

**Caltrain Peninsula Corridor Electrification Project
Environmental Re-Evaluation
for Proposed Project Changes
After Finding of No Significant Impact (December 2009)**

**Changed Traction Power Facility Locations,
Overhead Contact System and Electrical Safety Zone Alignments,
and Right of Way Acquisition**

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This document evaluates changes in the Peninsula Corridor Electrification Project (PCEP) Project proposed by the Peninsula Corridor Joint Powers Board (JPB) and changes in circumstances subsequent to approval of the Caltrain Peninsula Corridor Electrification Project Environmental Assessment (EA) and issuance of a Finding of No Significant Impact (FONSI) in December 2009. Since issuance of the FONSI, there have been changes in the Project and changes in circumstances.

Since issuance of the FONSI, the JPB has revised the project, as described in Section 1, and the circumstances in which the Project would be implemented have changed, as described in Section 2. To analyze these changes, the JPB prepared and certified the 2015 Environmental Impact Report (EIR) and adopted an Addendum#1 to the Final Environmental Impact Report per the requirements of the California Environmental Quality Act (CEQA). Together, the EIR and the Addendum are referred to as the 2015 FEIR. The EIR is included as Appendix G and the Addendum is included as Appendix H. The JPB also committed to implementing a Mitigation Monitoring and Reporting Program (MMRP).

This document was prepared pursuant to the National Environmental Policy Act (NEPA) of 1968, as amended, and the U.S. Department of Transportation regulation 23 Code of Federal Regulations (CFR) Section 771.129, which stipulates that the applicant shall consult with the FTA prior to requesting any major or approvals of grants to establish whether or not the approved environmental document remains valid for the requested FTA action.

1. Changes in the Project

1.1 Description of the Undertaking

The Project consists of electrifying the Peninsula Corridor (also called the Caltrain Corridor) from 4th and King Street Station in San Francisco (Mile Post [MP] 0.0) to approximately one mile south of the Tamien Station in San Jose (MP 50.5) in order to allow Caltrain to convert from diesel-locomotive hauled commuter trains to Electric Multiple Units (EMUs). The Project would require the installation of 130 to 140 single-track miles of overhead contact system (OCS) for the distribution of electrical power to the electric rolling stock. The OCS would be powered from a 25 kilovolt (kV), 60 Hertz (Hz), single-phase, alternating current (AC) supply system consisting of two traction power substations (TPSSs), one switching station (SWS), and seven paralleling stations (PSs). Additional project features required for right-of-way (ROW) electrification include overbridge protection structures, at grade crossing warning devices, and replacement of the current rolling stock.

Figure 1 shows the entire project corridor including the general location of existing stations. Figure 2 shows the approximate locations of the electrification traction power facility sites. Additional figures show the specific traction power facility locations. All figures are presented in Appendix A.

1.2 Changes in the Project since 2009

The following changes in the PCEP Project description have occurred since issuance of the FONSI in 2009 and are described in detail below:

1. Additional Traction Power Facility (TPF) locations
2. Right-of-way (ROW) acquisitions and Electrical Safety Zone (ESZ) Easements

Traction Power Facilities

2009 EA

The 2009 EA evaluated an auto-transformer power feed system arrangement that requires two traction power substations (TPS), one switching station (SWS), and seven paralleling stations (PS). There were three location options for TPS1 (in South San Francisco) and for TPS2 (in San Jose). The 2009 EA evaluated one location each for the switching station and the seven paralleling stations.

Proposed Changes to TPF Locations

In response to public scoping comments on the notice of preparation (NOP) for the 2015 FEIR, and refinements in the Project design, the JPB added new location options for one of the TPSs, the SWS, and some of the PSs. Since certification of the 2015 FEIR, the JPB has selected the TPF options. Figure 1 shows the general project location and Figure 2 shows the general locations of each of the TPF options to be constructed. Table 1 lists each of the TPF options and whether or not the location was evaluated in the 2009 EA.¹

¹ In addition to the TPFs, the project will include replacement of a signal house located north of the Santa Clara station. The existing signal house is located on an easement on land owned by UPRR. The replacement signal house will be constructed within the footprint of the existing signal house. Caltrain also intends to acquire the easement area in fee, but this will not represent an expansion of area controlled by the JPB as there is already an easement for signal house use. The existing signal house was built in 1990 and thus is not a historic resource. As the replacement signal house will be built within the footprint of the existing signal house with no net increase in Caltrain controlled property, it would not result in any significant new impacts and is this not discussed further below.

Table 1. TPFs Selected/Considered for Construction

TPF	Location	Evaluated in 2009 EA	
		Yes	No ^a
PS1	Northeast corner of Mariposa Street and Pennsylvania Avenue, San Francisco (Figure 3)	X	
PS2	North of Bayshore Station and south of the railroad tunnel, San Francisco (Figure 4)	X	
TPS1, Option 4 ^b	North of East Grand Avenue, South San Francisco (Figure 5)		X
PS3, Option 1	Along California Drive near Broadway, Burlingame on the west side of the JPB ROW (Figure 6)	X	
PS4, Option 3	South of Hillsdale Boulevard, San Mateo (Figure 7)		X
SWS1, Option 2	Northwest side of Redwood Junction, Redwood City (Figure 8)		X
PS5, Option 2	South of Page Mill Road, Palo Alto (Figure 9)		X
PS6, Option 2	North end of the Sunnyvale Station parking lot, Sunnyvale (Figure 10)		X
TPS2, Option 2	Along Stockton Avenue at I-880, San Jose (Figure 11)	X	
PS7, Variant C ^c	West of Almaden Road and south of Shadowgraph Drive, San Jose (Figure 12)		X
PS7, Variant D	West of Almaden Road and south of Stone Court, San Jose (Figure 12)		X

Notes:

^a All TPFs not evaluated in the 2009 EA, with the exception of PS7, Variant C and D, are within the JPB ROW.

^b TPS1, Option 4 was analyzed in the 2004 Draft EA, but not carried forward to the 2009 Final EA.

^c The site for PS7, Variant C would also include an access road from Almaden Road for construction and maintenance. The access road is shown on Figure 12.

ROW Acquisitions and ESZ Easements

2009 EA

The 2009 EA described that some real estate acquisition (up to approximately 3.6 acres) may be required to site and construct the TPFs.

The 2009 EA did not identify that any OCS poles or alignments would need to be outside the JPB ROW. The 2009 EA acknowledged that trees would have to be removed or trimmed outside of the JPB ROW to ensure electrical safety; however, the need for electrical safety zone (ESZ) easements was not identified in the EA.

Proposed Changes to ROW Acquisition and ESZ Easements

Based on further refinements in the Project design, the JPB would only require up to approximately 2.7 acres (0.04 acres for PS2, 1.7 acres for TPS2, Option 2 and 1.0 acre for PS7 Variant C) of real estate acquisition for the TPFs, less than analyzed in the 2009 EA.

Additionally, in certain locations, there may be insufficient clearance from the railway track centerlines and the JPB may need to acquire ROW for placement of OCS poles and wires on private land and acquire easement on public land. The Project design has also been further refined to quantify the electrical

safety zone (ESZ). Ten feet of electrical safety clearance is required beyond the outermost electrified element of the OCS. Where electrical clearance is necessary outside the JPB ROW, the JPB would need to obtain an electrical safety easement from property owners to permit the pruning and removal of vegetation and to maintain structures outside a 6-foot safety zone from the OCS alignment.

Based on the current estimates, it is estimated that the project will require acquisition of approximately 1.2 acres in fee on private land for the OCS alignment and 1.5 acres of new easement for the ESZ on private land. It is estimated that project will require easements on public land for the OCS alignment and the ESZ of approximately 3.8 acres. ROW fee acquisition and easement areas are identified in Appendix I.

1.3 Changes in Circumstances

The 2009 EA evaluated an electrification project that would be compatible with the requirements of HSR regarding power supply, power distribution, and voltage in order to accommodate HSR service in the future. At the time of the 2009 EA, the California High Speed Rail Authority (CHSRA) expected to construct additional tracks so that there would be a 4-track system with full grade separation and dedicated tracks for HSR service. The additional tracks and grade separation, and HSR service would be evaluated under separate environmental review.

Since issuance of the FONSI, the JPB, CHSRA, the California Legislature, the Metropolitan Transportation Commission (MTC), and other parties have worked together to develop a vision of a “blended system” whereby both Caltrain and HSR would use the existing Caltrain Corridor and would primarily use the existing track configuration. This vision for implementing Blended Service was originally included in the *Revised 2012 Business Plan* that the CHSRA Board adopted for the California High-Speed Rail System and was confirmed in the latest adopted 2014 Business Plan.

Blended Service is considered in the cumulative analysis in the 2015 FEIR (refer to Chapter 4 in the 2015 FEIR). Chapter 1 of the 2015 FEIR, explains how the PCEP has independent utility from HSR, has logical termini, how the EIR provides full disclosure and evaluation of potential impacts and how CHSRA would lead any subsequent environmental clearance processes necessary for HSR service on the Caltrain Corridor.

In addition to the changed circumstances for HSR, there has been additional development along the Caltrain Corridor which was taken into account in the environmental analysis in the 2015 FEIR. Finally, there have been some changes in the regulatory context, such as the increased attention provided to greenhouse gas emissions and sea level rise, that were taken into account in the environmental analysis in the 2015 FEIR.

2. Changes in Effects

Table 2 and the following discussion presents a summary of the environmental effects analyzed in the 2009 EA and a description of how those effects may have changed due to the changes in the Project and changes in the circumstances described above. It is important to note that each resource was re-evaluated in the 2015 FEIR in accordance with CEQA requirements and so impact significance conclusions made under CEQA do not necessarily equate to significant adverse effects under NEPA. This document only includes a significance conclusion pursuant to NEPA requirements.

Table 2. Summary of Impacts of Proposed Project Changes, Peninsula Corridor Electrification Project.

Environmental Resource	Effects Changed from Final EA?	Change in Level of Effect from Final EA?	Changes
Aesthetics	Yes	No	<ul style="list-style-type: none"> The Project includes TPFs at new locations, but the relocated TPFs do not introduce substantial new aesthetic effects because they are in existing rights of-way or are in non-visually sensitive locations. Therefore, the level of aesthetic effect did not change from the 2009 EA. The visual character of tree removal and OCS poles and wires did not change from the 2009 EA. The 2009 EA included general mitigation for aesthetic treatments and nighttime lighting and the JPB has adopted specific mitigation for aesthetic treatments.
Agricultural Resources	No	No	<ul style="list-style-type: none"> No new impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments. No agricultural resources would be affected.
Air Quality	No	No	<ul style="list-style-type: none"> No new air quality impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments. The 2009 EA included construction mitigation BMPs. The JPB adopted specific construction mitigation requirements per BAAQMD requirements.
Biological Resources	Yes	No	<ul style="list-style-type: none"> The character of impacts to biological resources has not changed substantially. The JPB conducted more detailed tree removal analysis and mapping and adopted more specific mitigation for special-status species and tree removal. USFWS 2015 Consultation has confirmed that the revised project is not likely to have an adverse effect on listed federal terrestrial species. NMFS 2015 Consultation has confirmed that the revised project is not likely to have an adverse effect on listed federal fish species.
Cultural Resources	Yes	No	<ul style="list-style-type: none"> Several additional historic built resources were evaluated with the revised OCS and ESZ identification. SHPO 2015 consultation has confirmed that the revised project would have no adverse effect on built environment historic resources. No new impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments for archaeological resources.
EMI/EMF	No	No	<ul style="list-style-type: none"> The character of EMI/EMF effects has not changed since the 2009 EA. The JPB has adopted more specific mitigation to ensure that EMI effects to freight/others is controlled.

Environmental Resource	Effects Changed from Final EA?	Change in Level of Effect from Final EA?	Changes
Geology, Soils, Seismicity	No	No	<ul style="list-style-type: none"> Impacts related to geology, soils and seismicity are fundamentally the same as in the 2009 EA. No new impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments.
Greenhouse Gas Emissions	Yes (no analysis in 2009)	N/A	<ul style="list-style-type: none"> The 2009 EA did not analyze greenhouse gas emissions. As shown in the 2015 EIR, the project would result in a beneficial impact by having a net reduction in GHG emissions compared with the No Project Alternative.
Hazards and Hazardous Material	No	No	<ul style="list-style-type: none"> No new impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments.
Hydrology and Water Quality	Yes	No	<ul style="list-style-type: none"> One of the new TPF sites (PS6, Option 2) is located in the mapped 100-year floodplain. At PS6, Option 2, JPB adopted mitigation would reduce the impact (and the prior PS6, Option 1 included in the 2009 EA is also in the floodplain and would have the same impact). No new impacts are identified relative to the revised OCS/ESZ alignments.
Land Use and Recreation	No	No	<ul style="list-style-type: none"> The new TPF sites and revised OCS/ESZ alignments would not result in any substantial displacement of other land uses or recreational uses. PS7 would be compatible with a proposed trail that would be along the access road to PS7 and would not preclude future completion of this trail.
Noise and Vibration	No	No	<ul style="list-style-type: none"> The character of construction and operational noise has not changed due to the new TPF locations or the revised OCS/ESZ alignments.
Population and Housing and Environmental Justice	No	No	<ul style="list-style-type: none"> No new impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments. No housing displacements would occur. No Environmental Justice communities would be disproportionately affected.
Public Services and Utilities	No	No	<ul style="list-style-type: none"> The character of construction and operational impacts relative to public services and utilities has not changed due to the new TPF locations or the revised OCS/ESZ alignments.
Transportation	No	No	<ul style="list-style-type: none"> No new impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments. The project would result in a net improvement in regional traffic and in traffic in the cities along the corridor compared to the No Project Alternative.

4(f)	No	No	No new Section 4(f) use is identified relative to the new TPF sites or revised OCS/ESZ alignments. No land from any existing or planned park or recreation resource or historic resource would be permanently incorporated into the Project due to the project changed. There would be no direct use, temporary occupancy, or constructive use under Section 4(f) related to the project changes.
Cumulative	Yes	No	See below
Other Projects	Yes	No	<ul style="list-style-type: none"> • Additional other projects have been identified including high-speed rail, other rail improvements, land use projects along the corridor, relocation of San Francisco Muni 22 trolley line to 16th Street and City of San Francisco conceptual ideas for 4th and King Station redevelopment • JPB has committed to mitigation to allow the Muni 22 trolley line to be completed as proposed. • Conceptual ideas for 4th and King Station are only a preliminary phase, but electrification project would not substantially hinder redevelopment if it comes to fruition in the future. • The electrification project is compatible with high-speed rail, other rail, and other identified land use projects.
Cumulative Noise	Yes	No	<ul style="list-style-type: none"> • No new cumulative impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments. • Cumulative train noise due to future expansions in freight, high-speed rail, and other passenger rail would increase along corridor. However, the Proposed Project’s contribution to cumulative noise would be minimal initially in 2020/2021 and there would be no adverse contribution once all San Jose to San Francisco service utilizes EMUs in the long run.
Cumulative Transportation	Yes	No	<ul style="list-style-type: none"> • No new cumulative impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments. • Although the project would have some effects on localized intersections at the at-grade crossings and near stations, given the net city-by-city and regional reductions from the project, the project would have a net regional beneficial contribution to cumulative regional traffic despite cumulative effects of general regional growth on traffic conditions. • Further examination of potential freight vertical clearances resulted in additional commitments from the JPB to provide adequate freight clearances where necessary to maintain existing freight access.

Alternatives	No	No	<ul style="list-style-type: none">• No new alternatives were identified relative to the new TPF sites or revised OCS/ESZ alignments.• While the 2015 EIR analyzed additional non-electrification alternatives (Diesel Multiple Unit (DMU), Dual-Mode Multiple Unit, Tier 4 Diesel), the JPB ultimately did not identify that any of these alternatives would fully meet the project's purpose and need and would each result in inferior commuter rail service and additional environmental impact (air quality, greenhouse gas emissions noise) beyond the proposed electrification.
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2.1 Aesthetics

2009 EA

In the 2009 EA, construction impacts were considered temporary, although the 2009 EA included mitigation that requires the construction contractor to minimize spill over light or glare during nighttime construction.

The 2009 EA concluded that the addition of OCS poles and wires and trimming of trees in the existing rail corridor would result in changes that would increase visual clutter in some locations and be perceived as negative by some residents and business occupants, depending upon their distance from the JPB ROW and the amount of visual screening present. However, these changes would not introduce visual elements that are substantially out of character with existing land uses or obscure a scenic view or vista.

The JPB was described as not trimming mature vegetation any more than is necessary for safe electrified operations. The 2009 EA included mitigation measures including the use of headspans, coordination with local jurisdictions and neighborhoods to incorporate aesthetic treatments for OCS poles and consider the feasibility of additional tree replacement planting, and directing light associated with proposed traction power facilities onto the premises and away from surrounding land uses.

The 2009 EA concluded that, with mitigation, effects on aesthetics would not be substantially adverse.

Change in Effects

Refer to Section 3.1, *Aesthetics*, of the 2015 FEIR for a description of impact analysis and JPB-adopted mitigation measures related to aesthetics. The difference in analysis in the 2015 FEIR from the 2009 EA is in large part due to a more precise delineation of the OCS alignment and the ESZ as well as the analysis of new TPF options. Some of the differences in the analysis are based on differences in the analytical methods used in the 2015 FEIR and are not related to the changes in the Project or the change in circumstances described in Sections 1.2 and 1.3.

The more precise delineation of the OCS alignment and the ESZ, described in Section 1, would not change the conclusion of the analysis in the 2009 EA regarding OCS poles and wires and tree trimming. As with the 2009 EA, the Project would change local visual character through addition of the OCS, TPFs and tree removal along the existing JPB ROW. JPB-adopted Mitigation Measures AES-2b and BIO-5 require aesthetic treatment for OCS poles, TPFs, and overbridge protection barriers, and tree avoidance, minimization, and replacement, respectively, to minimize effects from OCS poles and wires and tree trimming and removal.

With the relocated TPFs, impacts on scenic vistas would be slightly less with implementation of PS7, Variant C or D because neither Variant would block views of Kurte Park. The location of PS7 as analyzed in the 2009 EA (north of the railroad corridor at the eastern edge of the Communications Hill residential development in San Jose, immediately south of Kurte Park) would have affected views from Kurte Park of undeveloped hills adjacent to the Caltrain corridor. PS7 Variant C would be located on undeveloped land on the east side of the Caltrain tracks, to the rear of an existing auto repair shop on Almaden Road in San Jose. There could be partial views of PS7, Variant C from the existing residences to the north of the site. However, these views of PS7 Variant C would be consistent with the existing views of industrial

uses and would be mostly blocked by intervening vegetation. The auto repair shop blocks views of the site from Almaden Road. PS7 Variant D would be located on an existing triangular-shaped commercial/industrial lot on the east side of the Caltrain tracks between Almaden Road and Stone Court in San Jose. Existing land uses surrounding the site are commercial/industrial. There are existing residences approximately 250 feet northeast of the site. View of PS7 Variant D would be consistent with the existing views of industrial and commercial uses. Furthermore, intervening vegetation and buildings would block the majority of views of the PS7 Variant D site from these residences.

Additionally, with PS7 Variant C or D, the Project electrified corridor would be shorter and so the construction impact area would be narrower.

