

3.16 Cultural Resources

Since publication of the Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS), the following substantive changes have been made to this section:

- The Envision San Jose 2040 General Plan was added to the discussion in Section 3.16.3, Consistency with Plans and Laws.
- A footnote was added to Section 3.16.4.1, Section 106 Technical Studies Prepared for the Project, to clarify that the memorandum of agreement (MOA) for the San Francisco to San Jose Project Section covers cultural resources between the 4th and King Street Station in San Francisco and Scott Boulevard in Santa Clara, and that the MOA for the San Jose to Merced Project Section covers cultural resources south of Scott Boulevard in the San Jose Diridon Station Approach Subsection.
- In Section 3.16.4.2, Agency, Native American, Interested Parties, and Public Outreach Efforts, the City and County of San Francisco was added as a Section 106 consulting party.
- Section 3.16.5.1, Definition of Resource Study Areas/Area of Potential Effects, was refined to more clearly describe the area of potential effects (APE) as a single APE that encompasses areas of potential direct and indirect effects on archaeological and historic built resources.
- Section 3.16.6.1, Archaeological Resources, was revised to clarify that while no traditional cultural properties (TCP) or resources important to Native Americans have been identified in the APE, the Amah Mutsun Tribal Band recognizes their ethnobiological resources and their traditional cultural landscapes as important cultural resources.
- Table 3.16-2 in Section 3.16.6.1 was revised to add an archaeological resource (CA-SFR-191H) and correct the trinomial for another archaeological resource (P-41-000498). Corresponding updates were also made to Impact CUL#2 in Section 3.16.7, Environmental Consequences, in Section 3.16.9, Impact Summary for NEPA Comparison of Alternatives, and in Section 3.16.10, CEQA Significance Conclusions, to reflect these changes.
- Analysis of the Diridon Design Variant (DDV), which was included in Section 3.19, Design Variant to Optimize Speed, in the Draft EIR/EIS, was incorporated into Section 3.16.7 under Impacts CUL#4, CUL#5, and CUL#6.
- The discussion of Impact CUL#4 was updated for the Southern Pacific Depot/Atherton Station (ID#24), to remove platform modifications at this location that are no longer needed to remove the hold-out rule because the station was closed and the platforms removed in summer 2020.
- The analysis of the Southern Pacific Depot District (ID#0497) under Impact CUL#4 was reorganized for clarity.
- CUL-MM#2: Halt Work in the Event of an Archaeological Discovery, and Comply with the PA, MOA, ATP, and all State and Federal Laws, as Applicable, was updated to provide additional details regarding temporary work stoppage and to clarify requirements with respect to treatment of remains.
- A new Appendix 3.16-E, SHPO Correspondence, was added to document the Authority's correspondence with the State Historic Preservation Officer (SHPO) on the San Francisco to San Jose Project Section (Project Section, or project).

3.16.1 Introduction

This section describes cultural resources in the Project Section, where cultural resources are susceptible to change as a result of project construction and operations. Cultural resources include pre-contact and historic-period archaeological resources; historic built resources; and TCPs that are listed in or found eligible for listing in the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), or qualifying local registers. Pre-contact archaeological resources are places on the landscape that contain the physical remnants of activities carried out by Native Americans during the pre-contact period (as late as A.D. 1769). These remnants may include artifacts, cultural features, subsistence remains, and human burials. Historical archaeological resources are post-European contact resources that may include remnants of early settlements—features such as wells, privies, and foundations—that have the potential to address relevant research questions for the region. Historic built resources include buildings, engineered structures, and landscapes that were created during the historic period (pre-1967), as well as districts or groupings of such resources. TCPs are places important to Native Americans or other living communities or ethnic groups.

Key Cultural Resources Impacts

- Demolition of historic buildings or structures within the project footprint
- Potential inadvertent damage to buildings or structures during construction or operations
- Destruction of archaeological resources during ground-disturbing activities

Cultural resources, including archaeological resources and historic built resources, are important sources for interpreting and connecting to the past on a regional and national scale. Cultural resources that have been identified in the project's resource study area (RSA) or APE include railroad depots and related structures, residential buildings, commercial and institutional buildings, and historical and pre-contact archaeological resources, including pre-contact isolated burials and cemeteries.

This section begins by describing the regulatory framework governing cultural resources in the context of high-speed rail (HSR) construction and operations, followed by an overview of the methods used to identify the types of cultural resources in the RSA or APE. The types of resources are described, along with a description of the area's sensitivity to previously unidentified archaeological resources. Finally, the anticipated impacts of the project alternatives on cultural resources are evaluated, and mitigation is identified that would minimize those impacts.

Studies conducted in the preparation of this section followed those prescribed by Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, which requires that effects on historic properties be taken into consideration in any federal undertaking. (*Undertaking* is the Section 106 term for *project*. For consistency, *project* is used throughout this section.) These studies include the results of background literature and records searches; pedestrian field surveys; and consultations with the Native American community, the SHPO, other interested parties, and local, state, and federal agencies to date.

The following appendices in Volume 2, Technical Appendices, of this Final EIR/EIS provide additional details on cultural resources:

- Appendix 2-E, Project Impact Avoidance and Minimization Features, provides the list of all impact avoidance and minimization features (IAMF) incorporated into this project.
- Appendix 2-I, Regional and Local Plans and Policies, provides a list by resource of all applicable regional and local plans and policies.
- Appendix 2-J, Policy Consistency Analysis, provides a summary by resource of project inconsistencies and reconciliations with local plans and policies.
- Appendix 3.16-A, Agency and Interested Party Outreach, provides a table that summarizes correspondence between the California High-Speed Rail Authority (Authority) and agencies or other interested parties. Content includes consultation date, action, interested party, and description of consultation.

- Appendix 3.16-B, Tribal Outreach and Consultation, provides a table that summarizes correspondence between the Authority and tribal representatives. Content includes action, date, tribal representative, and summary of communication.
- Appendix 3.16-C, Archaeological and Built Resources, includes a high-level map of potentially affected archaeological resource locations, an overview map of potentially affected historic built resource locations, and individual historic built resources maps. As discussed in Section 3.16.2, Laws, Regulations, and Orders, California and federal laws exempt from disclosure information regarding the location of Native American and archaeologically sensitive resources. Accordingly, this section does not include the specific locations of these resources.
- Appendix 3.16-D, Programmatic Agreement, includes the Programmatic Agreement (PA) and the First Amendment to the PA among the Federal Railroad Administration (FRA), the Advisory Council on Historic Preservation (ACHP), SHPO, and the Authority regarding Compliance with Section 106 of the NHPA, as it Pertains to the California High-Speed Rail Project, with signatures of signatory parties and concurring party, as well as associated attachments.
- Appendix 3.16-E, SHPO Correspondence, provides the Authority’s correspondence with SHPO on the project.

The following three resource sections and two chapters provide additional information related to cultural resources:

- Section 3.4, Noise and Vibration, evaluates impacts of implementing the project alternatives on sensitive receptors, resulting in potential damage caused by vibration or in disturbance caused by noise. Impact thresholds developed in the section are used as the basis for the assessment of the potential vibration impacts on historic buildings or structures.
- Section 3.12, Socioeconomics and Communities, evaluates impacts of implementing the project alternatives resulting from construction of project elements in proximity to historical buildings and facilities. This section evaluates changes to demographics, property, economic factors, and affected communities and neighborhoods as a result of land conversions, including the division and disruptions of communities and the displacement of residences and businesses, including historical structures.
- Section 3.15, Aesthetics and Visual Quality, evaluates impacts of implementing the project alternatives on the visual context and setting of historic properties that contribute to their historic significance.
- Chapter 4, Section 4(f)/6(f) Evaluation, evaluates the project alternatives’ potential use of historic properties under Section 4(f) of the Department of Transportation Act of 1966 (49 U.S.C. 303), feasible and prudent alternatives to avoid such uses, and all possible planning to minimize harm to such properties.
- Chapter 5, Environmental Justice, evaluates impacts of implementing the project alternatives that result in disproportionately high and adverse effects on minority populations or low-income populations.

3.16.2 Laws, Regulations, and Orders

This section presents federal, state, and local laws, regulations, orders, and plans applicable to cultural resources affected by the project. The Authority would implement the HSR system, including the Project Section, in compliance with all federal and state regulations.

The primary applicable federal and state laws and regulations protecting cultural resources are Section 106 of the NHPA, as amended, the National Environmental Policy Act (NEPA), Section 4(f) of the Department of Transportation Act of 1966, the California Environmental Quality Act (CEQA), and California Public Resources Code (Cal. Public Res. Code) Sections 5024.1 and 21084.1. This section describes these and other federal and state laws and regulations that pertain to cultural resources, as well as regional and local planning guidance and ordinances.

Pursuant to 23 United States Code (U.S.C.) Section 327, under the NEPA Assignment Memorandum of Understanding between the FRA and the State of California, dated July 23, 2019, the Authority is the federal lead agency for environmental reviews and approvals for the project (FRA and State of California 2019). The FRA retains its responsibilities under certain other federal environmental laws including government-to-government tribal consultations.

Information regarding the location of Native American archaeological and other culturally sensitive resources is exempt from disclosure to the public under California and federal laws; therefore, this section does not include the locations of these resources. Specifically, the California Public Records Act exempts from public disclosure the records of Native American graves, cemeteries, sacred places, features, and objects described in Sections 5097.9 and 5097.933 of the Cal. Public Res. Code (Government Code [Gov. Code] § 6254, subd.(r)). The act also exempts from public disclosure records that relate to archaeological site information and reports maintained by or in the possession of the California Department of Parks and Recreation (DPR), the State Historical Resources Commission, the California State Lands Commission, the Native American Heritage Commission (NAHC), other state agencies, or local agencies, including the records that agencies obtain through a consultation process with a California Native American tribe (Gov. Code § 6254.10). In addition, CEQA Guidelines prohibit inclusion of information about the location of archaeological resources and sacred lands in an EIR (CEQA Guidelines § 15120, subd.(d)). Federal law also exempts from disclosure information pertaining to sensitive cultural resource information (54 U.S.C. § 307103).

3.16.2.1 Federal

National Environmental Policy Act

NEPA, as amended, establishes the federal policy of protecting important historic, cultural, and natural aspects of our national heritage during federal project planning. All federal or federally assisted projects requiring action pursuant to Section 102 of NEPA must take into account the effects on cultural resources. According to the NEPA regulations, in considering whether an action may “significantly affect the quality of the human environment,” an agency must consider, among other things, unique characteristics of the geographic area such as proximity to historic or cultural resources (40 Code of Federal Regulations [C.F.R.] § 1508.27(b)(3)) and the degree to which the action may affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP.

The NEPA regulations also require that, to the fullest extent possible, agencies prepare EISs concurrently with and integrated with impact analyses and related surveys and studies required by the NHPA. When Section 106 of the NHPA and NEPA are integrated, project impacts that cause adverse effects under Section 106 are described in the EIS.

Federal Railroad Administration, Procedures for Considering Environmental Impacts (64 Federal Register 28545)

On May 26, 1999, the FRA released the *Procedures for Considering Environmental Impacts* (Procedures). These FRA procedures supplement the Council on Environmental Quality (CEQ) regulations (40 C.F.R. Part 1500 et seq.) and describe FRA’s process for assessing the environmental impacts of actions and legislation proposed by the agency and for the preparation of associated documents under NEPA. The FRA Procedures state that “the EIS should also discuss the consideration given to design quality, art, and architecture in project planning and development as required by U.S. Department of Transportation Order 5610.4.” The FRA Procedures state that an EIS should consider possible impacts on cultural resources.

National Historic Preservation Act (54 U.S.C. § 300101 et seq. including Section 106 of the NHPA, 54 U.S.C. § 306108)

The NHPA establishes the federal government policy on historic preservation and the programs, including the NRHP, through which this policy is implemented. Under the NHPA, significant cultural resources, referred to as *historic properties*, include any prehistoric or historic district, site, building, structure, or object included in, or determined eligible for inclusion in, the NRHP.

Historic properties also include resources determined to be National Historic Landmarks (NHL). NHLs are nationally significant historic places designated by the Secretary of the Interior (SOI) because they possess exceptional value or quality in illustrating or interpreting United States heritage. A property is considered historically significant if it meets one of the NRHP criteria and retains sufficient historic integrity to convey its significance. This act also established the ACHP, an independent federal agency that administers Section 106 of the NHPA by developing procedures to protect cultural resources included in, or eligible for inclusion in, the NRHP. Regulations are published in 36 C.F.R. Parts 60, 63, and 800.

Implementing Regulations for Section 106 of the National Historic Preservation Act (36 C.F.R. Part 800)

Section 106 requires that effects on historic properties be taken into consideration in any federal project. The process has four steps: (1) initiating the Section 106 process, which includes identifying and initiating consultation with Native American tribes, local governments, and other interested parties; (2) identifying historic properties; (3) assessing adverse effects; and (4) delineating stipulations by which to resolve adverse effects in an agreement document.

