

1 **3.4 Cultural Resources**

2 This section identifies and evaluates the potential for the Proposed Project to affect historical and
3 archaeological resources in the project area. Reference is made to archaeological and historical
4 architecture reports and findings of effect produced between 2000 and 2009 (principally Far
5 Western Anthropological Research Group 2009, and JRP Historical Consulting Services 2001, 2002,
6 2008a, 2008b), as well as to both state and federal regulations applied during prior and current
7 studies.

8 **3.4.1 Existing Conditions**

9 This section provides a discussion of the regulatory setting, as well as relevant pre-historical and
10 historical conditions, related to cultural resources on the project site and the immediately
11 surrounding project area.

12 **3.4.1.1 Regulatory Setting**

13 **State**

14 **California Environmental Quality Act and Guidelines**

15 CEQA states that if implementation of a project would result in significant effects on historical
16 resources, then alternative plans or mitigation measures must be considered; however, only
17 significant historical resources need to be addressed (14 CCR] Sections 15064.5, 15126.4).
18 Therefore, before impacts and mitigation measures can be identified, the significance of historical
19 resources must be determined.

20 The State CEQA Guidelines define three ways that a property may qualify as a historical resource for
21 the purposes of CEQA review.

- 22 1. The resource is listed in or determined eligible for listing in the California Register of Historical
23 Resources (CRHR).
- 24 2. The resource is included in a local register of historical resources, as defined in
25 Section 5020.1[k] of the Public Resources Code (PRC) or identified as significant in a historical
26 resource survey meeting the requirements of PRC Section 5024.1[g], unless the preponderance
27 of evidence demonstrates that it is not historically or culturally significant.
- 28 3. The lead agency determines the resource to be significant, as supported by substantial evidence
29 in light of the whole record (CCR, Title 14, Division 6, Chapter 3, Section 15064.5[a]).

30 Properties that are listed in or eligible for listing in the National Register of Historic Place (NRHP)
31 are considered eligible for listing in the CRHR and thus are significant historical resources for the
32 purpose of CEQA (PRC Section 5024.1[d][1]).

1 **California Public Resources Code**

2 California PRC Section 5024.1, which established the CRHR, protects historical resources. PRC
3 Section 5024 requires state agencies to identify and protect state-owned resources that meet NRHP
4 listing criteria.

5 California PRC Section 5097.5 prohibits removing, destroying, injuring, or defacing any vertebrate
6 paleontological site, including fossilized footprints, or any other paleontological feature as well as
7 items of archeological and historic interest that are situated on public lands, except with permission
8 of the public agency with jurisdiction.

9 **California Health and Safety Code—Treatment of Human Remains**

10 Under Section 8100 of the California Health and Safety Code, six or more human burials at one
11 location constitute a cemetery. Disturbance of Native American cemeteries is a felony (Health and
12 Safety Code Section 7052).

13 Section 7050.5 of the Health and Safety Code requires that construction or excavation be stopped in
14 the vicinity of discovered human remains until the county coroner can determine whether the
15 remains are those of a Native American. If the remains are determined to be Native American, the
16 coroner must then contact the Native American Heritage Commission (NAHC), which has
17 jurisdiction pursuant to PRC Section 5097.

18 **Local**

19 The Proposed Project would extend outside of the Caltrain right-of-way (ROW) to accommodate two
20 traction power substations (TPSSs), one in South San Francisco and one in San Jose. The Proposed
21 Project would also minimally extend outside of the Caltrain ROW in some locations for construction
22 access, staging and storage, and to accommodate the overhead contact system (OCS) and vegetation
23 maintenance where the OCS pole alignment is near the edge of the Caltrain ROW. This section
24 identifies the general plan elements and ordinances of the City and County of San Francisco, City of
25 South San Francisco, City of Menlo Park, City of Palo Alto, and the City of San Jose as they pertain to
26 historic resources.

27 **City and County of San Francisco**

28 The City and County of San Francisco references historic resources in Article 10: Preservation of
29 Historical, Architectural, and Aesthetic Landmarks. Article 10 protects structures, sites, and areas of
30 special historical, architectural, or aesthetic interest or value for the enhancement of human life,
31 education, and economic standing; prohibits unnecessary destruction or impairment of these
32 structures and site; and outlines the procedure for application for proposed work on a landmark
33 site; outlines the powers and duties of the planning department and historic preservation
34 commission; describes the process in which landmarks and historic districts are nominated,
35 initiated and designated; describes the process of decision making by the Historic Preservation
36 Commission, and designation by the Board of Supervisors, as well as the appeal and amendment
37 process and all other permitting and decision making regulations pertaining to landmarks and
38 historic districts.

1 The following policies in the City of San Francisco General Plan are relevant to the Proposed Project.

2 Policy 2.4: Preserve notable landmarks and areas of historic, architectural or aesthetic value, and
3 promote the preservation of other buildings and features that provide continuity with past
4 development.

5 Policy 2.5: Use care in remodeling of older buildings, in order to enhance rather than weaken the
6 original character of such buildings.

7 Policy 2.6: Respect the character of older development nearby in the design of new buildings.

8 Policy 2.7: Recognize and protect outstanding and unique areas that contribute in an extraordinary
9 degree to San Francisco's visual form and character.

10 Policy 3.11: Ensure historic resources are protected in the aftermath of a disaster.

11 Policy 6.8: Preserve historically and/or architecturally important buildings or groups of buildings in
12 neighborhood commercial districts.

13 Policy 11.9: Foster development that strengthens local culture sense of place and history.

14 Policy 11.7: Respect San Francisco's historic fabric, by preserving landmark buildings and ensuring
15 consistency with historic districts.

16 **City of South San Francisco**

17 The city's general plan, adopted October 13, 1999, references historic resources in an Open Space
18 and Conservation Element.

19 **Policy 7.5-G-1:** Conserve historic, cultural, and archaeological resources for the aesthetic,
20 educational, economic, and scientific contribution they make to South San Francisco's identity and
21 quality of life.

22 **Policy 7.5-I-3:** Explore mechanisms to incorporate South San Francisco's industrial heritage in
23 historic and cultural preservation.

24 In addition, South San Francisco Municipal Code Title 2: Administration, Chapter 2.56.080-190
25 encourages the preservation of the community's historic resources and outlines the criteria for their
26 preservation, including guidelines for the development and maintenance of surrounding settings
27 and environments, in order to enhance property values and stabilize neighborhoods.

28 **City of Menlo Park**

29 The Land Use Section of the Menlo Park contains the following policy relevant to the Proposed
30 Project.

31 Policy I-H-11: Buildings, objects, and sites of historic and/or cultural significance should be
32 preserved.

33 **City of Palo Alto**

34 The Land Use and Community Design chapter of the Palo Alto Comprehensive Plan contains the
35 following policy relevant to the Proposed Project.

36 Policy L-51: Encourage public and private upkeep and preservation of resources that have historic
37 merit, including residences listed in the Historic Inventory.

1 City of San Jose

2 The Land Use and Transportation chapter of *Envision San Jose 2040 General Plan*, as adopted
3 November 1, 2011, contains three goals and five policies relevant to the Proposed Project.

4 **Goal LU-13:** Landmarks and Districts. Preserve and enhance historic landmarks and districts in
5 order to promote a greater sense of historic awareness and community identity and contribute
6 toward a sense of place.

7 **Policy LU-13.1.** Preserve the integrity and fabric of candidate or designated Historic Districts.

8 **Policy LU-13.2.** Preserve candidate or designated landmark buildings, structures and historic
9 objects, with first priority given to preserving and rehabilitating them for their historic use,
10 second to preserving and rehabilitating them for a new use, or third to rehabilitation and
11 relocation on-site. If the City concurs that no other option is feasible, candidate or designated
12 landmark structures should be rehabilitated and relocated to a new site in an appropriate
13 setting.

14 **Policy LU-13.3.** For landmark structures located within new development areas, incorporate the
15 landmark structures within the new development as a means to create a sense of place,
16 contribute to a vibrant economy, provide a connection to the past, and make more attractive
17 employment, shopping, and residential areas.

18 **Goal LU-14:** Historic Structures of Lesser Significance. Preserve and enhance historic structures of
19 lesser significance (i.e., Structures of Merit, Identified Structures, and particularly Historic
20 Conservation Areas) as appropriate, so that they remain as a representation of San José's past and
21 contribute to a positive identity for the City's future.

22 **Policy LU-14.1.** Preserve the integrity and enhance the fabric of areas or neighborhoods with a
23 cohesive historic character as a means to maintain a connection between the various structures
24 in the area.

25 **Policy LU-14.3.** Discourage demolition of any building or structure listed on or eligible for the
26 Historic Resources Inventory as a Structure of Merit by pursuing the alternatives of
27 rehabilitation, re-use on the subject site, and/or relocation of the resource.

28 **Goal LU-16:** Sustainable Practices. Preserve, conserve, and/or rehabilitate historic structures as a
29 means to achieve the City of San José's environmental, economic, and fiscal sustainability goals.

30 Three of San Jose's city ordinances make reference to historic resources. Title 2, Chapter 2.08, Part
31 26 establishes the Historic Landmarks Commission. Title 13, Chapter 13.48 discusses the goals of
32 historic preservation; outlines the procedures for historic designation; prohibits alteration,
33 demolition or maintenance without a permit; and requires a public hearing should a historic
34 resource be proposed for demolition. Title 17 references the application of the State Historical
35 Building Code.

36 3.4.1.2 Environmental Setting

37 Prehistoric, Ethnographic, and Historic Conditions

38 The following prehistoric and ethnographic conditions are summarized from the *Data Recovery and*
39 *Late Discovery Treatment Plan for the Caltrain Electrification Program Alternative: San Francisco, San*
40 *Mateo, and Santa Clara Counties, California* (Far Western Anthropological Research Group 2009).

41 The historic-era conditions are summarized from the *Addendum Inventory and Evaluation of Historic*
42 *Resources for the Caltrain Electrification Program, San Francisco to San Jose (MP 0.0 to 52.0)* (JRP
43 Historical Consulting Services 2008a). For more in-depth discussion on the environmental setting,
44 please refer to these documents.

1 **Prehistoric Context**

2 The San Francisco Bay and Santa Clara Valley landscape has changed significantly during the 12,000
3 years since humans first occupied the region. Large drainages once flowed from Santa Clara Valley
4 out through the Golden Gate during the late Pleistocene, but were inundated by rising ocean waters
5 when continental glaciers began to melt with the onset of the Holocene. Sea level rise was quite
6 rapid between 12,000 and 6000 calibrated years before the present (cal BP), which resulted in the
7 development of the San Francisco Bay estuary. After 6000 cal BP, the rate of glacier melting slowed
8 down, and Holocene terrestrial sedimentation outpaced the rate of sea level rise, resulting in the
9 extensive tidal marshes and mudflats we see today at the south end of the bay (Rosenthal and Meyer
10 2004). As a result, prehistoric archaeological materials predating 4500 cal BP are relatively rare in
11 the area. Numerous archaeological sites from after 4500 cal BP are available for study, revealing one
12 of the most complex hunter-gatherer archaeological records in North America (Far Western
13 Anthropological Research Group 2009).

14 ***Early Holocene (Lower Archaic), cal 8000–3500 B.C.***

15 The Early Holocene is characterized by a mobile forager pattern throughout the Bay Area. The
16 milling slab and handstone, as well as a variety of large, wide-stemmed and leaf-shaped projectile
17 points, all emerged during this period (Milliken et al. 2007:114). Local Franciscan chert dominated
18 the Early Holocene Santa Clara Valley components (Hylkema 2002:235). The Metcalf Creek Site
19 (SCL-178), a deeply stratified deposit in the southern Santa Clara Valley, yielded cultural materials
20 as deep as 9 meters below the surface (Hildebrandt 1983). Radiocarbon determinations from a
21 feature and an *Olivella biplicata* spire-lopped bead indicate the presence of cultural materials dating
22 as early as cal 7500 B.C. (Fitzgerald and Porcasi 2003; Fitzgerald et al. 2005). The Metcalf Creek
23 Aspect (or Phase), the millingstone pattern cultural expression in the Santa Clara Valley and
24 adjacent coast, was named for this site (Milliken et al. 2007:114). SCL-65, the Saratoga site,
25 produced two flexed burials beneath cairns of millingstones, which date between cal 5400 and 4900
26 B.C. (Fitzgerald 1993).

27 ***Early Period (Middle Archaic), cal 3500–500 B.C.***

28 Several technological and social developments characterize the Early Period. New groundstone
29 technology and the first cut shell beads in mortuaries signal sedentism, regional symbolic
30 integration, and increased regional trade in the Bay Area, beginning at cal 3500 B.C. The earliest cut
31 bead horizon, the *Olivella* grooved rectangle (Vellanoweth 2001), bracketed cal 3400 to 2500 B.C., is
32 represented by a single bead from the San Bruno Mound (Clark 1998:127, 156). Double-perforated
33 *Haliotis* rectangle beads are first documented at the 5,590-year-old Sunnyvale Red Burial (SCL-832),
34 which also contained red ocher and exhibited preinterment burning (Cartier 2002).

35 ***Lower Middle Period (Initial Upper Archaic), cal 500 B.C.–cal A.D. 430***

36 Although it is unclear when the “major disruption in symbolic integration systems” originated, it is
37 clear in the record around 500 B.C. and may have begun several hundred years earlier (Milliken et
38 al. 2007:115). Bead Horizon M1 of the Middle Period (Upper Archaic, cal 200 B.C. to A.D. cal 430)
39 brought more tiny *Olivella* saucer beads into the Bay Area, as well as new circular *Haliotis*
40 ornaments. New bone tools, including barbless fish spears, elk femur spatula, tubes, and whistles,
41 appeared for the first time during this period. Basketry awls (split cannon bones) with shouldered
42 tips, indicating coiled basketry manufacture, appeared in the Central and North Bay (Bennyhoff

1 1986:70, Bieling 1998:218). In the South Bay, the pure millingslab/handstone-oriented forager
2 economy continued along the Pacific Coast of San Mateo County (Hylkema 2002:261).