With the relocated TPFs, impacts on the visual character of areas adjacent to the JPB ROW would be similar as described in the 2009 EA. TPS1 Option 4, PS4 Option 3, and SWS1 Option 2 are located in areas entirely surrounded by railroad, industrial, and commercial uses and would be consistent with the visual character of the sites. PS5 Option 2 is located adjacent to commercial areas and a construction site at present. However, a mixed-use residential/commercial project at 195 Page Mill Road will be completed by the time PCEP is constructed. PS5 Option 2 would introduce new structures and an overhead gantry within the existing transportation/industrial character, but would not change the existing visual character. PS6 Option 2 is located within the Caltrain parking lot between the Caltrain tracks and an elevated ramp leading to Mathilda Avenue. There would be views of PS6 Option 2 from the nearby Plaza del Sol. The view is partially screened by existing trees along the Plaza and some low structures within the northeast corner of the plaza, and there are existing light poles as part of the existing visual setting. The new facility would not be directly adjacent to the plaza and the intervening features, especially the elevated ramp to Mathilda would help to make the facility less obvious in the general area surrounding the plaza. PS7 Variant C or D would similarly not be out of character with the surrounding transportation corridor or industrial uses. JPB-adopted Mitigation Measure AES-2b requires aesthetics treatments for TPFs to reduce impacts on the surrounding visual character from construction of TPFs.

2.2 Agricultural Resources

2009 EA

The 2009 EA concluded that there would be no effect on agricultural resources and proposed no mitigation.

Change in Effect

None of the proposed changes in the Project or changes in circumstances would result in a change in the effects to agricultural resources as described in the 2009 EA.

2.3 Air Quality

2009 EA

The 2009 EA concluded that electric power generation emissions in 2015 and 2035 would exceed the oxides of nitrogen (NOx) significance threshold. However, for both future years, the estimated air

pollutant emissions would be substantially lower than those estimated for continued diesel train operations. Although there would be increases in motor vehicle use to and from stations from the increase in train ridership with the Project, this impact would be more than offset by the overall reduction in total vehicle miles travelled (VMT) in the region.

The 2009 EA did not quantitatively analyze construction emissions, but included best management practices (BMPs) such as dust control measures to be used during Project construction to minimize fugitive dust and construction equipment maintenance; it did not include any mitigation for Project operations.

The 2009 EA concluded that effects on air quality would not be adverse.

Change in Effects

Refer to Section 3.2, *Air Quality*, of the 2015 FEIR for a description of impact analysis and JPB-adopted mitigation measures related to air quality.

No new air quality impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments.

Construction impacts regarding criteria pollutants and toxic air contaminants (TACs) would be reduced with routine JPB-adopted mitigation measures (JPB-adopted Mitigation Measures AQ-2a, AQ-2b, and AQ-2c). These JPB-adopted mitigation measures include Bay Area Air Quality Management District (BAAQMD) BMPs and equipment requirements to reduce construction-related dust, reactive organic gasses (ROG), and NO_x emissions.

The Project would substantially improve both local and regional air quality during Project operations. Relative to both existing and No Project conditions.

2.4 Biological Resources

2009 EA

The 2009 EA concluded that any temporary biological resources impacts would be minimized through the use of BMPs. Construction activities could disturb habitat of some special-status species and nesting birds. To address these impacts, a Biological Resources Management Plan would be developed prior to construction. The Biological Resources Management Plan would also identify all sensitive habitat and wetland areas for avoidance during construction. Preconstruction surveys and avoidance measures would also be required.

The 2009 EA concluded that there would be no impacts to wetlands or waters of the U.S. or to habitat for special-status species from Project operation. The 2009 EA acknowledged that there could be tree trimming on property outside of JPB ROW for the ESZ. The development and implementation of a Vegetation Management Plan in consultation with a certified arborist was included to minimize impacts to trees and other mature vegetation.

The 2009 EA concluded that there would be no permanent impacts to biological or habitat resources and, with mitigation, effects from tree removal would not be substantially adverse.

Change in Effects

Refer to Section 3.3, *Biological Resources*, of the 2015 FEIR for a description of impact analysis and JPB-adopted mitigation measures related to biological resources.

No new impacts are identified relative to the new TPF sites as they all occur in previously disturbed locations lacking habitat for special-status species or sensitive vegetation communities.

ICF biologists surveyed the sites for PS7 Variant C and D on November 20, 2015. No waters of the U.S., including wetlands, or habitat for special-status, threatened, or endangered species were present on either site. There are approximately seven trees, shrubs, and saplings on the PS7 Variant C site and two trees on the PS7 Variant D site. JPB-adopted Mitigation Measures BIO-1a, BIO-1g, and BIO-1j would apply to reduce potential impacts to nesting birds (including migratory birds subject to the MBTA) and Mitigation Measure BIO-5 would apply to reduce impacts from tree removal. The new PS7 Variant C or D would eliminate construction activities within the JPB ROW adjacent to Communication Hill in San Jose for the previously proposed PS7 location. This Project change slightly reduces construction impacts to special-status species. A memorandum listing the biological survey results for these sites is included as Appendix E.

With the more precise and refined delineation of the ESZ, the JPB has determined that Project construction would require removal of up to 1,000 trees and pruning of an additional 3,200 trees for the OCS alignment and ESZ under likely worst-case OCS pole placement assumptions. JPB-adopted Mitigation Measure BIO-5 will require tree avoidance, minimization, and/or replacement. The 2009 EA had disclosed that the project would have impacts on trees along the route including in some areas outside the ROW; the new delineation of the ESZ did not change the overall extent or character of the tree impact, but rather defined it more precisely.

FTA requested informal consultation with USFWS on August 4, 2015 regarding listed terrestrial plant and wildlife species. ICF prepared a biological assessment on behalf of the FTA and the JPB that was submitted to the USFWS on September 1, 2015. FTA, JPB and USFWS developed conservation measures (based on the mitigation developed in the 2015 FEIR and the biological assessment) that will be incorporated by the JPB into the project. On September 15, 2015, the USFWS concurred with the finding in the biological assessment that the Proposed Project is not likely to adversely affect the California red-legged frog, San Francisco garter snake, California clapper rail, or the salt marsh harvest mouse. The USFWS concurrence letter is provided in Appendix C.

FTA requested informal consultation with NMFS on July 15, 2015 regarding listed fish species and Essential Fish Habitat. Additional information in response to a NMFS request was provided on September 18, 2015. Additional information in response to a NMFS request was provided on November 5, 2015. The FTA, JPB, and NMFS developed proposed avoidance, minimization and mitigation measures based on the mitigation developed in the 2015 EIR. On November 12, 2015, NMFS concurred that the Proposed Project is not likely to adversely affect Central California Coastal Steelhead, steelhead designated critical habitat, Central Valley fall-run Chinook salmon, Chinook salmon Essential Fish Habitat with implementation of the Project's proposed avoidance, minimization and mitigation measures. The NMFS letter of concurrence is included in Appendix D.

2.5 Cultural Resources

2009 EA

Historic Resources. The 2009 EA concluded that Project design and construction treatments would result in no adverse effect on historic resources. Prior to construction activities affecting the historic tunnels, structural investigations would be conducted to evaluate probable effects on the structural integrity of the tunnels. Additionally, design approach and construction methods will be developed to minimize any potential impact to the brick lining the historic tunnels.

Archaeological Resources. The 2009 EA concluded that there would be no adverse impact to archaeological resources during Project operation. Surveys of the proposed TPF options and connector routes were limited in some locations by poor ground visibility, and although no cultural resources were identified in those areas, there is still a possibility for archaeological remains. A Cultural Resources Programmatic Agreement (PA) was developed among FTA, JPB, State Historic Preservation Office (SHPO) and if required, the Advisory Council on Historic Preservation. Standard mitigation measures for inadvertent discovery of archaeological resources during Project construction were also included in the 2009 EA.

A Finding of Effects (FOE) report, an amended FOE report, and an Addendum to the FOE were prepared for the Project. SHPO concurred with FTA's determination that the project would have no adverse effect on any of the 25 historic resources.

Change in Effects

Refer to Section 3.4, *Cultural Resources*, of the 2015 FEIR for a description of impact analysis and JPB-adopted mitigation measures related to cultural resources. The difference in analysis of cultural resources in the 2015 FEIR from the 2009 EA is primarily related to a more detailed analysis of the OCS alignment location, the ESZ location, and tree removal outside the ROW.

Historic Resources. Construction of the Project's OCS has the potential to impact the historic Caltrain San Francisco tunnels, historic Caltrain stations, certain bridges and underpasses, and several other potential historic resources located outside of the JPB ROW including El Palo Alto (a large ancient redwood tree adjacent to the JPB ROW in Palo Alto) and the Jules Francard Grove of Eucalyptus Trees in Burlingame and possibly several other residential or commercial properties. Tree removal could also affect historic resources outside of the JPB ROW. JPB-adopted Mitigation Measures CUL-1a through CUL-1f require specific design treatments to reduce and avoid impacts which would reduce impacts to historic resources at all locations. Furthermore, as described in the 2009 EA, drilling into the historic fabric would have an effect on a tunnel, but it would not be adverse.

The JPB and the FTA reinitiated consultation in 2015 with the SHPO, under Section 106 of the National Historic Preservation Act regarding the changes to the PCEP project on June 30, 2015. The prior consultation had concluded in 2009 with concurrence by SHPO with FTA's determination that the project would have no adverse effect on historic resources. The JPB and FTA submitted a revised Area of Potential Effect (APE) map and Historic Resources Inventory and Evaluation Report (HRIER) on June 30, 2015. SHPO accepted the revised APE on August 11, 2015. The JPB and FTA submitted a revised FOE report in September 24, 2015 that concluded that the project would have no adverse effect on historic

resources. The SHPO accepted the revised HRIER report and concurred with the FOE report on October 19, 2015. The SHPO concurrence letter is included in Appendix B.

An ICF Architectural Historian reviewed the PS7 Variant C and D sites on November 25, 2015 and determined that there are no historic resources on or adjacent to either site. The JPB and FTA reinitiated consultation with the SHPO in December 14, 2015 concerning the new preferred location for PS7 (Variant C) and received concurrence regarding the change in the APE and that the prior conclusion of no adverse effects to historic properties remains with the addition of the PS7, Variant C location on January 13, 2016. The concurrence letter is included in Appendix F.

Archaeological Resources. No new impacts on archaeological resources are identified relative to the new TPF sites or revised OCS/ESZ alignments. An ICF Archaeologist reviewed the records for the PS7 Variant C and D sites on November 23, 2015 and determined that there are archaeological sites within the vicinity of either Variant site and there would be no new archaeological effect related to selection of either Variant.

Potential impacts on archaeological resources can be reduced with routine JPB-adopted project mitigation (Mitigation Measures CUL-2a through CUL-2f). All of these mitigation measures will be applied to the selected TPFs sites and with implementation on the previously adopted Programmatic Agreement.

2.6 Geology, Soils, and Seismicity

2009 EA

The 2009 EA concluded that there would be no impact to geology, soils, and seismicity. All TPFs and other Project facilities would be designed and constructed in accordance with current seismic design criteria.

Change in Effects

Refer to Section 3.6, *Geology, Soils, and Seismicity*, of the 2015 FEIR for a description of impact analysis and JPB-adopted mitigation measures related to geology and soils. No new impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments.

Project construction and operation impacts related to erosion, geological conditions, and soils will be reduced with routine JPB-adopted project Mitigation Measures GEO-1, GEO-4a and GEO-4b.

2.7 Greenhouse Gas Emissions

2009 EA

The 2009 EA did not evaluate impacts associated with greenhouse gas (GHG) emissions because GHG emissions analyses were not required in 2009.

Change in Effects

Refer to Section 3.7, *Greenhouse Gas Emissions*, of the 2015 FEIR for a description of impact analysis related to GHG emissions. Project construction would result in GHG emissions, but those emissions would be offset by operational reductions within a matter of months. Project operations would substantially reduce GHG emissions compared with existing conditions and future No Project conditions.

2.8 Hazardous Waste and Materials

2009 EA

The 2009 EA identified known or potential hazardous waste sites within 0.25-mile of the TPF options. The 2009 EA included mitigation, including the development of a worker health and safety plan (HSP) to establish guidelines for the disposal of contaminated soil and discharge of contaminated dewatering effluent, and to generate data to address potential human health and safety issues. Mitigation in the 2009 EA also included performing focused Phase II site investigations (and Risk Assessment, if necessary) at specific TPS sites. Purchase agreements for acquired property will address the characterization, remediation, and liability for existing hazardous environmental conditions.

The 2009 EA concluded that, with mitigation, effects from hazardous wastes and materials would not be substantially adverse.

Change in Effects

Refer to Section 3.8, *Hazards and Hazardous Materials*, of the 2015 FEIR for a description of impact analysis and JPB-adopted mitigation measures related to hazards and hazardous materials. The JPB completed an updated database search to identify known or potentially hazardous waste sites within 0.25-mile of the new TPF options, including the revised locations. The database search for PS7, Variants C and D is shown in Table 3. As with the 2009 EA, JPB-adopted mitigation (Mitigation Measures HAZ-2a and HAZ-2b) would require additional actions for areas with a high likelihood of contaminated media and would control exposure of workers and the public to contamination where encountered. JPB-adopted mitigation would also control potential spills of hazardous materials during construction, as well as potential effects on emergency plans.

Table 3. Known Hazardous Materials/Wastes Sites with Potential to Affect Proposed Paralleling Station 7, Variant C and D

TPF No.	Sites Within 0.25-Mile of TPF Locations	Reported Databases	Reported Contamination	Level of Concern
PS7	Scotland Yard 1735 Almaden Road 0.21-mile S of PS7, Variant D	LUST	Gasoline impacted soil. Case closed status granted in 2002.	Low
	Scotland Yard Rental Center 1735 Almaden Road 0.17-mile S of PS7, Variant D	LUST	Gasoline impacted soil only. The case was closed in 2002.	Low
	G&J Quality Cabinets 461 Willow Glen Way 0.13-mile S of PS7, Variant D	LUST	Impacted soil only. The case was closed in 1996.	Low

TPF No.	Sites Within 0.25-Mile of TPF Locations	Reported Databases	Reported Contamination	Level of Concern
	Union Carbine 215 San Jose Avenue 0.22-mile NE of PS7 Variant C;	LUST	Impacted soil only. The case was closed in 1993.	Low
	Detrick Corporation 412 Lano Street 0.25-mile SE of PS7, Variant C; 0.14-mile E of PS7, Variant D	LUST	Impacted soil only. The case was closed in 1996.	Low
	Universe Paint Company 1639 Almaden Road 0.17-mile SE of PS7, Variant C; 0.06-mile NE of PS7, Variant D	LUST	Other petroleum impacts and aquifer used for drinking water supply. Location within 0.125 of a mile of project site.	Low
	Smith Properties 1545-1547 Almaden Avenue 0.125-mile NE of PS7, Variant C; 0.21-mile N of PS7, Variant D	Cleanup Program Site	None specified. The case was closed in 1993.	Low

2.9 Hydrology, Floodplain, and Water Quality

2009 EA

The 2009 EA concluded that groundwater would be encountered while constructing OCS pole foundations in areas where the groundwater table is less than 15 feet below the surface. The 2009 EA included design features and general mitigation measures to avoid surface and groundwater pollution including preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP); avoiding to the extent feasible OCS pole installation in the floodplain; and modification of construction techniques for installation of poles in areas where the groundwater table is high.

The 2009 EA concluded that impacts on water quality would be beneficial, and impacts to groundwater would be minimal.

Change in Effects

Refer to Section 3.9, *Hydrology and Water Quality*, of the 2015 FEIR for a description of impact analysis and JPD-adopted mitigation measures related to hydrology and water quality

The changes in TPF sites and the revised OCS/ESZ alignments would not result in new construction water quality impacts relative to that disclosed in the 2009 EA.

One of the new TPF sites (PS6, Option 2) is located in the mapped 100-year floodplain. At PS6, Option 2, JPB-adopted mitigation (Mitigation Measure HYD-4) would reduce the impact (and the prior PS6, Option 1 included in the 2009 EA is also in the floodplain and would have the same impact). No new impacts are identified relative to the revised OCS/ESZ alignments.

2.10 Land Use and Planning

2009 EA

The 2009 EA concluded that there would be no adverse impact to land use and planning and community cohesion and that the Project is consistent with local planning. TPFs are not expected to produce changes to land use designations or zoning, and would be compatible with existing land uses.

Change in Effects

Refer to Section 3.10, *Land Use and Recreation*, of the 2015 FEIR for a description of impact analysis and JPB-adopted mitigation measures related to land use and planning. Some of the specifics of the analysis are due to the changes in the Project circumstances relative to changes in land use development and plans along the Caltrain Corridor.

As with the 2009 EA, the Project would be located along an existing rail corridor.

None of the new TPFs would displace existing land uses, with the exception of PS7 Variant D. The site for PS7 Variant D is currently owned by PG&E and is an existing storage lot for utility vehicles. The displacement of vehicle storage is not expected to result in significant environmental effects due to the use of an alternative location.²

The site for PS7 Variant C is currently owned by UPRR and is vacant. A proposed trail, the eastern alignment of the Three Creeks Trail, includes a conceptual alignment that run along the access road to PS7. The PS7 facility would not be in the location for the proposed trail and the access road would not preclude future completion of the trail, if it is realized in the future. This is discussed in the CEQA addendum in Appendix H.

None of the revised OCS or ESZ alignment would substantially displace land uses. The revised Project would not divide existing communities.

2.11 Mineral and Energy Resources

2009 EA

The 2009 EA concluded that the JPB ROW does not contain mineral resources of any developable value and the Project would not affect mineral resources.

The Project would consume approximately one-third of the energy consumed by the No-Electrification Alternative (i.e., the No Project Alternative). The 2009 EA concluded that the Project would have no adverse effect on electric energy supply or distribution.

² The potential future use of the Variant D site by PG&E is unknown. PG&E could not readily identify whether or not they have future planned utility uses at the site. Thus it would be speculative at this time to conclude whether or not there is a potential for displacement of a future utility use. Since the JPB's preferred PS7 option is Variant C, not Variant D, no potential for displacement is expected to occur.

Change in Effects

None of the proposed changes in the Project or changes in circumstances would result in a change in the effects to mineral resources as described in the 2009 EA.

The 2015 FEIR analyzed energy in Section 4.5, *Energy*. The 2015 FEIR concluded that the Project would consume approximately one-third of the energy consumed by the No Project Alternative (2020) and approximately 4 percent of the energy directly consumed by the No Project (2040) Alternative since it would replace diesel-powered vehicles with electric-powered vehicles.

2.12 Noise and Vibration

2009 EA

Construction Noise. The 2009 EA included mitigation to reduce construction noise impacts for residences within 125 feet of construction activities.

Train Noise. The 2009 EA concluded that the Project would reduce the number of residents experiencing noise impacts and the Project would, therefore, improve train noise conditions. The 2009 EA stated that more gate down time and train horns are expected with the increased level of service, which would increase impacts from train noise.

TPF Noise. The 2009 EA concluded that PS5 would be located within 150 feet of residential uses. The 2009 EA stipulated that TPF noise levels shall comply with Institute of Electrical and Electronics Engineers (IEEE) national standards and guidelines for electrical power facilities. Station layouts and specific noise control measures will be developed during the design phase to minimize noise impacts from the TPFs.

Vibration. Construction-related impacts from vibration could occur at residences within 130 feet of construction activity. The 2009 EA includes mitigation that includes vibration monitoring and avoiding unnecessary construction activities during evenings and holidays.

The 2009 EA concluded that operational impacts from vibration would be beneficial. No mitigation was included.

Change in Effects

Refer to Section 3.11, *Noise and Vibration*, of the 2015 FEIR for a description of impact analysis and JPB-adopted mitigation measures related to noise and vibration. The changes in the OCS and ESZ alignment would not change noise and vibration impacts. The primary difference in analysis in the 2015 FEIR relative to the 2009 EA concerning TPF noise is due to the addition of PS5, Option 2 next to an adjacent new mixed-use project that was not approved in 2009.

Construction Noise. Construction noise would be fundamentally the same as disclosed in the 2009 EA.

Train Noise. No new impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments because there would be no change in train frequency or tracks.

