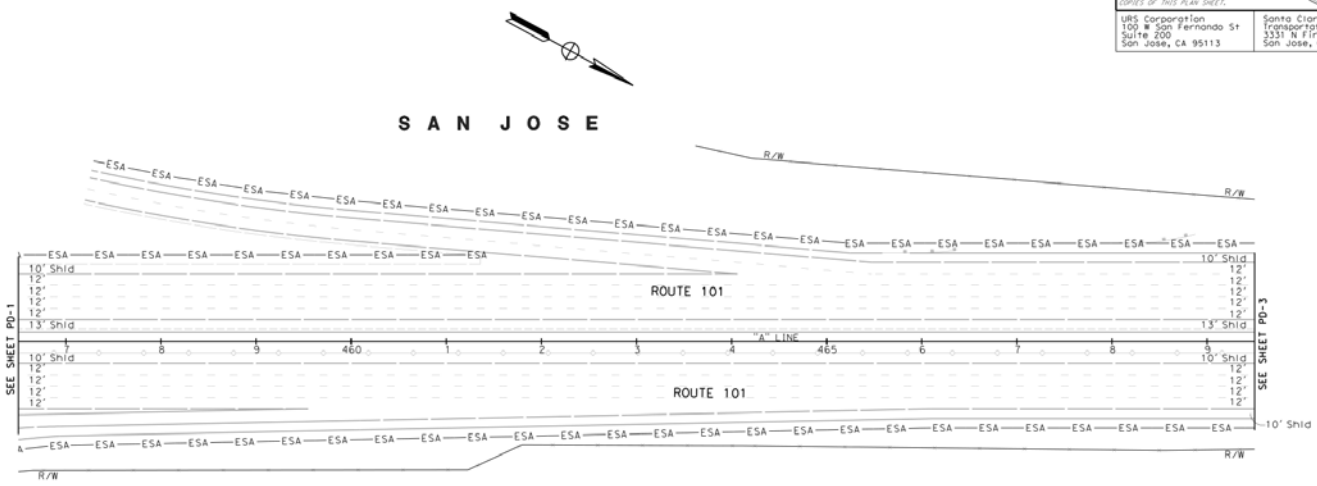

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-2

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CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

DATE PLOTTED => DATE
03-25-11 TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT xxxx

PROJECT NUMBER & PHASE 0400001163

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4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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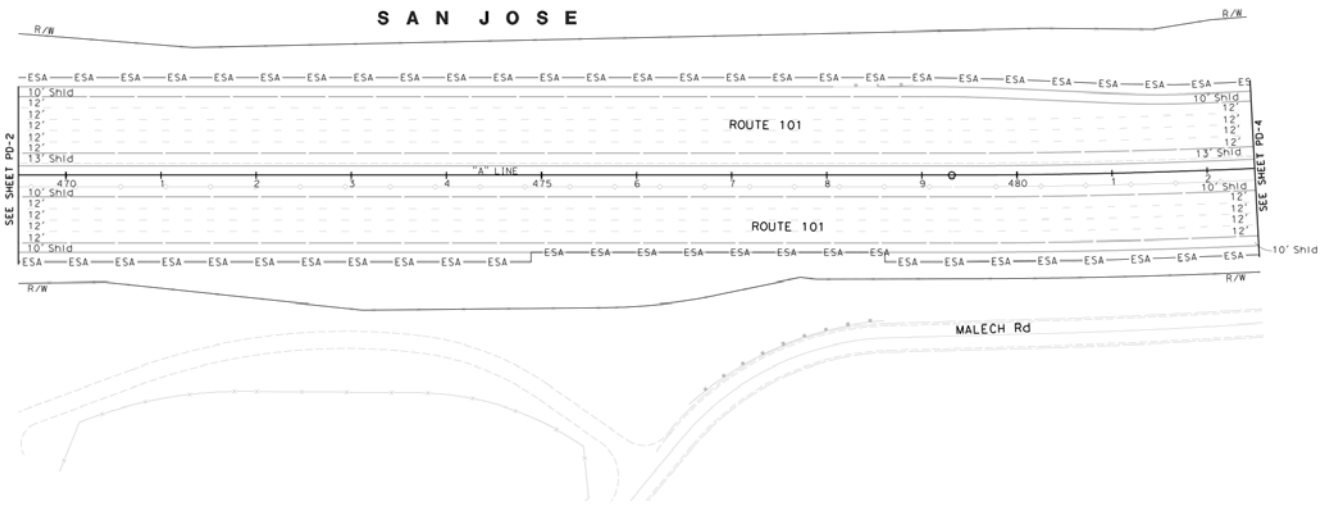

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-3

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CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

DATE PLOTTED => DATE
TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010

USERNAME => $USER
DGN FILE => $REQUEST

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT xxxx

PROJECT NUMBER & PHASE 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	85, 101	Var		

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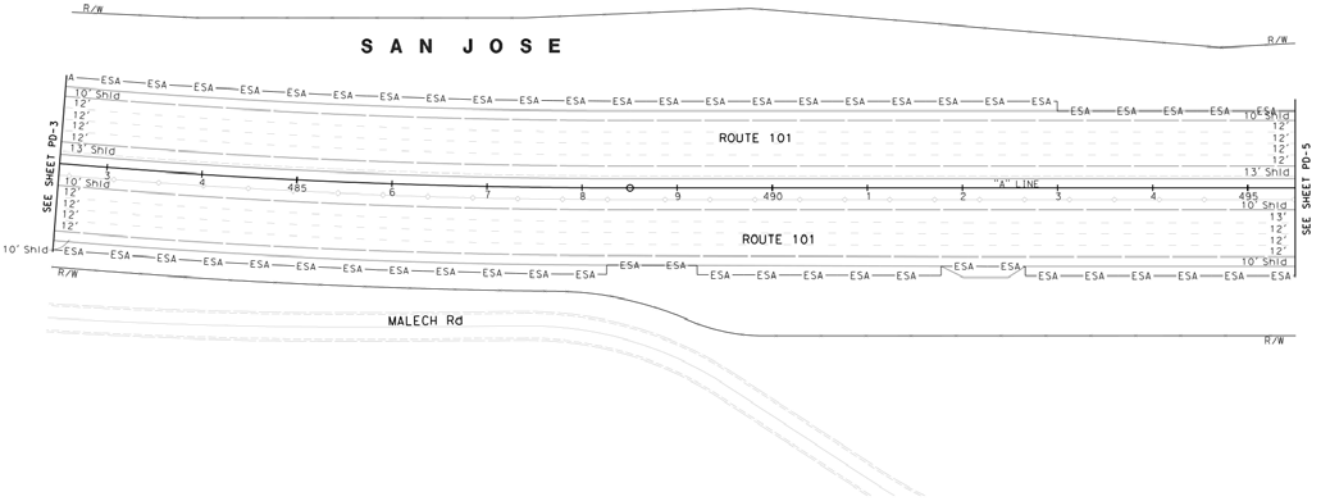

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-4

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CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

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LAST REVISION DATE PLOTTED => $DATE | TIME PLOTTED => $TIME 03-25-11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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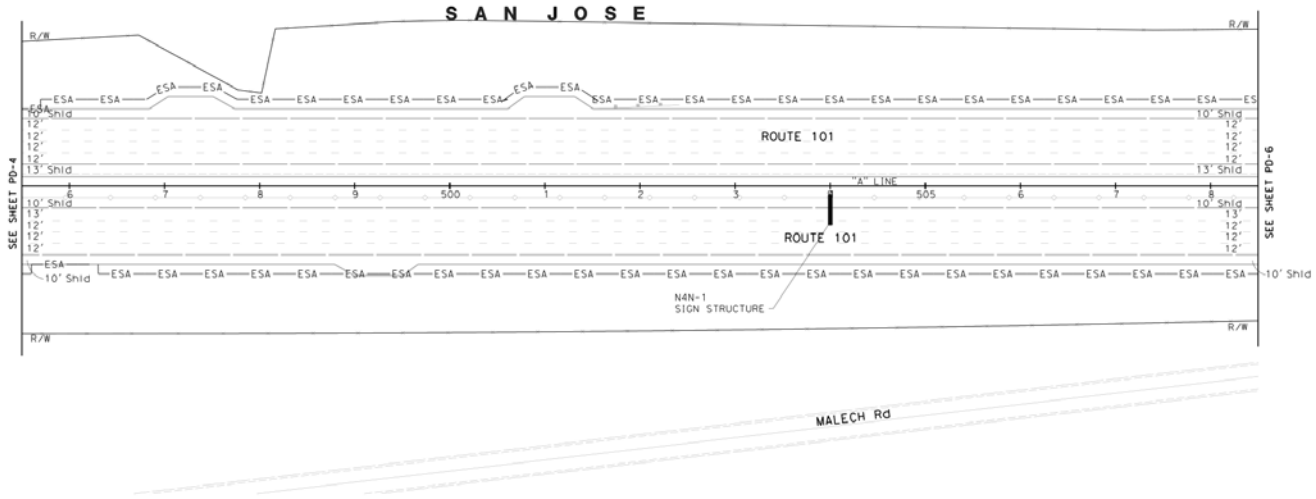

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-5

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DATE REVISED	XX/XX/11
CALCULATED-DESIGNED BY	Cassidy Grillon
CHECKED BY	Chadi Chazbek
CONSULTANT FUNCTIONAL SUPERVISOR	Chadi Chazbek

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

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PLANS APPROVAL DATE

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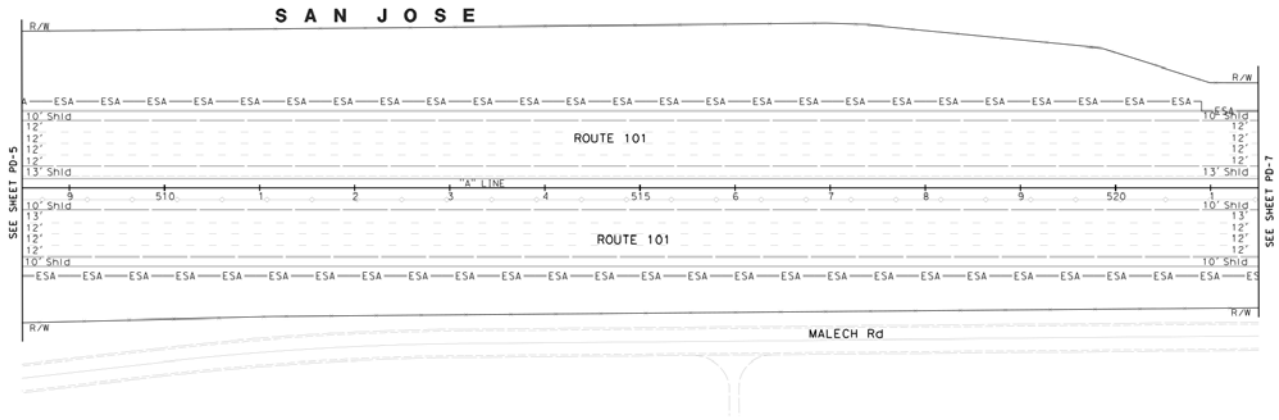