3 ***Upper Middle Period (Late Upper Archaic), A.D. cal 430–1050***

4 Around 430 A.D., the *Olivella* saucer bead trade network of the Lower Middle Period collapsed. Over
5 half of known M1 sites were abandoned, while in the remaining sites, the number of sea otter bones
6 greatly increased (Bennyhoff 1994a, 1994c). These changes co-occurred with the inception of a
7 series of *Olivella* saddle bead horizons (M2a and 2b; M3, and M4) that marked central California
8 bead trade until A.D. cal 1000 (Groza 2002; Milliken et al. 2007:116). The Meganos mortuary
9 complex spread during this horizon from inland areas almost to the San Francisco Bay at the current
10 Fremont BART site (ALA-343) and into the Santa Clara Valley at Wade Ranch (SCL-302). Single-barbed
11 bone fish spears, ear spools, and large mortars all appeared for the first time during this horizon
12 (Milliken et al. 2007:116). The Santa Teresa Locality Mazzoni site (SCL-131), one of the few mortuary
13 sites that can be dated to this time period, contained no grave accompaniments (Milliken et al.
14 2007:116).

15 ***Initial Late Period (Lower Emergent), A.D. CAL 1050–1550***

16 Fredrickson (1973) coined the term Emergent to describe this period, in recognition of the
17 appearance of a new level of sedentism, status ascription, and ceremonial integration in lowland
18 central California. The Middle/Late Transition bead horizon, previously thought to have occurred
19 around A.D. 300, is now largely believed to have occurred around A.D. cal 1000 (Milliken et al.
20 2007:116). During the Middle/Late Transition, burial objects became much more elaborate, and
21 initial markers of the Augustine Pattern appeared in the form of multiperforated and bar-scored
22 *Haliotis* ornaments, fully shaped show mortars, and new *Olivella* bead types in sites such as SCL-690
23 (Hylkema 2006). In the San José and Point Año Nuevo localities, local Franciscan chert remained the
24 primary production material for debitage and casual tools, and Napa Valley obsidian remained the
25 primary production material for projectile points (Bellifemine 1997:124-136, Clark and Reynolds
26 2003:8, Hylkema 2002:250).

27 Evidence for increased social stratification throughout the Bay Area after 1250 A.D. can be found in
28 mortuary evidence. Although the quantity of shell beads contained in burials decreased, the quality
29 of burial items increased in high-status burials and cremations (Fredrickson 1994:62). This
30 development may have reflected a new regional ceremonial system that was the precursor of the
31 ethnographic Kuksu cult, a ceremonial system that unified the many language groups around the
32 Bay Area during Bead Horizon L1 (Fredrickson 1974:66; Bennyhoff 1994b:70, 72 in Milliken et al.
33 2007:117).

34 ***Terminal Late Period: Protohistoric Ambiguities***

35 Changes in artifact types and mortuary objects characterized A.D. cal 1500–1650. The signature
36 *Olivella* sequin and cup beads of the central California L1 Bead Horizon abruptly disappeared, and
37 clamshell disk beads, markers of the L2 Bead Horizon, spread across the North Bay (Milliken et al.
38 2007:117). Desert side-notched points spread into the South Bay from the Central Coast (Hylkema
39 2002; Jackson 1986, 1989; Jurmain 1983).

40 Another upward cycle of regional integration was commencing when it was interrupted by Spanish
41 settlement in the Bay Area beginning in 1776. Such regional integration was a continuing
42 characteristic of the Augustine Pattern, most likely brought to the Bay Area by Patwin speakers from

1 Oregon, who introduced new tools (such as the bow) and traits (such as preinternment grave pit
2 burning) into central California. Perhaps the Augustine Pattern, with its inferred shared regional
3 religious and ceremonial organization, was developed as a means of overcoming insularity, not in
4 the core area of one language group but in an area where many neighboring language groups were
5 in contact (Milliken et al. 2007:118).

6 **Ethnographic Context**

7 The area covered by the Proposed Project passes through the aboriginal territory of the Costanoans
8 (from the Spanish *Costaños* for “coastal people”), who are known today as the Ohlone (or
9 Ohlone/Costanoan). Most of what we know about the Ohlone comes from the early work by Kroeber
10 (1925), with a summary treatment by Levy (1978). Recent interpretations of Ohlone lifeways,
11 sometimes contradictory with earlier studies, come from research with mission records conducted
12 by Milliken (1995).

13 *Costanoan* is a linguistic subfamily of the Penutian language stock. According to early linguists, there
14 are eight branches of the Costanoan language, each associated with a geographic location and the
15 tribelet(s) that inhabited the locality; the project corridor passes through two linguistic territories
16 (Ramaytush and Tamien). The basic unit of political organization was a territory-holding group of
17 one or more associated villages and smaller temporary encampments. Milliken (1995) defined these
18 units as “tribes”: independent, multifamily, landholding, religious congregations. Mission records
19 indicated that there were six tribal regions within the project corridor (Yelamu, Urebure, Ssalson,
20 Lamchin, Uichon and Tamien), each approximately 8 to 12 miles apart. Each tribe was an
21 autonomous polity numbering 200 to 400 people and fell under the jurisdiction of a headman and
22 council of elders who served as advisors to the villagers. Permanent villages were established near
23 the coast and river drainages, while temporary camps were located in prime resource collecting
24 areas.

25 Subsistence activities centered around the seasonal availability of gathered resources such as acorns
26 and seeds; hunting deer, tule elk, sea mammals, and waterfowl; fishing; and collecting shellfish. The
27 proliferation of shell middens throughout the Bay Area attests to a heavy reliance on marine food
28 resources. The Ohlone practiced annual burning to ensure an abundance of seed-bearing annuals,
29 forage for large game, and to facilitate the gathering of acorns.

30 Seven Spanish missions were founded in Ohlone territory between 1777 and 1797. While living
31 within the mission system, the Ohlone commingled with other groups, including Esselen, Yokuts,
32 Miwok, and Patwin. Mission lifeways were devastating to the Ohlone population. It has been
33 estimated that the Native American population in the region numbered around 10,000 in 1770,
34 when the first mission was established in Ohlone territory, and that population rapidly declined to
35 fewer than 2,000 by 1832 because of introduced disease, harsh living conditions, and reduced birth
36 rates. After the secularization of the missions, circa 1830, Native Americans gradually left the
37 missions. Many went to work as wage laborers on the ranchos and mines, and others found
38 domestic positions. There was a partial return to aboriginal religious practices and subsistence
39 strategies, but for the most part the Ohlone culture was greatly diminished. Today, descendants of
40 the Ohlone still live in the area, and many are active in maintaining their traditions and advocating
41 Native American issues.

1 **Historical Context**

2 ***Spanish Period***

3 The historic period for the Bay Area began in 1769, with the entry of the Spanish Portola expedition.
4 Spanish colonial policy throughout the late 1700s and early 1800s was directed toward establishing
5 missions, presidios, and secular towns known as pueblos, with all land being held by Spain. Three
6 missions were established near the Archaeological Study Area (see Section 3.4.2.1, *Methods for*
7 *Analysis*, for a description of the Archaeological Study Area). Mission San Francisco de Asis was
8 established October 9, 1776, Mission Santa Clara de Asis on January 12, 1777, and Mission San Jose
9 de Guadalupe on June 11, 1797. The location of Mission Santa Clara de Asis was moved five times
10 due to flooding and earthquakes. The third site for Mission Santa Clara, destroyed by an earthquake,
11 is located within the project corridor near the Santa Clara Caltrain Station.

12 ***Mexican Period (1821–1848)***

13 The Spanish Period in this area lasted until 1821, when the Mexican government gained control over
14 Alta California. During the 1820s, the mission system declined as Native Americans abandoned the
15 missions, and land formerly held by Spain was divided into vast tracts owned by individuals.
16 Secularization grew with the creation of land grants, the rise of a ranching class, and the growth of
17 pueblo populations. These “ranchos,” granted by the government, were used primarily for farming
18 and raising cattle. The native people who had been laboring at the mission gardens and orchards
19 moved to the ranchos, still working as manual laborers, and mixing with other tribes.

20 ***The American Period: Residential, Industrial, and Railroad Development***

21 The region came under American control after the defeat of the Californio (Mexican) forces in 1847.
22 Agriculture continued to be the major economic pursuit with the onset of the American Period, in
23 particular to feed the gold miners from 1848 into the 1850s. American farmers then became
24 commonplace in the region, and a series of court cases in the 1850s resulted in the loss of land for
25 many Mexican land-grantees.

26 In the 1850s, land grants were subdivided for towns and eventually, in the 1860s, for the railroad
27 ROW. The city of San Jose was incorporated in 1850, the town of Santa Clara in 1852, and San
28 Francisco in 1856. Urban development in these cities moved at a swift pace during the 1860s. Tracts
29 adjacent to the city limits were subdivided, including the lands originally part of the ranchos. Public
30 works services were introduced in the 1860s, with gas mains, water companies, and formal sewers
31 organized and constructed. During the 1850s, regional stage lines were established and these were
32 replaced by the arrival of the streetcar lines in the 1860s, establishing the first urban transit lines.

33 Construction on the San Francisco and San Jose Railroad (SF&SJ RR) began in 1861, with passenger
34 and freight service commencing in 1863, and reaching San Jose in 1865. This was the first Bay Area
35 railroad, and it reduced travel time between San Francisco and San Jose from a 9-hour stage or 5-
36 hour boat ride to a 3.5-hour rail journey. Other than the general alignment, this first single-track
37 railroad had little in common with the modern system. At that time what stations existed were
38 described as nothing more than sheds.

39 The railroad operated as the SF&SJ RR until 1870 when it was obtained by the Collis P. Huntington’s
40 Southern Pacific Railroad, which operated the SF&SJ RR as a passenger and freight line until 1980
41 when it was obtained by Caltrans and rebranded as Caltrain. Twenty-four of the twenty-five historic

1 built resources identified in the project area are part of, or directly related to, the Southern Pacific
2 Railroad, now Caltrain.

3 During the period from 1870 through 1900, the Peninsula route was the only freight and long
4 distance passenger line that served San Francisco. The railroad contributed to the expansion of
5 agriculture in Santa Clara Valley, and led to more innovative ways to ship and preserve food
6 supplies, such as the transportation of fruit and meat in refrigerator cars developed in 1880. At the
7 same time, undeveloped lands within San Jose city limits were being subdivided and filled with
8 homes during the 1880s, and new suburban tracts were being subdivided.

9 The connection between San Francisco and the southern Bay Area encouraged suburban
10 development and people started to commute to work, even during the nineteenth century. Many of
11 the stations outside of San Francisco were merely stops in the rural landscape of San Mateo and
12 Santa Clara Counties, and many of the more substantial stations served towns that were no more
13 than villages. The city of South San Francisco, the town of Palo Alto, with Stanford University, and
14 the city of San Jose were the exceptions. In the last quarter of the nineteenth century, much of the
15 land in eastern San Mateo and Santa Clara Counties was still held in large tracts by wealthy
16 individuals.

17 The Southern Pacific system was in relatively good condition and Huntington was in the process of
18 modernizing and improving both rolling stock and infrastructure when he died in 1900. But when
19 Edward Henry Harriman gained control of the line in 1901, he ushered in a new phase of
20 development for the company. The subsequent system-wide improvements that Harriman
21 introduced between 1901 and 1909, as well as the scale of the projects he directed, proved to be
22 unprecedented.

23 Harriman ordered the installation of a second track between San Jose and San Bruno in preparation
24 for the Bayshore Cutoff. The 39 miles of new line was ready by late 1903. Several new bridges and
25 trestles along the Peninsula route were part of this improvement program; examples of these
26 structures are the four small grade separations located in the city of San Mateo. Work on the
27 Bayshore Cutoff began in 1904 and continued for 3 years, opening for traffic in December 1907.
28 Company forces built the cuts, filling, bridges, tunnels, and trestles, with the exception of contractors
29 hired to perform the grading and to build Tunnels No. 2 and No. 5. These brick and steel tunnels
30 brought the tracks through the steep hills and bluffs that make up the rough coastline of the
31 northeastern Peninsula while remaining at an even, low gradient that never reached an elevation of
32 more than 20.3 feet above sea level. The double track alignment included 10,000 feet of tunnels, six
33 iron bridges, six timber trestles, and a new hump yard created on the newly filled Visitacion Bay site.

34 The new Bayshore route had far fewer at-grade crossings than the old line and included new
35 passenger stations at 23rd Street, Amy Street, Paul Avenue, Bayshore, Visitacion, and South San
36 Francisco before joining the old alignment at San Bruno. This new route immediately improved
37 passenger train times into San Francisco and helped establish the Peninsula commuter tradition that
38 continues today. The Bayshore Cutoff also had an immediate and important effect on the
39 industrialization of South San Francisco by bringing rail service to the area for the first time.

40 Southern Pacific Railroad undertook a massive improvement program in and around San Jose
41 beginning in the late 1920s. The improvements included continued double tracking the main line,
42 construction of a roughly six-mile bypass of congested downtown San Jose, and completion of a
43 large new passenger station. The impressive Italian Renaissance-revival style Cahill Street Station
44 (now known as the Diridon Station) was designed by John H. Christie and constructed by the C. N.

1 Swenson Company. It is a multilevel combination passenger and freight depot, and is on the NRHP.
2 The bypass, completed in 1935, represented a significant alteration of the original railroad and a
3 major railroading change for the region, relocating the Southern Pacific's depot from Market Street
4 where it had been located since the 1860s for the SF&SJ RR.

5 While motor traffic grew exponentially on the roads and highways of the Peninsula, so did accidents,
6 particularly at railroad at-grade crossings. Both railroads and motor vehicle supporters saw grade
7 separations as the ideal method for eliminating the hazards of at-grade railroad crossings. The
8 Peninsula Grade Crossing Association was formed and, in February 1931, its engineering
9 subcommittee released a proposed \$9 million two-phase plan to eliminate at-grade crossings on the
10 47 miles of track. Among the approximately 80 grade separations along the Caltrain line today, 27
11 were built before 1950, with more than half of those structures built or improved in the period
12 between 1927 and 1941.