TPF Noise. Noise associated with the new TPFs was evaluated. PS5 Option 2 in Palo Alto would be adjacent to a new mixed-use project at 195 Page Mill Road. The projected noise increase would not exceed the FTA impact threshold with JPB-adopted mitigation (Mitigation Measure NOI-1b) which requires noise design treatments or minor relocation of the facility to more than 55 feet from sensitive residential receptors. PS7 Variant C would be located approximately 275 feet from single-family residences and PS7 Variant D would be located approximately 190 feet from single-family residences. Due to the proximity of the proposed sites from single-family residences (greater than 55 feet), it is not anticipated that there would be adverse effects from TPF noise at either PS7 Variant C or Variant D.

Vibration. No new train vibration impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments because there would be no change in train frequency or track location. None of the new TPF sites would result in significant vibration effects to sensitive receptors or structures.

2.13 Population and Housing and Environmental Justice

2009 EA

The 2009 EA concluded that no residential properties would be acquired to construct TPFs and there would be one potential displacement of a business (now referred to as TPS2 Option 2; previously referred to as TPS2 Alternative 1). The JPB would be required to provide fair market value compensation. In some cases, small pieces of ROW may need to be acquired as necessary to accommodate the placement of OCS poles. During the design phase, any unnecessary impacts to private property would be avoided.

The 2009 EA concluded that the conversion of Caltrain service from diesel-hauled to electrified trains would result in reductions of corridor and regional air emissions and reductions in noise from diesel engine operations. These benefits would be experienced uniformly by proximate residents along the rail corridor and within the Bay Area; the benefits would not be disproportionately experienced by particular income or ethnic groups. The 2009 EA also concluded that the OCS facilities would be placed within an active commuter and freight rail corridor and would not have substantial or disproportionate adverse effects on nearby residents. The TPFs would be placed primarily in areas zoned for or currently in industrial, commercial/office, or transportation use, and would require no displacements of residents or employees. The nearest residences to any of these facilities are 50 to 100 feet away. No disproportionate adverse effects on minority or low-income persons would result.

Change in Effects

Refer to Section 3.12, *Population and Housing*, of the 2015 FEIR for a description of impact analysis related to population and housing.

Although larger areas of ROW acquisition (or easements) would be required for the OCS and ESZ, the Project would not result in substantial changes in population or housing demand during construction or operation. No acquisition of residential properties or displacement of housing would occur.

No new impacts relative to Environmental Justice are identified. The benefits of reductions of corridor and regional air emissions and reductions in noise from diesel engine operations would continue to be experienced uniformly by proximate residents along the rail corridor and within the Bay Area; the benefits would not be disproportionately experienced by particular income or ethnic groups.

Additionally, the relocated TPFs are all located in industrial or commercial areas. No disproportionate adverse effects on minority or low-income persons would result.

2.14 Public Services and Facilities

2009 EA

To maintain emergency access during Project construction, a Traffic Management Plan (TMP) would be developed. The JPB would also coordinate with local service providers to provide advance notice of street closures and detours.

The 2009 EA concluded that there would be no substantial adverse impact to public services and facilities during Project operation. No mitigation was provided.

Change in Effects

Refer to Section 3.13, *Public Services and Utilities*, of the 2015 FEIR for a description of impact analysis and JPB-adopted mitigation measures related to public services. No new impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments because there would be no change in demand for public services or facilities.

2.15 Recreation

2009 EA

The 2009 EA concluded that there would be no adverse impact to recreation. The 2009 EA identified that there would be no take of park land or impaired use of the park due to tree trimming but did identify that trimming would be required at one park (Holbrook-Palmer Park in Atherton).

Change in Effects

Refer to Section 3.10, *Land Use and Recreation*, of the 2015 FEIR for a description of impact analysis and JPB-adopted mitigation measures related to recreation. The difference in analysis in the 2015 FEIR from the 2009 EA is primarily related to the more detailed analysis of tree removal and the ESZ locations. At the time of the 2015 FEIR there was a potential for limited tree removal and trimming and ESZ easement acquisition in several parks, however with subsequent design, no acquisition of park land or impaired use of park due to tree trimming would be required and no ESZ easement acquisition would be necessary. Thus there would be no adverse change in effects to parks relative to that disclosed in the 2009 EA.

2.16 Transportation/Traffic

2009 EA

Construction. The 2009 EA concluded that vehicular traffic could be disrupted during Project construction. Caltrain operations could also be disrupted. With the exception of PS4, Project construction is not expected to have any substantial impact on parking availability at Caltrain stations. There would be no impacts to non-motorized traffic other than those affecting general traffic. The 2009

EA included several construction-related mitigation measures to minimize impacts to traffic. Mitigation includes developing construction staging plans to minimize impacts, coordination with rail dispatch to minimize rail service disruption, limit track closure for off-peak hours and weekends, developing a TMP, providing advance notice of traffic detours to the public, following established safety practices, and designating parking for construction workers.

Increased Transit Use. The 2009 EA concluded that the Project would result in increased public transit use.

Increased Mobility. The 2009 EA concluded that the Project would increase peak period travel capacity between San Jose and San Francisco. Also, by providing drivers with an alternative mode of travel that competes favorably with the automobile in terms of travel times, many drivers will switch to Caltrain. This will free up space on area roadways, thereby reducing congestion on all roadways in the corridor.

Travel Time Savings. The 2009 EA concluded that there would be a small savings in travel time on board Caltrain for most trips, depending on length and type of trip.

Parking. The 2009 EA committed the JPB to periodically reviewing parking demand at individual stations and taking appropriate actions developed with JPB's partner agencies.

Change in Effects

Refer to Section 3.14, *Transportation and Traffic*, of the 2015 FEIR for a description of impact analysis and JPB-adopted mitigation measures related to transportation and traffic.

Construction traffic impacts would be roughly similar to that previously disclosed. No new operational transportation impacts are identified relative to the new TPF sites because the new TPF sites would have no effect on transportation (traffic, transit, bicycle and pedestrian facilities) as they are all in existing rail rights of way or in non-used roadway shoulders. Similarly, the revised OCS and ESZ alignments would not result in new impacts to transportation facilities or traffic.

Local Traffic. No new impacts on local traffic are identified relative to the new TPF sites or revised OCS/ESZ alignments. Although the project would result in some localized traffic effects at intersections close to some at-grade crossings and near some stations, the net effect of the project in each city along the corridor and regionally would be to reduce VMT and improve general traffic conditions relative to the No Project Alternative.

Transit Service. JPB-adopted Mitigation Measures TRA-1a and TRA-2a will reduce impacts on transit service (Caltrain, ACE, Capitol Corridor, and Amtrak) by requiring the implementation of a construction road Traffic Control Plan and construction railway disruption control plan, respectively.

Pedestrian and Bicycle Facilities. Station access and parking would be maintained during Project construction and operation. JPB-adopted Mitigation Measures TRA-3b and TRA-4b will reduce impacts on pedestrian and bicycle facilities. Mitigation Measure TRA-3b requires the JPB to cooperate with the City and County of San Francisco to implement surface pedestrian facility improvements near the 4th and King Station and Mitigation Measure TRA-4b requires continued improvement of bicycle facilities at Caltrain stations and partnership with bike share programs where available.

Freight. Freight rail service and operations would be maintained as existing freight heights would be accommodated by the Project, the Project would not electrify the Union Pacific-owned "MT-1" track

south of Santa Clara, and the Project would not result in any substantial change in freight operational windows. JPB-adopted Mitigation Measure TRA-2a requires the implementation of a construction railway disruption control plan to reduce impacts to freight rail service during Project construction.

2.17 Utility and Service Systems

2009 EA

The 2009 EA concluded that there could be some utility service interruptions or relocations required. The 2009 EA includes mitigation that requires the JPB to coordinate with utility providers and local jurisdictions during preliminary engineering and final design. Utilities will be avoided where possible, but relocated if required. Service interruptions would be scheduled in advance and users would be notified.

Change in Effects

Refer to Section 3.13, *Public Services and Utilities*, of the 2015 FEIR for a description of impact analysis and JPB-adopted mitigation measures related to utilities. No new impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments because there would be no change in demand for utility or service systems.

The Project would require relocation of certain utilities, but JPB-adopted Mitigation Measures PSU-8a through PSU-8c will require the JPB to coordinate with all utility owners to conduct relocation activities in a way that minimizes potential disruption.

2.18 Electromagnetic Fields (EMF) and Electromagnetic Interference (EMI)

2009 EA

The 2009 EA concluded that the Project would introduce a new source of EMFs, but that minimal or no associated health risks would result and no mitigation was proposed.

Change in Effects

Refer to Section 3.5, *Electromagnetic Fields and Electromagnetic Interference*, of the 2015 FEIR for a description of impact analysis and JPB-adopted mitigation measures related to EMI and EMFs. No new impacts are identified relative to the new TPF sites or revised OCS/ESZ alignments.

The 2015 FEIR provided a more expanded review of potential EMF effects but reached the same conclusions as the 2009 EA that the EMF levels associated with EMU and OCS operation and TPFs would be less than health guidelines. PS7 Variant C or Variant D would not be any closer to sensitive receptors than the paralleling stations included in the 2015 FEIR and thus EMF/EMI impacts related to the new potential paralleling stations locations would also be less than health guidelines.

The 2015 FEIR disclosed that EMU and OCS operation could result in EMI with sensitive equipment at discrete facilities, such as hospitals with imaging equipment and freight and passenger rail signal systems, but JPB-adopted design mitigation controls (Mitigation Measure EMF-2) can address this

potential similar to measures applied for prior electrified railroads including the Northeast Corridor. This impact was disclosed in the 2009 EA as well including identification of general mitigation that was elaborated on by JPB in the 2015 EIR.

2.19 Section 4(f)

2009 EA

The Section 4(f) evaluation (Appendix H of the 2009 EA) concluded that the project would not result in any use of archaeological or historic resources. Additionally, there would be no use of park property as a result of the project.

Change in Effects

Cultural Resources

Under Section 106, SHPO has concurred with the JPB and FTA determination that there is no potential for adverse effects on historic properties. There would be no acquisition of land containing historic properties due to the project changes. The only effects to the two newly identified historic properties (El Palo Alto and the Francard Eucalyptus Grove) would be limited pruning of some tree limbs where the limbs are within the existing JPB ROW, where the JPB has pre-existing maintenance rights. None of the project's construction or operational activities would adversely affect the eligibility of these resources for the NRHP. The activities, features, or attributes that qualify the historic properties for protection under Section 4(f) would not be substantially impaired due to the project changes. Thus, there is no potential for use of any historic sites protected under Section 4(f).

Parks and Recreational Resources

No land from any existing or planned park or recreation resource would be permanently incorporated into the Project. There would be no direct use under Section 4(f).

There would be no construction staging or construction access through any of the parks and recreational resources. Accordingly, no temporary occupancy would occur and there is no potential for use to result from construction of the Project.

The Proposed Project, once operational, would result in quieter trains with lesser diesel emissions along the corridor including along corridor sections adjacent to local parks. There would be no disturbance to the use, attributes, or features of the parks or recreational facilities. The catenary structures would be within the existing rail ROW and would not affect the use, attributes, or features of the parks and recreational resources. Accordingly, no proximity impacts on the parks would occur as a result of the Project. Therefore, there is no potential for constructive use under Section 4(f).

2.20 Cumulative Impacts

2009 EA

The 2009 EA concluded that there would be two potential cumulative impacts. The first potential cumulative impact is aesthetics related to the introduction of new transportation-related visual elements into the environment. The 2009 EA concluded that the Project, in combination with other

cumulative projects, would not constitute a considerable aesthetics impact. The second potential cumulative impact is floodplains related to encroaching on the 100-year floodplain. The 2009 EA concluded that there would be no increase in risk to flooding in the cumulative condition because all cumulative projects will incorporate the necessary drainage facilities into their projects.

Change in Effects

Refer to Chapter 4 of the 2015 FEIR for the description of the cumulative analysis. The differences in analysis in the 2015 FEIR from the 2009 EA are in large part due to the change in Project circumstances but are also related to changes in the Project description. Some of the differences are unrelated to changes in the Project description or circumstances.

The 2015 FEIR included an extensive cumulative analysis that considered projected growth obtained from adopted general plans or similar documents and a list of past, present, and probable future projects in or adjacent to the Caltrain Corridor, that could result in cumulative localized impacts. This list includes rail projects planned within the Caltrain Corridor, other regional transportation improvements, and land development projects that are planned directly adjacent to the Caltrain Corridor.

The cumulative analysis also included the previously approved Caltrain Communications Based Overlay Signal System Positive Train Control (CBOSS PTC) project. This project, which was processed under a CEQA categorical exemption and a NEPA categorical exemption, will provide a new advanced signal system and will comply with the federal requirement for PTC. The project is in construction at present and will be completed prior to the Caltrain electrification construction.

The cumulative analysis includes consideration of California High Speed Rail Blended Service. As described previously, Blended Service was not considered as a cumulative project in the 2009 EA because at that time, CHSRA was anticipating construction of a four-track system on which HSR would have dedicated tracks and tracks would not be shared among Caltrain and HSR.

The 2015 FEIR concluded that the Project would not contribute to cumulative impacts for the following topic areas: air quality, greenhouse gas emissions, population and housing, and public services and utilities. Project contributions to cumulative impacts related to biological resources, cultural resources geology, soils, and seismicity, hazards and hazardous materials, and land use and recreation can be reduced with JPB-adopted routine project mitigation measures.

The description below summarizes cumulative impacts from the 2015 FEIR for the remaining topic areas and provided additional discussion of land use analysis relative to certain concepts under consideration in San Francisco related to the 4th and King station.

Aesthetics. Cumulative rail development could require a set of passing tracks somewhere along the Caltrain corridor. While the passing tracks may require right of way acquisition, the new tracks would be adjacent to existing tracks and consistent with the aesthetics of the existing setting accordingly. The Proposed Project, with mitigation, would not fundamentally change the overall visual character of the existing Caltrain corridor, although in some specific locations the additional OCS poles and wires and tree removal may be perceived adversely by individuals. Since the Proposed Project would occur along an existing transportation corridor it would not contribute considerably to cumulative aesthetic visual effects.

EMF/EMI. Combined Project and HSR EMF levels are expected to be less than EMF threshold levels. HSR operations could also result in EMI impacts on facilities with sensitive equipment like the Project. Design level treatments could address potential contributions of the Project to EMI impacts.

Hydrology and Water Quality. Project contributions to cumulative impacts related to water quality during construction, including groundwater and surface runoff, can be reduced with JPB-adopted Mitigation Measure HYD-1. The Project's contribution to cumulative operational impacts related to water quality runoff, groundwater recharge, and changes in drainage patterns will be less than considerable.

Project contributions to cumulative flooding impacts due to proposed locations of some of the TPFs in current floodplains will be reduced with JPB-adopted Mitigation Measure HYD-4 which requires minimization of new impervious space for any TPFs proposed in floodplain areas, relocation of facilities, and/or use of TPF site locations outside the 100-year floodplain. With this mitigation, the Proposed Project would not contribute considerably to potential cumulative flooding impacts of cumulative projects.

Land Use. The 2015 FEIR reviewed the land use compatibility of the proposed electrification with cumulative proposed land use projects along the corridor and did not identify any substantial incompatibilities with the Proposed Project.

The City and County of San Francisco is currently studying the feasibility of removing the end of the I-280 freeway after Mariposa Street, extending the Caltrain (and future HSR) tracks underground, creating a surface boulevard that would connect the cross-streets of the Potrero Hill and SOMA neighborhoods to Mission Bay, reconnecting the adjacent neighborhoods at the San Francisco 4th and King Station, and potentially redeveloping the 4th and King Station. This concept is not part of any adopted City land use plan and funding has not yet been identified and thus is not reasonably foreseeable at this time. The 2015 FEIR analyzed potential conflicts between the electrification project at a conceptual level only since the City's concept is only at a preliminary level of consideration. The 2015 FEIR identified that if the City's concept is advanced at a future date, the electrification project would not pose a substantial impediment as cost of removal of electrification poles and wires would be minor in comparison to the cost of the potential freeway removal, new roadway construction, and station redevelopment. The 2015 FEIR concluded that this is not a cumulative impact.

Noise and Vibration. Cumulative noise impacts were evaluated for 2020 and 2040 with the combined effect of the Project, HSR trains, increases in freight service, and increases in other tenant passenger rail services (ACE, Capitol Corridor, AMTRAK, and Dumbarton Rail Corridor). Cumulative noise increases were found to increase noise levels in excess of FTA noise moderate and/or severe thresholds in 2040 at nearly all study locations if all rail increases come to fruition. The Project's contribution to these cumulative impacts is limited to a few locations (4 out of 49 study locations in 2040), would be limited in scale (on the order of 0.1 dBA), and would be eliminated entirely with 100 percent electrified service between San Jose and San Francisco.

Cumulative JPB-adopted noise mitigation (Mitigation Measure NOI-CUMUL-1) proposes a long-term program of noise reductions including multiple approaches such as building sound insulation quiet zones. Long-term grade separations and road closures are also considered, where acceptable to local jurisdictions and where funding is available. Given that the project's ultimate contribution to cumulative

noise is small and would be eliminated with full electrification, the responsibility for implementing long-term noise mitigation will likely fall on other contributors to cumulative noise, such as high-speed rail.

Cumulative vibration impacts were evaluated with cumulative rail service increases due to the increase in number of trains and potentially due to the increase in vibration associated with potential increased speeds for the Blended Service 110 miles per hour (mph) scenario. The Proposed Project would not increase vibration levels and may actually lower vibration levels on a per train basis. However, the Proposed Project would result in an increase in the number of trains. Vibration mitigation included in prior high-speed rail environmental documents (Mitigation Measure NOI-CUMUL-2) includes track treatments and design that would address potential cumulative effects. This mitigation is expected to be implemented by the high-speed rail if that project is advanced on the corridor; since the cumulatively significant impact would only occur if high-speed rail is implemented and standard mitigation implemented by the high-speed rail project on other corridors would be adopted for this corridor, the long-term cumulative vibration effects can be addressed by the parties most responsible for contributing to the cumulative effect.

Transportation and Traffic. Since the Project would reduce regional and city-by-city VMT, it would not contribute adversely to cumulative regional and local traffic overall. Although cumulative traffic delays at localized intersections near at-grade crossings and near train stations would worsen due to cumulative train service increases, given the net reduction in overall VMT, the project would contribute to an overall improvement in traffic.

The Proposed Project would have less-than-considerable contributions or less-than-considerable contributions with JPB-adopted mitigation to cumulative impacts on other transit services, pedestrian and bike facilities, and station access and parking.

The 2015 FEIR analyzed the potential cumulative impacts due to the combination of the electrification project and the proposed relocation of the San Francisco Muni 22-Fillmore Electrical Trolley from 17th and 18th Street onto 16th Street. The proposed relocation would mean that the 22-Fillmore would require overhead electrical lines crossing the Caltrain ROW at 16th Street. JPB-adopted Mitigation Measure TRA-CUMUL-2 requires the implementation of a technical solution to allow electric trolley bus transit across 16th Street without OCS conflicts in cooperation with the San Francisco Municipal Transportation Agency (SFMTA). The JPB met with SFMTA and identified feasible technical solutions that would allow both the electrification project and the proposed relocation of the 22-Fillmore to be achieved.

Lowering of existing overhead heights at certain locations could limit the ability of freight operators to use freight train equipment with higher heights than at present. JPB-adopted Mitigation Measure TRA-CUMUL-3 will provide for Plate H clearance at the Lafayette Pedestrian Overpass location, as warranted.

2.21 Alternatives

2009 EA

The 2009 EA analyzed two alternatives: the No Electrification (No Project) Alternative and the Electrification Program Alternative (the Project). The 2009 EA considered a number of other alternatives (including third-track alternatives, for example), but dismissed them from further analysis.