Section 106 affords the ACHP and the SHPO, as well as other consulting parties, a reasonable opportunity to comment on any project that would adversely affect historic properties. SHPOs administer the national historic preservation program at the state level, review NRHP nominations, maintain data on historic properties that have been identified but not yet nominated, and consult with federal agencies during Section 106 review.

The NRHP eligibility criteria (36 C.F.R. § 60.4) were used to evaluate historic significance of resources within the project's APE. The criteria for evaluation are:

- A. [Properties] that are associated with events that have made a significant contribution to the broad patterns of our history.
- B. [Properties] that are associated with the lives of persons significant to our past.
- C. [Properties] that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master; or that possess high artistic values; or that represent a significant and distinguishable entity whose components may lack individual distinction.
- D. [Properties] that have yielded, or may be likely to yield, information important in prehistory or history.

In addition to being significant under one or more of these criteria, NRHP eligibility requires that a resource retain sufficient integrity to convey its significance. *Integrity* is evaluated through consideration of characteristics that existed during a resource's period of significance. Integrity is evaluated with regard to the retention of seven aspects—location, design, setting, materials, workmanship, feeling, and association.

Section 101(d)(6)(A) of the NHPA allows properties of traditional religious and cultural importance to a Native American tribe to be determined eligible for NRHP inclusion. In addition, a broader range of TCPs is also considered and may be determined eligible for or listed in the NRHP. TCPs are places that may be eligible because of their association with cultural practices or beliefs of living communities that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. In the NRHP programs, *culture* is understood to mean the traditions, beliefs, practices, customary ways of life, arts, crafts, and social institutions of any community, be it an Indian tribe, a local ethnic group, or the nation as a whole.

The implementing regulations for Section 106 (36 C.F.R. Part 800) allow for programmatic alternatives to the implementation of Section 106 if the review of the undertaking is governed by a federal agency program alternative established under Part 800.14. Accordingly, the FRA and the Authority consulted with the California SHPO and the ACHP in the drafting of an agreement identifying programmatic alternatives for conducting Section 106 for the statewide HSR program.

The *Programmatic Agreement among the FRA, the ACHP, the California SHPO, and the Authority regarding Compliance with Section 106 of the NHPA, as it Pertains to the California High-Speed Train Project* was executed in 2011 and amended in 2021 (Volume 2, Appendix 3.16-D). The Surface Transportation Board (STB) determined that it has jurisdiction over the California HSR System under 49 U.S.C. Section 10501(a)(2)(A) of the Interstate Commerce Act, as amended. Accordingly, on January 18, 2018, STB requested that it be added as an invited signatory to the PA to fulfill its obligations under Section 106, and it subsequently signed the First Amendment to the PA as an invited signatory. The PA provides an overall framework for conducting this project's Section 106 process, including guidance for establishing the APE, interested party and tribal consultation, and survey and evaluation. While the studies conducted primarily follow the Section 106 process as well as industry standards, programmatic alternatives as agreed upon in the PA, and pursuant to Section 800.14, include:

- The exemption of certain properties deemed to have little or no potential to be eligible for the NRHP
- “Streamlined” or abbreviated documentation of significantly altered resources that have reached 50 years of age
- A requirement to prepare an MOA for each project section that adversely affects, or has the potential to adversely affect, historic properties
- A requirement to prepare treatment plans—one for historic built properties and one for archaeological resources—that tier off each MOA

Section 4(f) of the Department of Transportation Act (49 U.S.C. § 303)

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 U.S.C. Section 303, prohibits use of a publicly owned park, recreation area, or wildlife or waterfowl refuge, or a publicly or privately owned historic site of national, state, or local significance for a transportation project unless it has been determined that there is no feasible and prudent alternative that avoids such use and the project includes all possible planning to minimize harm to the property resulting from such use. Pursuant to 23 U.S.C. Section 237, under the NEPA Assignment Memorandum of Understanding, the FRA delegated to the Authority its responsibilities for compliance with Section 4(f), although the Authority is required to consult with and obtain concurrence from the FRA on constructive use determinations.

Use in Section 4(f) is when a transportation project requires a physical taking or other direct control of the land for the purposes of the project. Use of a Section 4(f) property also includes *constructive use* when proximity impacts substantially impair or diminish the activities, features, or attributes of the resources that contribute to its significance. The lead agency can determine that the project's use of a Section 4(f) protected property results in a *de minimis* impact, or a minor use of a Section 4(f) property, without having to make a finding that there are no prudent and feasible avoidance alternatives. A determination of a *de minimis* impact on a Section 4(f) historic property requires a Section 106 finding of no adverse effect on the historic property and concurrence of the SHPO.

Archaeological and Historic Preservation Act (54 U.S.C. §§ 312501–312508)

This act provides for preserving significant historic or archaeological data that may otherwise be irreparably lost or destroyed by construction of a project by a federal agency or under a federally licensed activity or program. Such data include relics and specimens.

American Antiquities Act (54 U.S.C. §§ 320301–320303)

The American Antiquities Act prohibits appropriation, excavation, injury, or destruction of “any historic or prehistoric ruin or monument, or any object of antiquity” located on lands owned or controlled by the federal government. The act also establishes penalties for such actions and sets forth a permit requirement for collection of antiquities on federally owned lands.

American Indian Religious Freedom Act (42 U.S.C. § 1996)

The American Indian Religious Freedom Act protects and preserves the traditional religious rights and cultural practices of American Indians, Eskimos, Aleuts, and Native Hawaiians. The act requires policies of all governmental agencies to respect the free exercise of native religion and to accommodate access to and use of religious sites to the extent that the use is practicable and is not inconsistent with an agency's essential functions. If a place of religious importance to American Indians may be affected by a project, the American Indian Religious Freedom Act promotes consultation with Indian religious practitioners; such consultation may be coordinated with Section 106 consultation.

Archaeological Resources Protection Act (54 U.S.C. § 300101)

This statute was enacted to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites on federally owned lands and Indian lands. It was also enacted to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals (§ 2(4)(b)).

Native American Grave Protection and Repatriation Act (25 U.S.C. §§ 3001–3013)

The Native American Grave Protection and Repatriation Act (NAGPRA) describes the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations with respect to the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, referred to collectively in the statutes as cultural items, with which they can show a relationship of lineal descent or cultural affiliation. One purpose of the statute is to provide greater protection for Native American burial sites and more careful control over the removal of Native American human remains, funerary objects, sacred objects, and items of cultural patrimony on federal and tribal lands.

Presidential Memorandum, Government-to-Government Relations with Native American Tribal Governments, April 29, 1994

Directed to the heads of executive departments and agencies, this memorandum outlines the principles that are to be followed in interactions with the governments of federally recognized Native American tribes. It includes provisions for government-to-government relations and consultation, and requires assessment of the impact of federal government plans, projects, programs, and activities on tribal trust resources and assurance that tribal government rights and concerns are considered during the development of such plans, projects, programs, and activities.

Consultation with Indian Tribal Governments (USEO 13175)

This U.S. Presidential Executive Order (USEO) establishes regular and meaningful consultation and collaboration with officials of federally recognized Indian tribes in the development of federal policies that have tribal implications, to strengthen the government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes. It sets forth guiding principles for government-to-government relations with Indian tribes, along with criteria for formulating and implementing policies that have tribal implications.

U.S. Department of Transportation Tribal Consultation Plan (DOT Order 5301.1)

In response to USEO 13175, this plan states that as an executive agency, the U.S. Department of Transportation has a responsibility and is committed to working with the governments of federally recognized Indian tribes in a unique relationship, respecting tribal sovereignty and self-determination. The plan identifies specific goals, including establishing direct contact with Indian tribal governments at reservations and tribal communities and seeking tribal government representation in meetings, conferences, summits, advisory committees, and review boards concerning issues with tribal implications.

3.16.2.2 State

California Environmental Quality Act (Cal. Public Res. Code § 21083.2) and Guidelines (14 Cal. Code Regs. § 15064.5)

CEQA requires the lead agency to consider the impacts of a project on historical resources. CEQA Guidelines Section 15064.5 provides specific guidance for determining the significance of impacts on historical resources (CEQA Guidelines § 15064.5(b)) and unique archaeological resources (CEQA Guidelines § 15064.5(b) and Cal. Public Res. Code § 21083.2). Under CEQA these resources are called *historical resources* whether they are of historic or prehistoric age. Cal. Public Res. Code Section 21084.1 defines *historical resources* as those listed, or eligible for listing, in the CRHR, or those officially designated or recognized as historically significant by a local government pursuant to a local ordinance or jurisdiction (county or city) unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant. “Historic properties listed in or determined to be eligible for listing in the NRHP that are located in California are considered historical resources for the purposes of CEQA and are also listed in the CRHR. The CRHR criteria for listing such resources are based on, and are very similar to, the NRHP criteria. Cal. Public Res. Code Section 21083.2 and CEQA Guidelines Section 15064.5(c) provide further definitions and guidance for archaeological resources and their treatment.

Different legal rules apply to the two different categories of cultural resources, though the two categories sometimes overlap where a unique archaeological resource also qualifies as a historical resource. In such an instance, the more stringent rules for the protection of archaeological resources that are historical resources apply.

California Code of Regulations (Cal. Code Regs.) Section 15064.5 prescribes a process for addressing the existence, or likelihood, of Native American human remains, as well as the unexpected discovery of any human remains during implementation of a project. This process includes consultations with appropriate Native American tribes.

Guidelines for the implementation of CEQA define procedures, types of activities, persons, and public agencies required to comply with CEQA. Section 15064.5(b) defines project impacts that would “cause a substantial adverse change in the significance of an historical resource” as significant impacts on the environment. Substantial adverse changes include physical changes to both the historical resource and its immediate surroundings.

Section 15126.4(a)(1) states that an EIR should describe feasible measures that could minimize significant adverse impacts. Section 15126.5(b) describes mitigation measures related to impacts on historical resources.

California Register of Historical Resources (Cal. Public Res. Code § 5024.1 and 14 Cal. Code Regs. § 4850)

Cal. Public Res. Code Section 5024.1 establishes the CRHR. The CRHR lists all California properties considered to be significant historical resources. The CRHR also includes all properties listed or determined eligible for listing in the NRHP, including properties evaluated and determined eligible under Section 106. The criteria for listing in the CRHR are similar to those of the NRHP:

- 1) [Resources] associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- 2) [Resources] associated with the lives of persons important in our past.
- 3) [Resources that] embody the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value.
- 4) [Resources that] yielded, or may be likely to yield, information important in prehistory or history.

The CRHR regulations govern the nomination of resources to the CRHR (14 Cal. Code Regs. § 4850). The regulations set forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

California Native American Graves Protection and Repatriation Act (Cal. Health & Safety Code § 8010 et seq.)

The California Native American Graves Protection and Repatriation Act establishes a state repatriation policy consistent with and facilitates implementation of the federal NAGPRA with respect to publicly funded agencies and museums in California. The federal NAGPRA describes the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations with respect to the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, referred to collectively in the statutes as cultural items, with which they can show a relationship of lineal descent or cultural affiliation with respect to federal and tribal lands. The California act strives to treat all California Native American human remains and cultural items with dignity and respect, and asserts intent for the state to encourage voluntary disclosure and return of human remains and cultural items by agencies or museums and to provide mechanisms for aiding California Native American tribes, including non-federally recognized tribes, in repatriating human remains and cultural items.

California Tribal Cultural Resources and Consultation (AB 52, Chapter 532)

Assembly Bill (AB) 52 became law on January 1, 2015. It establishes a formal consultation process for California Indian tribes as part of CEQA and equates significant impacts on tribal cultural resources with significant environmental impacts. Several new Cal. Public Res. Code sections have been written to codify the law's requirements. Cal. Public Res. Code Section 21074 defines a California Native American Tribe as a tribe located in California that is on the contact list maintained by the NAHC. It also defines what types of resources are to be considered tribal cultural resources. Cal. Public Res. Code Section 21080.3.1 describes formal tribal consultation requirements; Cal. Public Res. Code Section 21080.3.2 provides that if the California tribe requests consultation to include project alternatives and mitigation measures, such consultation would be required; Cal. Public Res. Code Section 21082.3 provides that any mitigation measures agreed upon during consultation would be recommended for inclusion in the environmental document and affirms the lead agency's obligation to keep confidential any information obtained from a Native American tribe during the consultation process; and Cal. Public Res. Code Section 21083.4 provides examples of mitigation for impacts on tribal cultural resources.

3.16.2.3 Regional and Local Plans, Policies, and Ordinances

Volume 2, Appendix 2-I provides summaries of the regional and local plans, policies, ordinances, and goals reviewed for consistency. Volume 2, Appendix 2-J further details the project's inconsistency with local and regional land use policies.