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-6

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	85, 101	Var		

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PLANS APPROVAL DATE

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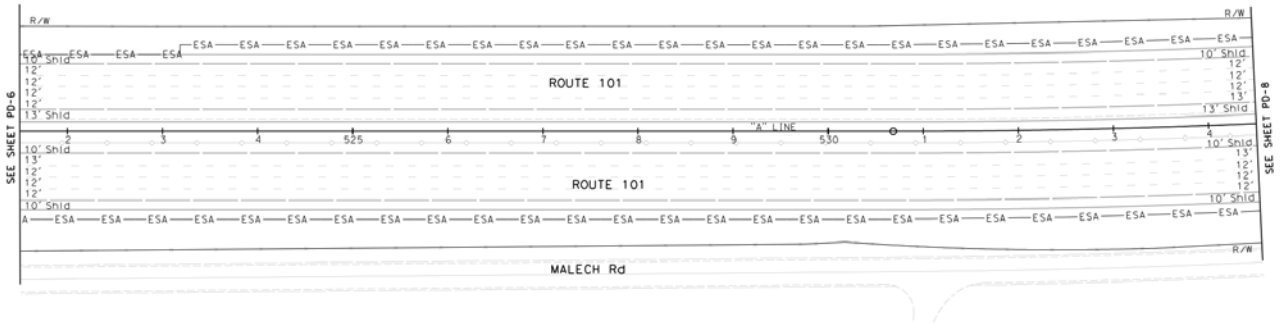

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-7

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DATE REVISED: XX/XX/11

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03-25-11 TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT xxxx

PROJECT NUMBER & PHASE 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	85, 101	Var		

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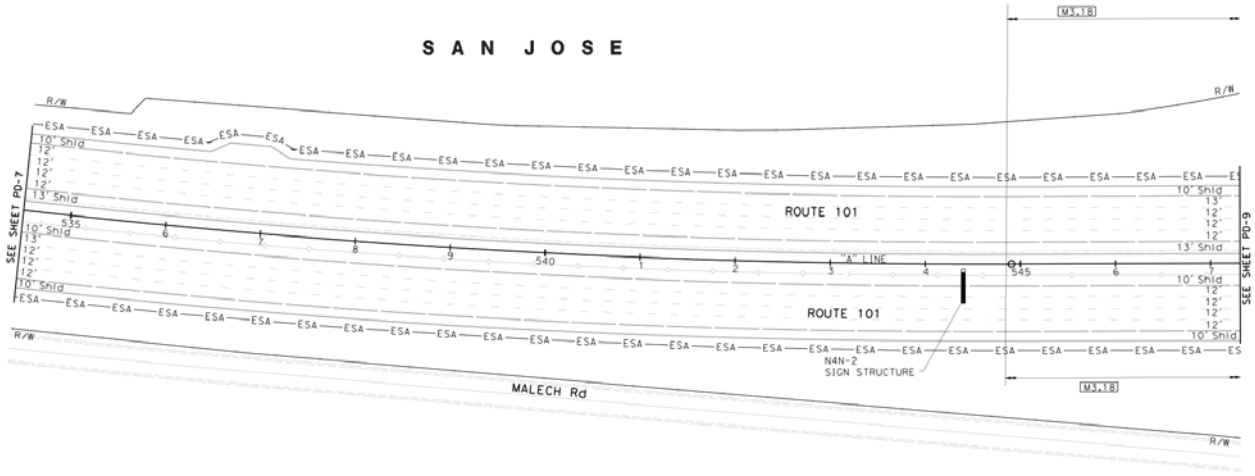

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-8

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CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

BORDER LAST REVISED 7/2/2010

USERNAME => $USER
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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT xxxx

PROJECT NUMBER & PHASE 0400001163

LAST REVISION DATE PLOTTED => $DATE
TIME PLOTTED => $TIME
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

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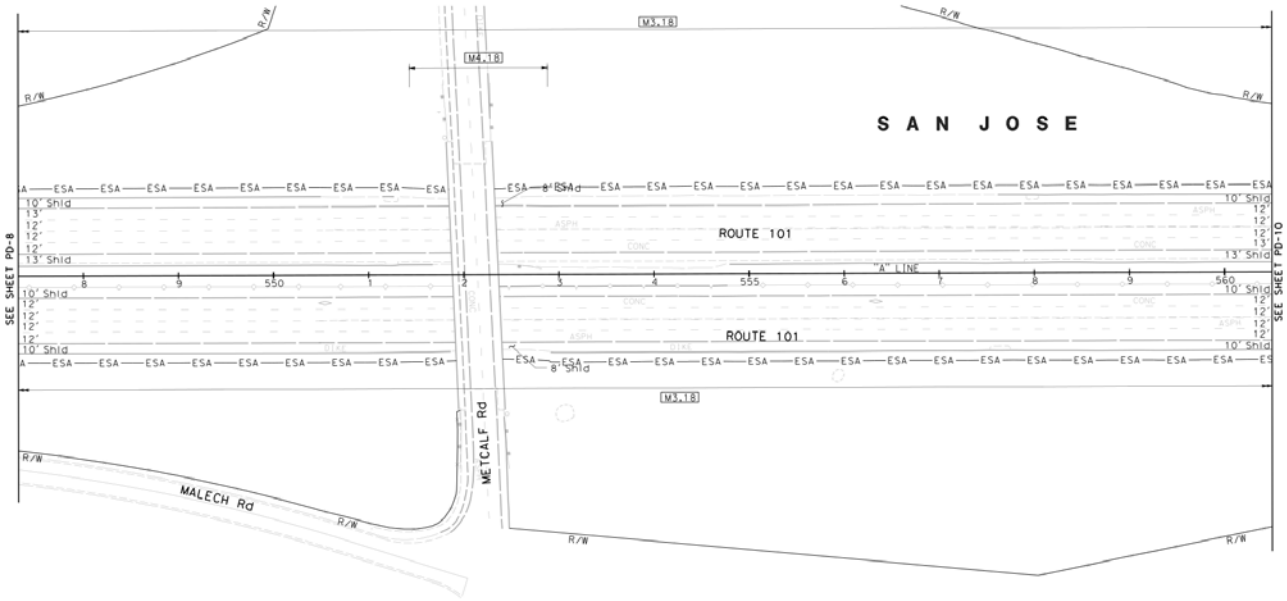

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-9

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CHECKED BY: Chadi Chazbek
REVISED BY: XX
DATE REVISED: XX/XX/11

DATE PLOTTED => SCALE
03-25-11 | TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER | DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT NUMBER & PHASE | 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	85, 101	Var		

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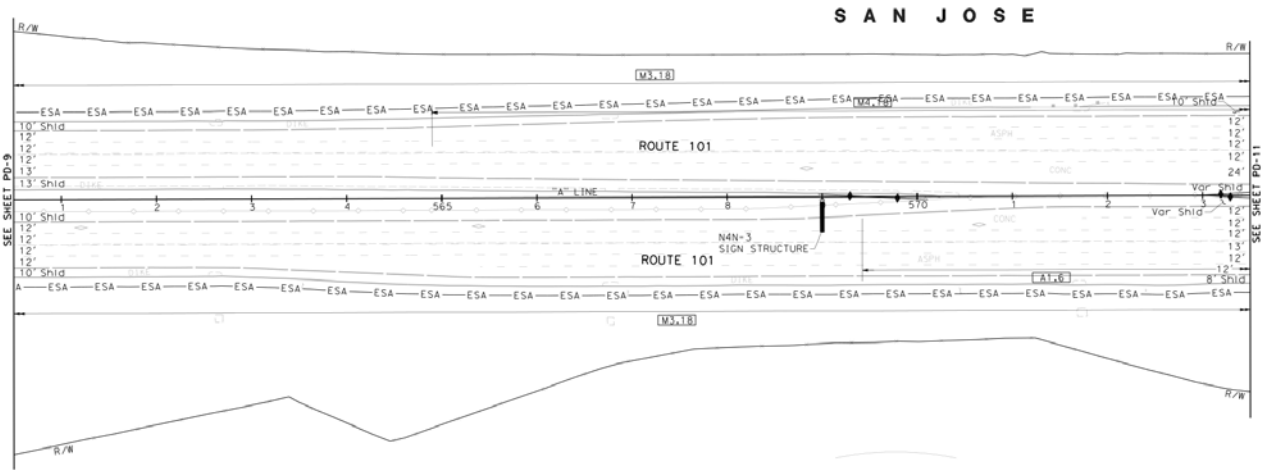

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-10

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CHECKED BY: Chadi Chazbek

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DATE REVISED: XX/XX/11

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	85, 101	Var		

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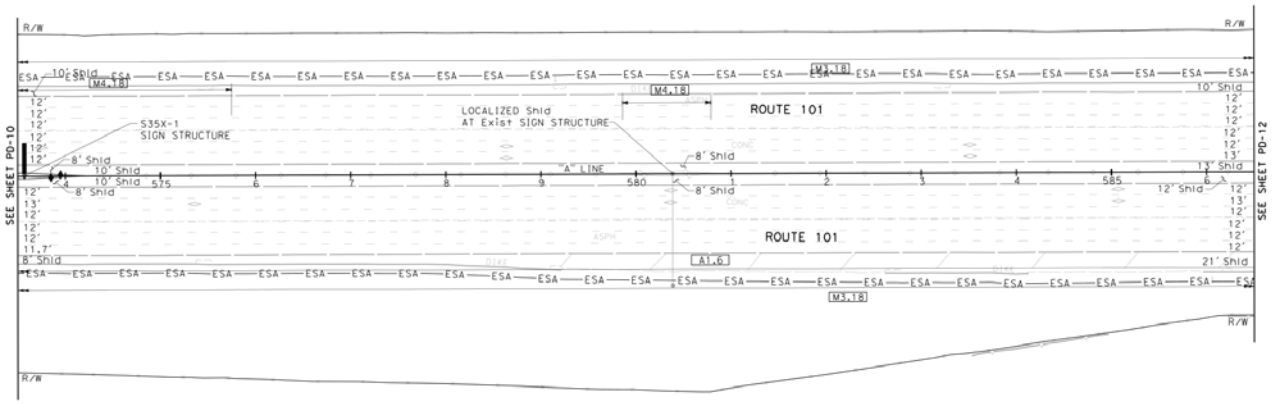

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-11

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CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

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4	SCl	85, 101	Var		

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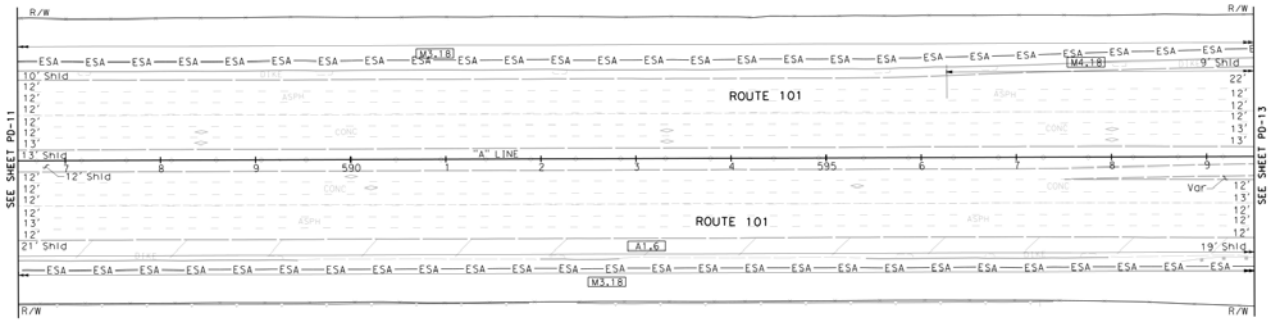