Changes in Effects

No new alternatives were identified relative to the new TPF sites or revised OCS/ESZ alignments since all of the impacts of the new TPF sites and relative to the OCS/ESZ can be addressed through the mitigation identified and adopted by the JPB through the CEQA process.

The JPB considered 52 potential alternatives based on input solicited from the public, agencies, and stakeholders during the EIR's scoping period and JPB staff recommendations. Following a three-tier screening analysis, the JPB identified four alternatives, in addition to the No Project Alternative, to carry through the EIR for analysis.³ The 2015 FEIR considered the following alternatives: (1) No Project Alternative; (2) Diesel Multiple Unit (DMU) Alternative; (3) Dual-Mode Multiple Unit (Dual-Mode MU) Alternative; (4) Tier 4 Diesel Locomotive Alternative (T4DL); and (5) Electrification with OCS Installation by Factory Train Alternative.

The 2015 FEIR concluded that for construction, the No Project and the Tier 4 Diesel Locomotive Alternatives would both be the environmentally superior alternative (to the other alternatives and to the Project) because neither would require any construction. For operations, the Dual-Mode MU Alternative would be the environmentally superior alternative (to the other action alternatives) because it would have better long-term air quality, lower GHG emissions, and better regional traffic conditions but would not be environmentally superior to the Project. The Project is considered the environmentally superior alternative overall.

The alternative analysis also considered level boarding. At present, the platform modifications necessary to achieve level boarding are not a proposed or funded project. It is the JPB's intent, however, to engage in a vehicle procurement that does not preclude the future possibility of level boarding on the corridor. However, outside of the FEIR, the JPB and the CHSRA have identified a technical solution that provides options for multi-level boarding and does not preclude common level boarding at the shared Caltrain/HSR platforms or at all of the Caltrain platforms. This technical solution is being pursued through the JPB's procurement for new EMU vehicles. In the EIR, the alternatives analysis concluded that level boarding, while desirable for improved access and loading time, was not a necessary element to achieve the electrification project's purpose and need. Further, the EIR concluded that electrification would not preclude nor hinder achievement of level boarding at some point in the future when funding can be secured. Where platforms are altered in the future after electrification construction, some OCS poles have to be relocated/realigned.

The difference in the alternatives analysis in the 2015 FEIR from the 2009 EA is not related to the changes in the Project or the changes in the Project circumstances and thus is not a consideration for the re-evaluation.

³ CEQA does not require an EIR to evaluate the Project's alternatives at an equal level to the Project and thus the analysis of these alternatives was conducted at a more broad level than for the PCEP itself. However, detailed air quality and noise analysis was conducted for these alternatives to support the EIR evaluation of alternatives.

3. Conclusion

According to 23 CFR 771.129:

(c) After approval of the ROD, FONSI, or CE designation, the applicant shall consult with the Administration prior to requesting any major approvals or grants to establish whether or not the approved environmental document or CE designation remains valid for the requested Administration action. These consultations will be documented when determined necessary by the Administration

This document ~~provides documentation concerning~~ describes the environmental effects of project changes and the changes in circumstances per 23 CFR 771.29(c).

Based on the environmental re-evaluation information described above, the JPB finds that the design changes: do not induce significant environmental impacts to planned growth or land use for the area; do not require the relocation of significant numbers of people; do not have a significant impact on natural, cultural, recreational, historical or other resource; do not involve significant air, noise, or water quality impacts; do not have significant impacts on travel patterns; do not result in a use or constructive use of historic or other resources within the meaning of Section 4(f) of the Department of Transportation Act, 49 USC§ 303; or do not otherwise, ~~either individually or cumulatively,~~ have any significant environmental impacts. The proposed changes are not substantial and with the mitigation specified in the re-evaluation materials, the changes will not cause significant environmental impacts that were not previously evaluated in the prior EA. Therefore, neither the preparation of a SEIS nor a revised EA is necessary.

Appendices

Appendix A: Figures

Appendix B: SHPO Section 106 Consultation

Appendix C: USFWS Section 7 Consultation

Appendix D: NMFS Section 7 Consultation

Appendix E: PS7, Variant C and D, Biological Survey Memorandum

Appendix F: SHPO Concurrence re: PS7 Variant C

Appendix G: Peninsula Corridor Electrification Project Environmental Impact Report

Appendix H: Peninsula Corridor Electrification Project Addendum to the Final Environmental Impact Report, Paralleling Station 7, Variant C

Appendix I: Peninsula Corridor Electrification Project, Right of Way Fee and Easement Acquisition Parcels

Appendix A: Figures

Figure 1: Project Location

Figure 2: Project Vicinity

Figure 3: Proposed Paralleling Station 1 (PS1), San Francisco

Figure 4: Proposed Paralleling Station 2 (PS2), San Francisco

Figure 5: Traction Power Substation 1 (TPS1), South San Francisco

Figure 6: Proposed Paralleling Station 3 (PS3), Burlingame

Figure 7: Proposed Paralleling Station 4 (PS4), San Mateo

Figure 8: Proposed Switching Station 1 (SWS1), Redwood City

Figure 9: Proposed Paralleling Station 5 (PS5), Palo Alto

Figure 10: Proposed Paralleling Station 6 (PS6), Sunnyvale

Figure 11: Traction Power Substation 2 (TPS2), San Jose

Figure 12: Proposed Paralleling Station 7 (PS7), San Jose

Legend

- Corridor Electrification Project
- Existing Caltrain Station

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Miles

N

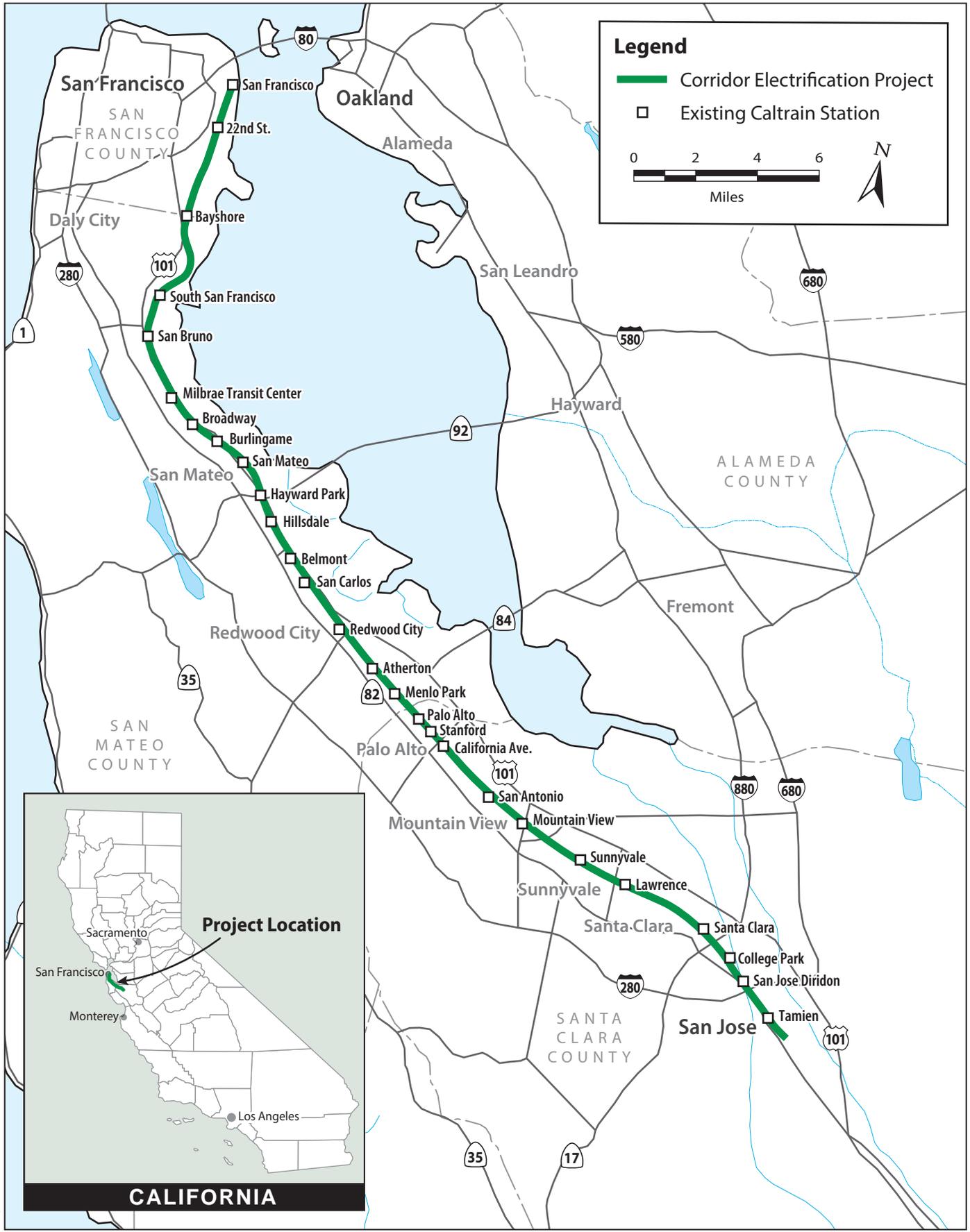


Figure 1
Project Location
Peninsula Corridor Electrification Project

Graphics ... 0064514 (1-26-2015)

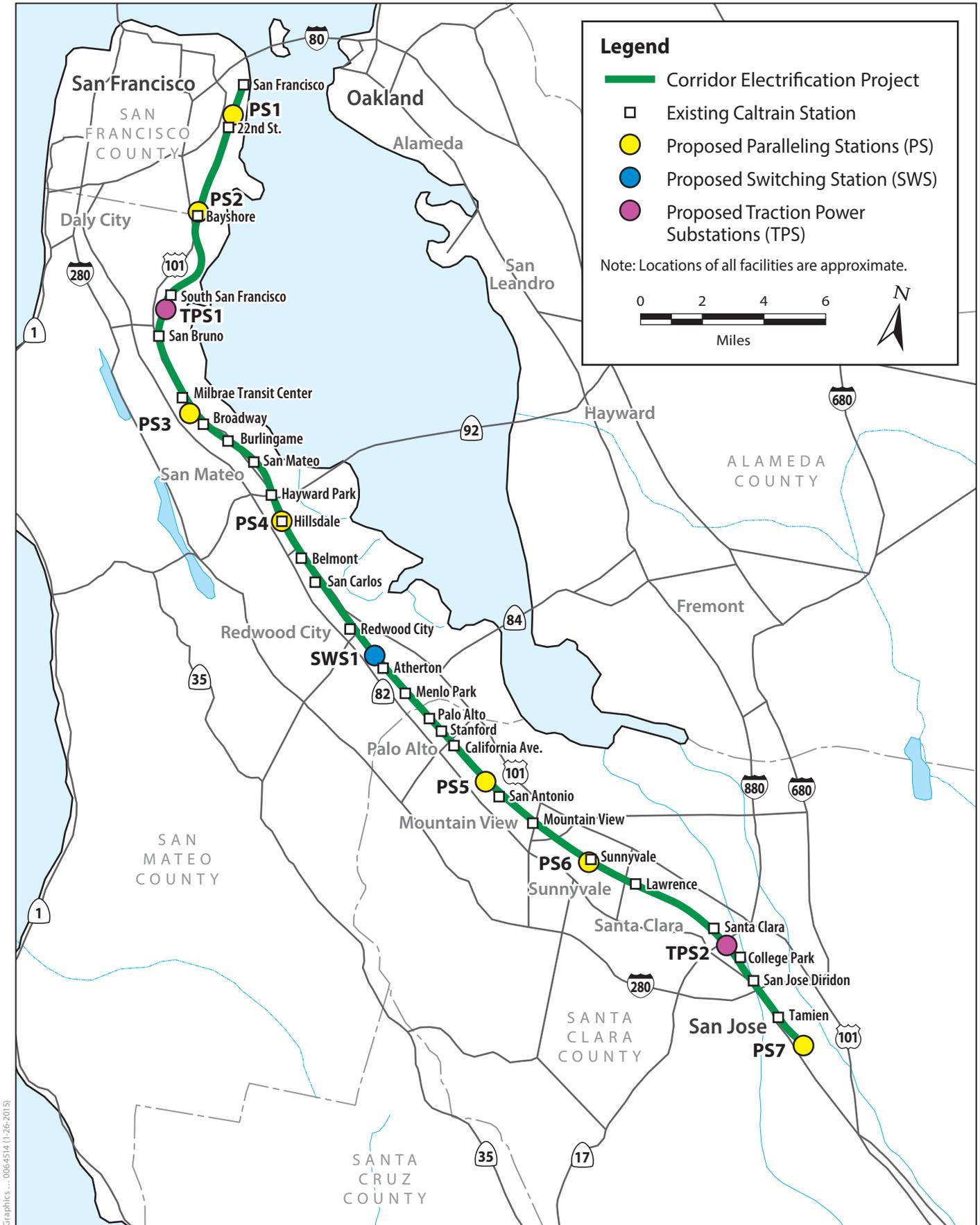


Figure 2
Project Vicinity
 Peninsula Corridor Electrification Project

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Source: Imagery, ESRI 2013

Figure 3
Proposed Paralleling Station 1 (PS1), San Francisco
Peninsula Corridor Electrification Project

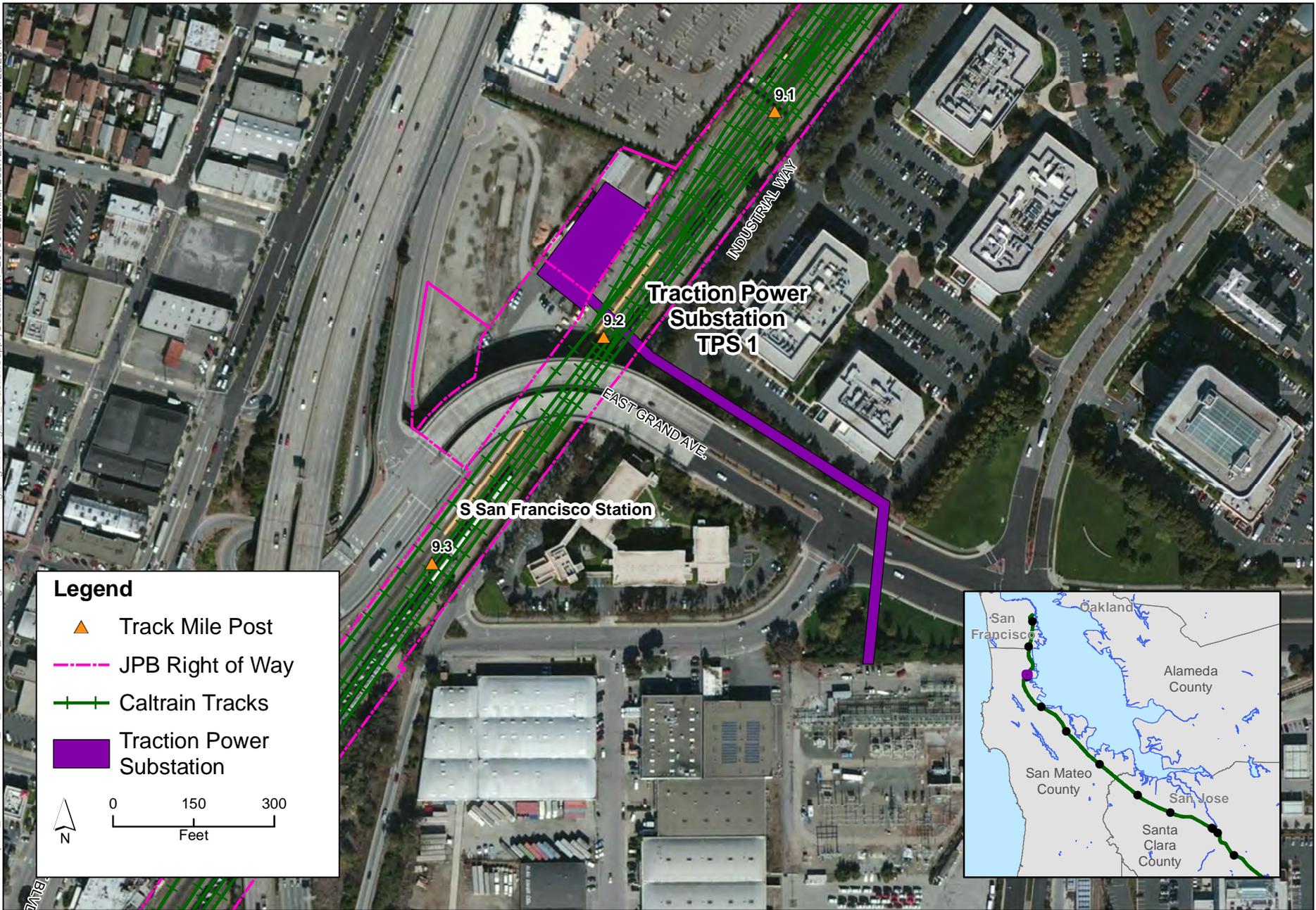
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Source: Imagery, ESRI 2013

Figure 4
Proposed Paralleling Station 2 (PS2), San Francisco
Peninsula Corridor Electrification Project

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Source: Imagery, ESRI 2013

Figure 5
Traction Power Substation 1 (TPS1), South San Francisco
Peninsula Corridor Electrification Project

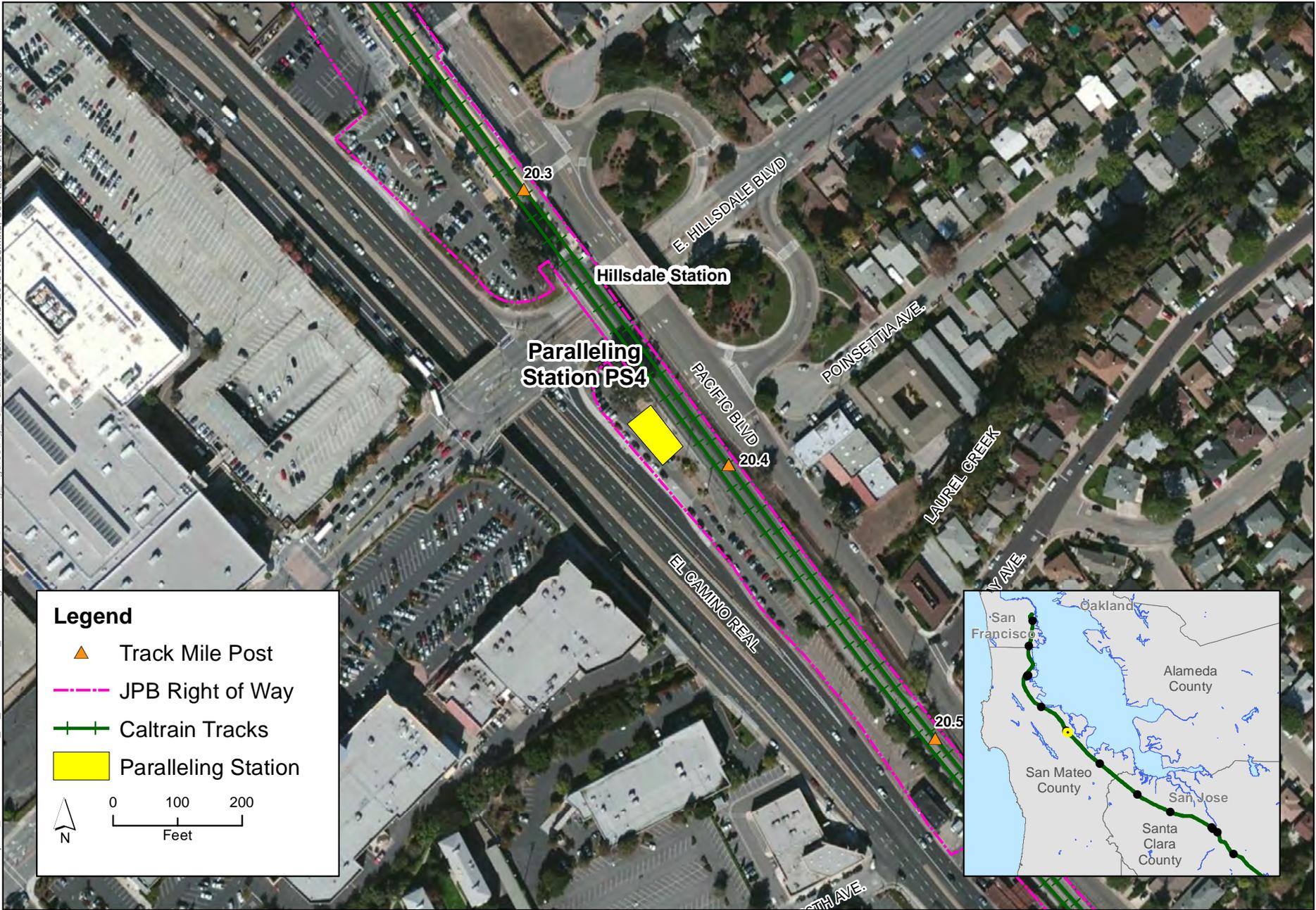
Path: K:\Projects_3\Caltrain\00359_14_Electrification_Permitting\mapdoc\Permitting_Figures\Fig_12_ParallelingStation3_20151026.mxd; User: 29391; Date: 1/26/2015