3.16.3 Consistency with Plans and Laws

As indicated in Section 3.1.5.3, Consistency with Plans and Laws, CEQA and CEQ regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws. Accordingly, this Final EIR/EIS describes the inconsistency of the project alternatives with federal, state, regional, and local plans and laws to provide planning context.

There are a number of federal and state laws and implementing regulations, listed in Section 3.16.2.1, Federal, and Section 3.16.2.2, State, that direct the preservation and management of cultural resources on federal and state lands. There are also several federal and state acts that pertain to tribal consultation regarding cultural resources and historic properties that are

applicable to this Final EIR/EIS. A summary of the federal and state requirements considered in this analysis follows:

- Federal and state acts and laws that provide comprehensive requirements for cultural resources preservation and management. Applicable laws include the NHPA, the Archaeological and Historic Preservation Act, the American Antiquities Act, Section 4(f) of the Department of Transportation Act, CEQA, and the CRHR.
- Federal and state acts and laws that outline the treatment of Native American human remains and cultural items and establish guiding principles for government-to-government consultation and collaboration. Applicable laws, executive orders, and mandates include the American Indian Religious Freedom Act; the Presidential Memorandum, Government-to-Government Relations with Native American Tribal Governments; USEO 13175, Consultation with Indian Tribal Governments; USEO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations; U.S. Department of Transportation Tribal Consultation Plan; and the California Native American Grave Protection and Repatriation Act.

The Authority, as the lead agency proposing to construct and operate the HSR system, is required to comply with all federal and state laws and regulations and to secure all applicable federal and state permits prior to initiating construction on the selected alternative. Therefore, there would be no inconsistencies between the project alternatives and these federal and state laws and regulations.

Because the HSR project is a state and federal government project, it is not subject to local government jurisdictional issues of land use. Consequently, a city or county is not “an agency with jurisdiction over the project” as described in Appendix G of the CEQA Guidelines. However, the Authority would design the project to minimize impacts on archaeological resources and historic built resources and to comply with state and federal regulations such as the NHPA and CEQA, which aim to preserve and interpret resources important in U.S. and California prehistory and history. The Authority reviewed a total of 40 plans and ordinances including 319 goals, policies, and objectives relevant to the project (Volume 2, Appendix 2-I). The project is consistent with 302 policies, goals, objectives, and implementing actions and inconsistent with 19 policies and goals, as described in Volume 2, Appendix 2-J. The project alternatives would be inconsistent with certain provisions of the following regional and local policies and goals:

- **San Mateo County General Plan**—Goal/Objective 5.3 (County of San Mateo 2013). While the project would affect known archaeological resources and has the potential to encounter unknown archaeological resources or human remains, the steps taken to identify ways to avoid such impacts or, if avoidance is infeasible, to mitigate the impacts is consistent with the policies and goals. Volume 2, Appendix 2-J describes in detail reconciliation of inconsistency through application of CUL-MM#1: Mitigate Adverse Effects on Archaeological and Built Resources Identified during Phased Identification and Comply with the Stipulations Regarding the Treatment of Archaeological and Historic Built Resources in the PA and MOA; CUL-MM#2; and CUL-MM#3: Other Mitigation for Effects on Pre-Contact Archaeological Resources.
- **City of Brisbane General Plan**—Policy 137 (City of Brisbane 1994). While the project would affect known archaeological resources and has the potential to encounter unknown archaeological resources or human remains, the steps taken to identify ways to avoid such impacts or, if avoidance is infeasible, to mitigate the impacts is consistent with the policies and goals. Volume 2, Appendix 2-J describes in detail reconciliation of inconsistency through application of CUL-MM#1, CUL-MM#2, and CUL-MM#3.
- **South San Francisco General Plan**—Guiding Policy 7.5-G-1 (City of South San Francisco 2014). While the project would affect known archaeological resources and has the potential to encounter unknown archaeological resources or human remains, the steps taken to identify ways to avoid such impacts or, if avoidance is infeasible, to mitigate the impacts is consistent with the policies and goals. Volume 2, Appendix 2-J describes in detail

- reconciliation of inconsistency through application of CUL-MM#1, CUL-MM#2, and CUL-MM#3.
- **San Bruno General Plan**—Policies T-82 and ERC-39 (City of San Bruno 2009). While the project would affect known archaeological resources and has the potential to encounter unknown archaeological resources or human remains, the steps taken to identify ways to avoid such impacts or, if avoidance is infeasible, to mitigate the impacts is consistent with the policies and goals. Volume 2, Appendix 2-J describes in detail reconciliation of inconsistency through application of CUL-MM#1, CUL-MM#2, and CUL-MM#3.
 - **City of Millbrae General Plan**—Goal LU2.5 and Policy LUIP-10 (City of Millbrae 1998). While the project would affect known archaeological resources and has the potential to encounter unknown archaeological resources or human remains, the steps taken to identify ways to avoid such impacts or, if avoidance is infeasible, to mitigate the impacts is consistent with the policies and goals. Volume 2, Appendix 2-J describes in detail reconciliation of inconsistency through project features and application of CUL-MM#1, CUL-MM#2, and CUL-MM#3.
 - **Belmont 2035 General Plan**—Goal 5.12 and Policy 5.12-1 (City of Belmont 2017). While the project would affect known archaeological resources and has the potential to encounter unknown archaeological resources or human remains, the steps taken to identify ways to avoid such impacts or, if avoidance is infeasible, to mitigate the impacts is consistent with the policies and goals. Volume 2, Appendix 2-J describes in detail reconciliation of inconsistency through application of CUL-MM#1, CUL-MM#2, and CUL-MM#3.
 - **San Carlos 2030 General Plan**—Goal LU-2 (City of San Carlos 2009). While the project would affect known archaeological resources and has the potential to encounter unknown archaeological resources or human remains, the steps taken to identify ways to avoid such impacts or, if avoidance is infeasible, to mitigate the impacts is consistent with the policies and goals. Volume 2, Appendix 2-J describes in detail reconciliation of inconsistency through application of CUL-MM#1, CUL-MM#2, and CUL-MM#3.
 - **Redwood City General Plan**—Goal BE-37 and Policy BE-37.1 (City of Redwood City 2010). While the project would affect known archaeological resources and has the potential to encounter unknown archaeological resources or human remains, the steps taken to identify ways to avoid such impacts or, if avoidance is infeasible, to mitigate the impacts is consistent with the policies and goals. Volume 2, Appendix 2-J describes in detail reconciliation of inconsistency through application of CUL-MM#1, CUL-MM#2, and CUL-MM#3.
 - **Santa Clara County General Plan**—Goal 5.1 and Policy C-RC-52 (County of Santa Clara 1994). The project would affect known archaeological and built historical resources and has the potential to encounter unknown archaeological resources or human remains, which is inconsistent with local policies and goals to protect and preserve heritage resources. However, the steps taken to identify ways to avoid such impacts or, if avoidance is infeasible, to mitigate the impacts are consistent with the policies and goals. Volume 2, Appendix 2-J describes in detail reconciliation of inconsistency through application of CUL-MM#1, CUL-MM#2, and CUL-MM#3.
 - **City of Palo Alto Comprehensive Plan**—Policy L-7.15 (City of Palo Alto 2017). While the project would affect known archaeological resources and has the potential to encounter unknown archaeological resources or human remains, the steps taken to identify ways to avoid such impacts or, if avoidance is infeasible, to mitigate the impacts is consistent with the policies and goals. Volume 2, Appendix 2-J describes in detail reconciliation of inconsistency through application of CUL-MM#1, CUL-MM#2, and CUL-MM#3.
 - **City of Santa Clara General Plan**—Policy 5.6.2-P1 and Goal 5.6.3-G1 (City of Santa Clara 2010). While significant adverse impacts on any known historical resources within the APE would be avoided, minimized, or mitigated for all project alternatives, there is a potential for construction activities to affect the 100-foot setting of unknown resources outside the APE.

Additionally, the project would affect known archaeological and built historical resources and has the potential to encounter unknown archaeological resources or human remains, which is inconsistent with Goal 5.6.3-G1 to protect and preserve archaeological and built historical resources in the City of Santa Clara. However, the steps taken to identify ways to avoid such impacts or, if avoidance is infeasible, to mitigate the impacts is consistent with the policies and goals. Volume 2, Appendix 2-J details reconciliation of inconsistency through application of CUL-MM#1, CUL-MM#2, and CUL-MM#3 where feasible. As Goal 5.6.2-P1 also involves the evaluation of proposed changes to properties within 100 feet of a locally designated historic resource, to assess whether the resource's integrity would be affected, it is possible that construction activities would occur within 100 feet of a locally designated historical resource that is not within the APE. In any such instance, the project would not avoid, minimize, or mitigate potential impacts on that resource. As such, inconsistencies would not be reconciled with the City of Santa Clara's General Plan Policy 5.6.2-P1.

- **Envision San Jose 2040 General Plan**—Goal ER-10 and Goal LU-13 (City of San Jose 2018). The project would affect known archaeological and built historical resources and has the potential to encounter unknown archaeological resources or human remains, which is inconsistent with local policies and goals to preserve significant archaeological and built historical resources. However, the steps taken to identify ways to avoid such impacts or, if avoidance is infeasible, to mitigate for the impacts are consistent with the policies and goals. Volume 2, Appendix 2-J describes in detail reconciliation of inconsistency through the application of CUL-MM#1, CUL-MM#2, CUL-MM#3, CUL-MM#4, CUL-MM#6, CUL-MM#7, CUL-MM#10, and CUL-MM#11.

3.16.4 Coordination of Section 106 Process with NEPA and CEQA Compliance

The ACHP advises federal agencies to coordinate compliance with Section 106 of the NHPA and the procedures in the regulations implementing Section 106, with steps taken to meet the requirements of NEPA to meet the purposes and requirements of both statutes in a timely and efficient manner. When NEPA review and Section 106 are integrated, the lead agency can assess ways to avoid, minimize, or mitigate adverse effects while identifying alternatives and preparing NEPA documentation. Similarly, both CEQA Guidelines and NEPA regulations encourage the preparation of joint documents as a way to avoid duplication and delay and to coordinate measures to avoid, minimize, or mitigate impacts on historic resources. 36 C.F.R. Part 800 defines the Section 106 process and documentation requirements. Such measures to avoid, minimize, or mitigate impacts on historic resources are binding commitments documented in this Final EIR/EIS, as well as in compliance with Section 106 through the preparation of an MOA. There are some specific CEQA and NEPA requirements that diverge from the Section 106 process; Section 3.16.6.3, Resources of Importance to Native Americans and Other Interested Parties, addresses these exceptions.

A Section 106 PA was executed in July 2011 and amended in 2021 to govern the implementation of the requirements of Section 106 of the NHPA for the California HSR System (Volume 2, Appendix 3.16-D). A PA is a document that records the terms and conditions agreed upon to resolve the potential adverse effects of a complex project, in accordance with Section 106 Part 800.14(b). The signatories of the PA are the Authority, the ACHP, and the SHPO. Invited signatories of the PA are the FRA and the STB.

As a framework for achieving compliance with Section 106 of the NHPA, the Section 106 PA includes stipulations regarding the identification, evaluation, and treatment of historic properties; delineation of the APE; consultations with tribal governments, local agencies, and interested parties; and standards for technical documentation. Pursuant to the requirements of CEQA, qualified professionals considered those property types exempted under the Section 106 PA for their potential to be historical resources under CEQA, and found that resources meeting those property types do not qualify as CEQA historical resources.

3.16.4.1 Section 106 Technical Studies Prepared for the Project

The Authority followed guidance prescribed by Section 106 of the NHPA in the studies conducted in preparation of this section. These studies include the results of background literature and records research; pedestrian field surveys; and consultations with the Native American community, the SHPO, other interested parties, and local, state, or federal agencies (see the *San Francisco to San Jose Project Section Historic Architectural Survey Report* [San Francisco to San Jose HASR] [Authority 2019a], *San Jose to Merced Project Section Historic Architectural Survey Report* [San Jose to Merced HASR] [Authority 2019b], *San Francisco to San Jose Project Section Archaeological Survey Report* [San Francisco to San Jose ASR] [Authority 2019c], and *San Jose to Merced Project Section Archaeological Survey Report* [San Jose to Merced ASR] [Authority 2019d]).¹ The reports listed in Table 3.16-1 document compliance with Section 106 of the NHPA.