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-12

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CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT NUMBER & PHASE 0400001163

LAST REVISION DATE PLOTTED => $DATE 03-25-11 TIME PLOTTED => $TIME

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	85, 101	Var		

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PLANS APPROVAL DATE

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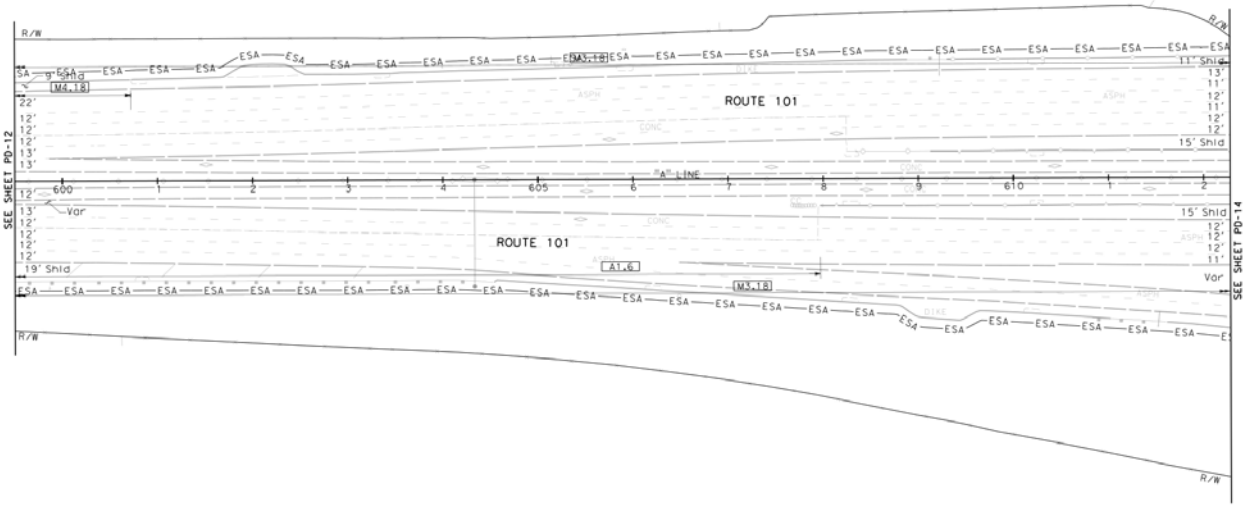

FOR NOTES AND LEGEND
SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-13

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: Chadi Chazbek

CALCULATED-DESIGNED BY: Cassidy Grillon

CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

DATE PLOTTED => DATE
03-25-11 | TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER | DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT NUMBER & PHASE | 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

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PLANS APPROVAL DATE

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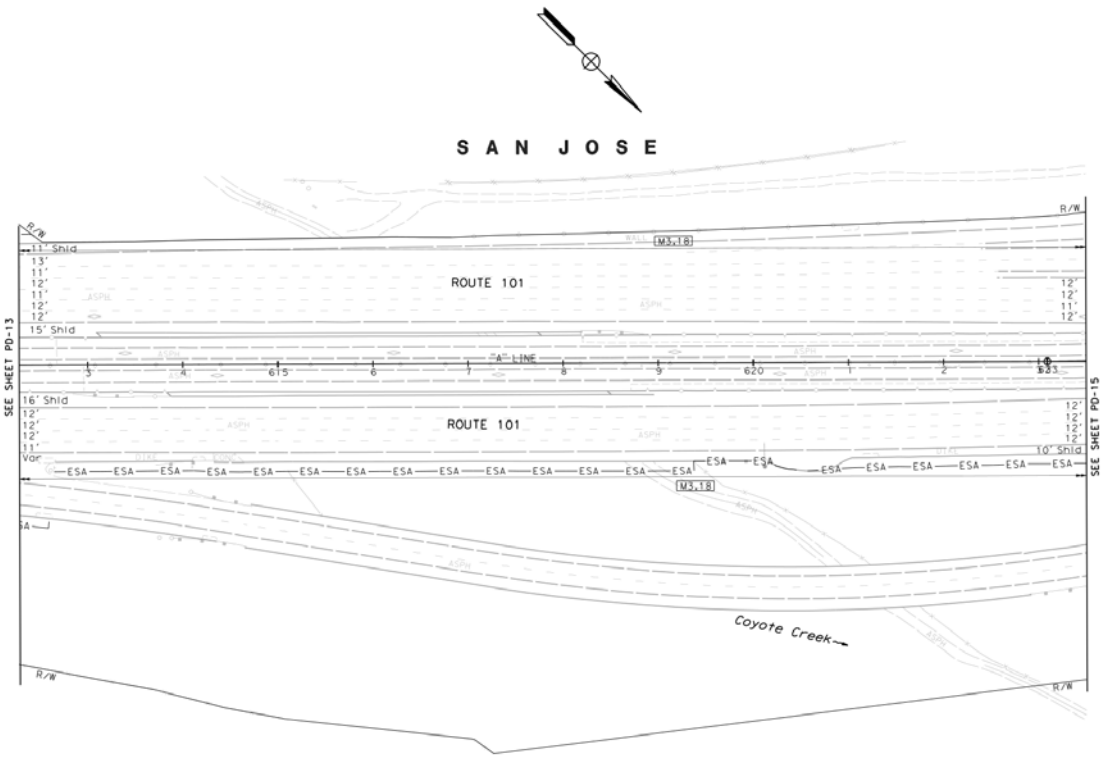

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-14

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

LAST REVISION DATE PLOTTED => SCALE
03-25-11 TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT NUMBER & PHASE 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

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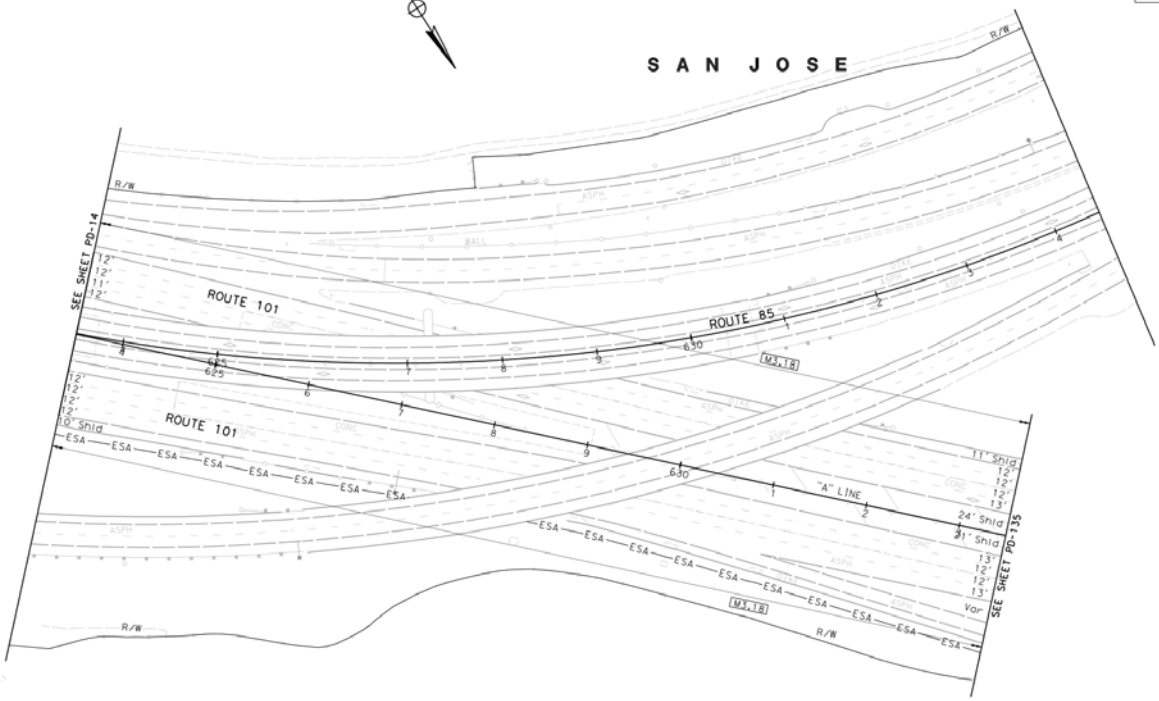

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-15

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CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

FILE NAME: DATE PLOTTED => SCALE 03-25-11 | TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT NUMBER & PHASE 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

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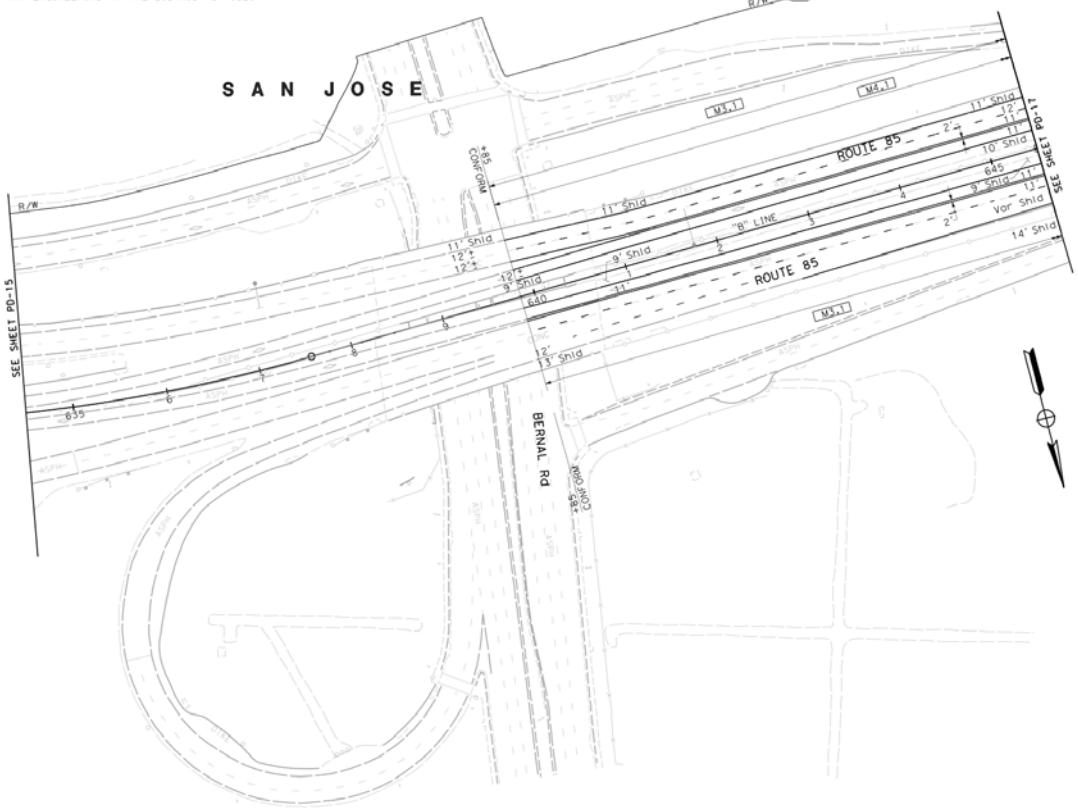