Source: Imagery, ESRI 2013

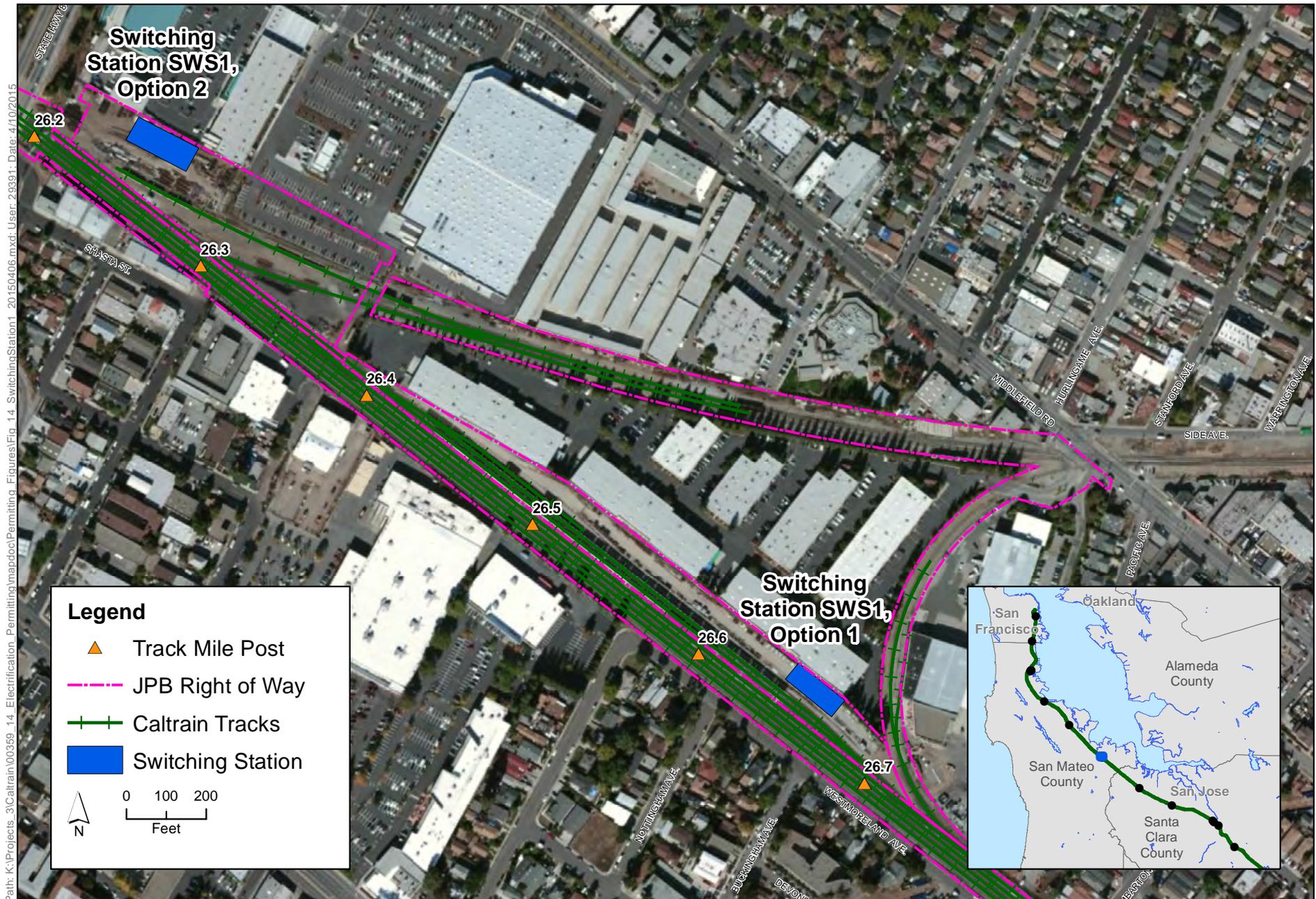
Figure 6
Proposed Paralleling Station 3 (PS3), Burlingame
Peninsula Corridor Electrification Project

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Source: Imagery, ESRI 2013

Figure 7
Proposed Paralleling Station 4 (PS4), San Mateo Peninsula Corridor Electrification Project



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Source: Imagery, ESRI 2013

Figure 8
Proposed Switching Station 1 (SWS 1), Redwood City
 Peninsula Corridor Electrification Project



Source: Imagery, ESRI 2013

Figure 9
Proposed Paralleling Station 5 (PS5), Palo Alto
 Peninsula Corridor Electrification Project

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Source: Imagery, ESRI 2013

Figure 10
Proposed Paralleling Station 6 (PS6), Sunnyvale
Peninsula Corridor Electrification Project

Path: K:\Projects_3\Caltrain\00359_14_Electrification_Permitting\mapdoc\Permitting_Figures\Fig_17a_TractionSupplySubstation2_20150410.mxd; User: 29891; Date: 4/10/2015



Source: Imagery, ESRI 2013

Figure 11
Traction Power Substation 2 (TPS2), San Jose
Peninsula Corridor Electrification Project

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Source: Imagery, ESRI 2013

Figure 12
Proposed Paralleling Station 7 (PS 7), San Jose
Peninsula Corridor Electrification Project

Appendix B: SHPO Section 106 Concurrence Letter

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

P.O. BOX 942896
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(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov
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August 11, 2015

Reply To: FTA021021A

Leslie Rogers
Regional Administrator
Federal Transit Administration
201 Mission Street, Suite 1650
San Francisco, CA 94105-1839

Re: Section 106 Consultation for the Peninsula Corridor Electrification Project (PCEP) Modifications, Berkeley, Counties of San Francisco, San Mateo, and Santa Clara, CA

Dear Mr. Rogers:

Thank you for your letter of June 30, 2015, continuing the Federal Transit Administration's (FTA) consultation for the above-referenced undertaking in order to comply with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulation at 36 CFR Part 800. Included with your letter were the following documents:

- *Historical Resources Inventory and Evaluation Report Update, Peninsula Corridor Electrification Project* (HRIER, June 2015), prepared by ICF International for the Peninsula Corridor Joint Powers Board (JPB) and the FTA
- *The Programmatic Agreement Among the Peninsula Joint Powers Board, the Federal Transit Administration, and the California State Historic Preservation Officer Regarding Implementation of the Caltrain Electrification Program San Francisco, San Mateo, and Santa Clara Counties, California* (executed December, 2009)

As described in your letter, the PCEP is the electrification of the Peninsula Corridor railway, owned by JPB. The JPB is a public transportation agency, funded jointly by the City of San Francisco, the County of San Mateo and the Santa Clara Valley Transportation Authority. The overall purpose of the project is to provide electrification improvements to commuter rail service within a corridor between San Francisco and the City of San Jose.

FTA has previously consulted with my office regarding this project resulting in a finding of no adverse effect for the undertaking in 2003. The project was amended in 2008, and resulted in the above-mentioned programmatic agreement for archaeological resources.

The project has been further refined since the previous consultation resulting in an expansion of the Area of Potential Effect (APE). The APE was originally limited to the JPB right-of-way (ROW). The JPB has identified a number of areas where the Overhead Contact System (OCS), Electrical Safety Zone (ESZ), and Traction Power Facilities (TPFs) will extend outside of the existing ROW. These areas are shown in Attachment C of your letter. The project design has also been revised, including changes to the design of the OCS pole design and the installation of the OCS inside the San Francisco Tunnels.

The HRIER Update surveyed the areas that had not been previously inventoried for this undertaking. ICF field verified all of the properties that already had OHP Status Codes of 1, 2, or 3, as well as recorded any additional properties over 45 years old or older. These properties are listed in Tables 6-1 and 6-2 of the HRIER. Two newly recorded properties were evaluated and

recommended as eligible for the National Register of Historic Places (NRHP), El Palo Alto and the Jules Francard Grove.

El Palo Alto is located in the city of Palo Alto on the east bank of San Franciscquito Creek, and is listed as a California Historical Landmark (No. 2) as the site of the end of Portola's journey in 1769. El Palo Alto is 1,075 years old, and was recommended as eligible for the NRHP under Criterion A for its associations with the Portola expedition and as an enduring cultural landmark. It was also used as a landmark by the region's native inhabitants and was frequented as a site of ceremony.

The Jules Francard Eucalyptus Grove is a grove of blue gum eucalyptus trees on the east side of California Drive, from Burlingame Avenue to Palm Drive in the city of Burlingame. It was likely planted between 1876 and 1886 and was designed by John McLaren. McLaren was a master landscape designer and the primary designer of both Golden Gate Park and The Presidio of San Francisco approaches and forest.

The FTA has requested my comments on the revised APE and additional identification efforts for the undertaking, and has determined that El Palo Alto and the Jules Francard Eucalyptus Grove are eligible for listing on the NRHP.

After reviewing the information submitted with your letter, I offer the following comments:

- I concur that the Area of Potential Effect (APE) as represented in the attachments to your letter is appropriate.
- I do not concur that FTA's identification and evaluation efforts are sufficient for this undertaking. As mentioned in the evaluation of El Palo Alto, it was used as a landmark by the region's native inhabitants and frequented as a site of ceremony. As we discussed previously, FTA should consult with affiliated Native American groups to determine whether or not El Palo Alto is of cultural significance and may be eligible as a Traditional Cultural Property.
- I concur that El Palo Alto is eligible for listing in the NRHP under Criterion A for its associations with the Portola expedition and as an enduring cultural landmark.
- I concur that the Julian Francard Eucalyptus Grove is eligible for listing on the NRHP under Criteria A and C at the local level of significance with the period of significance from 1874-1910. It is eligible under Criterion A for its association with the early settlement of the area and the founding of Burlingame, and Criterion C as an important example of the early work of John McLaren.

Thank you for continuing consultation on the identification efforts for this undertaking and considering historic properties in your planning process. I look forward to continuing consultation on this project with the FTA. If you have any questions, please contact Kathleen Forrest of my staff at (916) 445-7022 or e-mail at kathleen.forrest@parks.ca.gov.

Sincerely,



Julianne Polanco
State Historic Preservation Officer

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

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October 19, 2015

Reply To: FTA021021A

Leslie Rogers
Regional Administrator
Federal Transit Administration
201 Mission Street, Suite 1650
San Francisco, CA 94105-1839

Re: Section 106 Consultation for the Peninsula Corridor Electrification Project (PCEP) Modifications Finding of Effect (FOE), Counties of San Francisco, San Mateo, and Santa Clara, CA

Dear Mr. Rogers:

Thank you for your letter of September 24, 2015, continuing the Federal Transit Administration's (FTA) consultation for the above-referenced undertaking in order to comply with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulation at 36 CFR Part 800. Included with your letter were the following documents:

- *3rd Addendum Finding of Effect, Peninsula Corridor Electrification Project* (FOE, September 2015), prepared by ICF International for the Peninsula Corridor Joint Powers Board (JPB) and the FTA

As described in your letter, the Peninsula Corridor Electrification Project (PCEP) is the electrification of the Peninsula Corridor railway, owned by JPB. The JPB is a public transportation agency, funded jointly by the City of San Francisco, the County of San Mateo and the Santa Clara Valley Transportation Authority. The overall purpose of the project is to provide electrification improvements to commuter rail service within a corridor between San Francisco and the City of San Jose.

FTA has previously consulted with my office regarding this project resulting in a finding of no adverse effect for the undertaking in 2003. The project was amended in 2008, and resulted in a programmatic agreement for archaeological resources. The project has been further refined and FTA began consultation on this amendment in June, 2015. My letter of June 30, 2015, offered comments on the Area of Potential Effect (APE) and historic properties identification for this amendment.

The previously submitted Historic Resources Inventory Evaluation Report (HRIER) Update surveyed the areas that had not been previously inventoried for this undertaking. ICF field verified previously surveyed properties and recorded any additional properties over 45 years old or older. Two newly recorded properties were evaluated and recommended as eligible for the National Register of Historic Places (NRHP), El Palo Alto and the Jules Francard Grove. FTA also conducted additional Native American consultation regarding El Palo Alto. I concurred with FTA's determinations of eligibility for these two resources in my letter of June 30, 2015.

Additional project modifications include Overhead Contact System (OCS) poles partially outside of the existing JPB right-of-way (ROW); vegetation removal outside of the Electrical Safety Zone (ESZ) for the ROW; additional locations for traction power facilities and elimination of previously

proposed stations; further development of the design of the OCS in the San Francisco Tunnels; and a change in the type of OCS pole proposed. These modifications are fully described in the FOE. The FTA has determined that the project modifications as described will have no adverse effect on historic properties.

After reviewing the information submitted with your letter, I offer the following comments:

- I concur that FTA's identification and evaluation efforts are sufficient for this undertaking. However, I would recommend that in the future more intensive Native American consultation may be necessary on FTA's part to identify potential Traditional Cultural Properties and address any concerns raised by the undertaking.
- I concur with FTA's finding that the modifications to the undertaking described above will have no adverse effect on historic properties.

Thank you for continuing consultation on the identification efforts for this undertaking and considering historic properties in your planning process. I look forward to continuing consultation on this project with the FTA. If you have any questions, please contact Kathleen Forrest of my staff at (916) 445-7022 or e-mail at kathleen.forrest@parks.ca.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Julianne Polanco', with a long horizontal line extending to the right.

Julianne Polanco
State Historic Preservation Officer

Appendix C: USFWS Section 7 Consultation



United States Department of the Interior



In Reply Refer to:
08ESMF00-
2015-I-1003-1

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Suite W-2605
Sacramento, California 95825-1846

SEP 15 2015

Leslie T. Rogers
Attn: Eric Eidlin
U.S. Department of Transportation
Federal Transit Administration
Region IX
201 Mission Street, Suite 1650
San Francisco, California 94105-1839

Subject: Informal Consultation on the Caltrain Peninsula Corridor Electrification Project in San Francisco, San Mateo, and Santa Clara Counties, California

Dear Mr. Rogers:

This letter responds to your August 4, 2015 letter requesting informal consultation with the U.S. Fish and Wildlife Service (Service) on the proposed Caltrain Peninsula Corridor Electrification Project (proposed project) in San Francisco, San Mateo, and Santa Clara Counties, California. We received the revised Biological Assessment for the proposed project on September 1, 2015. At issue are the proposed project's effects on the federally threatened California red-legged frog (*Rana draytonii*), endangered San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), endangered California clapper rail (*Rallus longirostris obsoletus*), and endangered salt marsh harvest mouse (*Reithrodontomys raviventris*). This response is provided under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act), and in accordance with the implementing regulations pertaining to interagency cooperation (50 CFR 402). Critical habitat has been designated for the California red-legged frog but does not occur within the action area for the proposed project. Recent genetic analyses of rail species resulted in a change in the common name and taxonomy of the large, "clapper-type" rails (*Rallus longirostris*) of the west coast of North America to Ridgway's rail (*Rallus obsoletus*) (Maley and Brumfield 2013, Chesser *et al.* 2014). The change in the common name and taxonomy of the California clapper rail, however, does not change the listing status of the species.

The Federal action on which we are consulting is the Federal Transit Administration providing Federal funding to the Peninsula Corridor Joint Powers Board (JPB) for the Caltrain Peninsula Corridor Electrification Project. Pursuant to 50 CFR 402.12(j), you submitted a biological assessment for our review and requested concurrence with the findings presented therein. These findings conclude that the proposed project may affect, but is not likely to adversely affect the California red-legged frog, San Francisco garter snake, California clapper rail, and salt marsh harvest mouse.

The proposed project involves JPB electrifying the approximately 51-mile-long Caltrain commuter rail from the northern terminus at 4th Street and King Street in the City of San Francisco, San Francisco County, California to two miles south of the Tamien Station in the City of San Jose, Santa Clara County, California, with construction of a new overhead contact system with wires and poles and ancillary features including traction power substations, switching stations, and paralleling stations. Other proposed project elements include over-bridge protection structures, at-grade crossing warning devices, and phased conversion from diesel-powered trains to electric multiple unit trains. The proposed project will install 130 to 140 single-track miles of overhead contact system for the distribution of electrical power to the electric rolling stock. The overhead contact system would be powered from a 25 kilovolt, 60 Hertz, single-phase, alternating current supply system consisting of two traction power substations, one switching station, and seven paralleling stations. Vegetation will be maintained so there is at least 10 feet of clearance between vegetation and energized elements of the overhead contact system.

Federally Listed Species Habitats and Occurrences within the Action Area

The proposed project will occur within the disturbed 51-mile-long Caltrain railroad right-of-way (ROW) corridor that consists primarily of a disturbed, graded, and graveled railroad ROW. However, at certain locations there is suitable habitat for federally listed species within or adjacent to the action area. Summarized below are the locations along the proposed project corridor with the potential for listed species.

California Red-legged Frog and San Francisco Garter Snake

The California red-legged frog and San Francisco garter snake have a high potential to occur within suitable habitat (wetlands, channels, and surrounding uplands) near the San Francisco International Airport (Airport) close to the action area. California red-legged frogs and San Francisco garter snakes are well documented and known to occur within the habitat near the Airport located immediately east of the Bay Area Rapid Transit (BART) tracks, which are immediately east of the action area. However, the California red-legged frog and San Francisco garter snake habitat is vertically separated by at least 8 feet from the grade of suitable habitat immediately adjacent to the Airport. The vertical grade is steep enough that the California red-legged frog and San Francisco garter snake would likely be unable to climb or scale. The action area is blocked from California red-legged frog and San Francisco garter snake habitat by the elevated BART tracks, with the exception of the northern end of the Airport habitat (near First Avenue in the City of San Bruno) and a drainage channel immediately west of the action area. The California red-legged frog has a low to moderate potential to occur elsewhere within freshwater channels and associated stream banks that occur within the action area. The proposed project does not include any in-water work at any of these streams, and proposed project effects at these streams is limited to removal of riparian vegetation from the 10-foot-wide electrical safety zone for the overhead contact system.

California Clapper Rail and Salt Marsh Harvest Mouse

The California clapper rail and salt marsh harvest mouse are considered to have a low potential to be present in a few small, isolated areas (Brisbane Lagoon and Oyster Cove in San Mateo County) with suitable tidal marsh habitat adjacent to the action area. The nearest known occurrence of the salt marsh harvest mouse to potentially suitable habitat in Brisbane Lagoon and Oyster Cove is about 10 miles to the southeast in the City of Foster City, San Mateo County. The proposed project does not

encroach into California clapper rail habitat and salt marsh harvest mouse, but habitat is adjacent to the action area.