Table 3.16-1 Section 106 Technical Reports and Concurrence Dates

Report Title	Report Submission Date	SHPO Concurrence Date
<i>San Francisco to San Jose Project Section Archaeological Survey Report</i>	7/29/19	8/27/19
<i>San Francisco to San Jose Project Section Historic Architectural Survey Report</i>	7/15/19	8/19/19; 10/9/19 ¹
<i>San Francisco to San Jose Project Section Finding of Effect</i>	4/3/20	5/18/20
<i>San Francisco to San Jose Project Section Memorandum of Agreement</i>	TBD	TBD
<i>San Jose to Merced Project Section Archaeological Survey Report</i>	7/29/19	8/27/19
<i>San Jose to Merced Project Section Historic Architectural Survey Report</i>	6/13/19	7/12/19
<i>San Jose to Merced Project Section Finding of Effect</i>	2/27/20	3/27/20
<i>San Jose to Merced Project Section Memorandum of Agreement</i>	6/2/21	3/22/22

SHPO = State Historic Preservation Officer
 TBD = to be determined

¹ SHPO provided concurrence on the San Francisco to San Jose Project Historic Architectural Survey Report, with the exception of the eligibility recommendation for the Willie Mays Jr. House (ID#22), on 8/19/2019. Following consultation and revision to the recommendation, SHPO provided concurrence on the property's eligibility on 10/9/2019.

In general, the ASRs document research efforts, known archaeological resources, newly discovered archaeological resources if any are identified, and consultation efforts with Native American tribes. The HASRs document research efforts, known historic built resources, newly identified historic built resources, and consultation efforts with historical interest groups. The finding of effect (FOE) documents how the project would affect historic properties—both archaeological and built. These documents inform the findings described in this section.

Stipulation VIII.A of the Section 106 PA requires the Authority to develop an MOA for each project where it is determined that there would be an adverse effect on historic properties or when phased identification is necessary and adverse effects would occur. The MOA documenting agreement on the treatment of historic properties within the APE is developed with input from consulting parties, and would be executed concurrently with the completion of the Final EIR/EIS

¹ Technical reports for the San Francisco to San Jose Project Section evaluate the portions of the HSR alignment between 4th and King Street Station in San Francisco and Scott Boulevard in Santa Clara, while technical reports for the adjacent San Jose to Merced Project Section evaluate the portions of the HSR alignment south of Scott Boulevard to the San Francisco to San Jose Project Section terminus at West Alma Avenue south of the San Jose Diridon Station.

and the Record of Decision (ROD)². In accordance with Section 106 PA Stipulations VIII.B.i and VIII.B.ii, the Authority has developed treatment plans—one for archaeological resources and one for historic built resources—to detail the treatment measures negotiated for all historic properties within the APE and has circulated these plans for public review and comment from consulting parties.

The archaeological treatment plan (ATP) and built environment treatment plan (BETP) will define the process by which these treatment measures will be applied to each known resource identified in the MOA as being adversely affected, and will also outline measures for the phased identification of historic properties as additional parcel access is obtained and design work is completed. The MOA and treatment plans will provide specific performance standards that will avoid, minimize, or mitigate each adverse effect. The measures stipulated in the Section 106 consultation process have been coordinated with the measures outlined in this Final EIR/EIS. These measures will be incorporated into the design and construction documents to incorporate them into the project.

3.16.4.2 Agency, Native American, Interested Parties, and Public Outreach Efforts

CEQA, NEPA, and Section 106 of the NHPA all require outreach regarding cultural resources to government agencies, Native Americans, and other parties who may have a demonstrated historic preservation interest in properties that would be affected by a project. To the extent possible, the cultural resources outreach requirements for CEQA, NEPA, and Section 106 have been coordinated to identify interested parties early in the process to achieve maximum participation in identifying cultural resources, addressing impacts on cultural resources, and developing appropriate mitigation measures. The primary goals of this outreach are to identify any cultural resources of concern to these parties and to provide them an opportunity to become Section 106 consulting parties and participate in the development of significance findings, assessments of impacts, and mitigation measures. For this reason, cultural resources outreach for the project began in the early scoping phase of the process.

The Section 106 PA describes the process for consulting with Native Americans and other interested parties. Specifically, Stipulation V.A of the Section 106 PA states that “the public and consulting parties will have an opportunity to comment and have concerns taken into account on findings identified in Section 106 survey and effects documented via attendance at public meetings where they can submit comments on the information presented, as well as access [to] the Section 106 documents via email requests to the Authority’s website.” Furthermore, Stipulation V.C specifies that tribal consulting parties be consulted at key milestones in the Section 106 and NEPA processes to gain input from the tribal governments.

Some tribal consultation may be protected by information restrictions and not available for public review; however, tribal engagement and consultation with the Section 106 consulting parties has remained ongoing throughout the environmental document preparation process, and would continue through the construction phase of the project during implementation of the MOA and treatment plans. There were no areas of archaeological sensitivity identified by tribal consulting parties in the San Francisco to San Jose Project Section.

Agency and Interested Party Outreach

Consultation with local, state, and federal agencies and other interested parties has been ongoing throughout the project planning process. The Authority and FRA contacted potentially interested parties including local government planning departments, historic preservation organizations, historical societies, libraries, and museums. In accordance with Section 106 PA Stipulation V.A, these interested agencies, groups, and individuals were invited to comment on the significance findings and treatments proposed, and those with demonstrated interest in the project were

² The MOA for the San Francisco to San Jose Project Section covers cultural resources between the 4th and King Street Station in San Francisco and Scott Boulevard in Santa Clara, while the MOA for the San Jose to Merced Project Section covers cultural resources south of Scott Boulevard in the San Jose Diridon Station Approach Subsection.

invited to participate as consulting parties in the preparation of the MOA. A table describing this and any follow-up contact is provided in Volume 2, Appendix 3.16-A. This table also summarizes outreach to state, regional, and local agencies that may have responsibilities for historic properties and may want to review reports and findings for a project within their jurisdiction.

Native American Outreach and Consultation

The Authority and FRA engaged tribal governments in the early stages of project development and during the preparation of cultural resources studies by affording them the opportunity to participate in the cultural resources investigations throughout the project delivery process. Cal. Public Res. Code Section 21080.3.1 requires a lead state agency to consult with a California Native American tribe that is traditionally and culturally affiliated with a geographic area of a proposed project; Cal. Public Res. Code Section 21080.3.2 states that the parties may propose mitigation measures capable of avoiding or substantially lessening potential significant impacts on a tribal cultural resource; and Cal. Public Res. Code Section 21082.3 requires that any mitigation measures agreed upon through this consultation be included in the environmental document. Additionally, and in accordance with 36 C.F.R Section 800.2(c)(2) and the PA, federally recognized Native American tribes are to be given the opportunity to identify their concerns about historic properties, advise on the identification and evaluation of historic properties, articulate their views on the undertaking's effects on such properties, and participate in the resolution of adverse effects.

The Authority and FRA rely on the NAHC to identify those Native American tribal governments with whom it is most appropriate to consult for a given geographical area. These include both federally recognized and non-federally recognized tribes. Cultural resource specialists regularly obtain a revised/updated list of local tribes from the NAHC so the most current tribal contact information is available when communicating with tribal representatives. Tribal participation in the cultural resources studies for the project includes tribal contributions to the identification of resources and culturally sensitive areas, participation in project alignment tours, and participation in pedestrian archaeological field surveys. Tribes also contribute to, review, and may comment on cultural resources technical reports, and assist in the development of MOAs and ATPs. The MOA would include provisions for phased identification of archaeological resources because of limited access to perform pedestrian archaeological surveys. The Authority and FRA would continue to consult with Native American tribes following issuance of the ROD as previously inaccessible parcels are acquired, accessed, and surveyed. With qualified archaeologists, tribal members would participate in monitoring construction activities in archaeologically sensitive areas.

A table in Volume 2, Appendix 3.16-B summarizes the outreach with Native Americans undertaken to date for this section. The Authority contacted 18 tribes and individuals as part of this effort. Four tribes have elected to be consulting parties and are included in the list of consulting parties.

Consulting Parties

Of the interested parties contacted, four Native American groups and seven local government agencies or organizations requested to be a Section 106 consulting party for the cultural resources investigation and the preparation of the MOA. The consulting parties are:

- Amah Mutsun Tribal Band of Mission San Juan Bautista
- Indian Canyon Mutsun Band of Costanoan (Costanoan Indian Research, Inc.)
- The Ohlone Tribe
- Northern Valley Yokuts Tribe
- Burlingame Historical Society
- Redwood City Historic Resources Advisory Committee
- City and County of San Francisco
- City of Brisbane, Planning Department
- City of San Jose, Planning Division, Department of Planning, Building, and Code Enforcement
- Santa Clara Valley Transportation Authority (VTA)
- City of San Jose Historic Landmarks Commission

3.16.5 Methods for Evaluating Impacts

Identification and evaluation of the significance of historic properties and historical resources and assessment of the impacts on these properties and resources were conducted in accordance with the Section 106 PA. This analysis provides an overall framework for conducting the Section 106 process, including outreach and consultation efforts, delineation of the APE, historic properties identification procedures, assessment of adverse effects and treatment of historic properties, documentation standards, and state and federal agency oversight in compliance with the NHPA. Additional direction by the Authority provides guidance in compliance with NEPA and CEQA. The Section 106 FOE report documents the assessment of known and potential adverse effects on historic properties as a result of project construction or operations. Assessment of impacts on CEQA-only resources are also included in the FOE.

3.16.5.1 Definition of Resource Study Areas/Area of Potential Effects

As defined in Section 3.1, Introduction, RSAs are the geographic boundaries in which the environmental investigations specific to each resource topic were conducted. The RSA for impacts on cultural resources encompasses the areas directly or indirectly affected by project construction and operations. These areas include the project footprint for each of the project alternatives.

The Section 106 process uses the term APE for the RSA for cultural resource surveys and analyses. Regulations implementing Section 106 of the NHPA require that the lead agency establish an APE for all federal projects (36 C.F.R. § 800.4(a)(1)). The PA assigns the delineation of the APE to the Authority (PA Stipulation II.B). The APE is the geographic area or areas within which a project may cause alterations in the character or use of historic properties, if any such properties exist (36 C.F.R. § 800.13(d)). The APE was established following guidelines provided in the PA Attachment B. The APE considers both construction-related effects and operational effects. The survey and impact analysis under CEQA and NEPA also used the APE as the RSAs.

Area of Potential Effects for Consideration of Archaeological Resources

The method for considering archaeological resources when establishing the APE was established in accordance with Attachment B and Stipulation VI.A of the Section 106 PA. The APE includes the area of ground to be disturbed before, during, and after project construction as well as during operations. This area includes, but is not limited to, excavation for the vertical and horizontal profiles of the alignment, station location footprints, light maintenance facility (LMF) footprint, grading, cut and fill, easements, staging/laydown areas, utility relocation, temporary or permanent roadway modifications, infrastructure demolition, biological mitigation areas, and all permanent rights-of-way (i.e., the project footprint). In areas where project activities would take place below the surface, the vertical extent of the APE extends to the anticipated depth of these activities. The vertical extent of the APE was delineated in coordination with project engineers and includes maximum depth of ground disturbance for various project components.

Volume 2, Appendix 3.16-C includes a map set containing a generalized overview map for potentially affected archaeological resources, alternative alignments, and project footprints. The appendix does not include individual archaeological resource maps, because the location of such resources is protected from public disclosure under state and federal law.

Area of Potential Effects for Consideration of Historic Built Resources

The methodology for considering historic built resources when establishing the APE follows standard practices for the discipline, Attachment B of the Section 106 PA (Volume 2, Appendix 3.16-D), and the Authority's *Cultural Resources Technical Guidance Memorandum #1* (Authority 2013), and is detailed in the San Francisco to San Jose HASR (Authority 2019a) and San Jose to Merced HASR (Authority 2019b). The APE includes all legal parcels intersected by the proposed HSR right-of-way for all project alternatives, including proposed ancillary features such as stations, LMFs, utilities, and construction staging areas. The APE includes properties where historic materials or associated landscape features would be demolished, moved, or altered by

construction. The types of resources encountered in the project vicinity and the proposed project construction activities guided the delineation of the APE.

The APE is larger than the project footprint as a result of consideration of historic built resources. It was defined to take into consideration visual, audible, or atmospheric intrusions onto properties; the potential for vibration-induced damage; and isolation of properties from their settings. Visual and audible changes have the potential to affect character-defining features of some historic built resources. Volume 2, Appendix 3.16-C includes an overview map of potentially affected historic built resource locations and project alternative alignments, as well as individual historic built resource maps that show project alternatives, footprint boundaries, and historic property boundaries.

3.16.5.2 Impact Avoidance and Minimization Features

IAMFs are project features that are considered to be part of the project and are included as applicable in each of the alternatives for purposes of the environmental impact analysis. The full text of the IAMFs that are applicable to the project is provided in Volume 2, Appendix 2-E. The following IAMFs are applicable to the cultural resources analysis:

- CUL-IAMF#1: Geospatial Data Layer and Archaeological Sensitivity Map
- CUL-IAMF#2: WEAP Training Session
- CUL-IAMF#3: Pre-Construction Cultural Resource Surveys
- CUL-IAMF#4: Relocation of Project Features when Possible
- CUL-IAMF#5: Archaeological Monitoring Plan and Implementation
- CUL-IAMF#6: Pre-Construction Conditions Assessment, Plan for Protection of Historic Built Resources, and Repair of Inadvertent Damage
- CUL-IAMF#7: Built Environment Monitoring Plan
- CUL-IAMF#8: Implement Protection and/or Stabilization Measures

This environmental impact analysis considers these IAMFs as part of the project design. In Section 3.16.7, each impact narrative describes how these project features are applicable and, where appropriate, effective at avoiding or minimizing potential impacts to a less-than-significant level under CEQA.