13 During World War II, other than track improvements to meet the constant demand for more
14 capacity, very few construction projects were undertaken. By 1946 the railroad returned to its
15 regular passenger service and even improved travel time. Modernization in the 1950s included
16 replacing the timber trestle near Islais Creek and eliminating Tunnel No. 5, both part of the 1907-
17 constructed Bayshore Cutoff. Tunnel No. 5 was closed to accommodate U.S. Highway 101's
18 realignment and expansion to six lanes of automobile traffic. Massive freeway construction of the
19 post-war period was in response to the ever-increasing dominance of the automobile over rail
20 transit; grade separations were constructed as overpasses.

21 In 1974 the Southern Pacific applied to the California Public Utilities Commission to abandon the
22 Peninsula commuter trains, which by then served fewer than 8,000 people a day. The State of
23 California eventually stepped in and took over the commuter operations at a cost of \$20 million paid
24 by San Francisco, San Mateo, and Santa Clara Counties. The new commuter service operated by
25 Caltrans was dubbed "Caltrain." In 1987 the three Peninsula counties formed the Peninsula Corridor
26 Joint Powers Board (JPB) with the intent to have this newly created entity take over at the
27 expiration of Caltrans' 10-year contract. JPB purchased the ROW from San Francisco to San Jose in
28 late 1991 and has provided commuter operations ever since.

29 **3.4.2 Impact Analysis**

30 **3.4.2.1 Methods for Analysis**

31 Cultural resources assessment efforts have included records searches and literature reviews;
32 consultation with the Native American Heritage Commission and local Native American groups,
33 individuals, and historical interest groups; field surveys of the Area of Potential Effect (APE)¹ as it
34 has progressed through a series of refinements; a geoarchaeological sensitivity study to assess the
35 potential for buried archaeological resources; and the development of avoidance measures for built
36 resources and archaeological sites within or potentially within the Archaeological Study Area and
37 Historic Study Area (defined below under *Architectural History*).

¹ "APE" or "area of potential effects" is a term specific to Section 106 of the National Historic Preservation Act of 1966 (36 CFR Part 800.16(d)). When discussing past reports that were Section 106 documents, the term APE is used. For the purposes of this CEQA document, the geographic area included in the 2013 updated survey will be referred to as "Archaeological Study Area."

1 The following presents a chronological breakdown of previous efforts pertaining to the
2 identification and evaluation of cultural resources in the project area:

- 3 • **1999:** An inventory of the original APE (encompassing San Francisco to Gilroy) was conducted
4 (Carrico et al. 2000).
- 5 • **2001/2002:** Field surveys of the previously defined traction power facility sites and electrical
6 connector routes were conducted (JRP Historical Consulting Services 2002; Far Western
7 Anthropological Research Group 2002).
- 8 • **2002:** The State Historic Preservation Officer (SHPO) concurred with the Federal Transit
9 Administration's (FTA's) determination that the Proposed Project, as described at the time,
10 would have no adverse effect on historic properties.
- 11 • **2003:** SHPO concurred in the Finding of Effect Amended (FOEA).
- 12 • **2008:** Project changes reduced the length of the corridor from terminating in Gilroy to
13 terminating in San Jose, and expanded the APE to include three new traction power substations
14 at six potential locations. Field surveys of these expanded APE areas were conducted, and a
15 supplemental records search was also undertaken (Far Western Anthropological Research
16 Group 2008; JRP Historical Consulting Services 2008a).
- 17 • **2008:** A geoarchaeological assessment of the entire route (San Francisco to San Jose) was
18 conducted.
- 19 • **2009:** A Programmatic Agreement (PA) regarding implementation of the project as it pertains to
20 the potential discovery of archaeological sites was negotiated between the JPB, SHPO, and the
21 FTA. The stipulations set forth in the PA are listed in this chapter's mitigation measures. The PA
22 can also be found in Appendix E.
- 23 • **2009:** A data recovery and late discovery treatment plan (Far Western Anthropological
24 Research Group 2009), a stipulation of the PA, was completed.
- 25 • **2013:** Surveys were conducted on June 3, 4, and 6 by a professionally qualified architectural
26 historian. In addition to field verifying the condition of the 25 previously determined eligible
27 and listed properties to ensure they have not been altered since the 2008 survey, 15 properties
28 within the APE known to have been constructed in or prior to 1968 and not previously surveyed
29 because they had not reached 45 years of age in 2008 were surveyed and subsequently
30 evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines (ICF
31 International 2013). None were found to be eligible for the CRHR. No new records search was
32 conducted at this time because the 2013 Proposed Project updates did not include any new
33 parcels beyond those covered in the 2008 supplemental records search conducted by Far
34 Western Anthropological Research Group.
- 35 • **2013:** In 2013 it was determined that trees planted on private property adjacent to the Caltrain
36 ROW may need to be pruned or removed for electrical safety for the OCS. 71 properties with
37 buildings over 50 years old were identified as having potential to be impacted by this vegetation
38 clearance. These properties were surveyed and evaluated for eligibility for the CRHR. All surveys
39 took place from the public ROW. For those properties that could not adequately be seen from
40 the public ROW, additional research was conducted to determine whether the properties had
41 been significantly altered since their construction. Additionally, city registers of historic
42 resources were reviewed to assess whether any of the 71 properties in question were locally
43 listed (ICF International 2014).

1 **Native American Consultation**

2 Section 106 of the National Historic Preservation Act of 1966 provides federally recognized Native
3 American tribes the opportunity to identify their concerns about cultural and heritage resources,
4 advise on the identification and evaluation of such resources, articulate their views on the
5 undertaking's effects on archaeological sites and traditional cultural properties, and participate in
6 the resolution of adverse effects (36 CFR Section 800.2 (c)(3)(i)). JPB contacted NAHC on December
7 4, 2001, to advise them of the Proposed Project. The NAHC responded on December 12, 2001,
8 stating that their record search revealed no indication of the presence of Native American cultural
9 resources in the immediate project area; however, they also recommended that JPB contact other
10 Native American individuals/organizations to verify the findings of the NAHC. JPB sent notification
11 letters to these Native American tribes on December 18, 2001. The 30-day review period expired,
12 and no additional comments were received from the Native American tribes or individuals.

13 JPB sent a second letter to NAHC in December of 2007, informing NAHC of the revisions to the
14 project APE (with maps) and asking for any information on known resources or sensitive areas. In
15 the January 16, 2008 reply, NAHC stated that the Sacred Lands File did not indicate any cultural
16 resources within the project area, but cautioned that the absence of specific site information does
17 not necessarily indicate the absence of cultural resources. Subsequently, JPB sent letters to all the
18 Native American individuals and groups on the list provided by NAHC; in addition, phone calls or
19 emails were sent to each contact.

20 Given the passage of time since the last project-related Native American correspondence, ICF
21 contacted NAHC on October 24, 2013, in order to re-fresh the Sacred Lands File search and to obtain
22 an updated Native American contact list for the project area. The NAHC responded on November 5,
23 2013, stating that its record search revealed no indication of the presence of Native American
24 cultural resources in the immediate project area; however, NAHC also recommended that ICF
25 contact other Native American individuals and organizations to verify the findings of the NAHC.

26 ICF sent notification letters to the Native American contacts on November 11, 2013. The 30-day
27 review period expired, and no additional comments were received from the Native American tribes
28 or individuals.

29 **Archaeological Study Area**

30 The Archaeological Study Area for this analysis contains the areas defined herein:

- 31 ● The existing Caltrain ROW including all existing stations.
- 32 ● Locations of potential locations for two traction power substations in South San Francisco
33 (TPS1) and San Jose (TPS2) and the area of connecting underground duct banks. TPS1 Options 1
34 and 2 are off of Gateway Boulevard and Option 3 is off of Harbor Way; all three options are in
35 South San Francisco. TPS2 Option 1 is off of Newhall Street; Option 2 is off of Stockton Avenue,
36 and Option 3 is at the Central Equipment Maintenance Operations Facility (CEMOF); all three
37 options are in San Jose.
- 38 ● Certain areas outside the Caltrain ROW where OCS poles and wires would be placed partially
39 outside the existing ROW. Based on current designs, Caltrain has identified approximately 20
40 locations with a total length of approximately 1.8 miles where the OCS alignment may be outside
41 the existing Caltrain ROW. Most of these areas are within the existing rights-of-way for adjacent

1 roads and railroads, but some of these areas are on residential or commercial parcels. In
2 general, these areas only extend a few feet off the existing Caltrain ROW.

- 3 • Certain areas outside the Caltrain ROW where vegetation maintenance would be required
4 within 10 feet of the OCS pole alignment for electrical safety. Vegetation maintenance is the only
5 proposed activity in these areas. Based on current designs, Caltrain has identified approximately
6 108 potential locations where the 10-foot vegetation maintenance zone would be outside the
7 current ROW. The area of the maintenance zone outside of the current ROW would vary in width
8 up to approximately 10 feet outside the ROW (where the OCS pole alignment would be within
9 the Caltrain ROW) to a few feet more than 10 feet (where the OCS pole alignment would be
10 outside the Caltrain ROW). Not all of these areas contain trees. The preliminary estimate of the
11 area outside the Caltrain ROW within the 10-foot vegetation maintenance zone is 18 acres
12 located on existing rights-of-way for adjacent roads and railroad, on residential and commercial
13 parcels, and in several public parks.
- 14 • Caltrain has identified potential construction access, staging, and storage areas within its
15 current ROW. Contractor construction staging and storage areas may be proposed in heretofore
16 unidentified nearby locations that are outside the current ROW.

17 The archaeological records search included a 20-foot buffer beyond the Caltrain ROW and the
18 architectural history assessment included the parcels adjacent to the Caltrain ROW, thereby
19 including areas where the OCS must be placed outside of the ROW or where vegetation maintenance
20 may be performed. The results of previous historic built resources and archaeological studies were
21 taken into account when initiating the current analysis for the existence of and potential effects on
22 historic resources within the project area.

23 **Archaeology**

24 The background records search and literature review conducted for the Proposed Project identified
25 21 prehistoric and historic-era archaeological sites in or potentially in the project Archaeological
26 Study Area (see Table 3.4-1). Additional documentary research identified three additional
27 archaeologically sensitive zones (Hamilton shell mound, the vicinity of the Third Mission Santa Clara
28 [CA-SCL-30/H], and the Native American burial ground at Tamien Station [CA-SCL-690]). Previous
29 investigations indicate that one site, CA-SCL-30/H, has been determined eligible for the NRHP, and
30 CA-SCL-690 has been recommended eligible; neither has been listed.

31 Consequently, a PA regarding implementation of the Proposed Project as it pertains to the potential
32 discovery of archaeological sites was negotiated between the JPB, SHPO, and the FTA (PCJPB, FTA,
33 and SHPO 2009). The PA, executed December 17, 2009, in accordance with 36 CFR Section 800.6
34 (b)(1)(iv), has a termination date of 2019². The stipulations set forth in the PA are included as
35 mitigation commitments in this EIR for archaeological resources (see Section 3.4.2.3).

36 A data recovery and late discovery treatment plan (Far Western Anthropological Research Group
37 2009), a stipulation of the PA, was completed in April 2009 (see Appendix E for the PA).

² As construction may extend into 2020 or 2021, the PA may need to be extended accordingly.

1 **Table 3.4-1. Prehistoric and Historic-Era Archaeological Sites In or Potentially In the Archaeological**
2 **Study Area**

Site Trinomial or Number	Site Description	Relation to Archaeological Study Area ^a
CA-SFR-15	Shell mound	Potentially in
CA-SMA-371	Shell midden capped by historic-era debris	Potentially in (buried)
P-41-498 Hamilton Shell Mound	Shell midden	Potentially in (buried)
CA-SMA-358/H	Prehistoric/protohistoric and historic-era artifact scatter	In
CA-SMA-343H	Historic trash dump	In
CA-SMA-102	Shell mound	In
CA-SMA-316	Shell midden	In
CA-SMA-317	Shell mound	In
CA-SMA-4	Large shell midden	In
CA-SMA-232	Shell midden	In
CA-SMA-318	Shell mound	Potentially in
CA-SMA-309 (C-767)	Shell mound	Potentially in
CA-SMA-233	Shell midden	Potentially in
CA-SCL-624	Shell midden	Potentially in
CA-SCL-707	Shell midden	Potentially in
CA-SCL-22	Dirt midden	In
CA-SCL-8	Large occupation site	Potentially in
CA-SCL-30/H	Habitation site w/burial	In
CA-SCL-690 Tamien Station	Large prehistoric cemetery	In
C-1	Reported burial	Potentially in
CA-SCL-448	Shell scatter	In

^a Sites listed as potentially in the Archaeological Study Area are those whose full extent has not been determined.

3
4 In 2013, JPB identified potential construction access, staging, and storage areas within the Caltrain
5 ROW. Additionally, JPB identified areas where OCS poles and wires would be placed partially outside
6 the existing Caltrain ROW, and where vegetation maintenance would be required within 10 feet of
7 the OCS pole alignment for electrical safety (as discussed in greater detail in Section 3.4.2.1,
8 *Archaeological Study Area*, above).

9 All of these locations were compared with the areas of known archaeological sensitivity throughout
10 the project area in order to determine if any are situated within sensitive areas. By comparing the
11 maps, it was determined that the following archaeologically sensitive areas would be subject to
12 vegetation clearance, the placement of OCS poles, or proposed staging areas:

- 13 ● A proposed staging area around Railroad Avenue and 16th Avenue in San Mateo (MPs 17.1 to
14 18.3) overlaps with the Hamilton Shell Mound Sensitivity Zone (P-41-000498), of which the
15 southern border is 9th Avenue. Additionally, there would be some vegetation removal in this
16 area that is outside of the Caltrain ROW.
- 17 ● Poles would be installed outside of the Caltrain ROW between MPs 44.4 and 45 in Santa Clara,
18 which is within the Third Mission Sensitivity Zone (SCL-30/H); however the area of pole

1 installation is within the developed and disturbed UP ROW and thus installation is unlikely to
2 disturb undisturbed resources, if present at this location.