Avoidance and Minimization Measures

JPB will implement the following avoidance and minimization measures to avoid and minimize the effects of the proposed project on the California red-legged frog, San Francisco garter snake, California clapper rail, and salt marsh harvest mouse, and their habitats:

California Red-legged Frog and San Francisco Garter Snake

1. A Service-approved biological monitor will develop and implement worker environmental awareness training focused on the identification of the California red-legged frog and San Francisco garter snake and their habitats and the required avoidance and minimization measures.
2. The Design-Build Contractor shall retain a Service-approved biologist to conduct a survey of the adjacent wetlands and surrounding upland that represent suitable habitat for California red-legged frog and San Francisco garter snake prior to initiation of construction activities. The surveys will be conducted to determine if these species are present within the proposed work area and directly adjacent suitable habitat immediately before installation of the exclusion fence. If no individuals are observed during the surveys, then a wildlife species exclusion fence with a minimum 10-foot buffer (where feasible) will be installed to prevent their movement into the construction zone from adjacent suitable habitat. The wildlife exclusion fencing will be at least four feet high with the bottom buried at least six inches under the ground. The Service-approved biologist will monitor the installation of the wildlife exclusion fence that will be placed at the edge of the work area. The integrity of the wildlife exclusion fence will be monitored daily (by construction personnel) and any needed repairs made within 24 hours. If any breaches in the wildlife exclusion fencing are detected, a qualified biologist will survey the work area for California red-legged frogs and San Francisco garter snakes. The exclusion fence requirements described above apply to any time during construction during which heavy equipment and significant ground disturbance will occur within or adjacent to California red-legged frog or San Francisco garter snake habitat at creek crossings or at the Airport site. During periods in which no heavy equipment will be used, work would only be conducted on-foot, or no construction activity is occurring, the fencing requirements would not apply.
3. The Design-Build Contractor (or the JPB) shall provide the Service with a proposed wildlife exclusion fencing plan for all work areas within or adjacent to California red-legged frog and San Francisco garter snake habitat and shall obtain Service approval of the fencing plan prior to construction within or adjacent to California red-legged frog and San Francisco garter snake habitat.
4. All work within 100 feet will stop if any California red-legged frogs or San Francisco garter snakes are observed in the work area, and work will not resume until a qualified biologist has determined that the California red-legged frog or San Francisco garter snake has safely moved out of the work area on its own volition. No California red-legged frogs or San Francisco garter snake will be handled. The Service will be contacted for guidance if any

California red-legged frogs or San Francisco garter snakes do not move out of the work area on their own volition.

5. Construction activities near drainages (*i.e.*, riparian vegetation removal or other work within 100 feet of the creek) identified as potential California red-legged frog and San Francisco garter snake habitat corridors will take place between May 15 and October 31.
6. As appropriate to discourage California red-legged frogs from entering the project impact areas via freshwater ditches in areas of California red-legged frog habitat, the ditches will be equipped with lightweight, one-way flow gates. These will be designed so that water can easily pass from the project site to the ditches, but small vertebrates such as the California red-legged frog cannot move upstream from the ditches to the project site. This measure will only apply between November 1 and March 31 (*e.g.*, rainy season).
7. The Service-approved biologist will monitor work within the ROW that is immediately adjacent (within 100 feet) of areas of suitable habitat and check under vehicles and equipment that have been inactive for periods of eight hours or more.
8. All motorized vehicles and equipment will not exceed five miles per hour while within the work area until the exclusion fence is fully installed.
9. Refueling of vehicles and equipment will not take place within 50 feet of a creek, stream, wetland, or other water feature.
10. Disturbance of riparian habitat will be minimized to the extent feasible, and any riparian vegetation removed will be replaced at a 2:1 ratio. Removed riparian trees will be planted along the affected stream corridor, wherever feasible. Although the planting will not be in the original locations, new riparian plantings would provide shade for the affected creeks in nearby unshaded areas to offset any potential habitat effect due to the maintenance of the electrical safety zone.
11. Work activities that will be conducted at night within 50 feet of sensitive habitats for the California red-legged frog and San Francisco garter snake (including riparian habitat, streams, creeks, or freshwater marsh) will direct construction light inward toward the ROW and away from sensitive habitat areas. If lights cannot be directed in a way to avoid fugitive light from leaving the ROW, then fully and/or partially shielded lights will be used to restrict all light to the ROW during night work.
12. A Stormwater Pollution Prevention Plan will be implemented to reduce construction-related effects on water quality.

California Clapper Rail and Salt Marsh Harvest Mouse

1. A Service-approved biological monitor will develop and implement worker environmental awareness training focused on the identification of the California clapper rail and salt marsh harvest mouse and their habitats and the required avoidance and minimization measures.

2. Work activities within 50 feet of California clapper rail and salt marsh harvest mouse habitat will not occur within two hours before or after extreme high tides (6.5 feet National Geodetic Vertical Datum (NGVD) or above), as measured at the Golden Gate Bridge and adjusting to the timing of local high tides.
3. If work is to be conducted during the California clapper rail's breeding season (February 1 – August 31), a permitted biologist will be retained to conduct protocol level surveys at the action area and identify a 700-foot buffer to the nearest suitable habitat. Protocol-level surveys will be conducted following the Service's June 2015 survey protocol which requires four rounds of surveys conducted between mid-January through April (available at http://www.fws.gov/sfbaydelta/documents/June_2015_Final_CCR_protocol.pdf). Work will not commence within 700 feet of California clapper rail habitat during the rail's breeding season until the results of the protocol-level surveys have been reviewed and approved by the Service. No construction activities will occur within 700 feet of identified California clapper rail activity centers during the rail's breeding season.
4. Outside of the California clapper rail's breeding season, a Service-approved biologist will be retained to conduct surveys of appropriate habitat for California clapper rail within the work area and immediately adjacent suitable habitat, including all staging and access routes, no more than seven days prior to initiation of work within suitable habitat. A Service-approved biologist will conduct an additional survey immediately prior to initiation of construction activities.
5. If individual California clapper rails are observed within or near the work area, a no-disturbance buffer (minimum 100 feet) will be implemented while individuals are present. If the daily work area is expanded, then a qualified biologist will survey the suitable habitat prior to initiation of work and movement of equipment that day. No work will occur within the buffer until the biologist verifies that California clapper rail individuals have left the area.
6. If California clapper rail individuals are routinely observed in the work area, a species avoidance plan will be developed in coordination with the Service. If no individuals are observed in accordance with the survey protocols, no buffers will be required.
7. Construction and maintenance work, including site preparation, will be avoided to the extent possible within suitable habitat for the salt marsh harvest mouse during the mouse's breeding season (March 1 to November 30).
8. A preconstruction survey for salt marsh harvest mice will be conducted immediately before exclusion fencing is installed. The preconstruction survey will be conducted by a Service-approved biologist of all work areas within 100 feet of suitable habitat at the Brisbane Lagoon and Oyster Cove. If salt marsh harvest mice are not found during the preconstruction survey, then exclusion fencing will be placed at the edge of the defined work area before proposed project activities begin. The exclusion fence will be made of a heavy plastic sheeting material that salt marsh harvest mouse cannot climb. The fencing will be between one foot and four feet tall and buried at least four inches underground. The supports for the exclusion fencing will be placed on the inside of the work area. The fencing will be inspected daily and any needed repairs made within 24 hours. The Service-approved

biologist will inspect the work area for salt marsh harvest mouse if any breaches in the fencing are found.

9. The Design-Build Contractor (or the JPB) shall provide the Service with a proposed wildlife exclusion fencing plan for all work areas within or adjacent to salt marsh harvest mouse habitat and shall obtain Service approval of the fencing plan prior to construction within or adjacent to salt marsh harvest mouse habitat.
10. Prior to initiation of work each day within 100 feet of tidal or pickleweed habitats at the Brisbane Lagoon and Oyster Cove, a Service-approved biologist will thoroughly inspect the work area and adjacent habitat areas to determine if salt marsh harvest mice are present. The biologist shall ensure the exclusion fencing has no holes or rips and the base remains buried.
11. If salt marsh harvest mouse individuals are observed during the preconstruction and subsequent pre-activity surveys, proposed project activities within 100 feet of the observation will be postponed and a no-disturbance buffer will be established. The buffer will remain in place until the biologist determines that the individuals have left the area and are not present in or near (100 feet) of the work area. If no individuals are observed, no buffers will be required. Once the biologist confirms that the salt marsh harvest mouse has left the work area, then the exclusion fence installation/construction work can continue.
12. Work activities that will be conducted at night within 50 feet of sensitive habitats for the California clapper rail and salt marsh harvest mouse (including salt marsh and tidal marsh) will direct construction light inward toward the ROW and away from sensitive habitat areas. If lights cannot be directed in a way to avoid fugitive light from leaving the ROW, then fully and/or partially shielded lights will be used to restrict all light to the ROW during night work.

Proposed Project Effects

There is the potential for California red-legged frogs, San Francisco garter snakes, California clapper rails, and salt marsh harvest mice to move into the proposed project construction areas. Construction will require removal of a minimal amount of riparian vegetation within a 10-foot-wide buffer from the overhead contact system at a number of streams that have the potential or known presence of the California red-legged frog but will not include in-water work; a total of one coast live oak will be removed, 11 other native trees will be pruned, three non-native trees will be removed (two black acacias and one eucalyptus), and 44 non-native trees will be pruned along streams with the potential for California red-legged frogs. No suitable habitat for the San Francisco garter snake, California clapper rail, and salt marsh harvest mouse will be directly disturbed by the proposed project. Construction activities will occur at night, and therefore, will require lighting of work areas near suitable habitat for these four listed species.

The proposed project will install poles and overhead wires for the overhead contact system near suitable habitat for California red-legged frogs, San Francisco garter snakes, California clapper rails, and salt marsh harvest mice that could provide artificial raptor perches for avian predators within the action area. Any significant increases in raptor perching opportunities near suitable habitat for these four listed species could result in increased risk of predation on these species within the action

area. However, the affected locations already possess existing poles, wires, towers, and trees and other structures that provide existing raptor perching opportunities in and adjacent to the existing habitat. Furthermore, the desirability of the proposed project's poles and wires for raptor perching compared to existing perching opportunities will be diminished by the frequent high-speed train transit under and immediately adjacent to the new poles and wires. Thus, the addition of new poles and wires is not expected to significantly increase the risk of predation by raptors on the four listed species within the action area.

The switching from diesel to electrically-powered trains will substantially reduce air pollution, nitrogen oxide, and greenhouse gas emissions along the Caltrain corridor. Also noise emanating from the passage of electrified train sets will be measurably less than diesel operations which will reduce noise levels within adjacent habitat for the four listed species.

The Service concurs that the proposed project is not likely to adversely affect the California red-legged frog and San Francisco garter snake because: (1) only a minimal amount of suitable riparian habitat will be disturbed; (2) any riparian vegetation removed will be replaced at a 2:1 ratio; (2) work within 100 feet of suitable riparian habitat and drainages will be restricted to the dry season when California red-legged frogs are less likely to disperse through the work area; (3) the installation of new poles and wires is not likely to significantly increase raptor perching opportunities within the action area; (4) lighting will be shielded and directed away from suitable habitat; (5) a Service-approved biologist will supervise construction of the proposed project and train the construction crew in the identification of the California red-legged frog and San Francisco garter snake and implementation of the avoidance measures; (6) all work will stop if a California red-legged frog or San Francisco garter snake is observed near the work area; (7) wildlife exclusion fencing will be installed to keep California red-legged frogs and San Francisco garter snakes from entering the work areas; (8) proposed project-related vehicles will maintain a five-mile-per-hour speed limit when operated near suitable habitat outside of exclusion fencing; and (9) the implementation of water quality best management practices, a stormwater pollution prevention plan, and spill prevention plan will minimize the potential for degrading aquatic habitat for the California red-legged frog and San Francisco garter snake.

The Service concurs that the proposed project is not likely to adversely affect the California clapper rail and salt marsh harvest mouse because: (1) no suitable habitat for the California clapper rail and salt marsh harvest mouse will be disturbed; (2) no work will occur within 700 feet of California clapper rail activity centers during the rail's breeding season as determined by Service-approved protocol-level surveys; (3) the installation of new poles and wires is not likely to significantly increase raptor perching opportunities within the action area; (4) lighting will be shielded and directed away from suitable habitat; (5) a Service-approved biologist will supervise construction of the proposed project and train the construction crew in the identification of the California clapper rail and salt marsh harvest mouse and implementation of the avoidance measures; (6) all work will stop if a California clapper rail or salt marsh harvest mouse is observed near the work area; (7) no work will occur within two hours before and after extreme high tide events when the California clapper rail and salt marsh harvest mouse are most vulnerable to predation and most likely to approach unsubmerged cover near the work area; (8) exclusion fencing will be installed under the supervision of a Service-approved biologist to keep salt marsh harvest mice from entering the work area; (9) the implementation of water quality best management practices, a stormwater pollution prevention plan, and spill prevention plan will minimize the potential for degrading tidal marsh habitat for the

California clapper rail and salt marsh harvest mouse; and (10) there is a low potential for the California clapper rail and salt marsh harvest mouse to occur within the action area.

Therefore, unless new information reveals effects of the proposed project that may affect listed species in a manner or to an extent not considered, or a new species is listed, no further action pursuant to the Act is necessary for the proposed project. If you have any questions regarding this letter, please contact Joseph Terry, Senior Biologist, or Ryan Olah, Coast/Bay Division Chief, at the letterhead address, telephone (916) 414-6600, or electronic mail (joseph_terry@fws.gov or ryan_olah@fws.gov).

Sincerely,



for Eric Tattersall
Acting Assistant Field Supervisor

cc:

Randi Adair, California Department of Fish and Wildlife, Napa, California
Brian Hansen, Bay-Delta Fish and Wildlife Office, Sacramento, California

LITERATURE CITED

- Chesser, R.T, R.C. Banks, C. Cicero, J.L. Dunn, A.W. Kratter, I.J. Lovette, A.G. Navarro-Sigüenza, P.C. Rasmussen, J.V. Remsen, Jr., J.D. Rising, D.F. Stotz, and K. Winker. 2014. Fifty-Fifth Supplement to the American Ornithologists' Union *Check-list of North American Birds*. The Auk: October 2014, Vol. 131, No. 4, pp. CSi-CSxv.
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Appendix D: NMFS Section 7 Consultation



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404-4731

NOV 12 2015

Refer to NMFS No: WCR-2015-3096

Leslie T. Rogers
Regional Administrator
U.S. Department of Transportation
Federal Transit Administration
201 Mission Street, Suite 1650
San Francisco, California 94105-1839

Re: Endangered Species Act Section 7(a)(2) Concurrence Letter for the Caltrain Peninsula Corridor Electrification Project in San Francisco, San Mateo, and Santa Clara counties, California.

Dear Mr. Rogers:

On July 20, 2015, NOAA's National Marine Fisheries Service (NMFS) received your request for a written concurrence that the U.S. Department of Transportation, Federal Transit Administration (FTA) funding of the Peninsula Corridor Electrification Project (Project) and implementation of the Project by the Peninsula Corridor Joint Powers Board (JPB) is not likely to adversely affect species listed as threatened or endangered or critical habitats designated under the Endangered Species Act (ESA). This response to your request was prepared by NMFS pursuant to section 7(a)(2) of the ESA, implementing regulations at 50 CFR 402, and agency guidance for preparations of letters of concurrence.

NMFS also reviewed the proposed action for potential effects on essential fish habitat (EFH) designated under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), including conservation measures and any determination you made regarding potential effects of the action. This review was pursuant to section 305(b) of the MSA, implementing regulations at 50 CFR 600.920, and agency guidance for us of the ESA consultation process to complete EFH consultation. In this case, NMFS concluded the action would not adversely affect EFH. Thus, consultation under the MSA is not required for this action.

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001,



Public Law 106-554). The concurrence letter will be available through NMFS' Public Consultation Tracking System [<https://pcts.nmfs.noaa.gov/pcts-web/homepage.pcts>]¹. A complete record of this consultation is on file at the NMFS North-Central Coast Office in Santa Rosa, California.

Proposed Action and Action Area

The Peninsula Corridor Joint Powers Board (PCJPB) proposes to construct a new overhead contact system, traction power substations, switching stations, and paralleling stations along the existing 51-mile long railroad right-of-way between the 4th and King Street Station in San Francisco (San Francisco County) and the Tamien Station in San Jose, California (Santa Clara County). Additional actions undertaken will be construction of protection structures on various roadways and pedestrian bridges to prevent objects from damaging the facilities, and at-grade crossing warning devices. The project will not have any in-water construction elements; however, a few riparian trees will be removed and riparian vegetation will be trimmed to create an electrical safety zone for the new overhead contact system. This tree removal and trimming (vegetation management) is the only project element with potential effects on ESA-listed steelhead or designated critical habitat. None of the vegetation management activities will require in-water work. Vegetation management will be undertaken using chainsaws or hand tools and no ground disturbance is anticipated. Any trees removed during the project will be replaced with appropriate native riparian trees on a minimum of a 2:1 ratio. If trimming removes 25 percent or more of the tree, then PCJPB will consider the tree "removed" and will replace that tree using the same ratio and appropriate tree type.

Riparian vegetation management will occur along the existing railroad right-of-way at crossings of the following waterways: San Mateo Creek, San Francisquito Creek, Stevens Creek, San Tomas Aquino Creek, Los Gatos Creek, and the Guadalupe River. Tree removal and trimming will be performed between June 15 and October 31, and may also occur between November 1 and December 31 if no significant rainfall event (defined as 0.5 inches of rain within 24-hour period) has occurred in the watershed within the previous 24-hour period. This project is expected to be completed in five construction seasons (2016-2021).

There are no interrelated or interdependent activities associated with the proposed project.

The action area for this project includes five sites at which construction activities may affect listed species or designated critical habitat under the jurisdiction of NMFS. These sites are the stream channel and riparian areas on San Mateo Creek, San Francisquito Creek, Stevens Creek, Los Gatos Creek, and the Guadalupe River. Tree removal and trimming activities may affect the area of the railroad span across these stream channels and up to 50 feet upstream and downstream of the rail line crossing.

Action Agency's Effects Determination

The FTA determined the proposed project is not likely to adversely affect (NLAA) listed fish species and their designated critical habitat. The FTA determined that the proposed action is not likely to adversely affect listed fish species and their critical habitats because the project does not

¹ Once on the PCTS homepage, use the following PCTS tracking number within the Quick Search column: WCR-2015-3096.

include any in-water work, and presence of the listed species at the work sites is unlikely during the proposed construction window.

Available information indicates the following listed species (Distinct Population Segments [DPS]) and critical habitat under the jurisdiction of NMFS may be affected by the proposed project:

Central California Coast steelhead (*Oncorhynchus mykiss*) DPS

Threatened (71 FR 834; January 5, 2006)

Critical habitat (70 FR 52488; September 2, 2005)

The life history of steelhead is summarized in Busby *et al.* (1996). Steelhead is an anadromous species, that is spawning and early rearing occurs in freshwater, and then older juvenile steelhead migrate to the ocean to continue to rear until they become an adult. Adult steelhead migrate from the ocean back to their natal streams to spawn.

Consultation History

By letter dated May 27, 2015, the FTA initiated informal consultation with NMFS and provided the project description, an initial assessment, and other information. Additional information was provided to NMFS via electronic mail (e-mail) from August 10, 2015, through November 4, 2015.