3.16.5.3 Methods for Resource Identification

NEPA and CEQA require lead agencies to analyze the impacts their projects would have on historic properties and historical resources, which are a subset of cultural resources that are distinguished by meeting certain criteria for significance. The term *historic property* specifically refers to those cultural resources that meet the criteria for listing in the NRHP and are recognized as significant resources under NEPA and Section 106 of the NHPA. The term *historical resource* specifically refers to those cultural resources that meet the definitions for significant resources in Section 15064.5(a) of the CEQA Guidelines. Section 3.16.4.1, Section 106 Technical Studies Prepared for the Project, identified the technical studies that document the identification of cultural resources. Each of those documents includes a discussion of the methods for resource identification, and the results are summarized in Section 3.16.6, Affected Environment.

Non-exempt historic built resources that met the Section 106 PA definition of *streamlined documentation properties* are those resources that are 50 years old or older that require no further study because they have been substantially altered, or are a common type with either minor alterations or little to no potential for historic significance. Qualified Investigators identified and reviewed all built resources subject to streamlined documentation for consistency and compliance with the Section 106 PA (Section VI.B.2-3 and Appendices C and D) and the Authority's *Cultural Resources Technical Guidance Memorandum #7* (Authority 2016), which provides direction regarding this recordation method in the San Francisco to San Jose HASR and

San Jose to Merced HASR. Streamlined documentation procedures were used to document non-exempt properties possessing various degrees of alterations, a low likelihood of historic significance under any criteria, or a combination of both. These HASRs characterize the historic context themes and common property types to inform the identification of resources that qualify for streamlined documentation (Authority 2019a, 2019b).

3.16.5.4 Method for Evaluating Impacts under NEPA

The CEQ NEPA regulations (40 C.F.R. Parts 1500–1508) provide the basis for evaluating project impacts (as described in Section 3.1.5.4, Methods for Evaluating Impacts). As described in Section 1508.27 of these regulations, the criteria of context and intensity are considered together when determining the severity of the change introduced by the project.

The ACHP advises federal agencies to coordinate compliance with Section 106 and the procedures in the regulations implementing Section 106, with steps taken to meet the requirements of NEPA. Consequently, the NRHP criteria for adverse effect, no adverse effect, or no effect on historic properties (36 C.F.R. § 800.5) were used to evaluate effects on historic properties within the project's APE. To inform the severity of an effect under NEPA, the same methods used to identify and evaluate historic properties were applied to aspects of the cultural environment that are not considered NRHP-eligible properties. In compliance with NEPA, evidence or information that suggested both the existence of and impacts on these resources were incorporated into the following analysis.

Cultural resource impact assessment findings presented in this section are consistent with the NHPA criteria for adverse effect (36 C.F.R. § 800.5). Under these regulations, a project has an effect on a historic property when the project may alter the characteristics of the property that may qualify the property for inclusion in the NRHP (36 C.F.R. § 800.5(a)). An effect is considered adverse when the project may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The effects analysis considers all qualifying characteristics of a historic property, including those characteristics that may have been identified subsequent to the original evaluation of the property's NRHP eligibility. Adverse effects may include reasonably foreseeable effects caused by the project that may occur later in time, be farther removed in distance, or be cumulative.

The Section 106 criteria for adverse effect state that examples of adverse effects on historic properties include, but are not limited to:

- Physical destruction of or damage to all or part of the property.
- Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access that is not consistent with the SOI's Standards for the Treatment of Historic Properties (36 C.F.R. Part 68) and applicable guidelines.
- Removal of the property from its historic location.
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance.
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features.
- Neglect of a property that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to a Native American tribe or Native Hawaiian organization.
- Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to provide for long-term preservation of the property's historic significance.

3.16.5.5 Method for Determining Significance under CEQA

Based on CEQA guidelines, the project would result in a significant impact on cultural resources if it would result in any of the following:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- Disturb any human remains, including those interred outside of formal cemeteries.
- Cause a substantial adverse change in the significance of a tribal cultural resource, as defined in Cal. Public Res. Code Section 21074 as a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - i. Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in Cal. Public Res. Code Section 5020.1(k), or
 - ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Cal. Public Res. Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Cal. Public Res. Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

CEQA guidelines use the following definitions to analyze impacts on historical or archaeological resources³:

- Substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (§ 15064.5(b)(1)).
- The significance of a historical resource would be materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics that convey its historic significance or justify its inclusion in, or eligibility for, the NRHP, CRHR, or local registers (§ 15064.5(b)(2)(A–C)).

However, because minimal access to much of the project footprint was available for a detailed survey or evaluation of archaeological resources, any archaeological site within the APE is assumed eligible for the NRHP or CRHR and therefore any impact is considered significant under CEQA. Like NEPA resources, demolished built resource locations that encompass significant buried resources can be determined eligible for the CRHR under Criterion 4, yielding information important in history, while those without the potential to include significant buried resources are not further analyzed.

3.16.6 Affected Environment

In accordance with the Section 106 PA Attachment C (Volume 2, Appendix 3.16-D), the methodology for identification of historic properties includes the development of historic themes and contexts. Such contexts characterize the cultural environment of the project APE and provide the baseline against which archaeological and historic built resources are evaluated for historic significance and integrity. The following historic contexts and resource typologies are summaries of those included in the Section 106 technical documents. The NRHP eligibility criteria (36 C.F.R. § 60.4) were used to evaluate historic significance of resources within the project APE, as described in Section 3.16.2.1, for the purposes of NEPA and CEQA compliance. In addition, properties officially designated or recognized as historically significant by a local government,

³ The CEQA guidelines do not provide further definition of what constitutes a substantial adverse change in the significance of a tribal cultural resource.

pursuant to a local ordinance or resolution, or as historic or contributing to historic districts (Cal. Public Res. Code § 5020.1(k)) were evaluated using NRHP eligibility requirements. Such properties are presumed to be historically or culturally significant for the purposes of CEQA (§ 21084.1). If the Authority determined that the property did not meet NRHP significance standards, the resource was considered to be significant for the purposes of CEQA, unless the preponderance of the evidence demonstrated that the resource was not historically or culturally significant.

3.16.6.1 Archaeological Resources

This section on pre-contact and contact-period archaeological resources provides general information on the types of cultural resources that may be found in the APE, because the APE has not yet been surveyed and most of the known resources have not been reexamined; however, an archaeological survey was conducted for this project in 2009 and 2010 and the results of that investigation are presented in the San Francisco to San Jose ASR (Authority 2019c). A second archaeological survey relevant to this project is presented in the San Jose to Merced ASR (Authority 2019d). The context also applies to areas determined to be archaeologically sensitive, where as-yet unrecorded resources may be found. No traditional cultural properties or resources important to Native Americans have been identified in the APE; however, the Amah Mutsun Tribal Band recognizes their ethnobiological resources and their traditional cultural landscapes as important cultural resources.

Pre-Contact and Contact-Period Archaeological Resources

Pre-contact archaeological resources in California are locations where human activities were carried out during the exclusive Native American occupation of the area. This period is generally defined as beginning with the arrival of humans in North America—thought to be about 13,000 years ago—and ending with European contact, often stated to be in 1769 A.D., the date of the arrival of Spanish missionaries in California. Pre-contact archaeological resources are often called *prehistoric*, but the term *pre-contact* is preferred.

The contact period begins at the end of the pre-contact period, both prior to and after 1769. This period is defined as beginning with the first contact of Native Americans and Europeans and continuing for variable lengths of time for different Native American groups. This period covers the early interaction of Native American and European peoples, and how Native Americans were influenced by this contact.

The contact period is usually defined as ending with intensive European American settlement, which resulted in the end of Native American living patterns and incorporation of Native Americans into the European American cultural system.

Historical Archaeological Resources

Historical archaeological resources in California are locations where human activities were carried out during the historic period, generally defined as beginning with European contact in the mid-18th century and ending approximately 50 years ago. Some of these resources are of Native American origin during the historic period, but most are the result of Spanish, Mexican, Asian, African-American, or Anglo-American activities. Most historical archaeological resources are domestic sites—places where houses formerly stood—and they tend to contain the types of household goods reflecting the economic standing and ethnic identity of their occupants. Remains of ceramic, metal, and glass containers and dishes are most common, together with remains of the materials used in house construction (e.g., nails, brick, flat glass). Historical archaeological resources can also be nonresidential, resulting from ranching, farming, mining, transportation, and other commercial and industrial activities. Human burials dating to the historic period may also be considered archaeological resources.

Pre-Contact Archaeological Context

The San Francisco to San Jose ASR (Authority 2019c) and San Jose to Merced ASR (Authority 2019d) include narrative descriptions of the natural environment and cultural patterns that shaped the cultural history of the APE. Rather than repeating that narrative here, the following section

describes the context for evaluating pre-contact archaeological resources that may be found in the APE. NRHP eligibility Criterion D—*[properties] that have yielded, or may be likely to yield, information important in prehistory or history*—is almost always the criterion applied to pre-contact archaeological resources. In rare instances, notable pre-contact archaeological resources may be considered for eligibility under Criterion A, B, or C. Criterion D has been summarized as “the property must have, or have had, information that can contribute to our understanding of human history of any time period; the information must be considered important” (NPS 2002). This element of scientific study is mirrored in CRHR eligibility Criterion 4—*[resources that] yielded, or may be likely to yield, information important in prehistory or history*.

The significance of each pre-contact archaeological resource in the APE is its ability to yield scientific information and data that can address research questions relevant to pre-contact human occupation of the region. Archaeologists use archaeological site data to better understand how people lived in the past, based on scientific analysis of the material remains of past human activity. A single archaeological resource usually does not contain sufficient data for resolving important research questions, but each resource contributes incrementally to a broader understanding of these research questions. The following research issues are likely to apply to archaeological resources found in the APE. Although these research issues are presented as separate topics, they are interdependent, and data types often overlap among multiple lines of research. Research areas are:

- Chronology
- Settlement patterns
- Subsistence
- Raw material procurement and tool manufacturing
- Mobility, exchange, and cultural interaction

Ethnographic Setting

One distinct cultural group inhabited portions of the current APE at the time of European contact—the Ohlone. This section provides a brief standard ethnography based on scholarly research of this cultural group. The San Francisco to San Jose ASR and San Jose to Merced ASR both provide an expanded ethnographic context (Authority 2019c, 2019d).

At the time of European contact, a group of Native Americans whom ethnographers refer to as the Ohlone, incorrectly named Costanoan by the Spanish, occupied the San Francisco Bay Area (Bay Area). A descendant group of the Ohlone, the Amah Mutsun, has retained an affiliation with the southern Santa Clara Valley up to the present. The Ohlone is a linguistically defined group composed of several autonomous tribelets that spoke eight different but related languages. Ohlone territory extended along the coast from the Golden Gate in the north to just below Carmel in the south, and as far as 60 miles inland (Levy 1978: pages 485–486). A tribelet consisted of one or more villages and camps within a territory designated by physiographic features (Kroeber 1962).

The Ohlone were hunter-gatherers who relied heavily on acorns and seafood. They also exploited a wide range of other foods and used tule balsas for watercraft, and bow and arrow, cordage, bone tools, and twined basketry to procure and process their foodstuffs (Levy 1978: pages 491–493).

Seven Spanish missions were founded in Ohlone territory between 1776 and 1797. While living within the mission system, the Ohlone commingled with other groups, including the Esselen, Yokuts, Miwok, and Patwin. Mission life was devastating to the Ohlone population (Milliken 1995). It has been estimated that in 1776, when the first mission was established in Ohlone territory, the Ohlone population numbered around 10,000. By 1832, the Ohlone numbered less than 2,000 as a result of introduced disease, harsh living conditions, and reduced birth rates (Levy 1978: page 486).

Under the Mexican government, secularization of the mission lands began in earnest in 1834. Most of the former mission land was divided among loyal Mexican subjects, and the Ohlone who chose to remain in their ancestral territory usually became squatters. Consequently, several multiethnic Indian communities (consisting of individuals of Chochenyo, Plains Miwok, Northern

Valley Yokuts, Patwin, and Coast Miwok descent) were established in the mid-19th century within Ohlone territory (Levy 1978: page 487).

The Ohlone living today belong to geographically distinct groups, most in their original home territory. The Amah Mutsun Tribe are descendants of Mutsun speakers of Mission San Juan Bautista. The Muwekma Ohlone Tribe has members from around the Bay Area, and is composed of descendants of the Ohlone from the San Jose, Santa Clara, and San Francisco missions. The Ohlone Esselen Nation consists of descendants of tribal members associated with Mission San Carlos Borromeo.