- 3 • Poles would be installed outside of the Caltrain ROW, and there is a proposed staging area, at the
4 Tamien Station, which is located within the recorded boundaries of CA-SCL-690.

5 **Architectural History**

6 A Historical Study Area for historical architectural resources was defined as the Caltrain ROW, the
7 area directly affected by the Proposed Project, and the first row of parcels surrounding each of the
8 proposed traction power facility sites. Within this Historical Study Area are all of the Caltrain
9 railroad features, such as stations (modern and historic), signal bridges, tunnels, grade separations,
10 culverts, bridges, viaducts, and overpasses.

11 Because of the passage of time, the 25 previously determined eligible and listed properties were
12 field checked to ensure they have retained their historic integrity; none appears to have been
13 altered since the 2008 survey. Also due to the passage of time, an additional 15 properties—14
14 bridges and culverts, and one commercial building—within the Caltrain ROW or adjacent to
15 proposed traction power facilities were evaluated for historic significance; none appears to qualify
16 as an historical resource for inclusion in the CRHR or for the purpose of CEQA (PRC Sections
17 5020.1[k], 5024.1, 5024.1[g]). Thus, none of the 15 is listed in Table 3.4-2.

18 **Table 3.4-2. Properties within the Historical Study Area Listed, or Determined Eligible for Listing, in the**
19 **NRHP and CRHP, or are Historic Properties for the Purposes of CEQA**

Milepost	Resource Name (and Office of Historic Preservation status code) ^a	Property Type	City	County	Year Built
01.33	Tunnel No. 1 ^b (3D)	Tunnel	San Francisco	San Francisco	1907
01.72	22 nd Street Overpass (3D)	Overpass	San Francisco	San Francisco	1906
01.90	23 rd Street Overpass (3D)	Overpass	San Francisco	San Francisco	1906
01.93	Tunnel No. 2 ^b (3D)	Tunnel	San Francisco	San Francisco	1907/1936
03.19	Tunnel No. 3 (2)	Tunnel	San Francisco	San Francisco	1904–1907, 1999
04.27	Tunnel No. 4 (2)	Tunnel	San Francisco	San Francisco	1904–1907
04.95-A	Schlage Lock Factory (2)	Building	San Francisco	San Francisco	1926
09.59	Airport Boulevard Underpass (3S)	Underpass	South San Francisco	San Mateo	1927/1935
13.70	Millbrae Station/Building (1)	Station	Millbrae	San Mateo	1907
15.30 – 16.90	Jules Francard Grove (5S1)	Tree Grove	Burlingame	San Mateo	1876–1886
16.30	Burlingame Station (1)	Station	Burlingame	San Mateo	1894
17.20	East Poplar Avenue Underpass (2) ^e	Underpass	San Mateo	San Mateo	1903
17.34	East Santa Inez Avenue Underpass (2) ^e	Underpass	San Mateo	San Mateo	1903
17.45	Monte Diablo Avenue Underpass (2) ^e	Underpass	San Mateo	San Mateo	1903
17.53	Tilton Avenue Underpass (2) ^e	Underpass	San Mateo	San Mateo	1903
22.05	Craftsman residence not within Caltrain ROW(5S1)	Building	Belmont	San Mateo	1907
23.20	San Carlos Station (1)	Station	San Carlos	San Mateo	1888
27.63	51 Mount Vernon Lane (3CS)	Residence	Atherton	San Mateo	1964
27.67	45 Mount Vernon Lane (3CS)	Residence	Atherton	San Mateo	1903
27.80	Atherton Station ^c (3D)	Station	Atherton	San Mateo	1913

Milepost	Resource Name (and Office of Historic Preservation status code) ^a	Property Type	City	County	Year Built
28.10	Holbrook-Palmer Park water tower and carriage house. (Not within Caltrain ROW). (3CS)	Buildings	Atherton	San Mateo	1875 (water tower), 1896 (carriage house)
28.90	Menlo Park Station (1)	Station	Menlo Park	San Mateo	1867, 1890s, 1917
29.69	San Francisquito Bridge (2)	Bridge	Palo Alto	Santa Clara	1902
29.69	El Palo Alto (7L)	Tree	Palo Alto	Santa Clara	<1000 (est. 949)
30.10	Palo Alto Station (1)	Station	Palo Alto	Santa Clara	1940
30.13	University Avenue Underpass (2)	Underpass	Palo Alto	Santa Clara	1941
30.70	Embarcadero Underpass (2)	Underpass	Palo Alto	Santa Clara	1936
N/A	Greenmeadow Neighborhood (near MP 33.6; not within Caltrain ROW) (1)	Building	Palo Alto	Santa Clara	1954–1955
N/A	100 Block of Castro Street (near Mountain View Station at MP 36.0; not within Caltrain ROW) (5S1)	Buildings	Mountain View	Santa Clara	1874–1906
N/A	The Mountain View Adobe (near MP 36.0; not within Caltrain ROW) (1)	Building	Mountain View	Santa Clara	1934–1950
44.60	Santa Clara Tower at Benton and Railroad Street (2) ^d	Station	Santa Clara	Santa Clara	1927
44.70	Santa Clara Station (1)	Station	Santa Clara	Santa Clara	1863–64, 1877, 1885
47.35	Santa Clara Street/Alameda Underpass (part of San Jose/Cahill Station) (1)	Underpass	San Jose	Santa Clara	1933
47.50	San Jose/Cahill Station (1)	Station	San Jose	Santa Clara	1935

^a Office of Historic Preservation status codes:

- (1) Listed in the NRHP and/or CRHR.
- (2) Properties previously evaluated, found eligible, and received SHPO concurrence.
- (3D) SHPO concurrence of eligibility assumed as a contributor to a district.
- (3S) SHPO concurrence of eligibility assumed as individually eligible.
- (3CS) Property appears potentially eligible for CRHR as an individual property through survey evaluation. 45 and 51 Mount Vernon Lane, Atherton, are pending further evaluation to determine if they are potentially eligible for the CRHR.
- (5S1) Individual properties recognized as historically significant by local government.
- (7L) A California historical landmark designated prior to 1998 and, therefore, not evaluated for the NRHP or the CRHR.

^b JRP Historical Consulting Services determined that Tunnels 1 and 2 (MP 01.33 and 01.93) appeared to have significance, but did not retain enough integrity to convey that significance under the criteria for listing in the NRHP and CRHR. SHPO concurred with this conclusion in a letter dated December 9, 2002. In 2002, the San Francisco Planning Department conducted an inventory and evaluation of resources located in the Central Waterfront area, including Tunnels 1 and 2. The Planning Department presented its evaluation of the tunnels to the San Francisco Landmarks Preservation Advisory Board on May 15, 2002, and the board agreed with planning staff that these two tunnels appeared to be eligible for the NRHP, and, therefore, appeared to be eligible for the CRHR. The Central Waterfront Historic District inventory is identified in the Historic Property Data File with Office of Historic Preservation status code 3 (appears eligible for listing in NRHP). Because they have been found eligible as contributors to the district, Tunnels 1 and 2 appear eligible for the NRHP and are considered to be historical resources for the purposes of CEQA. “Directory of Properties in the Historic Property Data File” for San Francisco County, as of December 2007; San Francisco Landmarks Preservation Advisory Board, 2002 Minutes, Minutes of Regular Meeting, May 15, 2002, http://www.sfgov.org/site/planning_page.asp?id=15882. See also Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the California PRC.

^c The Atherton Station was previously found “potentially eligible for the National Register of Historic Places for its local significance as a contributor to a historic district if a historic district is established encompassing the neighborhood surrounding the depot.”

^d ~~The tower is outside of the boundary of the NRHP listed Santa Clara Station; it is locally recognized as a historic resource and therefore considered a historic property for the purposes of CEQA.~~

^e In a separate project, the San Mateo Bridge Replacement Project, Caltrain, in cooperation with the city of San Mateo, is planning to replace these four bridges because they do not meet current seismic safety standards. The project is planned for completion by 2016.

1 For this analysis, five additional historic properties were added after the 2008 survey: the Jules
2 Francard historic tree grove in Burlingame; El Palo Alto, an ancient redwood tree in Palo Alto; the
3 Greenmeadow neighborhood in Palo Alto, 100 Block of Castro in Mountain View, and the Mountain
4 View Adobe in Mountain View. These five properties plus the previously identified resources are
5 listed in Table 3.4-2.

6 This analysis also examined the potential to affect historic architectural resources where OCS poles
7 and wires would be placed partially outside the existing Caltrain ROW and where vegetation
8 maintenance would be required within 10 feet of the OCS pole alignment outside the ROW for
9 electrical safety. The locations were mapped by layering GIS information onto aerial photographs.
10 The locations were carefully reviewed and it has been determined that 71 properties built in or
11 prior to 1968 have vegetation within the vegetation clearance zone; no OCS poles are proposed to be
12 located on properties with buildings constructed in or prior to 1968. These 71 properties consist of
13 two commercial properties, two parks, and 67 residential properties and were evaluated to identify
14 if any contain historic resources (as defined under CEQA) and if so, to determine if vegetation
15 removal would or would not have an indirect effect on the historic significance of historic resources.

16 Of these 71 properties, one (1110 Old County Road, Belmont) is on the City of Belmont's Historical
17 Resources Inventory, listed as a Historical Resource and is therefore considered a historical
18 resource for the purposes of CEQA; it does not appear to be eligible for the CRHR. This 1907-built
19 modest Craftsman residence is included in Table 3.4-2. One other property, the Holbrook-Palmer
20 Park in Atherton, contains two built resources that appear to be individually eligible under Criteria 2
21 and 3, for their association with Charles Holbrook, one of the first San Francisco residents to
22 establish a farming estate in Atherton, and for their noteworthy architecture. However, the park as a
23 whole does not have adequate integrity to be considered a historic landscape.

24 Of the remaining 69 properties, research has indicated that none appears to have the potential to be
25 significant under Criteria 1, 2, or 4. Six of these properties could not be adequately seen from the
26 ROW to determine if they have the potential to be architecturally significant (Criterion 3). Research
27 was conducted at the San Mateo County Assessor's Office and Atherton's Building Permit Center to
28 ascertain if the properties had been altered since their construction dates. Between the results of
29 this research and property photographs, it was determined that four had been significantly altered.
30 The research results for two properties, 45 and 51 Mount Vernon Lane in Atherton, were
31 inconclusive. Therefore, for the purposes of this Project, these two properties are assumed to be
32 eligible under CRHR Criterion 3 for their architectural significance.

33 Of the remaining 67 properties, none appear to be significant under Criteria 1, 2, 3 or 4, and,
34 therefore are not considered historic resources for the purposes of CEQA.

35
36 Two railroad bridges in San Jose, the Delmas Avenue and the Prevost Avenue Bridges, which are
37 within the Historical Study Area, were evaluated for the Caltrain Electrification Program in 2002.
38 They were determined ineligible for the CRHR and NRHP. SHPO concurred with this finding in a
39 letter dated December 9, 2002 (California SHPO 2002). A review of their original evaluation by
40 qualified architectural historians has not resulted in a change to the determination; the passage of
41 time has not resulted in changing perceptions of their significance. Therefore, they are not historic
42 resources for the purposes of CEQA.

1 **3.4.2.2 Thresholds of Significance**

2 In accordance with Appendix G of the State CEQA Guidelines, the Proposed Project would be
3 considered to have a significant effect if it would result in any of the conditions listed below.

- 4 • Cause a substantial adverse change in the significance of a historical resource as defined in
5 Section 15064.5.
- 6 • Cause a substantial adverse change in the significance of an archaeological resource pursuant to
7 Section 15064.5.
- 8 • Disturb any human remains, including those interred outside of formal cemeteries.

9 **3.4.2.3 Impacts and Mitigation Measures**

10 Changes resulting from Project Variant 1 are described below each impact analysis.

Impact CUL-1	Cause a substantial adverse change in the significance of historic built resources pursuant to Section 15064.5
Level of Impact	Significant
Mitigation Measures	CUL-1a: Evaluate and minimize impacts on structural integrity of historic tunnels CUL-1b: Minimize impacts on historic decorative tunnel material CUL 1-c: Install project facilities in a way that minimizes impacts on historic tunnel interiors CUL-1d: Implement design commitments at historic railroad stations CUL-1e: Implement specific tree mitigation considerations at two potentially historic properties and landscape recordation, as necessary CUL-1f: Implement historic bridge and underpass design requirements BIO-5: Implement Tree Avoidance, Minimization, and Replacement Plan
Level of Impact after Mitigation	Less than significant for all resources except possibly significant and unavoidable at Tunnel 4 and possibly for two potential historic resources affected by tree removal

11 **Construction and Operation**

12 There is the potential that the Proposed Project could result in a change to the significance of
13 archaeological and historic built resources (considered “historical resources” as defined under
14 CEQA).

15 There are known historic built resources in the Historical Study Area, which includes the Caltrain
16 ROW, one parcel on either side of the traction power facility sites and areas along the ROW needed
17 for OCS poles and/or vegetation clearance for electrical safety. Table 3.4-2 presents the identified
18 architectural or built resources—the majority of which are related to the railroad. Significant impact
19 on a built historical resource occurs when the project results in substantial adverse change to the
20 physical characteristics that convey its historical significance and that justifies its inclusion in, or
21 eligibility for, inclusion in the CRHR, or in a local register of historic resources. Potentially significant
22 impacts are identified to some of the historic properties prior to mitigation. As discussed below,
23 with mitigation, all significant impacts could be mitigated to a less-than-significant level with the
24 possible exception of impacts on Railroad Tunnel 4 in San Francisco.

1 The discussion below provides a profile of impacts and mitigation for the historic built resources
2 potentially affected by the Proposed Project.

3 None of the proposed locations for the PS7 (Variant A or B), under Project Variant 1 described in
4 Chapter 2, Project Description, would result in a change to the significance of historic built resources
5 because no historic built resources are located on the potential PS7 sites.