ENDANGERED SPECIES ACT

Effects of the Action

Under the ESA, “effects of the action” means the direct and indirect effects of an action on the listed species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action (50 CFR 402.02). The applicable standard for finding that a proposed action is not likely to adversely affect listed species or critical habitat is that all of the anticipated effects of the action be discountable, insignificant, or completely beneficial. Discountable effects are those extremely unlikely to occur. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Beneficial effects are contemporaneous positive effects without any adverse effects to the species or critical habitat.

Steelhead adults migrate through the lower portions of San Mateo Creek, San Francisquito Creek, Stevens Creek, Los Gatos Creek, and the Guadalupe River (Leidy *et al.* 2005) to gain access to spawning and rearing areas upstream, and juvenile steelhead migration through these reaches to access San Francisco Bay as smolts for passage to the ocean. Thus, NMFS assumes that steelhead use within the action area of these creeks is seasonal. The action area is limited to areas underneath and directly adjacent to existing railroad crossings. Aquatic and riparian habitat conditions within the action area are severely degraded by urban and transportation development, large amounts of urban run-off and stormwater discharge, channelization, and periodic channel maintenance activities. Those actions have led to channel simplification, reduced the amount and size of woody in-stream structure, water quality, and reduced streamside riparian vegetation.

Tree removal and trimming will be limited to areas along the bank and will not occur within the wetted portion of the stream channels. Vegetation management activities are scheduled to annually commence on July 1 and may extend as late as December 31st if weather conditions are dry. Because of the severely degraded habitat conditions underneath these railroad bridges and the proposed timing of the work, CCC steelhead are very unlikely to be present in the project's action area when vegetation management is occurring. If steelhead are present, laborers undertaking vegetation management near or over the water's surface may cause fish to startle and flee the area. Adequate areas are expected to be present within the stream channel adjacent to work sites to provide fish sufficient locations to disperse. Therefore, NMFS expects any disturbance associated with tree removal and trimming activities to be insignificant to CCC steelhead.

Within the action area designated critical habitat for CCC steelhead is found in San Francisquito Creek and Stevens Creek. The primary constituent elements (PCEs) of designated critical habitat for CCC steelhead include: estuarine areas free of obstruction, water quality, water quantity, and salinity conditions supporting juvenile and adult physiological transitions between fresh- and saltwater; natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels; and juvenile and adult forage, including aquatic invertebrates and fishes, supporting growth and maturation. The existing condition of fish habitat in the action area has been heavily influenced by urbanization, channel maintenance and flood control actions. These factors have degraded aquatic habitat and limit the quality of critical habitat for listed species in the action area. The existing condition of PCEs in the action area is degraded.

Riparian vegetation provides several benefits to streams and fish: stream shading resulting in moderated water temperatures; instream cover for fish when trunks, branches, and roots extend into the stream; slow erosion of streamside soils; and contributes to the aquatic food web when plant parts or arboreal invertebrates fall into the water. Tree roots hold soil and minimize the mobilization of sediments that could enter the stream and increase turbidity. For this project, trees will be cut near the ground level and the stumps and root structures will be left in place minimizing soil disturbance. Some of the remaining stumps may regrow. Removal of a few trees and pruning of others are not expected to diminish habitat conditions for steelhead in the action area, as the sites are underneath and directly adjacent to railroad bridges. Also, the applicant will replant any removed trees or trees trimmed greater than 25 percent using appropriate, native, riparian tree species at a 2:1 ratio. Although a temporary loss of a small amount of riparian vegetation is anticipated until the replanted trees are established, NMFS expects that any effects on designated critical habitat associated with vegetation management activities will be insignificant.

Conclusion

Based on the foregoing analysis, NMFS concurs with the FTA that the proposed action is not likely to adversely affect the subject listed species and designated critical habitats.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by the FTA or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law and (1) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (2) the identified action is

subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this concurrence letter; or if (3) a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16). This concludes the ESA portion of this consultation.

Please direct questions regarding this letter to Daniel Logan, North-Central Coast Office, San Francisco Bay Branch, at (707) 575-6053 or dan.logan@noaa.gov.

Sincerely,



William W. Stelle, Jr.
Regional Administrator

cc: Eric Eidlin, FTA, San Francisco
Copy to ARN File # 151422WCR2015SR00200
Copy to Chron File

References Cited

- Busby, P.J., T.C. Wainwright, G.J. Bryant, L. Lierheimer, R.S. Waples, F.W. Waknitz, and I.V. Lagomarsino. 1996. Status review of West Coast steelhead from Washington, Idaho, Oregon and California. United States Department of Commerce, National Oceanic and Atmospheric Administration Technical Memorandum NMFS-NWFSC-27. 261 pages.
- Leidy, R.A., G.S. Becker, B.N. Harvey. 2005. Historical distribution and current status of steelhead/rainbow trout (*Oncorhynchus mykiss*) in streams of the San Francisco Estuary, California. Center for Ecosystem Management and Restoration, Oakland, California.

Appendix E: PS7, Variant C and D, Biological Survey Memorandum



Memorandum

Date:	11/20/2015
To:	Rich Walter, ICF International
Cc:	Elizabeth Antin, ICF International
From:	Torrey Edell, ICF International
Subject:	Biological Survey of Paralleling Station 7, Variants C and D

A biological survey was conducted for Paralleling Station 7 (PS7), Variants C and D to document the following environmental conditions.

- Character of the existing habitat;
- Identification of suitable habitat for special-status species;
- Identification of trees on site; and
- Character of any potentially jurisdictional wetlands on site.

Survey

A biological survey was conducted on November 20, 2015 by ICF biologists, Torrey Edell and Donna Maniscalco. Variant C was surveyed by looking through the autobody shop to the east (with binoculars as necessary). The entire project site was clearly visible through a chain-link fence from the autobody shop. This location has four large homeless camps throughout the entire area.

Variant D was inaccessible as the location was completely fenced so we could not walk throughout the property, but the ICF biologists walked the perimeter and looked through the fence where possible. Two pitbulls were inside the gated property.

Results

Variant C

The potential paralleling station location is a rectangular dirt lot with homeless camps and thus is heavily trampled and filled with debris. The lot is devoid of vegetation except along the edges. Approximately six to seven black walnut (*Juglans nigra*) trees line the western edge of the property

at its boundary with the Caltrain right-of-way. These trees provide suitable habitat for migratory nesting bird during the breeding season (February 1 to August 31). A few coyote bush (*Baccharis pilularis*) shrubs, black acacia (*Acacia melanoxylon*) saplings, and some smilo grass (*Stipa milaceum*) are present along the chain-link fence separating the lot from the adjacent autobody shop. No waters of the U.S., including wetlands, or habitat for special-status species are present with the boundaries of this property.

The accessway to the lot is similarly degraded and heavily trampled. It is also composed of dirt and contains little vegetation. Sparse walnut trees and tree of heaven line the edges of the road, as well as a cluster of redwood (*Sequoia sempervirens*), cedar (*Cedrus* sp.), and black walnut separating the accessway from Shadowgraph Drive. On the southern side of the accessway there is a swale approximately three feet wide which runs most of the length of the accessway but ends approximately ten feet before the paralleling station location. This feature is a potentially jurisdictional water of the U.S. but is unlikely to provide habitat for special-status species due to the degraded nature of the site and the surrounding urban area. The swale can be fully avoided so long as vehicles, equipment and personnel remain on the accessway at all times.

Variant D

This location is a triangular unpaved lot composed of compacted dirt and gravel. The lot is devoid of vegetation except for one black walnut tree along the western edge of the property at its boundary with the Caltrain right-of-way, and one tree-of-heaven (*Ailanthus altissima*) that appeared to be located within the lot. These trees provide suitable habitat for migratory nesting bird during the breeding season (February 1 to August 31). No waters of the U.S., including wetlands, or habitat for special-status species are present with the boundaries of the triangular property.

Appendix F: SHPO Concurrence re: PS7 Variant C

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov
www.ohp.parks.ca.gov



January 13, 2016

Reply To: FTA021021A

Leslie Rogers
Regional Administrator
Federal Transit Administration
201 Mission Street, Suite 1650
San Francisco, CA 94105-1839

Re: Area of Potential Effect Expansion, Peninsula Corridor Electrification Project (PCEP), San Jose, County of Santa Clara, CA

Dear Mr. Rogers:

Thank you for the letter received on December 14, 2015, continuing the Federal Transit Administration's (FTA) consultation for the above-referenced undertaking in order to comply with Section 106 of the National Historic Preservation Act of 1966 and Stipulations I and II of the *Programmatic Agreement Among The Peninsula Corridor Joint Powers Board, The Federal Transit Administration, and the California State Historic Preservation Officer, Regarding Implementation of the Caltrain Electrification Program San Francisco, San Mateo, and Santa Clara Counties, California* (PA). The "Cultural Resources Assessment, Paralleling Station 7, Variant C Memorandum" prepared by ICF International on January 12, 2016, was provided via email on that same date.

As described in your letter, the Peninsula Corridor Electrification Project (PCEP) is the electrification of the Peninsula Corridor railway, owned by JPB. The JPB is a public transportation agency, funded jointly by the City of San Francisco, the County of San Mateo and the Santa Clara Valley Transportation Authority. The overall purpose of the project is to provide electrification improvements to commuter rail service within the existing corridor between San Francisco and San Jose. FTA's previous consultation with my office regarding this undertaking resulted in a finding of no adverse effect in 2003. The project was amended in 2008, and resulted in the PA for archaeological resource identification.

The Area of Potential Effect (APE) for the undertaking is being expanded to include the parcel fronting Almaden Road (APNs 434-26-019 and 434-26-026) for potential construction staging and access areas for various components of the project. It is bounded by Almaden Road, JPB right-of-way, and residential and industrial development.

FTA has requested my comments on the APE in accordance with Stipulation I of the PA. FTA has also determined, based on the technical memorandum noted above, that the use of this site for construction staging and access as described will have no adverse effect on historic properties.

After reviewing the information submitted with your letter, I offer the following comments:

- I agree that the APE expansion as shown in the attachments to the consultation package is appropriate, pursuant to Stipulation I of the PA.

- The modification to the APE and use of the site as construction staging and access is consistent with the original finding of no adverse effect for the undertaking. Any ground disturbance on this site should follow the processes outlined in Stipulation II.C of the PA.
- In the future, please include the following information in your consultation letters:
 - SHPO reference number, provided at the top of this letter
 - The title of the agreement document governing the consultation
 - The relevant stipulations that are guiding the consultation
 - Any relevant technical analyses upholding the Agency's determinations and findings, including the results of records searches, Native American consultation, and sensitivity analyses, as well as the appropriate DPR 523 forms
 - Please see our Section 106 Submittal Checklist for additional information on consultation submittal requirements:
http://ohp.parks.ca.gov/pages/1054/files/106checklist_details_2013_10_10.pdf

Thank you for continuing consultation on the identification efforts for this undertaking and considering historic properties in your planning process. I look forward to continuing consultation on this project with the FTA. If you have any questions, please contact Kathleen Forrest of my staff at (916) 445-7022 or e-mail at kathleen.forrest@parks.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Julianne Polanco', with a long horizontal line extending to the right.

Julianne Polanco
State Historic Preservation Officer

Appendix G: Peninsula Corridor Electrification Project Environmental Impact Report

The Peninsula Corridor Electrification Project EIR is available at:
http://www.caltrain.com/projectsplans/CaltrainModernization/Modernization/PeninsulaCorridorElectrificationProject/PCEP_FEIR_2014.html

Appendix H: Peninsula Corridor Electrification Project Addendum to the Final Environmental Impact Report, Paralleling Station 7, Variant C

**Peninsula Corridor Electrification Project
Addendum to the Final Environmental Impact Report
Paralleling Station 7, Variant C**

Prepared by ICF for the Peninsula Corridor Joint Powers Board, December 2015

The Peninsula Corridor Joint Power Board (JPB) certified the Peninsula Corridor Electrification Project (PCEP) Environmental Impact Report (EIR) on January 8, 2015. Since certification of the Final EIR, the JPB has identified one new potential site for Paralleling Station 7 (PS7). The environmental effects of the new PS7 site (Variant C) compared with the environmental effects of the PCEP in the certified 2015 Final EIR are examined in this addendum.

Under the California Environmental Quality Act (CEQA), an addendum to an EIR is needed if minor technical changes or modifications to a proposed project occur (CEQA Guidelines Section 15164). An addendum is appropriate only if these minor technical changes or modifications do not result in any new significant impacts or a substantial increase in the severity of previously identified significant impacts. An addendum does not need to be circulated for public review (CEQA Guidelines Section 15164(c)); however, an addendum is to be considered along with the Final EIR by the decision-making body prior to making a decision on a project (CEQA Guidelines Section 15164(d)).

This addendum to the PCEP Final EIR (State Clearinghouse No. 2013012079) has been prepared in accordance with CEQA Guidelines Section 15164.

Project Background and Supplemental Environmental Review

In 2015, the JPB certified the Final EIR for the PCEP. The Proposed Project would require the installation of 130 to 140 single-track miles of overhead contact system (OCS) for the distribution of electrical power to the electric rolling stock. The OCS would be powered from a 25 kilovolt (kV), 60 Hertz (Hz), single-phase, alternating current (AC) supply system consisting of two traction power substations (TPSs), one switching station (SWS), and seven paralleling stations (PSs). The Final EIR evaluated environmental impacts associated with the four options for the site of the northern TPS (TPS1 in South San Francisco) and three options for the site of the southern TPS (TPS2 in San Jose). In addition, the Final EIR evaluated environmental impacts associated with one switching station (SWS1) (with two site location options) and seven paralleling stations (PS1 through PS7) at a spacing of approximately 5 miles. Two options were evaluated for the PS3 and PS6 sites and three options were evaluated for the PS4, PS5, and PS7 sites.

Since certification of the Final EIR, the JPB has proposed one additional site location for PS7 (Variant C). PS7 Variant C would be located at approximately Mile Post 49.7, west of Almaden Road and south of Shadowgraph Road in San Jose on a small, triangular parcel of vacant land that currently has a homeless encampment. This site is approximately 0.11 acre and is currently owned by Union Pacific Railroad (UPRR). To access PS7, Variant C for construction and operation, the JPB would also acquire the parcel of land directly to the north on which there is an unnamed dirt path connecting to Almaden Road. The total

acreage of acquisition for PS7, Variant C would be approximately 1.24 acres. Figure 1 shows the location of PS7, Variant C and the associated access road.

Table 1 describes the potential environmental impacts of PS7, Variant C and analyzes any potential change in the level of significance as determined in the 2015 FEIR.

Table 1. Summary of Impacts of PS7, Variant C

Environmental Topic	Impact
Aesthetics	<ul style="list-style-type: none"> • PS7 Variant C would be located on undeveloped land on the east side of the Caltrain tracks, to the rear of an existing auto repair shop on Almaden Road in San Jose. There could be partial views of PS7, Variant C from the existing residences to the north of the site. These views of PS7 Variant C would be consistent with the existing views of industrial uses and would be mostly blocked by intervening vegetation. The auto repair shop blocks views of the site from Almaden Road. • PS7 Variant C would not be out of character with the surrounding transportation corridor or industrial uses. • Construction of PS7 Variant C could result in spillover light or glare in adjacent residential areas and new nighttime lighting for security purposed could spill outside of the site boundaries, creating a new source of nuisance lighting or glare to nearby residents • Mitigation Measures AES-2a, AES-2b, BIO-5, AES-4a, and AES-4b would apply to reduce impacts from the visual aesthetic of the PS, tree removal, and lighting; the impact determinations identified in the Final EIR would not change. • PS7, Variant C would not result in new significant impacts or a substantial increase in the severity of impacts regarding aesthetics that were analyzed in the Final EIR.
Air Quality	<ul style="list-style-type: none"> • No new air quality impacts are identified relative to PS7, Variant C because the amount of construction would be similar to the construction of the other paralleling stations. • Mitigation Measures AQ-2a, AQ-2b, and AQ-2c would apply to reduce construction impacts regarding criteria pollutants and toxic air contaminants (TACs) by requiring Bay Area Air Quality Management District (BAAQMD) BMPs and equipment requirements to reduce construction-related dust, reactive organic gasses (ROG), and NOx emissions. The impact determinations identified in the Final EIR would not change. • PS7, Variant C would not result in new significant impacts or a substantial increase in the severity of impacts regarding air quality that were analyzed in the Final EIR.

Environmental Topic	Impact
Biological Resources	<ul style="list-style-type: none"> • The potential paralleling station location is a rectangular dirt lot with homeless camps and thus is heavily trampled and filled with debris. The lot is devoid of vegetation except along the edges. Approximately six to seven black walnut (<i>Juglans nigra</i>) trees line the western edge of the property at its boundary with the Caltrain right-of-way. A few coyote bush (<i>Baccharis pilularis</i>) shrubs, black acacia (<i>Acacia melanoxylon</i>) saplings, and some smilo grass (<i>Stipa milaceum</i>) are present along the chain-link fence separating the lot from the adjacent autobody shop. No waters of the U.S., including wetlands, or habitat for special-status species are present with the boundaries of the proposed PS location. • The accessway to the proposed PS location is similarly degraded and heavily trampled. It is also composed of dirt and contains little vegetation. Sparse walnut trees and tree of heaven line the edges of the road, as well as a cluster of redwood (<i>Sequoia sempervirens</i>), cedar (<i>Cedrus sp.</i>), and black walnut separating the accessway from Shadowgraph Drive. On the southern side of the accessway there is a swale approximately three feet wide which runs most of the length of the accessway but ends approximately ten feet before the paralleling station location. This feature is a potentially jurisdictional water of the U.S. but is unlikely to provide habitat for special-status species due to the degraded nature of the site and the surrounding urban area. The swale can be fully avoided so long as vehicles, equipment and personnel remain on the accessway at all times. • The trees provide suitable habitat for migratory birds during the breeding season (February 1 to August 31). No other habitat for special-status species are present with the boundaries of the PS7, Variant C site apart • Mitigation Measures BIO-1a, BIO-1g, and BIO-1j would apply to reduce potential impacts to nesting birds and Mitigation Measure BIO-5 would apply to reduce impacts from tree removal; the impact determinations identified in the Final EIR would not change. • PS7, Variant C would not result in new significant impacts or a substantial increase in the severity of impacts regarding biological resources that were analyzed in the Final EIR.
Cultural Resources	<ul style="list-style-type: none"> • An ICF Architectural Historian reviewed the PS7 Variant C site on November 25, 2015 and determined that there are no historic resources on or adjacent to the site. • An ICF Archaeologist reviewed the records for the PS7 Variant C site on November 23, 2015 and determined that there are no archaeological sites within the vicinity the Variant site and there would be no new archaeological effect related to selection of the Variant. • Mitigation Measures CUL-2a through CUL-2f would apply to reduce potential impacts to unknown archaeological resources; the impact determinations identified in the Final EIR would not change. • PS7, Variant C would not result in new significant impacts or a substantial increase in the severity of impacts regarding cultural resources that were analyzed in the Final EIR.

Environmental Topic	Impact
EMI/EMF	<ul style="list-style-type: none"> • PS7, Variant C would not be any closer to sensitive receptors than the paralleling station sites included in the Final EIR and thus EMF/EMI impacts related to PS7, Variant C would also be less than health guidelines. • PS7, Variant C would not result in new significant impacts or a substantial increase in the severity of impacts regarding EMI/EMF that were analyzed in the Final EIR.
Geology, Soils, Seismicity	<ul style="list-style-type: none"> • The soil underlying the PS7 Variant C site is 130 – Urban land-Still Complex. • The site has moderate susceptibility to liquefaction and low susceptibility to landslides. • Expansive soil could exist on the site since specific soil sampling has not been completed. Mitigation Measures GEO-4a and GEO-4b requires identification and mitigation of expansive soils. • Mitigation Measure GEO-1 would require a site-specific geotechnical study for PS7 to reduce exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides; the impact determinations identified in the Final EIR would not change. • PS7, Variant C would not result in new significant impacts or a substantial increase in the severity of impacts regarding geology, soils, and seismicity that were analyzed in the Final EIR.
Greenhouse Gas Emissions	<ul style="list-style-type: none"> • PS7, Variant C would not introduce any new construction impacts not previously analyzed in the Final EIR because the amount of construction would be the same as the prior PS7 options analyzed in the Final EIR. • With PS7, Variant C, there would be no changes to normal train operations, so there would be no change to operational emissions. • PS7, Variant C would not be susceptible to sea level rise inundation or be more at risk to other potential effects of climate change. • The impact determinations identified in the Final EIR would not change. • PS7, Variant C would not result in new significant impacts or a substantial increase in the severity of impacts regarding greenhouse gas emissions that were analyzed in the Final EIR.