Historical Archaeological Context

The APE contains archaeological deposits that could be associated with the various periods of settlement and development of the region. These periods are usually defined as the Spanish and Mexican Period (1776–1846), the American Period (1848–1906), the Development and Modernization Period (1906–1945), and the Modern Period (1945–present). Unlike pre-contact resources, information derived from historical resources can be compared to what is known about these resources or neighborhoods from written records. Sources that can be used to identify individual residents include census records, tax assessor's records, and city directories. Some of these resources, such as census records, can also further define the individual residents by providing information about ethnicity, place of birth, socioeconomic status, and household structure. A variety of archival resources can also be used to identify what products were available to the residents from businesses in the vicinity of the site such as town plats, Sanborn Fire Insurance maps, engineering maps, census records, local product catalogs, city directories, tax assessor's records, and newspaper articles.

The San Francisco to San Jose ASR and San Jose to Merced ASR summarize research issues appropriate for the project and the data needed to address such research. Although these research issues are presented as separate topics, they are interdependent, and data types often overlap among multiple lines of research. Those research areas are:

- Consumer behavior
- Spatial organization
- Urban geography
- Trade markets and networks
- Gender and family
- Class and ethnicity

Description of Known Archaeological Resources

Based on the records search, a total of 108 previously recorded archaeological resources are within the search area, which was a radius of 0.25 mile from the centerline of the project alternatives. Of these previously recorded resources, 27 are within or adjacent to the APE, comprising 7 historic period, 1 multicomponent (pre-contact and historic period), and 19 pre-contact resources. Table 3.16-2 shows the 27 previously recorded archaeological resources within the APE in geographic order from north to south.

Table 3.16-2 Previously Identified Archaeological Resources in the Area of Potential Effects

Trinomial (Smithsonian number):	State Resource Identifier (P#)	Period	Description	NRHP/CRHR Eligibility
San Francisco to South San Francisco Subsection				
CA-SFR-171	P-38-004638	Pre-contact	Pre-contact midden buried below artificial fill; appears intact and has potential to be eligible	Assumed eligible
CA-SFR-191/H	P-38-005131	Pre-contact	Shell midden	Assumed eligible
CA-SMA-378H	P-41-002160	Historical	Refuse scatter	Assumed eligible
CA-SMA-418H	P-41-002395	Historical	Refuse scatter	Assumed eligible
CA-SMA-47	P-41-000051	Pre-contact	Pre-contact shell midden; Nelson Shellmound #386	Assumed eligible
San Bruno to San Mateo Subsection				
CA-SMA-422	P-41-002400	Pre-contact	Pre-contact midden with surface and buried component	Assumed eligible
CA-SMA-423H/HST-94H	P-41-002401	Historical	Refuse scatter	Assumed eligible
N/A	P-41-000498	Pre-contact	Midden; buried	Assumed eligible
CA-SMA-102	P-41-000105	Pre-contact	Midden	Assumed eligible
CA-SMA-316	P-41-000310	Pre-contact	Shell midden	Assumed eligible
CA-SMA-317	P-41-000311	Pre-contact	Shell midden; Hamilton Shellmound	Assumed eligible
CA-SMA-4	P-41-000009	Pre-contact	Shell midden with human burials; Nelson mound	Assumed eligible
CA-SMA-232	P-41-000230	Pre-contact	Shell midden; Hamilton Shellmound #9	Assumed eligible
CA-SMA-233	P-41-000231	Pre-contact	Shell midden; Hamilton Shellmound #12	Assumed eligible
CA-SMA-419	P-41-002396	Pre-contact	Midden	Assumed eligible
San Mateo to Palo Alto Subsection				
CA-SMA-420	P-41-002397	Pre-contact	Midden	Assumed eligible
CA-SMA-421	P-41-002398	Pre-contact	Midden in disturbed context	Assumed eligible
CA-SMA-358/H	P-41-000506	Multi-component	Pre-contact, contact-period, and historic site on surface and buried	Assumed eligible
CA-SMA-424/ CA-SCL-939	P-41-002402/ P-43-003137	Pre-contact	Buried midden along San Francisquito Creek	Assumed eligible
CA-SCL-600	P-43-000595	Pre-contact	Midden	Assumed eligible
Mountain View to Santa Clara Subsection				
CA-SCL-1	P-43-003172	Pre-contact	Shellmound	Assumed eligible
CA-SCL-22	P-43-000042	Pre-contact	Midden	Assumed eligible

Trinomial (Smithsonian number):	State Resource Identifier (P#)	Period	Description	NRHP/CRHR Eligibility
San Jose Diridon Station Approach Subsection				
CA-SCL-30	P-43-000050	Historical	Third location (1784–1819) of Mission Santa Clara de Asis	Determined eligible (Criterion D)
N/A	N/A	Historical	889 Elm Street; circa 1865 residence location; structure now demolished	Assumed eligible
CA-SCL-855	P-43-001617	Historical	Former SPRR-UPRR yards; refuse scatter in demolished railroad yard	Assumed eligible
CA-SCL-690	P-43-001071	Pre-contact	Pre-contact cemetery, with remains largely reburied on-site	Assumed eligible
N/A	P-43-002234	Historical	Redeposited historic-period artifact scatter	Assumed eligible

Sources: Authority 2019c, 2019d

N/A = not applicable

SPRR = Southern Pacific Railroad

UPRR = Union Pacific Railroad

Description of Predicted Archaeological Resources and Archaeological Sensitivity

The APE likely contains additional as-yet-undocumented pre-contact archaeological resources. These types of pre-contact archaeological resources are likely to be consistent with the range of archaeological resources previously documented in the APE (e.g., midden features, shellmounds, human burials). The sensitivity analysis completed for the project (documented in detail in the San Francisco to San Jose ASR and the San Jose to Merced ASR) considered general archaeological sensitivity for pre-contact resources (Caltrans 2017). Archaeologically sensitive areas within the APE were assessed by analyzing and synthesizing information from geologic, topographic, and landscape maps; soil surveys; archaeological records; and established pre-contact site spatial models (Caltrans 2017). The APE was georeferenced and digitized into a geographic information system (GIS) and compared against historic maps as well as the locations of recorded archaeological resources. While areas within the existing rail right-of-way have been previously disturbed, the archaeological sensitivity analysis includes the project footprint consisting of the entire Caltrain right-of-way, as well as new temporary construction easements (TCE) and permanent right-of-way acquisitions. Analysis revealed that areas within a 100-meter (325-foot) distance to water and at slopes of less than 15 degrees contained a statistically significant disproportionate distribution of pre-contact archaeological resources. Results of the analysis concluded that 47 percent of the APE is sensitive for pre-contact archaeological resources. Since water and gentle slopes are equally distributed for both project alternatives, the archaeological sensitivity is considered to be the same for both.

Historical archaeological resources are anticipated to include refuse material associated with the land use activities that occurred in the APE during the historic period. Refuse sites include privies, dumps, and surface refuse scatters. Prior to the development of sewage systems and routine garbage pickup, use of outdoor toilets—privies—and local trash dumps left buried features that are rich in artifacts and information. These types of features can be associated with houses in urban areas as well as rural ranches and farms. Other historical resources in the APE may include remains from the California mission era, although this type of site is very rare except around known mission locations.

Historical archaeological site types may also include architectural elements and structures in ruin such as buildings representative of residences, domestic outbuildings, and commercial and religious structures. Specific characteristics of these site types may include foundations, walls, floors, pads, piers, footings, “robber’s trenches” (where footings once lay), or any other extant architectural elements.

Five NRHP-eligible historic districts are near the project footprint—Central Waterfront Historic District (ID#03); Auxiliary Water Supply System (AWSS) (ID#01); Southern Pacific Railroad (SPRR) Dumbarton Cutoff Linear Historic District (ID#21); Tract 795, Charleston Meadows (ID#37); and SPRR Depot District (Hiram Cahill Depot/Diridon Station) (ID#0497). NRHP-eligible historic districts are presented in this section because their presence indicates the potential for subsurface historic-period archaeological deposits within the boundaries of each of the districts that could have association and historic significance. The historic archaeological sensitivity maps in the San Francisco to San Jose ASR (Appendix A, Figure 7) illustrate these historic districts. These districts have not been evaluated under Criterion D of the NRHP for their potential to yield important information to historic-period archaeological themes and research questions. These resources are addressed as built-environment resources in complete detail in the San Francisco to San Jose HASR (Authority 2019a) and San Jose to Merced HASR (Authority 2019b).

3.16.6.2 Historic Built Resources

Historic properties and historical resources are elements of the built environment that are listed in, or eligible for listing in, the NRHP or CRHR, or are considered historical resources for the purposes of CEQA. These elements reflect important aspects of local, state, or national history. They can be buildings, structures, objects, sites (including landscapes), or districts. Examples of the types of historic properties (per NRHP) or historical resources (per CEQA) within the APE include: residential; railroad (e.g., train depot, underpasses, bridges, rail alignment); water conveyance infrastructure (e.g., water or irrigation ditches); power lines; intact or partially intact roads and highways; commercial buildings; and landscape features (e.g., individual tree, tree grove). The San Francisco to San Jose HASR and San Jose to Merced HASR each provide an extensive historical context and property type context for the project, and the full evaluation of historic built resources in the APE (Authority 2019a, 2019b). The environmental setting for the purposes of impact analysis consists of those resources that are eligible for or listed in the NRHP or the CRHR, or that qualify as CEQA historical resources.

The surveys conducted in the APE identified 553 built resources that were 50 years old or older at the time the intensive survey was initiated (i.e., built prior to 1966). These resources were evaluated using the NRHP and CRHR significance criteria, and in compliance with the Section 106 PA (Volume 2, Appendix 3.16-D), its attachments, and subsequent guidance. The San Francisco to San Jose HASR and San Jose to Merced HASR provide the evaluation of these resources (Authority 2019a, 2019b) as required by the Section 106 PA. Of the evaluated resources, 512 were determined to be ineligible for listing in the NRHP, with SHPO concurrence, and they are therefore not addressed in this resource section.

Nine previously NRHP-listed properties were field verified to check their current level of historic integrity and to document any changes since they were originally recorded. Of the 18 remaining resources, 13 were previously determined eligible for listing in the NRHP and CRHR, and 5 were newly determined eligible for listing in the NRHP. Following SHPO concurrence, these 5 properties were automatically listed in the CRHR. Five of the 27 historic properties within the APE are historic districts. The infrastructure system, three buildings, and three structures within the APE that are district contributors are not individually eligible historic resources. In addition to being historic properties under Section 106 and NEPA, these 27 NRHP-listed and NRHP-eligible properties are considered to be historical resources for the purposes of CEQA.

Seven of the resources that were found ineligible for listing in the NRHP are officially designated by a local government pursuant to a local ordinance or resolution. Unless the preponderance of the evidence demonstrates that a designated resource is not historically or culturally significant, such resources are considered historical resources for the purpose of CEQA. All 27 NRHP-eligible historic properties and 7 CEQA historical resources are listed in Table 3.16-3, arranged numerically by resource ID, and illustrated on Figure 3.16-1 through Figure 3.16-5. The resource IDs were generally assigned sequentially from north to south. The subsection where the resource is located is also indicated in this table. The resources are described in paragraphs at the beginning of each impact statement in Section 3.16.7.3, Historic Built Resources.

Unlike archaeological resources, there is almost no potential for unanticipated discoveries of historic built resources, because comprehensive surveys were conducted of the APE, largely from the public right-of-way. The narrative context for archaeological resources provides a basis for understanding the types of resources and research themes that would apply if unanticipated archaeological resources are encountered during construction. Because the potential for unanticipated historic built resources is so low, there is no need for a comparable narrative for such resources herein.

A robust context narrative for historic built resources was presented in the San Francisco to San Jose HASR and San Jose to Merced HASR to support identification of non-exempt historic built resources that met the Section 106 PA definition of *streamlined documentation properties*. Consistent with the Section 106 PA (Volume 2, Appendix 3.16-D) and the Authority's *Cultural Resources Technical Guidance Memorandum #7* (Authority 2016), these properties include those that are 50 years old or older that require no further study because they have been substantially altered, or are a common type with either minor alterations or little to no potential for historic significance.

Table 3.16-3 shows a summary of built resources within the APE that have been listed or determined eligible for listing in the NRHP and CRHR, in addition to built resources that qualify as CEQA resources. The table includes individually listed and eligible resources as well as historic districts. Only those historic district contributors that are in the APE are included in Table 3.16-3. Chapter 8, Properties Identified—Findings, of the San Francisco to San Jose HASR and San Jose to Merced HASR provide summary descriptions of these built resources, and DPR forms included as Appendix D of these reports provide detailed evaluations (Authority 2019a, 2019b).