6 **Railroad Tunnels 1, 2, 3, and 4, San Francisco**

7 There are ~~three~~ four different Proposed Project potential impacts on the tunnels: notching of the
8 inside of tunnel to provide clearance for the OCS infrastructure above freight and passenger trains;
9 removal of a portion of the decorative stone portals outside the tunnels when notching; ~~and~~
10 installation of OCS infrastructure in the tunnel lining; and track lowering for vertical clearance.

11 ***Tunnel Notching***

12 The Proposed Project requires that the tunnels' lining be notched by crown mining to achieve the
13 clearances needed to accommodate electrified train operations and existing freight trains³. These
14 tunnels are listed on the CRHR as meeting Criteria 1 because the tunnels were key elements of the
15 Bayshore Cutoff, which was an important development in Southern Pacific's system-wide
16 modernization at the turn of the 20th century. They also meet Criteria 3 for their distinctive
17 architectural and engineering qualities. The tunnels are important for their unusual drift-and-core
18 bracing method of construction, as well as their use of decorative brick and masonry accents at each
19 portal or tunnel entrance.

20 Structural integrity work in 2004 including placing of shotcrete along the interior of the tunnels,
21 which covers the historic brick fabric. Tunnel notching will mostly affect the shotcrete which is not a
22 contributing element to the tunnel's historic integrity, but where notching reaches the historic brick
23 material, some brick material could be removed.

24 The removal of historic brick fabric along the length of the tunnels' interior crown could result in a
25 change to the tunnels' historic integrity if removal results in the loss of structural integrity such that
26 new, modern materials must be introduced to achieve structural stability. Mitigation Measure CUL-
27 1a would require the minimization of any impacts on the tunnels' structural integrity.

28 ***Removal of Decorative Stone Portals***

29 The Proposed Project requires that the tunnels' decorative stone portals also be notched by crown
30 mining to achieve the clearances needed to accommodate electrified trains, existing diesel trains,
31 and existing freight trains. Additionally, the removal of the historic fabric may affect the round-arch
32 shape of the portal or remove enough stone material such that the massing of the feature is
33 diminished to the point that it no longer retains its visual character. At the crown of the portals for
34 Tunnels 1 and 3, between 0.10 and 0.25 feet (1 to 3 inches) would be removed. At the crown of
35 Tunnel 4 portals, an estimated 0.50 to 1.75 feet (6 to 21 inches) would be removed. Mitigation
36 Measure CUL-1b would require gradually "feathering" the removal of the historic fabric out from the
37 notch to minimize the visual impact of the alteration for these portals. The greater the amount of
38 historic material that is removed and the more the original design is altered, the greater the
39 likelihood that the impact cannot be reduced to a less-than-significant level. At this time, impacts on

³ As discussed in Chapter 2, *Project Description*, the Proposed Project is being designed to accommodate the existing passenger and freight heights and future EMU heights.

1 Tunnel 1 and 3 would be less than significant with mitigation, but, due to the extent of historic
2 material removal required at Tunnel 4, it is possible that mitigation would not reduce the impact to
3 a less-than-significant level at the Tunnel 4 portals.

4 **Lowering the Elevation of Existing Track**

5 One option to achieve needed vertical clearance to accommodate electrified trains, existing diesel
6 trains, and existing freight trains would be by lowering the track elevation. Removal of the track
7 material would be a less-than-significant impact because the track material has been continually
8 replaced, repaired, and upgraded to accommodate rail service, therefore the materials and
9 workmanship of the tracks do not retain historical integrity. For resources such as train tracks, the
10 integrity of location, setting, feeling, and association are the most important aspects of integrity,
11 which would be maintained if the tracks are lowered. Therefore, no mitigation is needed.

12 ***OCS Infrastructure Attachment to Tunnels***

13 Power system supports, for the OCS, required for the Proposed Project would be installed within
14 Tunnels 1, 2, 3, and 4.

15 As noted above, structural integrity work in 2004 including placing of shotcrete along the interior of
16 the tunnels, which covers the historic brick fabric. The support brackets for the OCS will be placed
17 within shotcrete; however in some locations, the shotcrete may not be sufficiently deep to anchor
18 the supports. In those locations, historic brick fabric may need to be removed to allow placement of
19 sufficiently deep shotcrete to support the OCS safely

20 The installation of the power system has the potential to remove historic fabric from the interior of
21 the tunnels, alter the surface of the interior of the tunnels with the installation of support brackets,
22 and cause visual impacts if the systems are visible from the exterior of the tunnels. The addition of
23 these non-historic systems in conjunction with the crowning of Tunnels 1, 3, and 4 would result in a
24 significant impact (Tunnel 2 would not require crowning). The implementation of specific design
25 requirements contained in Mitigation Measure CUL-1c would reduce impacts to a less-than-
26 significant level by avoiding impacts visible from the exterior of the tunnels.

27 The following mitigation is proposed.

28 **Mitigation Measure CUL-1a: Evaluate and minimize impacts on structural integrity of** 29 **historic tunnels**

30 A structural investigation shall be conducted prior to the removal of any historic fabric to
31 evaluate probable effects on each tunnel's structural integrity, followed by the development of a
32 design approach and construction methods to avoid affecting structural integrity. While the
33 notching would remove historic fabric, retained structural integrity will ensure that this historic
34 method of construction will retain integrity.

35 **Mitigation Measure CUL-1b: Minimize impacts on historic decorative tunnel material**

36 Prior to any removal of decorative tunnel portal material during crown mining of historic
37 Tunnels 1, 3, and 4, a structural investigation shall be conducted to evaluate the probable effects
38 on the structural integrity of the tunnel portals. Also prior to the removal of the historic
39 material, depending upon the extent of the material to be removed, the portal may be recorded
40 to the Historic American Engineering Record (HAER) standards level III (refer to

1 <http://www.nps.gov/history/hdp/>). Additionally, also depending upon the extent of the material
2 to be removed, the Secretary of the Interior’s standards (SOIS) for the rehabilitation of historic
3 properties may be followed in the design and implementation of the adaptation of the tunnels to
4 accommodate the larger rolling stock (refer to <http://www.nps.gov/tps/standards.htm>).

5 A structural investigation shall be conducted to identify construction disturbance to the
6 decorative portals. If it is determined that more than 4 inches of material must be removed from
7 the portals of any of the tunnels, a visual simulation depicting the removal shall be prepared to
8 assess the visual impacts and to determine if the portal(s) will need to be recorded according to
9 HAER standards and if the SOIS need to be applied. If the maximum amount of material to be
10 removed is 4 inches or less, removal of the decorative tunnel material shall be “feathered” from
11 the maximum removal at the keystone to the sides of the tunnels, maintaining the round arch.

12 **Mitigation Measure CUL-1c: Install project facilities in a way that minimizes impacts on** 13 **historic tunnel interiors**

14 The OCS design for the tunnels shall minimize the removal of historic brick fabric as much as is
15 feasible. Power system supports for the Proposed Project inside Tunnels 1, 2, 3 and 4 shall be
16 placed sufficiently far back to not be readily visible, and attached to the tunnels’ interiors ~~using~~
17 ~~methods that are either removable or may be cut off at the tunnels’ lining surface in shotcrete~~
18 instead of in historic brick.

19 At Tunnels No. 1, 2, and 3, the OCS shall be attached to the interior roof surface of the tunnel by
20 brackets inserted into ~~shotcrete the brick lining.~~ Installation of the main support soffit plates
21 ~~would require the permanent installation of eight epoxy grouted stainless bolts at each support.~~
22 ~~These bolts shall be cut off at the tunnel lining, resulting in little evidence of any modification.~~
23 ~~The remainder of the tunnel support arrangements and the parallel feeder cables shall be~~
24 ~~completely removable.~~ In addition, pole sets shall be installed at the portals of each tunnel. For
25 Tunnel Nos. 1–3, side poles at the portals shall be used with power systems over the individual
26 tracks that the poles power. The brackets within the tunnel interiors shall be set inside the
27 tunnel mouth sufficiently far back that they would not be readily visible to passers-by or to
28 those standing on the passenger platforms.

29 At Tunnel No. 4, the system shall also be attached to the interior roof surface of the tunnel by
30 brackets inserted into ~~shotcrete the brick lining.~~ Installation of the main support soffit plates
31 ~~would require the permanent installation of eight epoxy grouted stainless bolts at each support.~~
32 ~~These bolts could be cut off at the tunnel lining, resulting in little evidence of any modification.~~
33 ~~The remainder of the tunnel support arrangements and the parallel feeder cables shall be~~
34 ~~completely removable.~~ In addition, pole sets shall be installed at the portals of each tunnel. ~~For~~
35 ~~Tunnel No. 4, the pole sets shall support a headspan to support the power system over multiple~~
36 ~~tracks.~~ The brackets within the tunnel interiors shall be set inside the tunnel mouth sufficiently
37 far back that they will not be readily visible to passers-by or to those standing on the passenger
38 platforms (particularly at Tunnel No. 4’s southern portal, the Bayshore Station).

39 **Railroad Stations**

40 The Proposed Project would install OCS poles and wires adjacent to seven of eight historically
41 significant railroad stations. Due to the location of poles and OCS in relation to seven of eight
42 stations, impacts would be less than significant. At the eighth station, Diridon Station, the OCS would
43 be placed on the passenger platforms and extend through the existing umbrella sheds used as

1 passenger shelters. Because these shelters are a contributing feature of this NRHP-listed station,
2 impacts at this location would be significant, but can be mitigated through mitigation identified
3 below. Impacts by station are discussed below.

4 ***Millbrae Station, MP 13.70 (Built 1907)***

5 The original Millbrae Station was located south of Millbrae Avenue whereas the current Millbrae
6 Station is located north of Millbrae Avenue. The historic Millbrae Station was listed on the NRHP in
7 1978 at the local level of significance. The station is described as “typical of those built in the early
8 1900s” and is significant to the growth and prosperity of the community. Significant features are
9 limited to the exterior of the building itself; no adjacent buildings, structures, or objects are included
10 in its statement of significance. To avoid potentially significant impacts, Mitigation Measure CUL-1d
11 includes specific design commitments. With mitigation, the installation of poles in this location
12 would have no adverse impact on the attributes that made the Millbrae Station eligible for listing in
13 the CRHR and the NRHP, or on those attributes listed in the preservation covenant. The station
14 structure itself would not be altered at all. Because the operating Caltrain station itself was
15 previously moved from its original location closer to Millbrae Avenue, and its setting has already
16 been substantially altered by modern development and construction in its immediate vicinity.

17 ***Burlingame Station, MP 16.30 (Built 1894)***

18 The Burlingame Station was listed on the NRHP and CRHR in 1978 at the state level of significance.
19 The station, formed by three sections (baggage room, waiting room, and station master living
20 quarters), was built in 1893 in the Mission Revival style and is located west of the current tracks. No
21 other resources were listed as part of the station other than the station building itself. To avoid a
22 potentially significant impact, Mitigation Measure CUL-1d includes specific design commitments.
23 With mitigation, the installation of poles in this location would have no adverse impact on the
24 attributes that made the Burlingame Station eligible for listing in the NRHP and the CRHR. The
25 station would not be directly affected by construction, and its setting has already been substantially
26 altered by modern development and construction in its immediate vicinity. None of the features
27 listed in the preservation covenant would be affected by the Proposed Project.

28 ***San Carlos Station, MP 23.20 (Built 1888)***

29 The San Carlos Station was listed on the NRHP and CRHR in 1984 at a state level of significance. It
30 was described as a Richardsonian Romanesque building with a high level of integrity. The station
31 was listed as eligible under NRHP/CRHR Criterion 1/A for its association with the development of
32 the town of San Carlos and under Criterion 3/C “for the quality of its architecture and the rarity of
33 the Richardsonian Romanesque style for California railroad buildings.” No contributors were listed
34 with the building. A 1999 grade separation raised the active line approximately 15 feet. The
35 proposed design would be to install OCS poles on the modern elevated structure well above the
36 historic structure such that the OCS pole and wires will be part of the modern grade separation
37 structure and not associated with the historic station. The station would not be directly affected by
38 construction and, as noted above, its setting has already been substantially altered by construction
39 of the grade separation project embankment in 1999. None of the significant features listed in the
40 preservation covenant would be affected by the Proposed Project. Thus, impacts at this location
41 would be less than significant.

1 Atherton Station, MP 27.80 (Built 1913)

2 The Atherton Station was evaluated in 1983 as likely eligible as a contributor to a historic district,
3 should one be identified. The station reflects the high architectural quality of the spacious
4 contemporary homes on large lots surrounding it. Consequently, it is considered eligible under
5 Criterion 3/C for its architectural quality, despite the 1954 additions that are reversible and do not
6 detract from its original design. The historic station structure is located east of the tracks. The
7 proposed design includes OCS poles and wires installed near the current location of the historic
8 station. To avoid a potentially significant impact, Mitigation Measure CUL-1d includes specific design
9 commitments. With mitigation, the installation of poles in this location would have no adverse
10 impact on the attributes that make the Atherton Station appear to meet the criteria for listing in the
11 NRHP and CRHR, and the station itself would not be directly affected by the Proposed Project
12 construction.

13 Menlo Park Station, MP 28.90 (Built 1867, 1890s, 1917)

14 The Menlo Park Station was listed in the NRHP and CRHR in 1974 at a local level of significance.
15 Built in 1867, it was modified in the 1880s and 1890s to its current condition, significant under
16 Criterion 3/C for the “picturesque cottage style” of the original building and added decorative
17 elements of the Shingle style in the subsequent modifications. Only the building was listed; no other
18 associated resources were identified as contributors. The station is located east of the tracks. To
19 avoid a potentially significant impact, Mitigation Measure CUL-1d includes specific design
20 commitments. With mitigation, the installation of poles in this location would have no adverse
21 impact on the attributes that make the Menlo Park Station eligible for listing in the NRHP and CRHR;
22 the station would not be directly affected by construction, and modern previous improvements to
23 the station area and in its immediate vicinity have already altered the original station setting. None
24 of the significant features specified in the covenant agreement would be affected by the Proposed
25 Project.