Environmental Topic	Impact
Hazards and Hazardous Material	<ul style="list-style-type: none"> • Four hazardous materials sites are within 0.25 mile of PS7, Variant C. All four cases are closed and represent a low level of concern. • PS7 Variant C is not located within 0.25 mile of a school. • Mitigation Measures HAZ-2a and HAZ-2b would require additional actions for areas with a high likelihood of contaminated media and would control exposure of workers and the public to contamination where encountered. This mitigation would also control potential spills of hazardous material during construction, as well as potential effects on emergency plans. • The impact determinations identified in the Final EIR would not change. • PS7, Variant C would not result in new significant impacts or a substantial increase in the severity of impacts regarding hazards and hazardous materials that were analyzed in the Final EIR.
Hydrology and Water Quality	<ul style="list-style-type: none"> • PS7, Variant C would not be within the 100-year floodplain. • Access to the site would avoid the swale area on the southern edge of the access lot. PS7, Variant C would not be in proximity to any other waterways or other drainages. The nearest other waterway is the Guadalupe River, located approximately 0.20 mile west of the site, on the far side of the Caltrain tracks and State Route (SR) 87. • The impervious surface associated with PS7, Variant C would be the same as the impervious surface for the PS7 sites analyzed in the Final EIR. Any regulatory requirements that would apply to the prior three PS7 options would also apply to impervious surfaces and stormwater runoff at this site. • PS7, Variant C would not be located in an area vulnerable to potential sea level rise. • If groundwater is encountered during construction activities, dewatering may be required and Mitigation Measure HYD-1 would be implemented. • The impact determinations identified in the Final EIR would not change. • PS7, Variant C would not result in new significant impacts or a substantial increase in the severity of impacts regarding hydrology and water quality that were analyzed in the Final EIR.

Environmental Topic	Impact
Land Use and Recreation	<ul style="list-style-type: none"> • The site for PS7, Variant C is zoned as Heavy Industrial (HI). • The site is currently vacant and owned by UPRR. It is located between the Caltrain tracks and an existing industrial/commercial use. • There is an existing residential neighborhood to the north of the site. • PS7, Variant C would not physically divide an established community and would be compatible with the surrounding existing land uses. • The site would be located within an area covered by the Santa Clara Valley Habitat Plan, but not within an area designated as a preservation area or otherwise containing habitat for special-status wildlife species. • The closest park is the Kyva Park located approximately 0.23 mile west of the PS7, Variant C site, on the far side of the Caltrain tracks. PS7, Variant C would not be visible from this park. • There is a proposed eastern extension to the Three Creeks Trail with an alignment along the elongated part of the PS7 property between Almaden Road and the railroad tracks. The proposed trail alignment is not in the area proposed for the PS7 facility itself. This trail does not exist at present and there is no existing trail use. As noted above, the site is designated for heavy industrial use, not recreational use. Nevertheless, should the proposed trail come to fruition in the future, the construction and operation of PS7 would not preclude future trail completion because the only proposed improvement along the proposed trail alignment would be the access road to PS7. PS7 could be fenced off separately from any future public trail access, if realized. The property is currently in private use. Site acquisition by JPB would lower the property acquisition costs to complete the trail extension, if realized. The JPB is willing to work with the City of San Jose and trail proponents to allow trail access across the property in the future, provided safety and operational needs of the JPB and for trail users can be satisfied. Since the trail does not exist at present, the site is currently in private ownership and designated for heavy industrial use, and the construction of PS7 and an access road would not preclude a future trail and could actually facilitate the trail completion due to lowering of acquisition costs to the trail project, no new impact to recreation is identified relative to the proposed trail extension. • The impact determinations identified in the Final EIR would not change. • PS7, Variant C would not result in new significant impacts or a substantial increase in the severity of impacts regarding land use and recreation that were analyzed in the Final EIR.
Noise and Vibration	<ul style="list-style-type: none"> • With PS7, Variant C, the character of construction and operational noise would be the same as disclosed in the Final EIR. • PS7, Variant C would be located approximately 275 feet from single-family residences. Due to the proximity of the proposed site from single-family residences (greater than 55 feet), it is not anticipated that there would be significant impacts from TPF noise at PS7 Variant C based on the analysis of other paralleling stations in the Final EIR. • The impact determinations identified in the Final EIR would not change. • PS7, Variant C would not result in new significant impacts or a substantial increase in the severity of impacts regarding noise and vibration that were analyzed in the Final EIR.

Environmental Topic	Impact
Population and Housing	<ul style="list-style-type: none"> • No housing or other displacements would occur with PS7, Variant C. • The impact determinations identified in the Final EIR would not change. • PS7, Variant C would not result in new significant impacts or a substantial increase in the severity of impacts regarding population and house that were analyzed in the Final EIR.
Public Services and Utilities	<ul style="list-style-type: none"> • There would be no change in demand for public service or utilities with implementation of PS7, Variant C as the demand would be the same as previously analyzed options. • The impact determinations identified in the Final EIR would not change. • PS7, Variant C would not result in new significant impacts or a substantial increase in the severity of impacts regarding public services and utilities that were analyzed in the Final EIR.
Transportation	<ul style="list-style-type: none"> • Impacts to transportation during construction would be similar to those described in the Final EIR for the other PS7 locations. • PS7, Variant C would have no operational impact on transportation (traffic, transit, bicycle and pedestrian facilities) because it would be located adjacent to the Caltrain ROW and not along an existing roadway. • PS7, Variant C would not change any conditions for freight operations. • The impact determinations identified in the Final EIR would not change. • PS7, Variant C would not result in new significant impacts or a substantial increase in the severity of impacts regarding transportation that were analyzed in the Final EIR.
Cumulative	<ul style="list-style-type: none"> • No new impacts associated with PS7, Variant C have been identified. Therefore, there would be no change to the cumulative analysis. • The impact determinations identified in the Final EIR would not change. • PS7, Variant C would not result in new cumulative significant impacts or a substantial increase in the severity of cumulative impacts that were analyzed in the Final EIR.
Alternatives	<ul style="list-style-type: none"> • No new alternatives identified relative to PS7 are proposed. The Final EIR together with this addendum consider four potential sites for PS7. No new or substantially more severe impacts were identified with implementation of PS7 Variant C compared to the prior three options. Therefore, four options for PS7 is sufficient and additional alternatives are not warranted.

Conclusion

This addendum analyzes the proposed PS7, Variant C and compares the potential impacts to the conclusions of the 2015 Final EIR. This analysis was completed to determine the requirement for further environmental documentation pursuant to the State CEQA Guidelines sections 15162, 15163 and 15164. This analysis has identified no new or substantially more severe impacts of the proposed PS7 Variant C compared with those identified and evaluated in the 2015 Final EIR. Mitigation measures identified in the 2015 Final EIR would be applied to PS7, Variant C, as proposed, to reduce or avoid significant impacts. With the application of these previously-identified mitigation measures, no new significant impacts or substantial increases in the severity of previously identified impacts requiring revisions to the 2015 Final EIR would occur. No new mitigation measures are required for the adoption and implementation of the proposed PS7 Variant C.

Path: K:\Projects_3\Caltrain\00359_14_Electrification_Permitting\mapdoc\Permitting_Figures\Fig_1_ParallelingStation7_Variant_C_20151207.mxd; User: 19402; Date: 12/7/2015



Source: Imagery, ESRI 2013

Figure 1
Proposed Paralleling Station 7 (PS 7), San Jose
Peninsula Corridor Electrification Project

Appendix I: Proposed Right of Way Parcel Acquisition List (01/20/16)

**Table I-1: Peninsula Corridor Electrification Project
Fee and Easement Acquisition - Private Parcels (01/20/16)**

Segment	JPB Parcel #	Adjoiner APN	Appraisal Map Ref	City	TPF	OCS	ESZ
1	JPB-SF1-0093-1A	AB 5087-004	V121	San Francisco	1,734		
1	JPB-SM1-0202-2A	005-340-090	V124 -V125	Brisbane			4,449
1	JPB-SM1-0203-1A	005-340-040 and 005-350-080	V124 -V125	Brisbane		5,414	
1	JPB-SM1-0203-2A	005-340-040 and 005-350-080	V124 -V125	Brisbane			5,276
1	JPB-SM1-0205-1A	005-340-100	V125	Brisbane		59	
1	JPB-SM1-0205-2A	005-340-100	V125	Brisbane			208
1	JPB-SM1-0206-1A	005-350-070	V125 – V126	Brisbane		1,865	
1	JPB-SM1-0206-2A	005-350-070	V125 – V126	Brisbane			7,206
2	JPB-SM2-0111-1A	APN 04103999	V142	South San Francisco		116	
2	JPB-SM2-0111-2A	APN 04103999	V142	South San Francisco			136
2	JPB-SM2-0112-1A	APN 04103999	V143	South San Francisco		86	
2	JPB-SM2-0112-2A	APN 04103999	V143	South San Francisco			136
2	JPB-SM2-0113-1A	APN 04103999	V143-V144	South San Francisco		3,275	
2	JPB-SM2-0113-2A	4103999	V143-V144	South San Francisco			3,757
2	JPB-SM2-0114-1A	040-092-020	V191	San Mateo		N/A	
2	JPB-SM2-0116-2A	040-331-030	V198	Belmont			82
2	JPB-SM2-0117-2A	040-331-040	V198	Belmont			55
2	JPB-SM2-0118-2A	040-331-050	V198	Belmont			29
2	JPB-SM2-0119-2A	045-241-240	V198	Belmont			238
2	JPB-SM2-0120-2A	045-241-020	V198	Belmont			N/A
2		045-241-130	V198	Belmont			159
2	JPB-SM2-0121-2A	045-241-210	V199	Belmont			1,639
2		045-241-160	V199	Belmont			
2	JPB-SM2-0122-2A	045-241-170	V199	Belmont			298
2	JPB-SM2-0123-2A	045-246-130	V199	Belmont			385
2	JPB-SM2-0124-2A	052-252-090	V211	Redwood City			244
2	JPB-SM2-0125-2A	052-252-050	V211	Redwood City			270
2	JPB-SM2-0126-2A	052-272-010	V211	Redwood City			87
2	JPB-SM2-0127-2A	052-272-020	V211	Redwood City			88
2	JPB-SM2-0128-2A	052-272-030	V211	Redwood City			197
2		052-272-040	V211	Redwood City			
2	JPB-SM2-0129-2A	052-272-180	V211	Redwood City			141
2	JPB-SM2-0130-2A	052-272-070	V211	Redwood City			82
2	JPB-SM2-0131-2A	052-272-080	V211	Redwood City			119
2		052-272-090	V211	Redwood City			
2	JPB-SM2-0132-2A	052-272-100	V211	Redwood City			85
2	JPB-SM2-0133-2A	052-272-110	V211	Redwood City			28
2	JPB-SM2-0308-1A	054-201-490	V219	San Mateo County (North Fair Oaks)		175	
2	JPB-SM2-0308-2A	054-201-490	V219	San Mateo County (North Fair Oaks)			236
2	JPB-SM2-0310-1A	054-201-560	V219	San Mateo County (North Fair Oaks)		176	

**Table I-1: Peninsula Corridor Electrification Project
Fee and Easement Acquisition - Private Parcels (01/20/16)**

Segment	JPB Parcel #	Adjoiner APN	Appraisal Map Ref	City	TPF	OCS	ESZ
2	JPB-SM2-0310-2A	054-201-560	V219	San Mateo County (North Fair Oaks)			236
2	JPB-SM2-0311-1A	054-201-550	V219-V220	San Mateo County (North Fair Oaks)		766	
2	JPB-SM2-0311-2A	054-201-550	V219-V220	San Mateo County (North Fair Oaks)			1,016
3	JPB-SC3-0206-2A	205-49-008	V279	Sunnyvale			471
3	JPB-SC3-0207-1A	213-01-018	V279-V280	Sunnyvale		2,650	
3	JPB-SC3-0207-2A	213-01-018	V279-V280	Sunnyvale			2,408
3	JPB-SCL3-0208-1A	213-01-034	V280	Sunnyvale		1,012	
3	JPB-SCL3-0208-2A	213-01-034	V280-V281	Sunnyvale			2,990
3	JPB-SC3-0211-1A	216-27-059	V282	Sunnyvale		147	
3	JPB-SC3-0211-2A	216-27-059	V282	Sunnyvale			170
3	JPB-SC3-0213-1A	216-26-075	V282-V284	Sunnyvale		8,544	
3	JPB-SC3-0213-2A	216-26-075	V282-V284	Sunnyvale			7,597
4	JPB-SC4-0111-1A	259-09-049	V304	San Jose	NA		
4	JPB-SC3-0206-2A	205-49-008	V279	Sunnyvale		471	
4	JPB-SC3-0207-1A	213-01-018	V279-V280	Sunnyvale		2,650	
4	JPB-SC3-0207-2A	213-01-018	V279-V280	Sunnyvale			2,408
4	JPB-SC3-0208-1A	213-01-034	V280-V281	Sunnyvale		1,012	
4	JPB-SC3-0208-2A	213-01-034	V280-V281	Sunnyvale			2,990
4	JPB-SC3-0211-1A	216-27-059	V282	Sunnyvale		147	
4	JPB-SC3-0211-2A	216-27-059	V282	Sunnyvale			170
4	JPB-SC3-0213-1A	216-26-075	V282-V284	Sunnyvale		8,544	
4	JPB-SC3-0213-2A	216-26-075	V282-V284	Sunnyvale			7,597
4	JPB-SC4-0083-1A	230-41-002	V302 & V303	San Jose		1,714	
4	JPB-SC4-0084-1A	230-41-003	V303	San Jose		714	
4	JPB-SC4-0085-1A	230-41-004	V303	San Jose		104	
4	JPB-SC4-0086-1A	261-11-003	V303	San Jose		782	
4	JPB-SC4-0087-1A	259-01-025	V304	San Jose		75	
4	JPB-SC4-0088-1A	259-09-025	V304	San Jose		34	
4	JPB-SC4-0089-1A	259-09-029	V304	San Jose		332	
4	JPB-SC4-0089-2A	259-09-029	V304	San Jose			863
4	JPB-SC4-0090-1A	259-26-019	V306 & V307	San Jose		1,564	
4	JPB-SC4-0090-2A	259-26-019	V306 & V307	San Jose			1,530
4	JPB-SC4-0092-1A	259-27-027	V307	San Jose		1,135	
4	JPB-SC4-0092-2A	259-27-027	V307	San Jose			1,414
4	JPB-SC4-0097-1A	259-28-003	V308	San Jose		54	
4	JPB-SC4-0097-2A	259-28-003	V308	San Jose			81
4	JPB-SC4-0098-1A	259-28-002	V308	San Jose		237	
4	JPB-SC4-0098-2A	259-28-002	V308	San Jose			268

**Table I-1: Peninsula Corridor Electrification Project
Fee and Easement Acquisition - Private Parcels (01/20/16)**

Segment	JPB Parcel #	Adjoiner APN	Appraisal Map Ref	City	TPF	OCS	ESZ
4	JPB-SC4-0100-1A	261-34-021	V309	San Jose		423	
4	JPB-SC4-0100-2A	261-34-021	V309	San Jose			1,354
4	JPB-SC4-0102-1A	261-35-034	V309 & V310	San Jose		4,704	
4	JPB-SC4-0102-2A	261-35-034	V309 & V310	San Jose			2,444
4	JPB-SC4-0105-1A	264-15-033	V311 & V312	San Jose		2,240	
4	JPB-SC4-0105-2A	264-15-033	V311 & V312	San Jose			990
4	JPB-SC4-0106-1A	264-16-040	V312	San Jose		97	
4	JPB-SC4-0106-2A	264-16-040	V312	San Jose			124
4	JPB-SC4-0109-1A	259-26-023	V306	San Jose		58	
4	JPB-SC4-0109-2A	259-26-023	V306	San Jose			81
4	JPB-SC4-0110-1A	259-26-020	V307	San Jose		81	
4	JPB-SC4-0110-2A	259-26-020	V307	San Jose			136
4	JPB-SC4-0112	230-41-001	V302	San Jose	74,256		
4	JPB-SC4-0113	434-26-019 and 434-26-026	V319	San Jose	42,163		
Total Square Feet					118,153	51,457	62,968
Total Acreage					2.71	1.18	1.45

**Table I-2: Peninsula Corridor Electrification Project
Fee and Easement Acquisition Public Parcels (01/20/16)**

Segment	JPB Parcel #	Adjoiner APN	Owner	Appraisal Map Ref	Notes	City	OCS	ESZ
1	NA	N/A	San Francisco	V102-CSF	7th St. and King St.	San Francisco	X	
1	NA	N/A	San Francisco	V102-CSF	7th St. and Berry St.	San Francisco	X	
1	NA	N/A	San Francisco	V103-CSF V104-CSF	7th St. from Hooper St. to 17th	San Francisco	X	
1	NA	N/A	San Francisco	V104-CSF	Pennsylvania Ave.	San Francisco	X	
1	NA	N/A	San Francisco	V112-CSF	Quint Street	San Francisco	X	
2	NA	N/A	San Mateo	V191-CSM	Pacific Blvd.	San Mateo	X	
2	JPB-SM2-0115-2A	APN 040-331-200	City Of Belmont	V198	ESZ Package	Belmont		X
2		APN 040-331-020		V198		Belmont		X
2	NA	N/A	San Carlos	V203-CSC	Old County and Holly	San Carlos	X	
2	NA	N/A	Redwood City	V209-CSC	Stafford St. and F St.	Redwood City	X	
2	NA	N/A	Redwood City	V216-RC V217-RC	Buckeye St and Shasta	Redwood City	X	X
3	NA	N/A	Mountain View	V260-CMV	Castro and Central Expressway	Mountain View	X	
3	NA	N/A	Mountain View	V265-CMV	Evelyn Ave.	Mountain View	X	
3	NA	N/A	Sunnyvale	V274-CS V275-CS	East Hendy Ave.	Sunnyvale	X	
4	NA	N/A	Caltrans	V317-CT	SR87	San Jose	X	X
4	NA	N/A	Caltrans	V319-CT	SR87	San Jose	X	X
4	NA	N/A	City of San Jose	V303-CSJ	McKendrie Street	San Jose	X	X
4	NA	N/A	City of San Jose	V303-CSJ	Hedding Street	San Jose	X	X
4	NA	N/A	City of San Jose	V303-CSJ	University Place	San Jose	X	
4	NA	N/A	City of San Jose	V304-CSJ	Emory St.	San Jose	X	
4	NA	N/A	City of San Jose	V304-CSJ	Stockton Ave.	San Jose	X	X
4	NA	N/A	City of San Jose	V305-CSJ	West Taylor St.	San Jose	X	X
4	NA	N/A	City of San Jose	V308-CSJ	The Alameda	San Jose	X	X
4	NA	N/A	City of San Jose	V311-CSJ	W. San Carlos St.	San Jose	X	X
4	NA	N/A	City of San Jose	V315-CSJ	Fuller Ave.	San Jose	X	X