Table 3.16-3 Significant Built Resources

Resource Name; ID #	Address; City; County	NRHP/CRHR Eligibility Criteria	Historic Property and Character-Defining Features	Historic Property Boundary Description
National Register Listed/Eligible Properties				
San Francisco to South San Francisco Subsection				
San Francisco Auxiliary Water Supply System (ID#01)	Underground pipeline system; San Francisco; San Francisco	A/1, C/3	Character-defining features include the system's function; its engineering design and plan; individual buildings & structures that make up the district (pump stations, water tanks, gate valve houses, hydrants, reservoirs); decorative elements, architectural styles, and original building material; any pumps, valves, or equipment that was constructed or installed during the period of significance (1908–1913 under criterion A; 1908–1964 under criterion C).	The historic district boundary is identified as the “footprints of the pipes, tunnels, buildings, and structures themselves.”
Central Waterfront Historic District (ID#03)	San Francisco; San Francisco	A/1, 3	Although no specific character-defining features were identified in either the 2001 or 2008 evaluations of the historic district, they would include the integrity of its contributing buildings and structures, including SPRR Tunnels No. 1 and 2; the mostly flat natural topography including eastern waterfront; transportation grid (including railroad); and its 19th- and 20th-century industrial and residential architecture.	The 500-acre Central Waterfront Historic District is generally bounded by Pennsylvania Street to the west, 16th Street to the north, and Islais Creek to the south. The district's eastern border extends into the San Francisco Bay to encompass Piers 70 and 80.
SPRR Tunnel No. 2/ Bayshore Cutoff Tunnel No. 1 (ID#03a)	South of Mariposa Street; San Francisco; San Francisco	Central Waterfront Historic District contributor	The previous evaluation of this historic property did not explicitly list the character-defining features or boundary, but the tunnel's original alignment; length; bore dimensions; original brick, concrete, and steel I-beam construction; and architectural details at tunnel portals (red brick with sandstone) should be considered character-defining features.	The property's boundary is its physical footprint, which encompasses all of the character-defining features.
SPRR Tunnel No. 2/ Bayshore Cutoff Tunnel No. 2 (ID#03b)	South of 23rd Street; San Francisco; San Francisco	Central Waterfront Historic District contributor	The previous evaluation of this historic property did not explicitly list the character-defining features or boundary, but the tunnel's original alignment; length; bore dimensions; original brick, concrete, and steel I-beam construction; and architectural details at tunnel portals (red brick with sandstone) should be considered character-defining features.	The property's boundary is its physical footprint, which encompasses all of the character-defining features.

Resource Name; ID #	Address; City; County	NRHP/CRHR Eligibility Criteria	Historic Property and Character-Defining Features	Historic Property Boundary Description
SPRR Tunnel No. 3; Central Waterfront Historic District contributor (ID#05)	South of Oakdale Avenue; San Francisco; San Francisco	A/1, C/3	Character-defining features include its original alignment, bore dimensions and length; original brick, concrete, and steel I-beam construction; and architectural details at tunnel portals (brick with sandstone).	The property's boundary is its physical footprint, which encompasses all character-defining features.
SPRR Tunnel No. 4; Central Waterfront Historic District contributor (ID#06)	South of Paul Avenue; San Francisco; San Francisco	A/1, C/3	Character-defining features include its original alignment, bore dimensions and length; original brick, concrete, and steel I-beam construction; and architectural details at tunnel portals (brick with sandstone).	The property's boundary is its physical footprint, which encompasses all character-defining features.
SPRR Bayshore Roundhouse (ID#07)	Industrial Way; Brisbane; San Mateo	C/3 (listed in NRHP and CRHR)	No character-defining features were listed in the NRHP nomination, but key elements of this historic property include its proximity and orientation to the rail line, massing, semi-circular footprint, brick construction, turntable pit, and original fenestration and arched window and door openings.	The boundary of this historic property is the pie-shaped portion of the parcel associated with APN 005340080 and includes roundhouse, associated whisker tracks (the tracks leading to the open-air stalls) area and turntable pit.
Airport Boulevard Underpass/South San Francisco Subway (ID#08)	Airport Boulevard; South San Francisco; San Mateo	A/1, C/3 (listed in CRHR)	Character-defining features include its size and massing, concrete deck construction, concrete abutment walls with steel pipe handrails and its Classical architectural ornamentation.	The property boundary is limited to the footprint of the historic structure (Bridge No. 35C0017), which extends from the point where handrails begin at the sidewalks on either side of the underpass to the limits of the abutment walls.

Resource Name; ID #	Address; City; County	NRHP/CRHR Eligibility Criteria	Historic Property and Character-Defining Features	Historic Property Boundary Description
San Bruno to San Mateo Subsection				
SPRR Depot/Millbrae Station (ID#12)	108 California Drive; Millbrae; San Mateo	C/3 (listed in NRHP and CRHR)	No specific character-defining features were listed in the NRHP nomination; however, key elements of this building as identified in a 1992 Preservation Covenant for this station consist of its location and proximity to the rail line, scale and massing, and plan. Exterior character-defining features also include: hip roof, wooden roof shingles, wood siding, fenestration pattern, exterior wood porch, window, transom, baggage door and office door frames, sashes and hardware, soffit, knee-brackets and eaves, columns, paint colors, and Millbrae Historical Society plaque. Interior character-defining features include original wood wainscot and lathe and plaster wall finish.	The boundary of this historic property generally encompasses the building footprint, which measures 94 feet long and 62 feet wide, on the parcel associated with APN 024355010.
Jules Francard Grove/ Francard Tree Rows (ID#13)	East of California Avenue, between Larkspur Drive and Burlingame Avenue; Burlingame; San Mateo	A/1, C/3 (listed in CRHR)	No character-defining features or boundary for this historic property were specifically listed in the 2015 evaluation; however, the location of the grove adjacent to the railroad, as well as the length of the row and number and size of mature trees should be considered character defining.	The boundary of the historic property is the footprint of the grove.
SPRR Depot/Burlingame Railroad Station (ID#14)	290 California Drive; Burlingame; San Mateo	C/3 (listed in NRHP and CRHR)	Character-defining features as identified in the 1992 Preservation Covenant consist of both exterior and interior elements. Exterior features include roof tiles (salvaged from Mission Dolores and Mission San Antonio de Padua); "metal caps and flashing; soffits and eaves; lath and stucco wall finish; canals; window and paneled door frames, sashes and historic-period hardware; fascia trim; metal air grilles; dentil moldings; paint colors; benches; historic-period landscaping; and historic markers." Interior features consist of "flooring; benches; exposed rafters and ceiling paneling; wooden bulletin board;" the waiting room's wall and ceiling finish; and the ticket office's integrated cabinets and historic-period fixtures.	California Drive and the railroad track are identified as the southwest and northeast boundary of the property associated with APN 029216010; the NRHP nomination did not identify any southeast or northwest limits but noted the property was 1 acre. It is therefore presumed that North Lane and South Lane define the northwest and southeast boundaries of the historic property.

Resource Name; ID #	Address; City; County	NRHP/CRHR Eligibility Criteria	Historic Property and Character-Defining Features	Historic Property Boundary Description
San Mateo to Palo Alto Subsection				
SPRR Depot/San Carlos Station (ID#18)	599 State Highway 82; San Carlos; San Mateo	A/1, C/3 (listed in NRHP and CRHR)	No specific character-defining features were noted in the NRHP nomination; however, key elements of this building identified in a 1992 Preservation Covenant consist of the depot's interior and exterior elements such as its "sandstone masonry; mortar color, composition, and beaded application; slate roof; roof cresting; roof finials; flashing, gutters and downspouts; fascia and cornice molding; soffits and eaves; dentil course on tower; braces under roof eaves; windows, paneled doors; bay doors; historic-period hardware; scored concrete paving in loggia; historic exterior light fixtures and globes; and existing paint colors;" interior "scored concrete floor; window sills and historic-period hardware; brick fireplace; wall finish; historic-period tile flooring in restrooms; historic period doors and bathroom fixtures."	The boundary of this historic property generally encompasses its legal parcel, associated with APN 050076030.
SPRR, Dumbarton Cutoff Linear Historic District (ID#21)	Rail line; Redwood City; San Mateo	A/1, B/2, C/3	The district is comprised of the 16.4-mile-long Dumbarton Cutoff railroad line, along with two contributing bridges, an underpass, and two culverts.	The boundary of the linear district stretches from Redwood Junction in Redwood City, where the Dumbarton Cutoff rail line diverges from the SPRR peninsula main line, eastward across San Francisco Bay, continuing to the Niles Railroad Depot in Alameda County.
Dumbarton Cutoff Railroad Line (ID#21a)	Rail line; Redwood City; San Mateo	SPRR, Dumbarton Cutoff Linear Historic District contributor	Character-defining features include its alignment, location, and all rails, ties, ballast, and signal structures dating to the period of significance.	The historic property boundary of the contributing Dumbarton Cutoff line is its footprint.

Resource Name; ID #	Address; City; County	NRHP/CRHR Eligibility Criteria	Historic Property and Character-Defining Features	Historic Property Boundary Description
Willie Mays Jr. House (ID#22)	51 Mount Vernon Lane; Atherton; San Mateo	B/2	Character-defining features are as follows: setting in an affluent enclave in San Mateo County; siting between the Caltrain railroad tracks and Mount Vernon Lane on a dead-end road; access via a long, gated private driveway; mature trees and a landscaped yard; stained concrete circle driveway with a grass and rock island; form and massing as a single-story Ranch-style residence with a single-story garage; system of cross-gabled roofs covered in cedar shingles; recessed double-door entry on the façade; primary windows that feature large fixed panes with smaller windows below, rectangular windows located just below the roofline; overhead garage doors; horizontal wood siding with stone veneer accents on the porte-cochère pillars and around the double-door entry. The northern projection on the west side was added in 2009, but appears to be sympathetic in design and materials.	The historic property boundary is the legal parcel, associated with APN 060241040.
SPRR Depot/Atherton Station (ID#24)	1 Dinkelspiel Station; Atherton; San Mateo	C/3 (listed in CRHR)	Mediterranean Revival-style railroad station. Character-defining features are all of those dating from 1913: the original massing and shape, tiled hip roof, roof brackets, concrete columns, and interior finish. The side wings, glass enclosures, and modern reproduction lampposts and clock are all non-original, do not contribute to the significance of the building, and are not character-defining features. Surrounding paving and street furniture are modern additions that post-date the period of significance and do not contribute to the architectural significance of this building.	The boundary of this property is the building's physical footprint, located on a portion of the parcel associated with APN 060321180.
Carriage House & Water Tower, Holbrook-Palmer Estate (Elmwood) (ID#25)	150 Watkins Avenue; Atherton; San Mateo	C/3 (listed in NRHP and CRHR)	No specific character-defining features were listed in the NRHP nomination, but key elements include each building's proximity and orientation to one another, their size and massing, original materials, and the distinctive features of their respective styles.	The boundary encompasses the footprints of the buildings, located on the parcel associated with APN 061310100, and generally bounded to the west by the parking lot between the main house and water tower and to the north by the park entrance driveway at Watkins Avenue.

Resource Name; ID #	Address; City; County	NRHP/CRHR Eligibility Criteria	Historic Property and Character-Defining Features	Historic Property Boundary Description
SPRR Depot/Menlo Park Railroad Station (ID#28)	1100 Merrill Street; Menlo Park; San Mateo	A/1, C/3 (listed in NRHP and CRHR)	Character-defining features, as identified in the 1992 Preservation Covenant, for the passenger depot's exterior include wood siding and shingles; non-metal window frames and sashes; scored concrete floor; wood shingle roof with cresting, finials, eaves, soffits and brackets; wood air vents; exterior doors and door frames; wood screen doors; wood turned trim; exterior light fixtures and globes; and palm trees. Interior features include wainscoting; door and window trim and hardwood; interior windows separating the offices; paneled doors; ticket counter; tongue-and-groove ceiling; and built-in cabinets.	The boundary is defined by the legal parcel associated with APN 061441150.
SPRR San Francisquito Creek Bridge (ID#29)	Bridge MP 29.69; Palo Alto; Santa Clara	A/1, C/3 (listed in CRHR)	Key elements include its location crossing the San Francisquito Creek, its proximity to the tree known as El Palo Alto, as well as the massing, riveted-steel construction, and its Baltimore Petit through truss design.	The boundary is the footprint of the bridge, which contains all character-defining features.
El Palo Alto (ID#30)	Living tree; Palo Alto; Santa Clara	A/1 (listed in CRHR)	Character-defining features include location on the creek, proximity to the rail line, and its size and shape.	The boundary of this historic property encompasses the area of its canopy and its character-defining features would include its location on the creek, proximity to the rail line, and its size and shape.
Palo Alto SPRR Depot (ID#31)	University Avenue; Palo Alto; Santa Clara	C/3 (listed in NRHP and CRHR)	Character-defining features include its Streamline Moderne style architectural details: its massing and composition, glass blocks, curved corners and horizontal striping, portholes, interior ornament and mural.	The boundary encompasses 1.2 acres around the depot and its contributing elements, located on the parcel associated with APN 12031021. The boundary is delineated by the northeast and southwest street curbs and extends 15 feet northwest of the Baggage Building and 15 feet southeast of the Passenger Waiting Shelter and depot.