26 Palo Alto Station, MP 30.10 (Built 1940)

27 The 1996 NRHP and CRHR listing of the Palo Alto Station name two buildings and two objects as the
28 historic property. The property is an example of the Streamline Modern style of architecture, listed
29 under Criterion 3/C. The historic structures are both east and west of the tracks (~~confirm~~). Poles and
30 OCS would be installed near the current location of the historic station. To avoid a potentially
31 significant impact, Mitigation Measure CUL-1d includes specific design commitments. With
32 mitigation, the installation of poles in these locations would have ~~no adverse~~ a less-than-significant
33 impact on the attributes that make the Palo Alto Station eligible for listing in the NRHP and the
34 CRHR, and none of the resources listed in the nomination would be directly affected by the
35 installation of the poles. Only the setting of the tracks would be slightly affected, in that the poles
36 would be installed between the sets of tracks, and would extend over them, at this location. This,
37 however, is a less-than-significant impact.

38 Santa Clara Station and the Station Tower, MP 44.70 (Built 1863-4, 1877, 1885)

39 Placed on the NRHP and CRHR in 1985, this station was identified as the oldest continually
40 operating passenger depot in California, dating back to 1863. It was moved in 1877 and a freight
41 warehouse was added. It was rehabilitated in 1990 following the Secretary of the Interior’s
42 guidelines. The nomination was expanded to include the depot and three related resources,
43 including the control tower, the speeder shed, and utility shed, located approximately 400 feet north

1 of the station. The property as a whole is listed as eligible under Criterion 1/A for its association
2 with the original development of rail transportation in California; the tower is considered eligible
3 under Criterion 3/C. The historic covenant includes the station and freight-house building. The
4 station and contributing resources would not be directly affected by construction, and modern
5 previous improvements to the station area and in its immediate vicinity have already, to a
6 substantial degree, affected the original station setting. The original station was located adjacent to
7 an active freight and passenger track in a relatively sparsely settled agricultural area east of the old
8 Santa Clara mission; its current setting is a combination of industrial and commercial buildings,
9 modern streets, and a large and active railroad freight yard.

10 Poles and OCS would be installed near the current location of the historic station and the
11 contributing structures such as the control tower. To avoid a potentially significant impact,
12 Mitigation Measure CUL-1d includes specific design commitments. With mitigation, the installation
13 of poles in these locations would have no adverse impact on the attributes that made the Santa Clara
14 Station, its tower or sheds eligible for listing in the NRHP and CRHR, nor would OCS installation
15 affect features described in the preservation covenant.

16 ***San Jose Diridon Station (Built 1935)***

17 The Proposed Project includes the installation of poles for headspans and OCS that would extend
18 through the butterfly passenger shelters or “umbrella” sheds on the Caltrain platforms of the
19 Diridon Station (formerly the Cahill Station). Figure 3.4-1 shows the butterfly passenger shelters.
20 These shelters are contributing elements to the Cahill Station National Register Historic District and
21 are a historic resource under CEQA. The district is composed of six related resources: the main
22 terminal building, the passenger butterfly shelters, the tunnels connecting the terminal to the
23 platforms, car-cleaner shed, water tank, and the Alameda Underpass (grade separation). The
24 butterfly passenger shelters are the only historic district resource that would be directly impacted at
25 the Diridon Station. The installation of poles and OCS at the Diridon Station could result in a change
26 to the historic district. Mitigation Measure CUL-1e would reduce impacts to a less-than-significant
27 level by requiring the OCS to be installed without significantly impacting the historic integrity of this
28 district contributor.

29 The following mitigation measures were developed with the specific stations’ historic character-
30 defining features and contributors considered, as defined in their eligibility statements or NRHP
31 nominations, which vary. When proposing Historic American Building Surveys (HABS), the current
32 setting for each station was considered, which varies with regard to how substantially the current
33 setting has already been altered by modern development. Also, the JPB has committed to consulting
34 with local jurisdictions during the design process and prior to final design regarding OCS
35 arrangement. Consequently the proposed mitigation for each station varies as appropriate and is not
36 uniform.

37 **Mitigation Measure CUL-1d: Implement design commitments at historic railroad stations**

38 **Millbrae Station**

39 Side poles shall not be placed in front of or within 40 feet of the historic station on the west side
40 of the Caltrain ROW. In addition, to minimize the visual intrusion of the poles, one of the
41 following arrangements will be used for areas along the alignment within 100 feet on either side
42 of the historic station:



Source: ICF 2013.

Figure 3.4-1
Butterfly Passenger Shelters at Diridon Station
Peninsula Corridor Electrification Project

- 1 ● center pole/two-track cantilevers between MT1 and MT2 with side poles for the Millbrae
2 siding, or
- 3 ● a two-track cantilevers east of MT2 covering MT2 and MT1 with side poles for Millbrae
4 siding.

5 Additionally, prior to the installation of the OCS, the station will be recorded to HABS level III
6 standards from the track side of the building, from the opposite platform.

7 **Burlingame Station**

8 Side poles shall not be placed in front of or within 40 feet of historic station on the west side of
9 the Caltrain ROW. In addition, to minimize the visual intrusion of the poles, one of the following
10 arrangements will be used for areas along the alignment within 100 feet on either side of the
11 historic station:

- 12 ● center pole/two-track cantilevers; or
- 13 ● two-track cantilevers from the east side platform.

14 Additionally, prior to the installation of the OCS, the significant portions of the property (i.e., the
15 baggage room, waiting room, and the station master living quarters which together make up the
16 current station) will be recorded to HABS level III standards from the track side of the building,
17 from the opposite platform.

18 **Atherton Station**

19 Side poles shall not be placed in front of or within 40 feet of historic station on the west side of
20 the Caltrain ROW. In addition, to minimize the visual intrusion of the poles, within 100 feet on
21 either side of the historic station, one of the following shall be used:

- 22 ● center pole/two-track cantilevers; or
- 23 ● single cantilevers in the median between the two tracks.

24 Additionally, prior to the installation of the OCS, the station will be recorded to HABS level III
25 standards from the track side of the building, from the opposite platform.

26 **Menlo Park Station**

27 Side poles shall not be placed in front of or within 40 feet of historic station on the west side of
28 the Caltrain ROW. In addition, to minimize the visual intrusion of the poles, one of the following
29 arrangements will be used for areas along the alignment within 100 feet on either side of the
30 historic station:

- 31 ● center pole/two-track cantilevers; or
- 32 ● two-track cantilevers from the east side platform.

33 Additionally, prior to the installation of the OCS, the station will be recorded to HABS level III
34 standards from the track side of the building, from the opposite platform.

35 **Palo Alto Station**

36 Side poles shall not be placed in front of or within 40 feet of historic station on the west side of
37 the Caltrain ROW. Given the separation between MT1 and MT2, single center poles are not

1 feasible. Thus, to minimize visual impacts on the property, single pole/cantilevers will be placed
2 in the median between MT1 and MT2.

3 Additionally, prior to the installation of the OCS, the station will be recorded to HABS level III
4 standards from the track side of the building, from the opposite platform.

5 **Santa Clara Station and the Station Tower**

6 Side poles shall not be placed in front of or within 40 feet of historic station or the other historic
7 structures (control tower, etc.) on the west side of the Caltrain ROW. Poles in front of the
8 historic station should be center pole single cantilevers for MT2 and MT3 where parallel to the
9 historic station. Side poles can be used for MT1 and placed on the modern center platform.

10 Side poles on the western side of the ROW shall be located near non-historic features, to the
11 extent feasible as follows:

- 12 ● A pole at the northern end of the station can be located near the modern steel and glass
13 passenger waiting shelter.
- 14 ● A pole at the southern end of the station can be sited east of the old set of tracks nearest the
15 historic station (retained as an example of the relationship of the station to the original line
16 and no longer operative) set in the modern poured concrete passenger platform and located
17 among the modern electroliers on this platform.
- 18 ● Poles shall not be located near the speeder shed or the utility shed.
- 19 ● Poles can be located to each side of the control tower, one between the tower and the stub of
20 Benton Street, the other more than 50 feet to the north.

21 Additionally, prior to the installation of the OCS, the station will be recorded to HABS level III
22 standards from the track side of the building, from the opposite platform.

23 **San Jose Diridon Station**

24 At the San Jose Diridon Station the OCS design shall utilize a headspan. No poles shall be
25 installed within the butterfly shelters between Tracks 2 and 3 and between Tracks 4 and 5.

26 **Historic Properties along the Caltrain ROW Potentially Affected by Vegetation Clearance**

27 To create safety clearance for the OCS, trees would be pruned or removed from potentially historic
28 residential properties at 45 and 51 Mount Vernon Lane in Atherton. Because these two properties
29 are 50 years old or more and were not visually accessible, for the purpose of this Project they are
30 assumed to be historic resources eligible for their architectural significance. Research did not find
31 that either is eligible for their association with historic events or persons of historic significance
32 when applying Criteria 1 and 2 of the CRHR. Given that the potential historic resource nature of
33 these two properties is unknown at this time, it was presumed that the mature trees near the
34 Caltrain ROW might be part of the historic resource of these residential properties, if they are indeed
35 historic resources. The Proposed Project would require removal of some of the trees within
36 approximately 10 feet of the Caltrain ROW on these two properties. This is considered a potentially
37 significant impact pending resolution of the historic resource nature of these two properties.
38 Mitigation Measure BIO-5, in Section 3.3, *Biological Resources*, requires the JPB to implement a Tree
39 Avoidance, Minimization, and Compensation Plan. Depending on the site-specific implementation of
40 Mitigation Measure BIO-5, tree removal on these two properties may be avoided, minimized or

1 compensated through replanting such that no significant effect would occur to these potentially
2 historic properties. However, the feasibility of avoiding, minimizing, or replanting on these
3 properties will not be known until detailed design of the OCS itself is completed. Mitigation Measure
4 CUL-1e would also be required. At this time, it is unknown whether the properties are historic
5 resources, whether the Proposed Project would have a significant impact on their historic character
6 due to tree removal, and whether tree mitigation would avoid significant impacts; therefore, it is
7 presumed that this impact is potentially significant and unavoidable.

8 **Mitigation Measure CUL-1e: Implement specific tree mitigation considerations at two**
9 **potentially historic properties and landscape recordation, as necessary**

10 Access to properties at 45 and 51 Mount Vernon Lane in Atherton needs to be gained and
11 historic resources evaluation completed prior to the removal of vegetation. If either of the
12 residences proves to be CRHR-eligible, and the trees requiring removed for the project are
13 character-defining features from the historic period of significance, or if the removal of the
14 vegetation has the potential to visually impact the historic property, the preparation of specific
15 tree avoidance, minimization, and/or compensation plans pursuant to Mitigation Measure BIO-5
16 shall take into account the historic character of the properties. If avoidance or minimization is
17 not feasible, then replanting shall be conducted on the properties, if feasible. Regardless of the
18 tree mitigation implemented, if the properties are determined to be CRHR-eligible, then the JPB
19 shall have a qualified architectural historian record the landscape using Historic American
20 Landscape Survey Standards level 3 prior to any project vegetation removal.

21 **Other Built Resources**

22 The Proposed Project's potential impacts on other historic built resources are discussed below.

23 ***22nd Street and 23rd Street Overpasses, San Francisco***

24 The installation of OCS power supports and/or barrier enhancements would not require extensive
25 physical changes to the historic properties, their use, nor their character defining features. These
26 project activities would introduce some new materials to the overpasses and their setting, but the
27 existing barriers on the bridges are modern additions and the setting has already been substantially
28 altered since their original construction. Furthermore, the addition of these facilities would not
29 cause a significant visual impact by the placement of additional infrastructural elements to a
30 corridor already substantially altered, and would not diminish the integrity of the properties'
31 significant historic features such that they would no longer contribute to the previously determined
32 eligible Central Waterfront historic district. Thus the impacts on ~~the~~ these resources would be less
33 than significant and no mitigation is identified.

34 ***Schlage Lock Factory Main Building, San Francisco***

35 Poles and OCS would be installed in the Caltrain ROW running east of the building, the only extant
36 plant building and the only plant building on the property to be determined to be a historical
37 resource. The Main Building was one of a group of buildings interconnected with a modern
38 warehouse; the other buildings have been previously demolished. The poles would be located along
39 the railroad line at a substantial distance from the Main Building. The installation of poles in this
40 location would have no adverse impacts on the attributes that make the Main Building appear to
41 meet the criteria for listing in the CRHR, and the building would not be directly impacted by

1 construction. Thus, the impacts on this resource would be less than significant and no mitigation is
2 identified.

3 ***Airport Boulevard Underpass, South San Francisco***

4 The California Division of Highways and the Southern Pacific Railroad completed the Airport
5 Boulevard Underpass (also known as the South San Francisco Subway) in 1927 and later widened
6 the structure in 1935. The construction and widening are elements in the history of Peninsula
7 highway development and the early 20th-century grade-separation movement, and is representative
8 of the architectural/engineering development of underpass design. The South San Francisco Subway
9 is therefore historically significant and has been determined eligible for listing in the CRHR and
10 NRHP under Criteria 1/A and 3/C.

11 The installation of the OCS power system supports on this historically significant bridge could result
12 in significant adverse impacts. To avoid a potentially significant impact, Mitigation Measure CUL-1f
13 includes specific design commitments. Because the cables would be suspended above and parallel to
14 the existing line, there would be no impact on the characteristics of the bridge that make it appear to
15 meet the criteria for listing in the CRHR and NRHP. Additionally, its immediate vicinity has already
16 been altered, so the addition of the power system would not impact the bridge's setting. Thus, the
17 impacts on this resource would be less than significant and no mitigation is identified.