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-16

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DATE REVISED: XX/XX/11

FILE NAME: DATE PLOTTED => SCALE
03-25-11 | TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT NUMBER & PHASE 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

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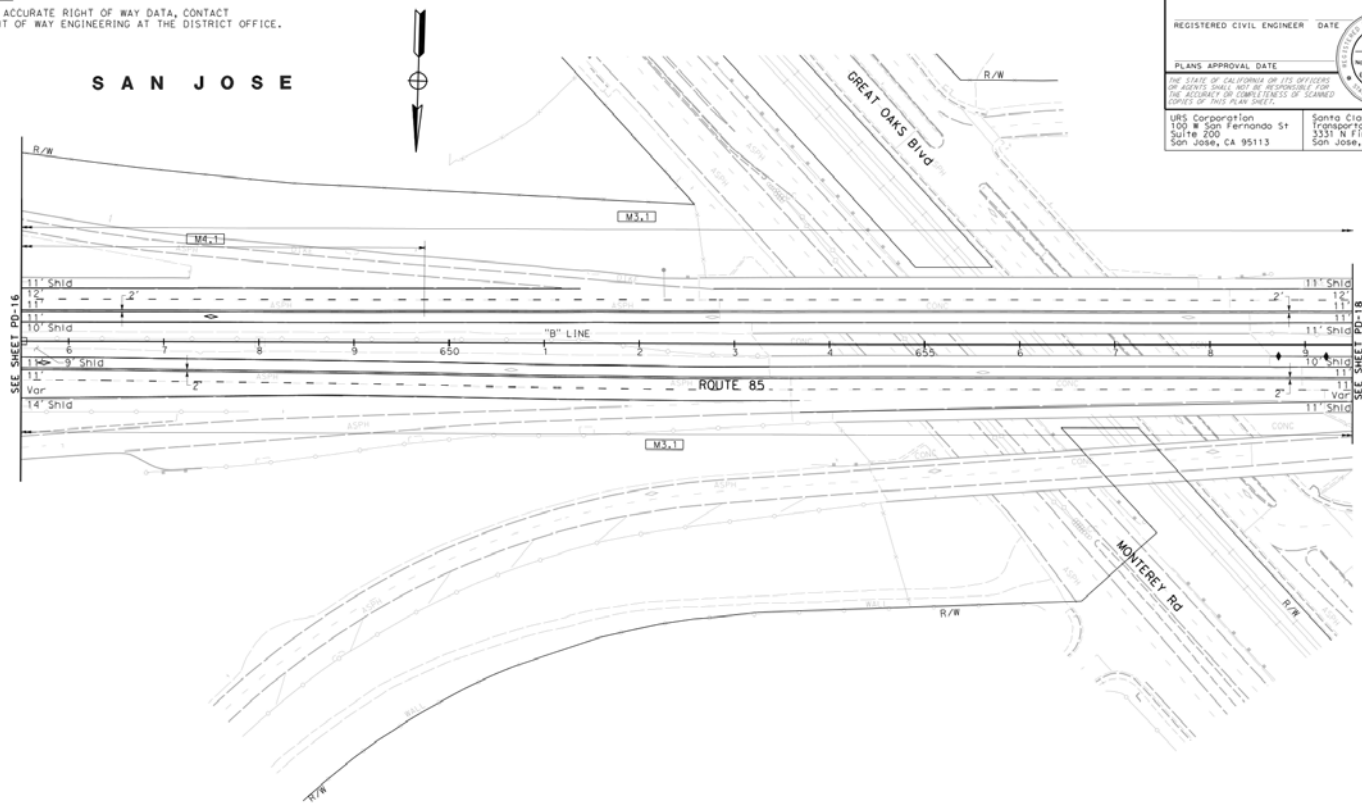

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-17

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REVISED BY: XX

DATE REVISED: XX/XX/11

DATE PLOTTED => SCALE
03-25-11 | TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010

USERNAME => $USER
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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT xxxx

PROJECT NUMBER & PHASE 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	85, 101	Var		

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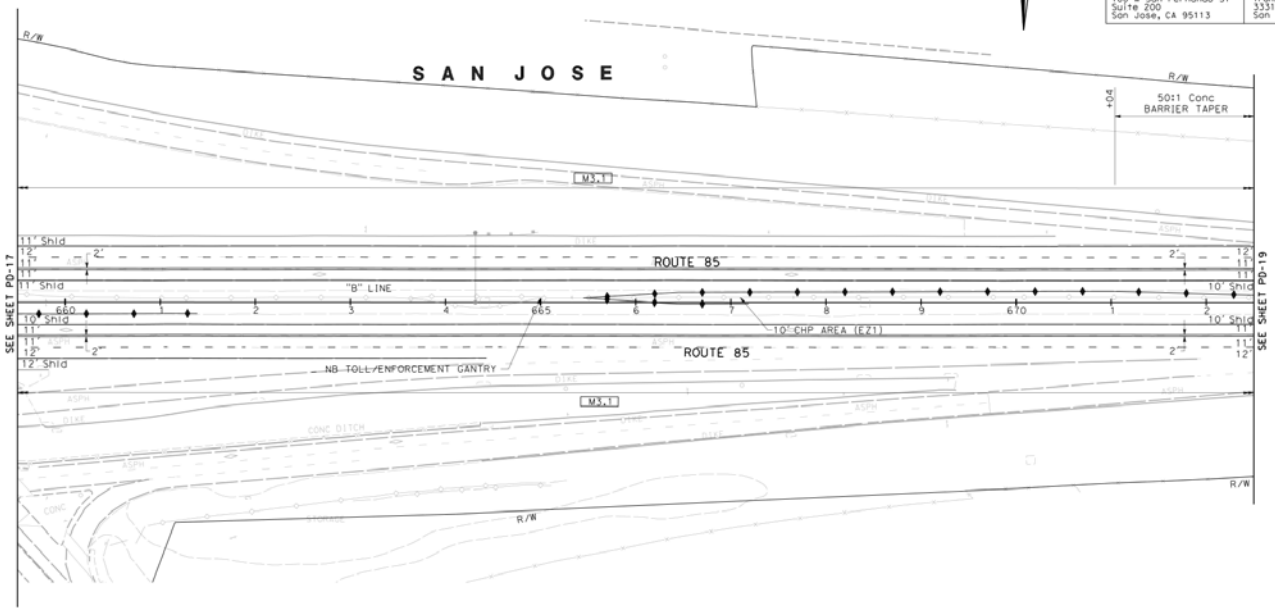

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-18

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DATE REVISED: XX/XX/11

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TIME PLOTTED => TIME

03-25-11 | 11:46

BORDER LAST REVISED 7/2/2010

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT xxxx

PROJECT NUMBER & PHASE 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

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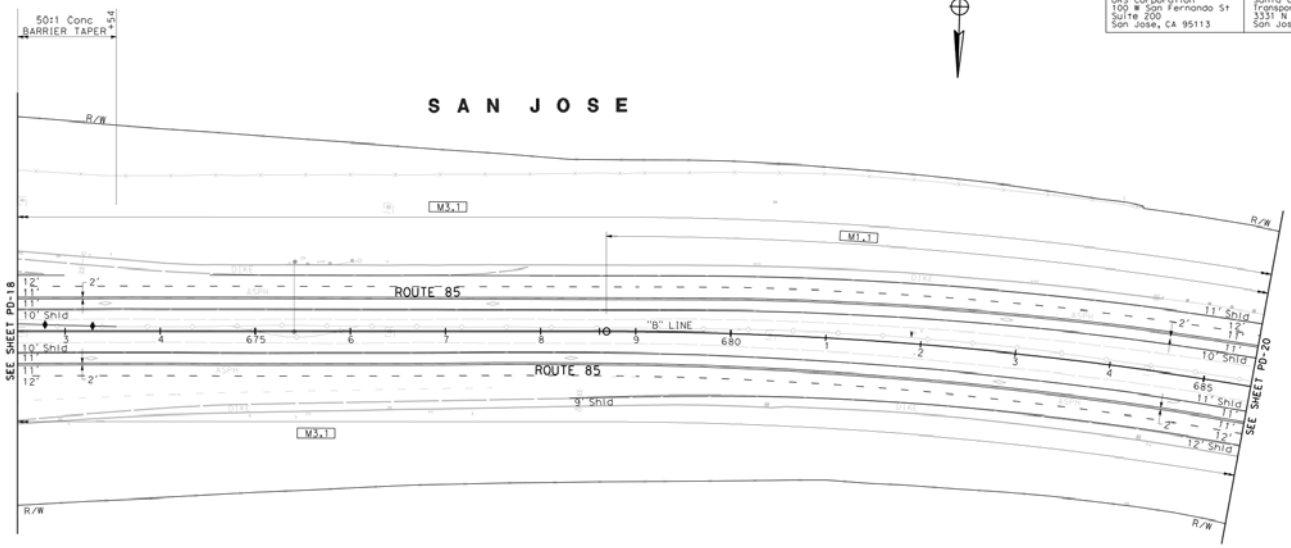

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PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-19

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CHECKED BY: Chadi Chazbek

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DATE REVISED: XX/XX/11

FILE NAME: DATE PLOTTED => SCALE
03-25-11 | TIME PLOTTED => TIME

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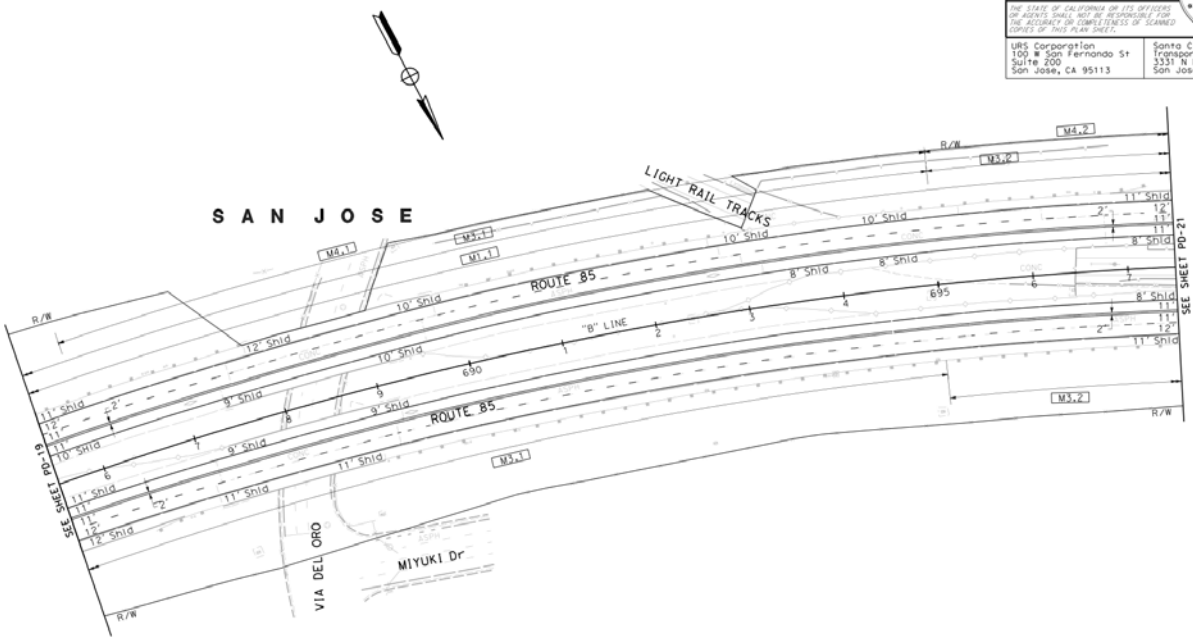