18 ***Jules Francard Grove of Eucalyptus Trees, Burlingame***

19 The Jules Francard Grove of blue gum (*Eucalyptus globulus*) eucalyptus trees is on the east side of
20 California Drive, from Burlingame Avenue to Palm Drive in the city of Burlingame. The city of
21 Burlingame Park Department designated the tree row as a heritage grove in 1976. The heritage
22 designation form states that the trees were probably planted between 1876 and 1886, about the
23 same time that the Howard-Ralston Eucalyptus Tree Rows along El Camino Real in Burlingame,
24 recently listed on the NRHP, was planted. The designation form describes the Jules Francard Grove
25 as a "densely planted double row along the railroad tracks" and says that it "provides a tall dramatic
26 silhouette in [the] center of town." It further states that this tree row is the most densely planted of
27 any in Burlingame (City of Burlingame 1976). A letter from the Burlingame City Clerk to Mr. B. B.
28 Vodicka, Agent of the Southern Pacific Company, dated June 22nd, 1916, states that the grove was
29 designated a public park and dedicated to the people of Burlingame in 1910, to be "forever held,
30 maintained, kept and preserved" (Burlingame City Clerk 1916).

31 At present, pruning and vegetation maintenance is conducted to ensure no branches fall on the
32 tracks. The OCS alignment would be placed between the trees and the tracks. Based on current
33 design, one tree would need to be removed to accommodate the Proposed Project and
34 approximately 30 trees would require some pruning, but not removal, within the electrical safety
35 zone (see details in Appendix F, *Tree Inventory and Canopy Assessment*). The views of this grove
36 along the adjacent streets in the City of Burlingame would be unchanged as the pruning would occur
37 on the Caltrain ROW sides of the grove. A visual simulation in Section 3.1, *Aesthetics*, shows the
38 effect of vegetation removal on part of the grove. The overall appearance of the grove would not be
39 substantially changed and the vast majority of the trees would be retained. The pruning would be
40 conducted by a qualified arborist or under the supervision of a qualified arborist to ensure that the
41 pruning would not jeopardize the health of the trees.

42 Due to the limited amount of project disturbance to the grove, the insubstantial changes in
43 appearance overall, no change in appearance from city streets, and no substantial observable change

1 in views from the train to the adjacent grove, the grove would continue to contain its character-
2 defining features as a historic grove. Thus, Proposed Project impacts are considered less than
3 significant. No mitigation is necessary.

4 ***East Poplar Avenue Underpass, East Santa Inez Avenue Underpass, Monte Diablo Avenue Underpass,***
5 ***Tilton Avenue Underpass, San Mateo***

6 These four essentially pre-automobile underpasses are significant at the local level, under CRHR and
7 NRHP Criterion 3/C based upon their distinctive characteristics of type, period, and method of
8 construction. The underpasses are rare examples of their type and period, and they illustrate an
9 important phase in development of underpass design. They are the earliest grade separations along
10 the former Southern Pacific Coast Line (now Caltrain) between San Francisco and San Jose, and they
11 are among a small group of such structures within the state. These four bridges have been found to
12 not meet current seismic safety requirements. In a separate project, Caltrain, in cooperation with the
13 city of San Mateo, is planning to demolish and replace these bridges by 2016. Thus, this Proposed
14 Project will have no effect on these historic bridges as the OCS will be installed on the new bridges.

15 ***1110 Old County Road, ~~Burlingame~~ Belmont***

16 This modest Craftsman residence was built in 1907 and is listed on the City of Belmont's Historical
17 Resources Inventory as a Historical Resource. The highest level of historical significance in Belmont
18 is "landmark" so this building is considered moderately significant. Because it is locally listed as a
19 historic resource, it is a historic resource for the purposes of CEQA.

20 This track-side residence, while outside of the ROW, is within the vegetation removal zone to
21 accommodate OCS. Field review of the building has shown that it has been altered since it was
22 constructed and that there are newer structures on the parcel that have also altered its setting.
23 Because the setting appears to retain no historical integrity, the removal of trees along the parcel
24 boundary and the Caltrain ROW, are considered less than significant. No mitigation is necessary.

25 ***Holbrook-Palmer Park, Atherton***

26 The 22-acre Holbrook-Palmer Park, located on the east side of Watkins Avenue, in the city of
27 Atherton was originally a farming estate established in 1875. Only two buildings, the 1875-built
28 water tower, and the second carriage house, built in 1896, are extant from the historic period. Both
29 appear to be individually eligible for the CRHR for their architecture (Criterion 3). Although the
30 original parcel boundaries have not changed, due to the significant alterations that have taken place
31 since 1963, when it was first established as a public park, the property as a whole does not contain
32 adequate integrity to be considered a historic landscape.

33 This track-side property, while outside of the ROW, is within the vegetation removal zone to
34 accommodate OCS. Because the property lacks integrity to be considered a historic landscape,
35 further altering the setting of the two individual historic resources by the removal of trees along the
36 parcel boundary and the Caltrain ROW, is considered less than significant. No mitigation is
37 necessary.

38 ***San Francisquito Bridge, Palo Alto***

39 The installation of the power system supports on this historically significant bridge could result in
40 significant adverse impacts. San Francisquito Bridge, a steel through-truss bridge, is eligible under
41 Criterion 1 for its association with the image and development of Palo Alto in the 20th century, and

1 under Criterion 3 for being the only significant steel bridge in Palo Alto and a distinctive example of
2 an important standard type of truss bridge. Substantial alteration of the bridge structure could be a
3 significant impact. With implementation of Mitigation Measure CUL-1d, the historic resource would
4 not be altered other than the small clearance holes, and the cables would be suspended above and
5 parallel to the existing railroad line. Thus, with mitigation there would be no significant impact on
6 the characteristics of the bridge that make it appear to meet the criteria for listing in the CRHR.

7 ***El Palo Alto, Palo Alto***

8 A large ancient redwood tree, known as “El Palo Alto,” is located adjacent to the Caltrain ROW in
9 Palo Alto. The tree has been recognized through at least three historic preservation programs, both
10 locally and statewide, and is identified as California State Historic Landmark #2, a State Point of
11 Historic Interest, and City of Palo Alto Heritage Tree #1. The state landmark status (Landmark #2)
12 was conferred in 1954. Because SHPO did not develop specific uniform standards for landmark
13 designation until well after many resources had been identified, landmarks with a number lower
14 than 770 and recognized as state historic landmarks prior to 1998 are not considered to have been
15 evaluated for the CRHR. Nevertheless, the tree is described as follows in SHPO's published list of
16 state landmarks: “Portola Journey’s End. In 1769 the Portola expedition of 63 men and 200 horses
17 and mules camped near El Palo Alto, the tall tree. They had traveled from San Diego in search of
18 Monterey but discovered instead the Bay of San Francisco. In 1974, the tree was designated as State
19 Point of Historic Interest #SCL-026, in recognition of its local significance” (Office of Historic
20 Preservation 2014). A City of Palo Alto press release states that the tree is estimated to be more than
21 1,000 years old and more than 110 feet high (San Jose Mercury News 2004).

22 The tree trunk is located outside of the electrical safety zone, would not be impacted by the
23 Proposed Project because and all power system supports would be attached to the adjacent San
24 Francisquito Bridge. However, as described in Section 3.3, *Biological Resources*, minor pruning
25 would be necessary to keep tree branches out of the San Francisquito Bridge truss which is similar
26 to current tree maintenance practices. Mitigation Measure BIO-5, Section 3.3, *Biological Resources*,
27 requires a *Tree Avoidance, Minimization, and Replacement Plan (including specific attention to*
28 *minimization of effects on El Palo Alto)* will be developed by a certified arborist in consultation with
29 each jurisdiction’s arborist (e.g., the City of Palo Alto Urban Forester in this case). Thus, the impacts
30 on this resource would be *reduced to a less than significant level and no mitigation is identified.*

31 ***University Avenue Underpass, Embarcadero Underpass, Palo Alto***

32 The University Avenue Underpass, built between 1939 and 1941, is significant under CRHR and
33 NRHP Criterion 1/A for its association with the transformation of Palo Alto’s transportation core,
34 and is central to the redesign of University Avenue as it intersected two of the most historically
35 important transportation corridors between San Francisco and San Jose: Southern Pacific’s Coast
36 Line and El Camino Real/U.S. Highway 101. The Embarcadero Underpass, constructed in 1939 as
37 part of the government’s grade separation program, is eligible under CRHR and NRHP Criterion 1/A.
38 The installation of the power system supports on these historically significant bridges could result in
39 significant adverse impacts. To avoid a potentially significant impact, Mitigation Measure CUL-1d
40 includes specific design commitments. Under this mitigation measure, the cables would be
41 suspended above and parallel to the existing line and there would be no impact on historic fabric of
42 these bridges, nor would the placement of the poles alter the use of or character-defining features of
43 these underpasses that make them appear to meet the criteria for listing in the CRHR and NRHP.
44 Additionally, the immediate vicinities of the underpasses have already been altered, so the addition

1 of the power systems would not impact the bridges' settings. ~~Thus, the impacts to these resources~~
2 ~~would be less than significant and no mitigation is identified.~~

3 ***Greenmeadow Neighborhood, Palo Alto***

4 The Greenmeadow Neighborhood in Palo Alto is a residential district listed on the NRHP on July 28,
5 2005. Greenmeadow consists of 243 single-family homes and one community center complex of two
6 buildings and one swimming pool. The subdivision was developed by Eichler Homes, Inc. between
7 1954 and 1955. The single-story homes, designed by architects A. Quincy Jones and Frederick
8 Emmons, have three or four bedrooms, two bathrooms, and attached garages. The homes are
9 designed in a mid-century modern style and were built with a slab-on-grade post-and-beam
10 construction. The designs emphasize privacy on the relatively blank street facades and openness to
11 the rear with floor-to-ceiling, wall-to-wall plate glass windows. The district was listed at the state
12 level of significance under Criterion C in the area of architecture as an excellent example of Joseph
13 Eichler's mid-century modern subdivision housing in California. Eichler made a significant
14 contribution in the area of modern home design and innovative construction methods. Working
15 closely (and alternately) with architects Anshen and Allen, and Jones and Emmons, Eichler wished to
16 offer middle-class families high-quality, contemporary design in an affordable production house.
17 Greenmeadow is an excellent example of Joseph Eichler's contribution to mid-century residential
18 modernism and the California suburban environment. When Eichler developed Greenmeadow in
19 1953, he had already built hundreds of lower priced, architect-designed homes in more than a dozen
20 subdivisions on the Peninsula. With Greenmeadow, Eichler decided to move up the price range and
21 tap into the growing market for larger houses with more amenities (California Office of Historic
22 Preservation). The community was designed with an inwardly oriented street pattern for security
23 and to discourage through traffic. The district is bounded by Nelson Drive, El Capitan Place, Adobe
24 Place, and Creekside Drive.

25 Paralleling Station 5 (PS-5), Option 1 is proposed between the railroad and Alma Avenue, outside of
26 the district boundaries; it therefore it has no potential to directly impact the historic district.⁴ The
27 proposed PS5, Option 1 would be opposite the entrance to Greemeadow Way, which leads into the
28 district; the residences on Alma Avenue, opposite the proposed PS5, Option 1, are not included in
29 the NRHP district (the closest residences within the historic district are approximately 250 feet east
30 of Alma Street). This paralleling station would not diminish the historic character-defining features
31 of the historic district by introducing a visual change to the district. PS5, Option 1 would be visible
32 only by individuals leaving the historic district by way of Greenmeadow Way. The closest homes in
33 the district to the proposed paralleling station are oriented facing Creekside Drive, opposite from
34 Alma Avenue; the homes on the second block of Creekside Drive face each other and not toward the
35 proposed PS5, Option 1. Continuing northeast on Creekside Drive is the Thomas Church-designed
36 park with its community center, a significant distance from the proposed PS-5, Option 1. This is not
37 the main entrance to the center, but a footpath. The mature landscaping of this area of the
38 community center further blocks any potential visual impact. Therefore the Proposed Project would
39 have no impact on this historic resource.

40 PS5, Option 1B is approximately 500 feet south of the nearest part of the historic Greenmeadow
41 neighborhood and would not be visible from within the neighborhood and would not affect views of
42 any part of the historic neighborhood.

⁴ PS5 Option 2 is located on the west side of the Caltrain ROW adjacent to commercial area and is not near the Greenmeadow neighborhood.

1 100 Block of Castro Street, Mountain View

2 Several buildings on the 100 block of Castro Street, southwest of the Mountain View Station, are on
3 the Mountain View Register of Historic Resources Property List (City of Mountain View 2004). These
4 include the Weilheimer Store, 124 Castro (built in 1874); the First National Bank, 142-156 Castro
5 (built in 1913); the Ames Building, 169-171-175 Castro (built in 1903); and the Mockbee Building,
6 191 Castro (built c1906). The proposed addition of OCS power lines on the opposite side of the
7 station, along the rail line, would not result in a visual impact to any of these buildings. All of the
8 buildings on the 100 block of Castro Street face each other and are not oriented toward the
9 Proposed Project. Additionally, because the area's setting already contains overhead power lines
10 and has been altered by the addition of modern infrastructure and buildings, the Proposed Project
11 would not diminish the integrity of the buildings' significant historic features or setting. Thus, the
12 impacts on this resource would be less than significant and no mitigation is identified.

13 The Mountain View Adobe, 157 Moffett Boulevard, Mountain View

14 The Mountain View Adobe was listed on the CRHR and the NRHP in 2002; it is significant under
15 Criteria 1/A and 3/C, and its period of significance is 1934–1950. Under Criterion 1/A, the Mountain
16 View Adobe is significant for its continued role as a public building central to the development of the
17 Mountain View community and as a building constructed under the Civil Works Administration. The
18 building is also significant under Criterion C: Design/Construction, because it embodies the
19 distinctive characteristics of a 1930s community building type, of adobe and concrete construction.
20 The nomination is limited to the building itself. The nomination states that the “outlying peripheral
21 areas of the property no longer retain integrity and do not contain any significant features.” Because
22 the setting is not a character-defining feature of this property, the introduction of additional power
23 poles and lines in its vicinity would not diminish the integrity of the building's significant historic
24 features. Furthermore, the Proposed Project's impacts would be on the opposite side of Central
25 Expressway from the Mountain View Adobe and thus would be in previously altered areas not
26 considered part of the historic resources. The impacts on this resource would be less than significant
27 and no mitigation is identified.