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PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-20

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REVISED BY: XX

DATE REVISED: XX/XX/11

DATE PLOTTED => SCALE
03-25-11 | TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER | DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT NUMBER & PHASE | 0400001163

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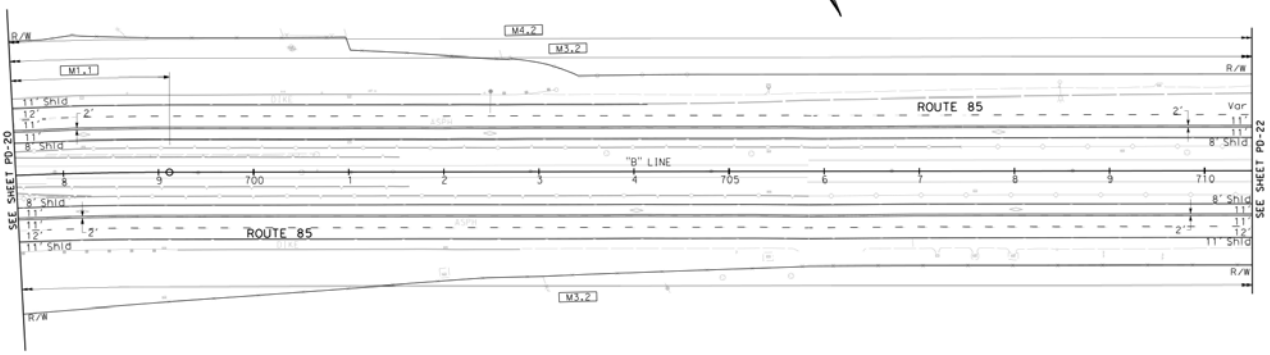

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-21

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DATE REVISED: XX/XX/11

LAST REVISION DATE PLOTTED => SCALE
03-25-11 TIME PLOTTED => TIME

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

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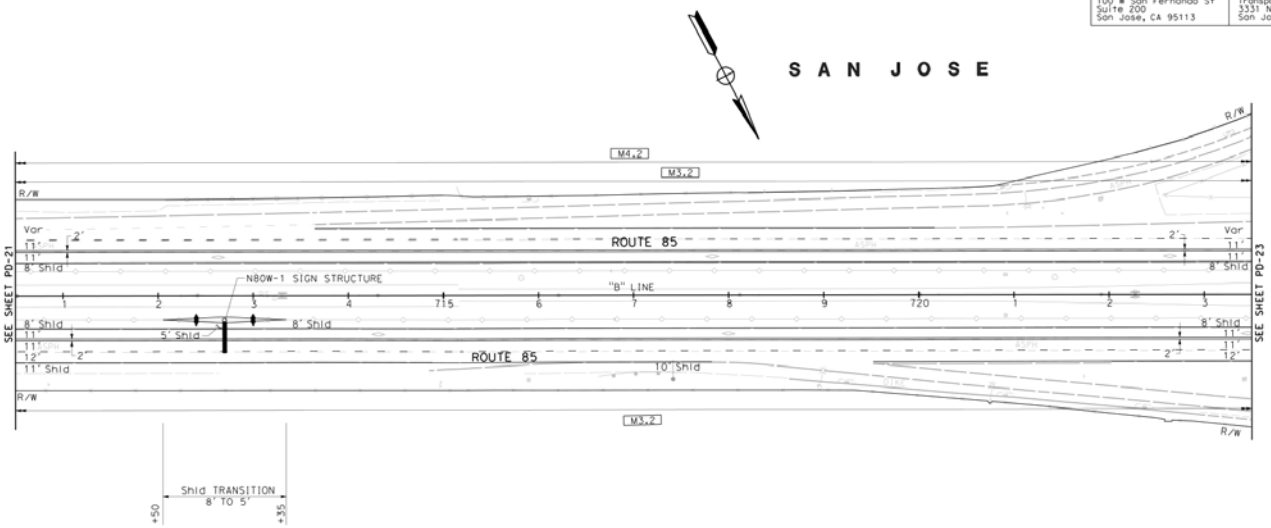

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-22

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REVISED BY: XX

DATE REVISED: XX/XX/11

LAST REVISION DATE PLOTTED => SCALE
03-25-11 TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010

USERNAME => $USER
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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT xxxx

PROJECT NUMBER & PHASE 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

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PLANS APPROVAL DATE

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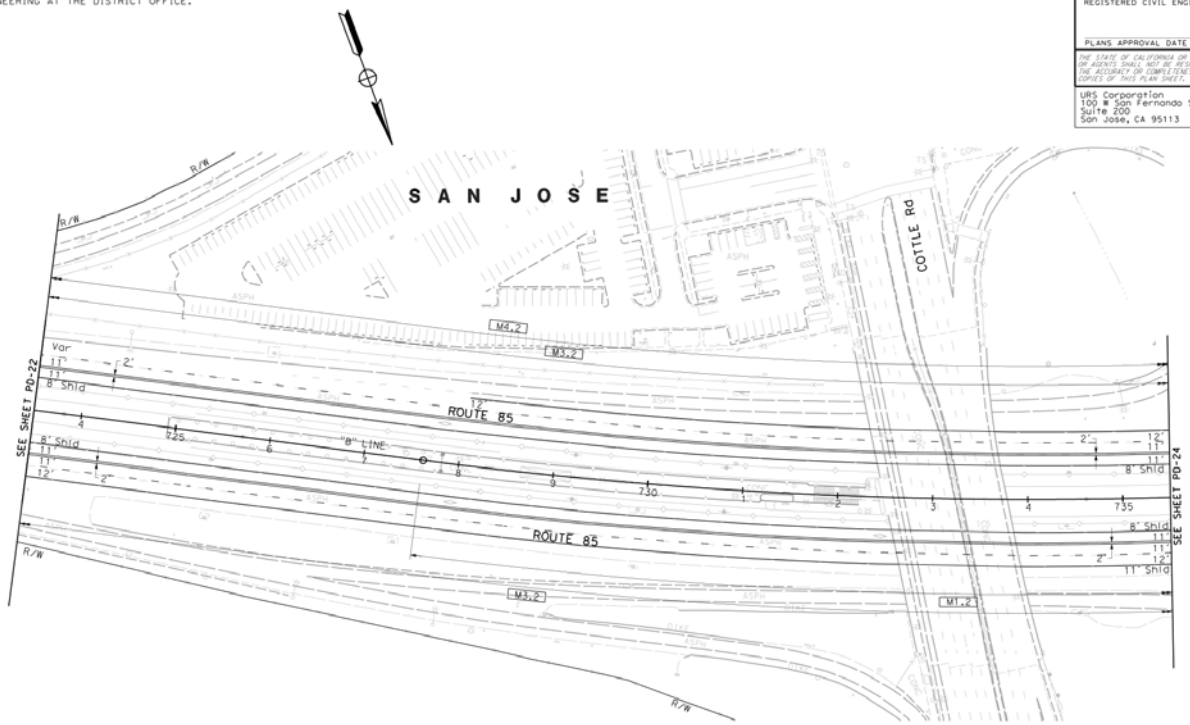

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-23

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DATE REVISED: XX/XX/11

FILE NAME: DATE PLOTTED => SCALE
03-25-11 | TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER | DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT NUMBER & PHASE | 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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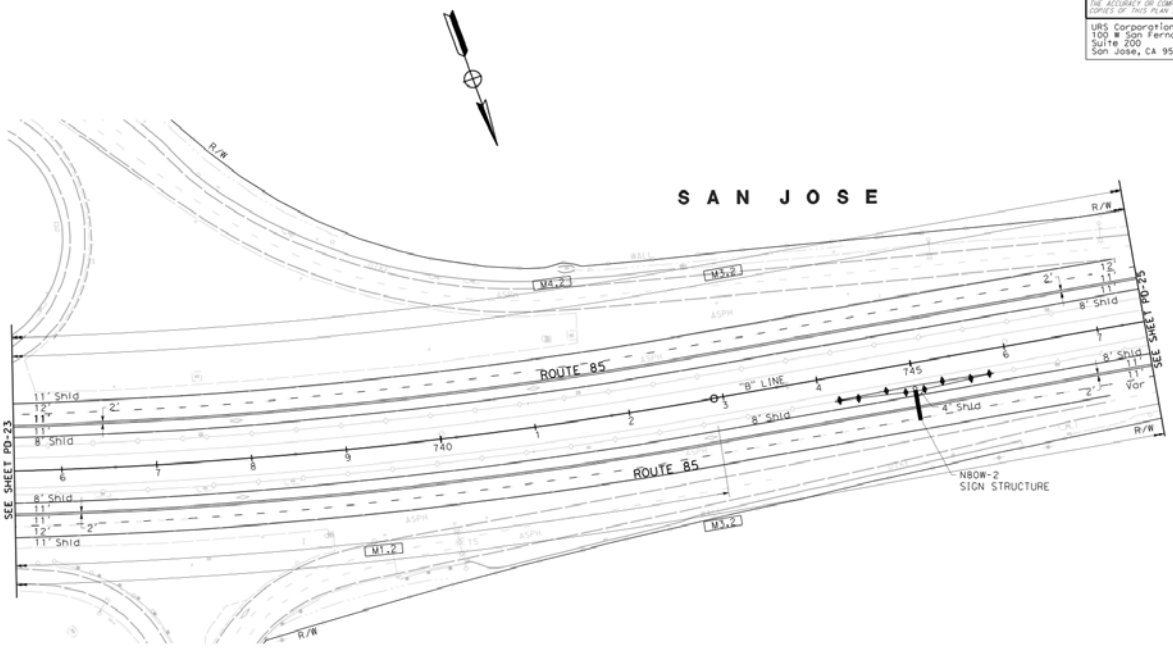

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-24

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CALCULATED-DESIGNED BY: Cassidy Grillon

CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

DATE PLOTTED => DATE
03-25-11 TIME PLOTTED => TIME

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

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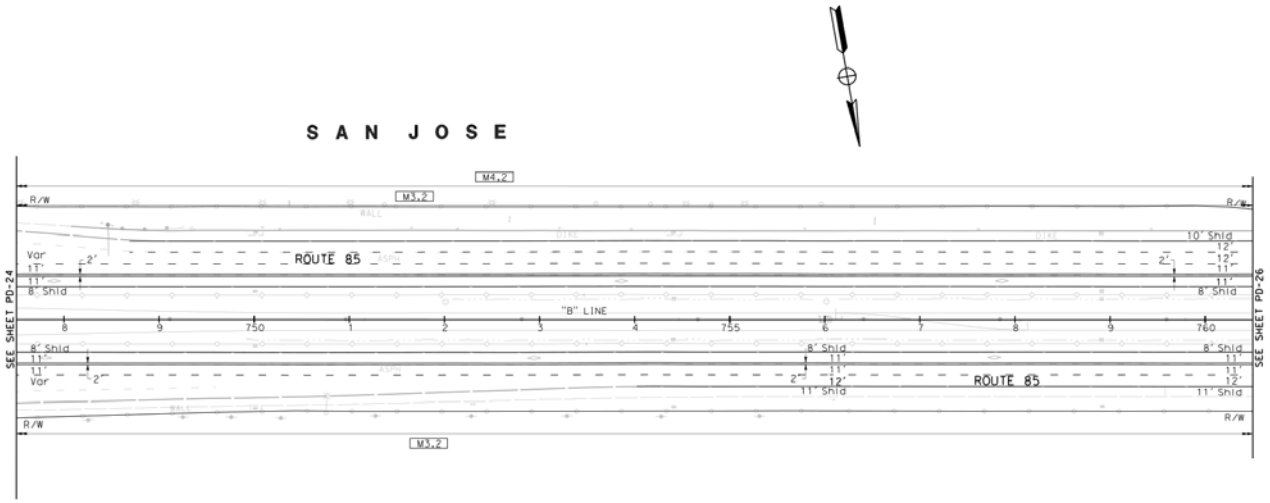

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-25

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Caltrans

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CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

DATE PLOTTED => 03-25-11 | TIME PLOTTED => 17:06

BORDER LAST REVISED 7/2/2010

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DGN FILE => $REQUEST

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT xxxx

PROJECT NUMBER & PHASE 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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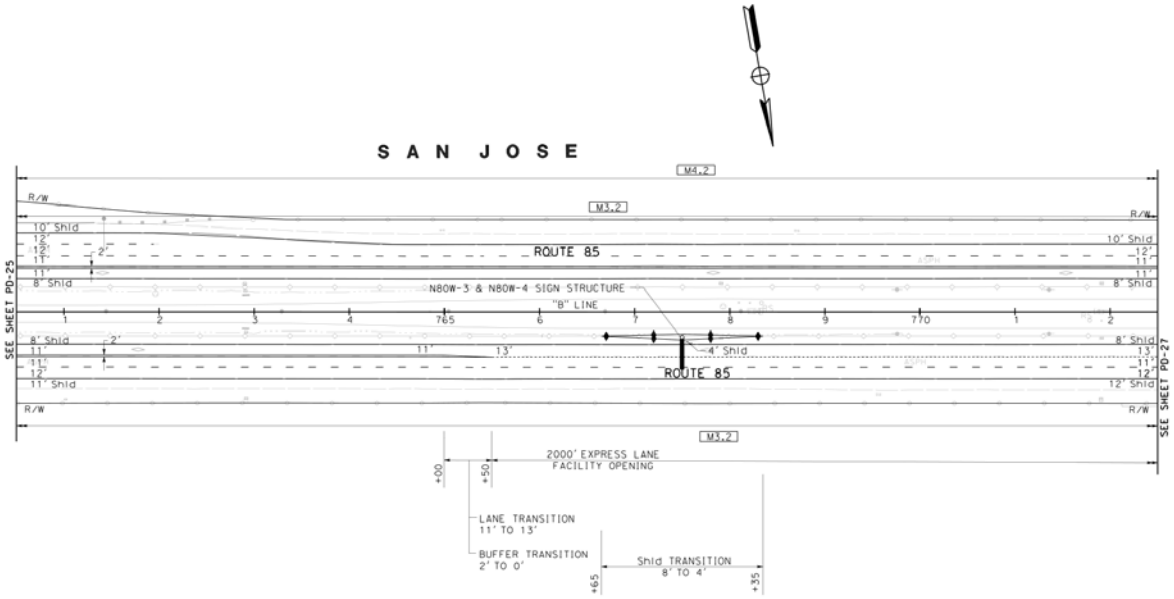

FOR NOTES AND LEGEND
SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-26

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CHECKED BY: Chadi Chazbek

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DATE REVISED: XX/XX/11

DATE PLOTTED => SCALE
03-25-11 | TIME PLOTTED => STIME

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER NO. 54321 CIVIL STATE OF CALIFORNIA

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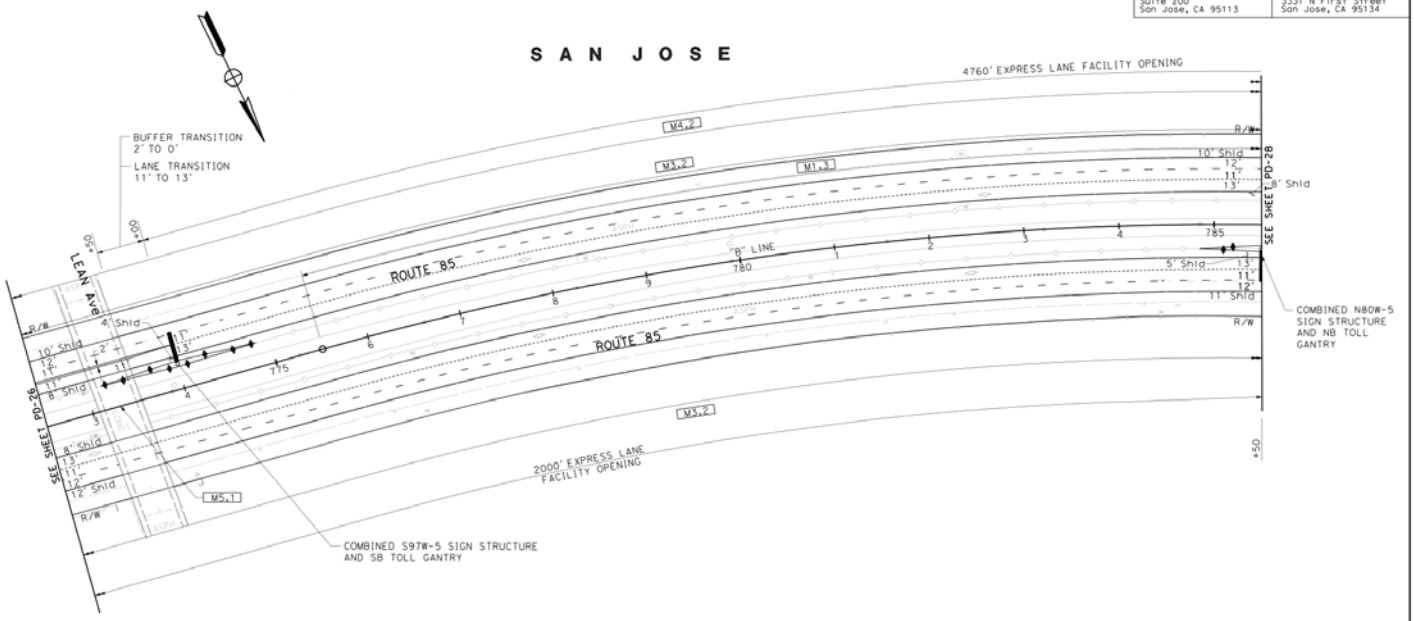

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-27

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Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: Chadi Chazbek

CALCULATED-DESIGNED BY: Cassidy Grillon

CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

FILE NAME: DATE PLOTTED => SCALE 03-25-11 | TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT NUMBER & PHASE 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CIVIL — STATE OF CALIFORNIA

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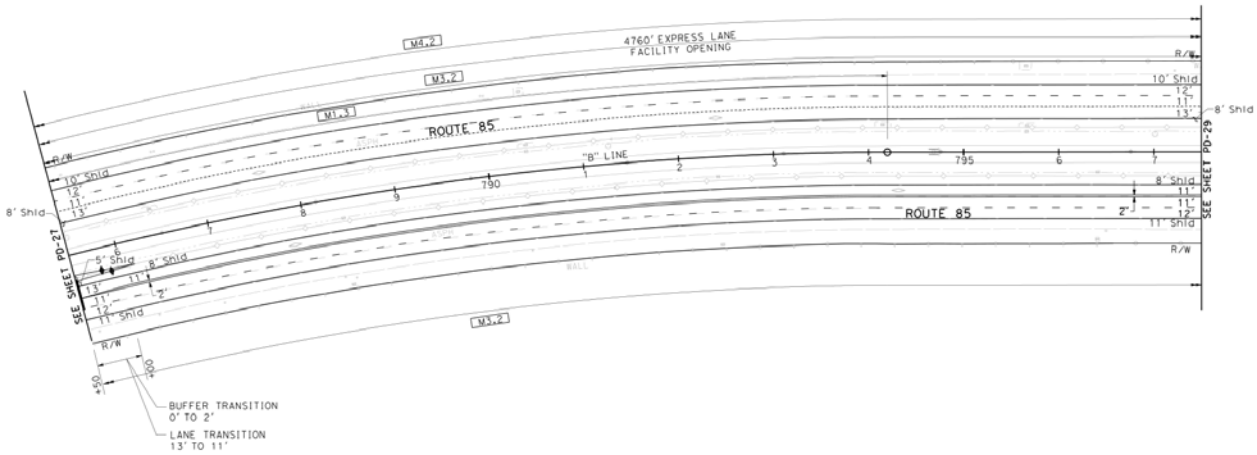
S A N J O S E



FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-28

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

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CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

DATE PLOTTED => SCALE 03-25-11 | TIME PLOTTED => STIME

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT NUMBER & PHASE 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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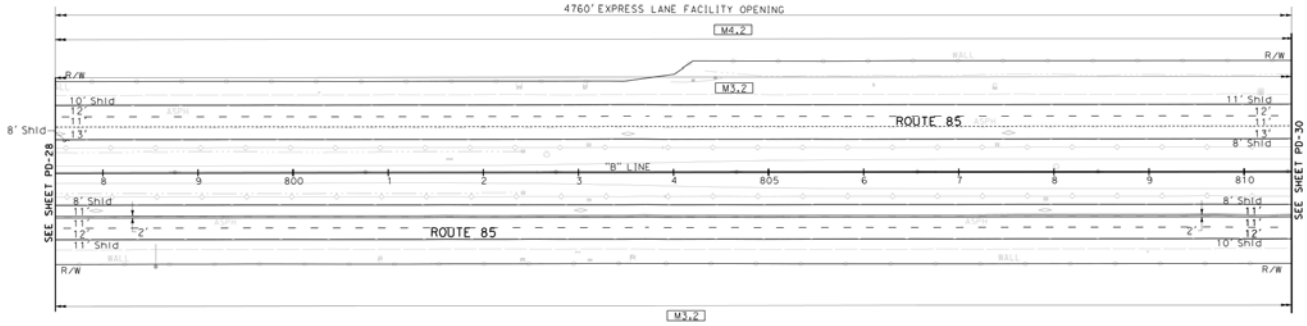
SAN JOSE



FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-29

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: Chadi Chazbek

CALCULATED-DESIGNED BY: Cassidy Grillon

CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

LAST REVISION DATE PLOTTED => SCALE
03-25-11 TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010

USERNAME => $USER
DGN FILE => $REQUEST

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT xxxx

PROJECT NUMBER & PHASE 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER 40 CIVIL STATE OF CALIFORNIA

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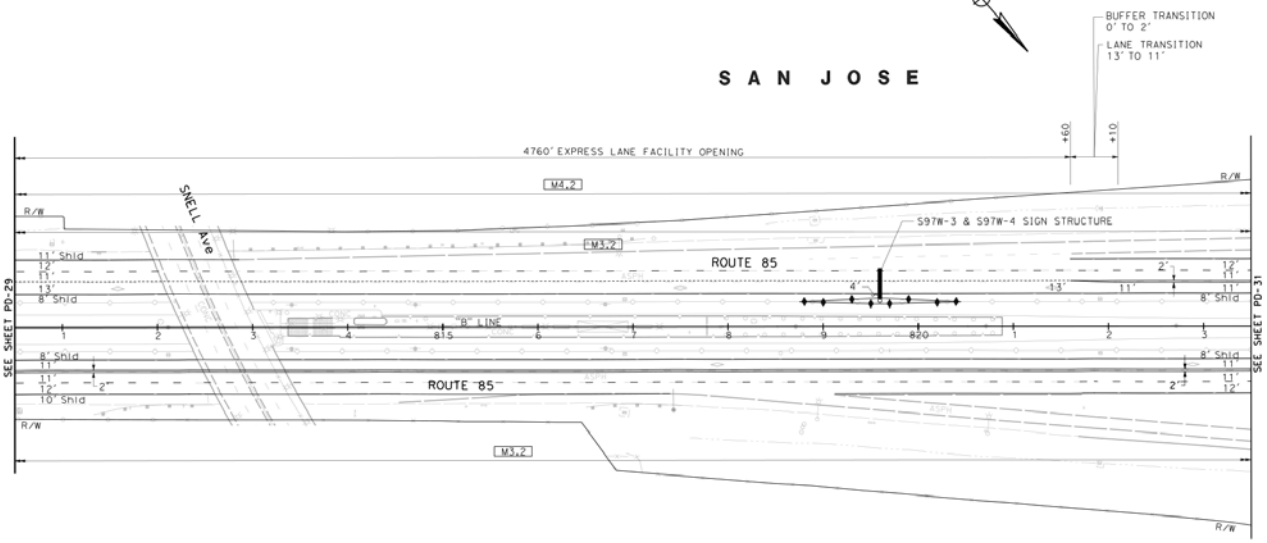

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-30

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Caltrans

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CALCULATED-DESIGNED BY: Cassidy Grillon

CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

LAST REVISION DATE PLOTTED => SCALE
03-25-11 TIME PLOTTED => STIME

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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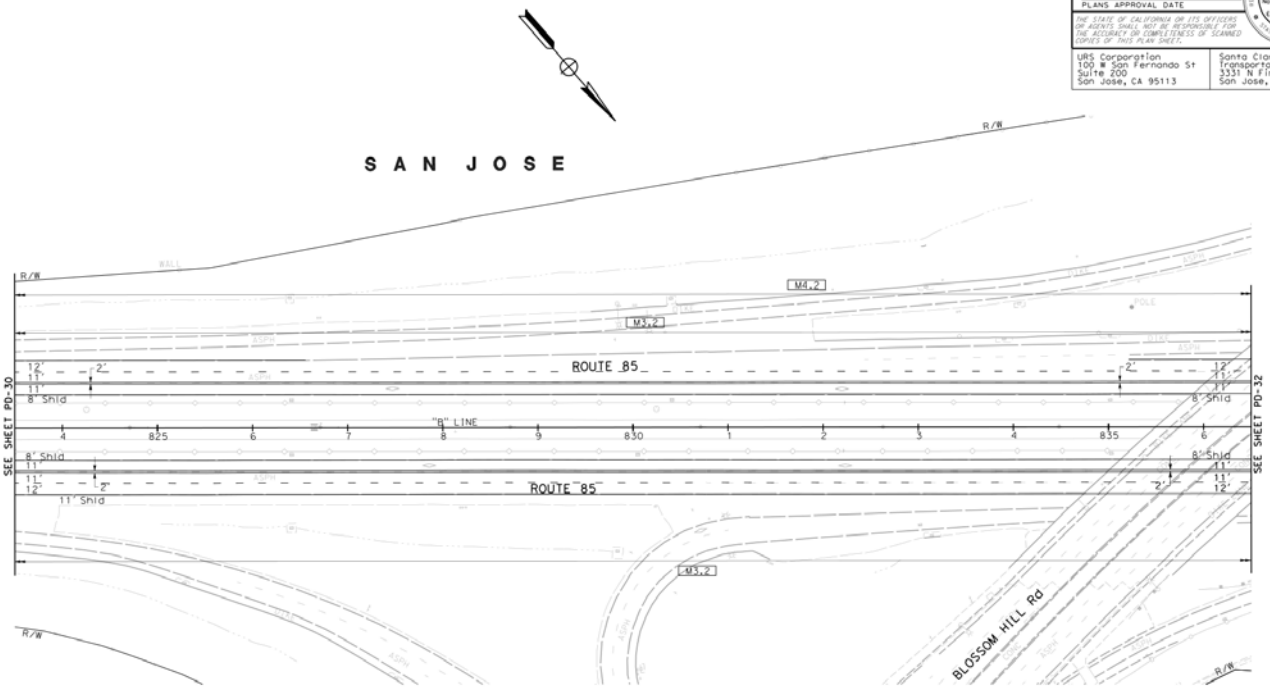

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-31

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Caltrans

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CALCULATED-DESIGNED BY: Cassidy Grillon

CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

BORDER LAST REVISED 7/2/2010

USERNAME => $USER
DGN FILE => $REQUEST

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT xxxx

PROJECT NUMBER & PHASE 0400001163

LAST REVISION DATE PLOTTED => $DATE
03-25-11 TIME PLOTTED => $TIME

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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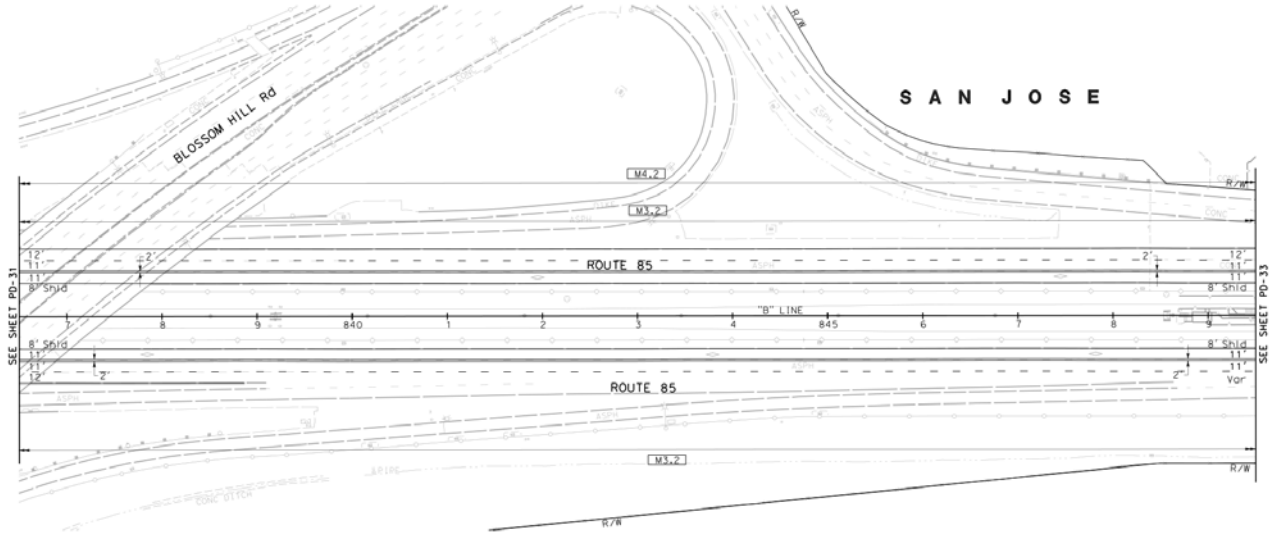

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-32

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

REVISED BY	DATE REVISED
XX	XX/XX/11

CALCULATED-DESIGNED BY: Cassidy Grillon
CHECKED BY: Chadi Chazbek
CONSULTANT FUNCTIONAL SUPERVISOR: Chadi Chazbek

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DATE PLOTTED => 03-25-11 | TIME PLOTTED => 11:06

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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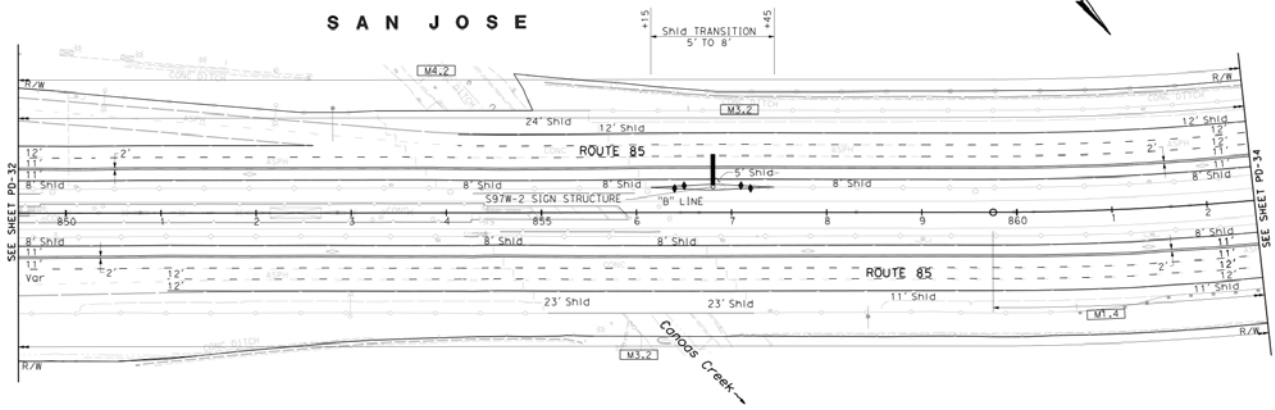

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-33

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

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CALCULATED-DESIGNED BY: Cassidy Grillon

CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

DATE PLOTTED => 03-25-11 | TIME PLOTTED => 8:17AM

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER | DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT NUMBER & PHASE 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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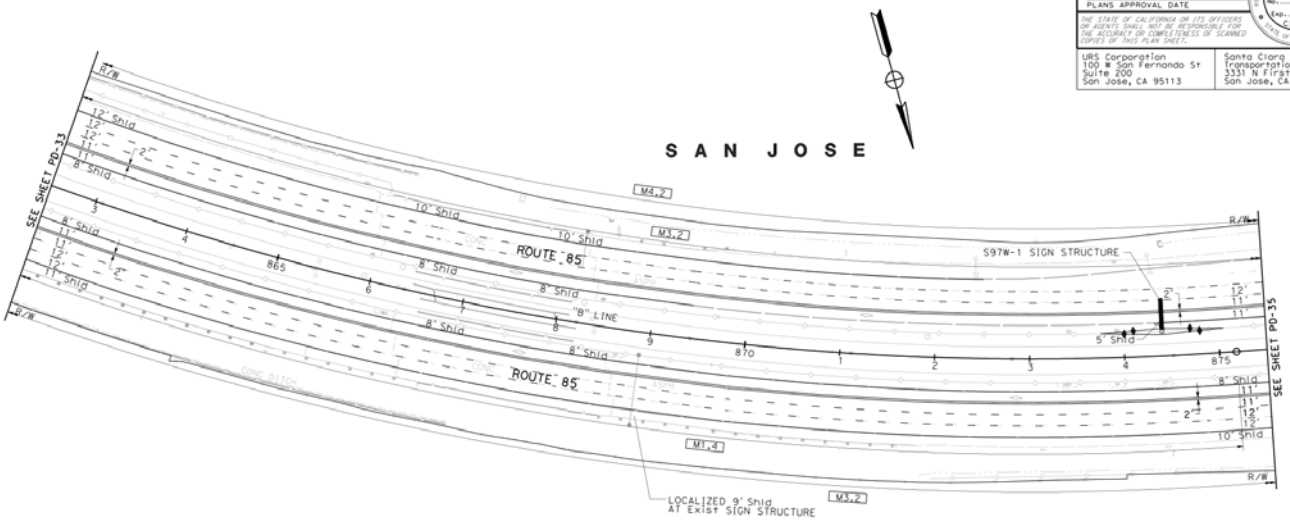

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-34

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

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CALCULATED-DESIGNED BY: Cassidy Grillon

CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

DATE PLOTTED => DATE
03-25-11 TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER | DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT NUMBER & PHASE | 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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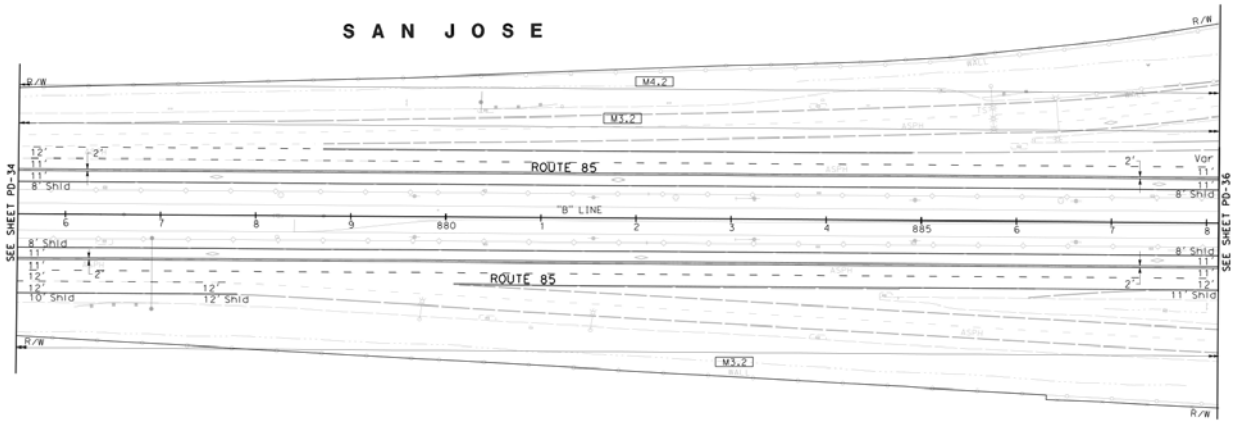

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-35

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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CONSULTANT FUNCTIONAL SUPERVISOR: Chadi Chazbek

CALCULATED-DESIGNED BY: Cassidy Grillon

CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

BORDER LAST REVISED 7/2/2010

USERNAME => $USER
DGN FILE => $REQUEST

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT xxxx

PROJECT NUMBER & PHASE 0400001163

LAST REVISION DATE PLOTTED => $DATE
TIME PLOTTED => $TIME
03-25-11 11:46

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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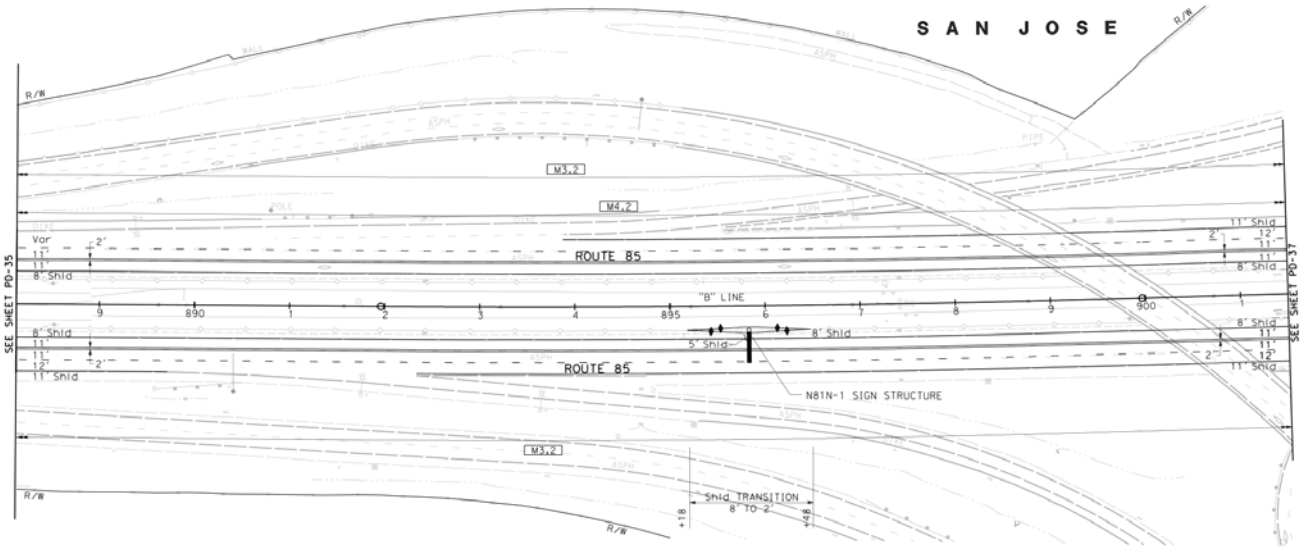

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-36

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CONSULTANT FUNCTIONAL SUPERVISOR: Chadi Chazbek

CALCULATED-DESIGNED BY: Cassidy Grillon

CHECKED BY: Chadi Chazbek

REVISED BY: XX

DATE REVISED: XX/XX/11

DATE PLOTTED => 03-25-11 | TIME PLOTTED => 17:06

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER | DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT NUMBER & PHASE 0400001163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	85, 101	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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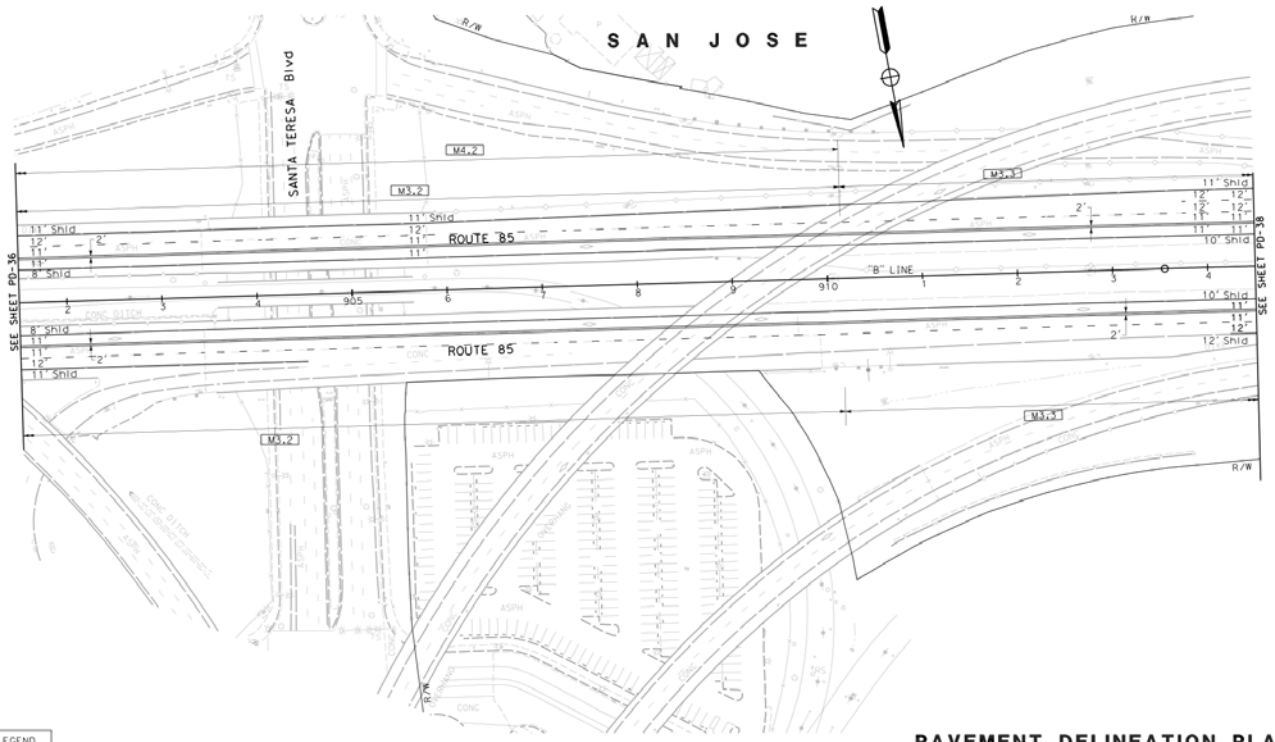

FOR NOTES AND LEGEND SEE SHEET PD-1

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-37

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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CONSULTANT FUNCTIONAL SUPERVISOR: Chadi Chazbek

CALCULATED-DESIGNED BY: Chadi Chazbek

CHECKED BY: Cassidy Grillon

REVISED BY: XX

DATE REVISED: XX/XX/11

DATE PLOTTED => DATE
TIME PLOTTED => TIME

BORDER LAST REVISED 7/2/2010

USERNAME => $USER
DGN FILE => $REQUEST

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT xxxx

PROJECT NUMBER & PHASE 0400001163