28 Alameda Underpass, San Jose

29 The Alameda Underpass is a contributing element of the NRHP and CRHR listed Cahill/Diridon
30 Station. The underpass is located about 500 feet to the north of the depot. Built between 1932 and
31 1935, the depot and its contributors, including the station, several vernacular sheds, a water tower,
32 butterfly passenger shelters and the Alameda Underpass are listed under CRHR and NRHP Criterion
33 3/C, for their architectural values. The installation of the OCS supports on this historically significant
34 bridge could result in significant adverse impacts. To avoid a potentially significant impact,
35 Mitigation Measure CUL-1d includes specific design commitments. Because the cables would be
36 suspended above and parallel to the existing line, there would be no impact on the characteristics of
37 the bridge that make it appear to meet the criteria for listing in the CRHR. Additionally, its
38 immediate vicinity has already been altered, so the addition of the power system would not impact
39 the bridge's setting. Thus, the impacts on this resource would be less than significant and no
40 mitigation is identified.

41 Mitigation Measure CUL-1f: Implement historic bridge/underpass design requirements

42 This mitigation measure addresses the approach to installing Proposed Project facilities at nine
43 historic bridges/underpasses to ensure that the power system supports are not attached to the

1 historic fabric of these bridges/underpasses and avoid adverse impacts on their historic
2 integrity and visual appearance. All modifications will be completed following the Secretary of
3 the Interior’s standards for the treatment of historic properties.

4 **Airport Boulevard Underpass or South San Francisco Subway**

5 Rather than installing the power system directly onto the bridge, power cables shall be
6 suspended parallel to and above it to ensure that the bridge will not be impacted. ~~The pole sets~~
7 ~~shall support a headspan that crosses the track at the same angle as the roadway beneath.~~

8 **San Francisquito Bridge, Palo Alto**

9 The OCS cables shall be suspended from the upper portions of the San Francisquito Creek Bridge
10 truss. The power cables shall use fasteners and brackets to support the power lines. The
11 brackets shall be attached to the existing structure, but no part of the existing structure shall be
12 removed as a part of the Proposed Project. Installation of the main support brackets shall
13 require no permanent modification to the bridge structure and shall be completely removable.
14 Installation of the static wire grounding brackets will require site drilling of eight 5/8-inch-
15 diameter clearance holes, with the brackets completely removable. No poles shall be set on the
16 bridge itself.

17 **University Avenue Underpass, Embarcadero Underpass, Palo Alto**

18 Power cables shall be suspended parallel to and above the University Avenue Underpass. The
19 poles in this configuration shall be set at the side of the track they power. No poles shall be set
20 on the bridges themselves.

21 **Alameda Underpass, San Jose**

22 Power cables shall be suspended parallel to and above the Alameda Underpass. ~~Pole sets shall~~
23 ~~support a headspan that crosses the track at the same angle as the roadway beneath.~~ No poles
24 shall be set on the bridge itself.

Impact CUL-2	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5
Level of Impact	Significant
Mitigation Measures	<p>CUL-2a: Conduct an archaeological resource survey and/or monitoring of the removal of pavement or other obstructions to determine if historical resources under CEQA or unique archaeological resources under PRC 21083.2 are present</p> <p>CUL-2b: Conduct exploratory trenching or coring of areas where subsurface project disturbance is planned in those areas with “high” or “very high” potential for buried site</p> <p>CUL-2c: Conduct limited subsurface testing before performing ground-disturbing work within 50 meters of a known archaeological site</p> <p>CUL-2d: Conduct exploratory trenching or coring of areas within the three zones of special sensitivity where subsurface project disturbance is planned</p> <p>CUL-2e: Stop work if cultural resources are encountered during ground-disturbing activities</p> <p>CUL-2f: Conduct archaeological monitoring of ground-disturbing activities in areas as determined by JPB and SHPO</p>

Level of Impact after Mitigation Less than significant

1 **Construction and Operation**

2 There is the potential that the Proposed Project could result in a change in the significance of
3 historic or prehistoric archaeological resources (both considered “historical resources” as defined
4 under CEQA) or unique archaeological resources. There are known archaeological resources in the
5 Archaeological Study Area. Table 3.4-1 presented the 21 identified archaeological resources— 19
6 prehistoric, one multi-component, and one historic-era archaeological— in or potentially in the
7 Archaeological Study Area.

8 Additionally, documentary research identified three archaeologically sensitive zones (the area
9 between Easton Creek and the east bank of San Mateo Creek identified as the “Hamilton shell mound
10 sensitive zone”, see Far Western Anthropological Research Group 2009: 4); the vicinity of the Third
11 Mission Santa Clara [CA-SCL-30/H]; and the Native American burial ground at Tamien Station [CA-
12 SCL-690]). Previous investigations indicate that CA-SCL-30/H has been determined eligible to the
13 NRHP, and CA-SCL-690 has been recommended eligible; however, neither has been listed.

14 Because all areas of potential ground disturbance have not been surveyed for cultural resources,
15 some portions of the Archaeological Study Area, as well as some areas outside of the Archaeological
16 Study Area where OCS poles and wires would be placed partially outside the existing Caltrain ROW,
17 and where vegetation maintenance would be required within 10 feet of the OCS pole alignment for
18 electrical safety, are sensitive for archaeological resources. Therefore, there is a potential to
19 encounter heretofore unidentified buried cultural resources and potential ground disturbance from
20 construction, which could result in a significant impact. If prehistoric, ethnographic, and/or historic
21 archaeological resources are identified within the proposed disturbance areas as noted above, then
22 the evaluation and treatment of such resources will be conducted according to the measures set
23 forth in Mitigation Measures CUL-2a through CUL-2f. Implementing these measures would reduce
24 this impact to a less-than-significant level.

25 Under Project Variant 1, described in Chapter 2, *Project Description*, PS7 would be located farther
26 north than its current proposed location. There are two proposed locations for PS7 under Project
27 Variant 1: Variants A and B. The proposed location for PS7 Variant A would be on the north side of
28 West Alma Street in San Jose. This location is in proximity to, but not within, archaeological site CA-
29 SCL-690. If PS7 Variant A is selected, then Mitigation Measures CUL-2a through CUL-2f would still
30 need to be implemented. The proposed location for PS7 Variant B would not be near any known
31 archaeological resource. Therefore, Project Variant 1 would not change the significance
32 determination of this impact.

33 **Mitigation Measure CUL-2a: Conduct an archaeological resource survey and/or**
34 **monitoring of the removal of pavement or other obstructions to determine if historical**
35 **resources under CEQA or unique archaeological resources under PRC 21083.2 are**
36 **present**

37 Prior to the start of construction or future construction activities, the JPB and/or the
38 construction contractor shall retain qualified archaeologists to conduct a pedestrian
39 archaeological survey to determine the prehistoric, ethnographic, and historic archaeological
40 resources within areas proposed for disturbance within the Archaeological Study Area and
41 within those areas outside of the Archaeological Study Area established for OCS pole placement

1 and vegetation maintenance. In those areas covered with pavement or other obstructions, a
2 qualified archaeologist shall monitor removal of the obstruction (and any underlying base,
3 foundations, etc.) and inspect the ground for cultural materials.

4 **Mitigation Measure CUL-2b: Conduct exploratory trenching or coring of areas where**
5 **subsurface project disturbance is planned in those areas with “high” or “very high”**
6 **potential for buried sites**

7 In those areas with “high” or “very high” potential for buried sites, a qualified archaeologist shall
8 conduct exploratory trenching or coring of areas where subsurface project disturbance is
9 planned, prior to that disturbance. Any cultural resources discovered during exploratory
10 trenching or coring shall be protected or evaluated. Evaluation shall follow the research design
11 and recommendation presented in the *Data Recovery and Late Discoveries Treatment Plan for the*
12 *Caltrain Electrification Program Alternative: San Francisco, San Mateo, and Santa Clara Counties,*
13 *California* (Far Western Anthropological Research Group 2009).

14 **Mitigation Measure CUL-2c: Conduct limited subsurface testing before performing**
15 **ground-disturbing work within 50 meters of a known archaeological site**

16 When avoidance of impacts is not feasible, a qualified professional archaeologist shall conduct
17 limited subsurface testing before any ground-disturbing project work is done within 50 meters
18 of a known archaeological site. The objectives of the testing shall be to delineate the extent and
19 depth of the site within the Archaeological Study Area and within those areas outside of the
20 Archaeological Study Area established for OCS pole placement and vegetation maintenance;
21 determine whether human remains are present within the Archaeological Study Area; and
22 assess the nature and potential significance of the archaeological deposit within the
23 Archaeological Study Area. The work shall be guided by the *Data Recovery and Late Discoveries*
24 *Treatment Plan for the Caltrain Electrification Program Alternative: San Francisco, San Mateo,*
25 *and Santa Clara Counties, California* (Far Western Anthropological Research Group 2009). All
26 testing within a prehistoric or ethnographic site (including Mission-era sites) shall include
27 consultation with the local Native American community.

28 **Mitigation Measure CUL-2d: Conduct exploratory trenching or coring of areas within the**
29 **three zones of special sensitivity where subsurface project disturbance is planned**

30 If any ground-disturbing project work is planned within the three zones of special sensitivity
31 (the Hamilton shell mound zone, the vicinity of the Third Mission Santa Clara, and Tamien
32 Station), a qualified archaeologist shall conduct exploratory trenching or coring of areas where
33 subsurface project disturbance is planned, prior to that disturbance. Any cultural resources
34 discovered during exploratory trenching or coring shall be protected or evaluated.
35 Archaeological investigations in the vicinity of the archaeological preserve at the Third Mission
36 (CA-SCL-30/H) should be guided by the recommendations presented by Allen et al. (2003) or by
37 anticipated updates to that document. Archaeological investigations in the other two zones of
38 special sensitivity shall be guided by the *Data Recovery and Late Discoveries Treatment Plan for*
39 *the Caltrain Electrification Program Alternative: San Francisco, San Mateo, and Santa Clara*
40 *Counties, California* (Far Western Anthropological Research Group 2009).

Mitigation Measure CUL-2e: Stop work if cultural resources are encountered during ground-disturbing activities

The JPB shall ensure the construction specifications include a stop work order if prehistoric or historic-period cultural materials are unearthed during ground-disturbing activities. All work within 50 feet of the find shall be stopped until a qualified archaeologist and Native American representative can assess the significance of the find. Prehistoric materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or tool making debris; culturally darkened soil (“midden”) containing heat-affected rocks and artifacts; stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered-stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If the find is determined to be potentially significant, the archaeologist, in consultation with the Native American representative, shall develop a treatment plan that could include site avoidance, capping, or data recovery.

Mitigation Measure CUL-2f: Conduct archaeological monitoring of ground-disturbing activities in areas as determined by JPB and SHPO

Even though data recovery would, in theory, collect all potentially significant materials and information from the impact zone, in practice it is not feasible to do archaeological excavation of the entire area. This is particularly true in highly urbanized areas such as this project corridor. Therefore, at the discretion of JPB and the SHPO, it may be necessary to monitor project operations within recorded site boundaries. Activities to be monitored would include, but are not necessarily limited to, brush clearing, grading for stations, pavement removal, placement of electrification poles and utilities, and any activity involving subsurface excavation. The monitor(s), in consultation with the construction supervisor, would have authority to halt construction activities temporarily in the immediate vicinity of an unanticipated find to assess the significance of the find. Whether or not a monitor is present, the construction supervisor and work crews should be alert to the possibility of additional cultural or human remains being unearthed. If this occurs, all work should stop temporarily within 50 feet of the find until a qualified professional archaeologist can be called in to assess the find and determine the proper course of action.

Impact CUL-3	Disturb any human remains, including those interred outside of formal cemeteries
Level of Impact	Significant
Mitigation Measure	CUL-3: Comply with state and county procedures for the treatment of human remains discoveries
Level of Impact after Mitigation	Less than significant

Construction and Operation

There is the potential that the Proposed Project could disturb human remains, including those interred outside of formal cemeteries.

There are two known archaeological resources that are known to contain human remains: the vicinity of the Third Mission Santa Clara [CA-SCL-30/H], and the Native American burial ground at Tamien Station [CA-SCL-690]. Previous investigations indicate that CA-SCL-30/H has been

1 determined eligible to the NRHP, and CA-SCL-690 has been recommended eligible; neither has been
2 listed.

3 Because all areas of potential ground disturbance have not been surveyed for cultural resources,
4 some portions of the Archaeological Study Area, and within those areas outside of the
5 Archaeological Study Area established for OCS pole placement and vegetation maintenance, are
6 sensitive for archaeological resources, including human remains; and since there is a potential to
7 encounter heretofore unidentified buried cultural resources, including human remains, potential
8 ground disturbance from construction could result in a significant impact on such resources.
9 Implementing Mitigation Measure CUL-23 would reduce this impact to a less-than-significant level.

10 Under Project Variant 1, described in Chapter 2, Project Description, PS7 would be located farther
11 north than its current proposed location. There are two proposed locations for PS7 under Project
12 Variant 1: Variants A and B. The proposed location for PS7 Variant A would be on the north side of
13 West Alma Street in San Jose. This location is in proximity to, but not within, CA-SCL-690. If PS7
14 Variant A is selected, then Mitigation Measure CUL-3 would still need to be implemented. The
15 proposed location for PS7 Variant B would not be near any known archaeological resource.
16 Therefore, Project Variant 1, would not change the significance determination of this impact.

17 **Mitigation Measure CUL-3: Comply with state and county procedures for the treatment of**
18 **human remains discoveries**

19 Any human remains and related items discovered during the implementation of the terms of the
20 PA prepared for this project shall be treated in accordance with the requirements of Section
21 7050.5(b) of the California Health and Safety Code. If, pursuant to Section 7050.5(c) of the
22 California Health and Safety Code, the county coroner/medical examiner determines that the
23 human remains are or may be of Native American origin, then the discovery shall be treated in
24 accordance with the provisions of Section 5097.98(a)-(d) of the California Public Resources
25 Code. The JPB shall ensure that the remains are not damaged or disturbed further until all
26 stipulations in Section 7050.5 and Section 5097.98 have been met.