Resource Name; ID #	Address; City; County	NRHP/CRHR Eligibility Criteria	Historic Property and Character-Defining Features	Historic Property Boundary Description
University Avenue Underpass (ID#32)	Bridge No. 37C0005; Palo Alto; Santa Clara	A/1 (listed in CRHR)	The character-defining features of the University Avenue underpass are that it carries both vehicular and rail traffic; its size and massing; location; reinforced-concrete and steel construction; concrete deck slabs supported by a central pier; row of bevel-cut openings in central pier and piers separating the roadway and walkway; "1940" imprinted in the center pier; concrete abutments described as "double deck cellular;" pedestrian undercrossings and ramps; asymmetrical cloverleaf roadway approaches; four landscaped islands created by cloverleaf approaches; retaining walls; square steel pipe railings at sidewalks and roadways; University Avenue median; three light standards on University Avenue, two on the southwest side of the underpass and one on the northeast side; and ten light standards along the cloverleaf approach roads, six on the southwest side and four on the northeast side. The modern dual-fixture lights at the sidewalks nearest the railroad are not character defining.	The boundary is defined by the footprint of the engineered structure and includes all of the character-defining features. The outer limits of the boundary are the edges of the cloverleaf roadway approaches at the southwest and northeast, and the edges of the approaches to the pedestrian ramps at the northwest and southeast.
Embarcadero Underpass (ID#35)	Bridge No. 37C0001; Palo Alto; Santa Clara	A/1 (listed in CRHR)	Key elements of this underpass structure include its size and massing; location; reinforced-concrete and steel construction; pedestrian undercrossings and ramps; and its Moderne-style features and decoration (fluted pilasters, balustrade, lampposts on pedestals, and articulated panels and moldings).	The boundary is the engineered structure's footprint, inclusive of all character-defining features.
Tract 795, Charleston Meadows (ID#37)	Palo Alto; Santa Clara	C/3	Character-defining features of the tract include its flat topography; rectangular grid street pattern; concrete sidewalks and driveways; rolled curbs; residential setbacks; and those architectural characteristics of the Mid-Century Modern style: form and massing of the residences; post-and-beam construction; low-pitched roofs with projecting eaves and exposed rafters; original cladding and original fenestration; attached garages and carports; and privacy fences enclosing the front yards.	The historic boundary is comprised of 96 mostly rectangular parcels that range in size between 0.136 and 0.26 acre within the tract, consisting of properties on Tennessee Lane, Carolina Lane, Park Blvd, and Wilkie Way, north of West Charleston Road and west of the existing rail right-of-way.

Resource Name; ID #	Address; City; County	NRHP/CRHR Eligibility Criteria	Historic Property and Character-Defining Features	Historic Property Boundary Description
4133 Park Boulevard (ID#37a)	4133 Park Boulevard; Palo Alto; Santa Clara	Tract 795, Charleston Meadows Historic District contributor	Character-defining features of this historic property are those architectural features typical to the Mid-Century Modern style: low, one-story massing characterized by a low-pitched gable roof with built-up roofing, projecting eaves and exposed rafters; post-and-beam construction; vertical-grooved plywood siding; open carport, recessed private entrance; exterior brick chimney; and any doors, windows, and privacy fencing original to its construction.	The boundary is the legal parcel associated with APN 13245012, which encompasses all of its character-defining features.
4118 Park Boulevard (ID#37b)	4118 Park Boulevard; Palo Alto; Santa Clara	Tract 795, Charleston Meadows Historic District contributor	Character-defining features of this historic property are those architectural features typical to the Mid-Century Modern style: low, one-story massing characterized by a low-pitched roof with built-up roofing, projecting eaves and exposed rafters; post-and-beam construction; vertical-grooved plywood siding; open carport, recessed private entrance; exterior brick chimney; and any doors, windows, and privacy fencing original to its construction.	The boundary is the legal parcel associated with APN 13245013, which encompasses all of its character-defining features.
4126 Park Boulevard (ID#37c)	4126 Park Boulevard; Palo Alto; Santa Clara	Tract 795, Charleston Meadows Historic District contributor	Character-defining features of this historic property are those architectural features typical to the Mid-Century Modern style: low, one-story massing characterized by a low-pitched gable roof with built-up roofing, projecting eaves and exposed rafters; shed-roof dormers; post-and-beam construction; vertical-grooved plywood siding; recessed private entrance; exterior brick chimney; and any doors, windows, and privacy fencing original to its construction.	The boundary is the legal parcel associated with APN 13245014, which encompasses all of its character-defining features.

Mountain View to Santa Clara Subsection

No historic properties present in the APE for this subsection.

Resource Name; ID #	Address; City; County	NRHP/CRHR Eligibility Criteria	Historic Property and Character-Defining Features	Historic Property Boundary Description
San Jose Diridon Station Approach Subsection				
Santa Clara Railroad Historical Complex (Santa Clara Depot) (ID#0141)	1 Railroad Avenue/ Benton Street; Santa Clara; Santa Clara	A/1, C/3 (Depot is NRHP/CRHR listed; Depot, Speeder Shed, Tool House, and Control Tower are NRHP eligible/CRHR listed)	Depot, Maintenance-of-Way Speeder Shed, Maintenance-of-Way Section Tool House, and Control Tower. Character-defining features of the depot include its rectangular plan measuring approximately 24 by 50 feet and freight shed measuring 32 by 203 feet; wood-shingled gable roof with broad, overhanging eaves; knee-braced purlins and ridge beam; x-braces and curved brackets; board-and-batten siding; six-over-six and four-over-four double-hung windows; Greek Revival-style pedimented window and door casings; raised loading docks. Character-defining features of the Maintenance-of-Way Section Tool House include rectangular plan, redwood board-and-batten siding, gable roof with moderate eave overhangs and asphalt shingles, and flush double-hinged door on north elevation. Character-defining features of the Maintenance-of-Way Speeder Shed include rectangular plan with two bays; wide shiplap siding; gable roof with moderate eave overhangs and asphalt; and two flush double-hinged doors on east elevation. Character-defining features of the Control Tower include two-story height; hip roof with wide eave overhangs clad in asphalt shingles; wide shiplap siding broken by intermediate cornice band of slightly flared vertical wood siding above widely spaced square dentils; wood staircase on west façade; paneled and multipaned glazed single-entry door with two-light transom; wood-frame double-hung windows on first and second stories; and unit-lever electro mechanical interlocking machine on the second floor.	Boundary limited to the footprint of the Depot on APN 23006050, and the footprints of the Control Tower, Maintenance-of-Way Speeder Shed, and the Maintenance-of-Way Section Tool House on APN 23006052.
Bellarmine College Preparatory and Polhemus House (ID#0210)	960 West Hedding Street; San Jose; Santa Clara	C/3 (NRHP eligible/CRHR listed)	Dutch Colonial Revival residence. Character-defining features include rectangular-plan building mass formed by primary volume attached to side wing; gambrel roof featuring shed-roofed and gabled dormers; symmetrical arrangement of openings at the primary façade; wood-sash, divided-lite windows; wood clapboard siding; quarter-round windows at the northwest façade; gabled portico supported by Tuscan columns; molded wood belt course separating the first and second stories.	Boundary is restricted to the footprint of the Polhemus House on the parcel associated with APN 26111005.

Resource Name; ID #	Address; City; County	NRHP/CRHR Eligibility Criteria	Historic Property and Character-Defining Features	Historic Property Boundary Description
623 Stockton Avenue (ID#0304)	623 Stockton Avenue; San Jose; Santa Clara	C/3 (NRHP eligible/CRHR listed)	Cottage building. Character-defining features include Queen Anne-style design elements such as an asymmetrical façade, bay window, balustrade spindle work, and varied wall textures (wood siding and shaped wood shingles), as well as stained glass windows and arched lattice brackets with drop finials on the porch.	Boundary is restricted to the footprint of the cottage building on the parcel associated with APN 26107068.
Southern Pacific Depot District (Hiram Cahill Depot/Diridon Station) (ID#0497)	65 Cahill Street; San Jose; Santa Clara	C/3 (NRHP/CRHR listed)	Diridon Station depot building, Car Cleaner's Shack, the iron fence, Santa Clara underpass, two butterfly sheds, and the train tracks. Character-defining features of the Diridon Station building include a three-story central section flanked by two-story wings; hipped roofs with medium boxed eaves covered with terra cotta tile; exterior walls clad with multicolor tapestry brick in English bond pattern; primary façade featuring three tall arches that frame the main entry and windows; multilight fixed windows that are steel sash and wood framed set in recessed fields, which create vertical brick surrounds; pilasters, inset with capital terra cotta appliques, flanking the central arch; cantilevered galvanized steel and concrete marquee sheltering the main entry; recessed brick fields and terra cotta appliques are repeated on side wing façades, but windows are rectangular and include casement sections. The MacQuarrie mural described in the NRHP nomination is also a character-defining feature. Additional character-defining features include the concourse with large basket arches leading to tracks; one-and-a-half-story annex with garage door openings and loading docks; iron gate with square classical posts and curvilinear details on north side of depot; Beaux-Arts-style lights on the Santa Clara underpass.	Boundary includes 12.5-acre area encompassing the southern portion of APN 26134020, the whole of APN 26134020, and the northern portion of APN 26135030.
Sunlite Baking Company (ID#0522)	145 South Montgomery Street; San Jose; Santa Clara	C/3 (NRHP eligible/CRHR listed)	One-story industrial building. Character-defining features include the original, rectangular-plan volume at northeast corner of the building; symmetrical arrangement of bays at the east façade of the original volume; smooth stucco siding; central, stepped Moderne-style entry with streamline canopy; molded window hoods crowning three windows at either side of the central entry; scalloped frieze; recessed bays separated by fluted pilasters; and vertically oriented windows.	Boundary is restricted to the footprint of the building on APN 26135027.

Resource Name; ID #	Address; City; County	NRHP/CRHR Eligibility Criteria	Historic Property and Character-Defining Features	Historic Property Boundary Description
415 Illinois Avenue (ID#0585)	415 Illinois Avenue; San Jose; Santa Clara	C/3 (NRHP eligible/CRHR listed)	One-story workers' cottage. Character-defining features include its spatial orientation toward the street, additions made to the building during its period of significance, and its porch that served as living space.	Boundary is restricted to the footprint of the building on APN 26419038.
CEQA-Only Properties				
San Mateo to Palo Alto Subsection				
McCue Depot/Hotel (ID#19)	577 Old County Road; San Carlos; San Mateo	Local criteria	1925 Mission Revival–style commercial building	While the boundary was not defined in the local designation, for the purpose of this study, the historic property boundary is the legal parcel, associated with APN 046114100.
1249 Mills Street (ID#26)	1249 Mills Street; Menlo Park; San Mateo	Local criteria	19th-century residence	While the boundary was not defined in the local designation, for the purpose of this study, the historic property boundary is the legal parcel, associated with APN 061402110.
San Jose Diridon Station Approach Subsection				
Walnut Growers Association/Walnut Factory Lofts (ID#0106)	1777 Lafayette Street; Santa Clara; Santa Clara	Local criteria	Walnut Growers Association building. Character-defining features include gabled shape of its roofs and the arrangement of four gabled volumes facing Lafayette Street and one intersecting gabled volume, the general industrial scale and massing, and the building location.	Boundary is limited to the Santa Clara Walnut Growers Association building footprint on APN 22405117.
Sociedade do Espiritu Santo Hall (ID#0111)	1375 Lafayette Street; Santa Clara; Santa Clara	Local criteria	One-story social hall. Character-defining features include cross-gabled volumes forming a modified L plan, with gabled projection at the Lafayette Street façade; locations of entrances facing Lewis and Lafayette Street, historically used in the organization's community events and parades; decorative kingpost at the Lafayette Street façade; and the false-front parapet, brackets, arched windows, exposed wood channel siding, and pediment hood over the central entrance at the Lewis Street façade, all of which convey the building's historic architectural style and materials.	Boundary is limited to S.E.S. Hall footprint on APN 26906051.

Resource Name; ID #	Address; City; County	NRHP/CRHR Eligibility Criteria	Historic Property and Character-Defining Features	Historic Property Boundary Description
San Carlos Street Viaduct (ID#0495)	San Carlos Street at Dupont Road; San Jose; Santa Clara	Local criteria	Viaduct, 510-foot concrete cast-in-place bridge that spans Los Gatos Creek and the UPRR. Character-defining features include viaduct structure and its continued use as a viaduct that provides grade separation for railway traffic crossing.	Boundary includes the viaduct footprint on multiple parcels: APNs 26137009; 26137027; 26138001; 26138049; 26138060; 26138066.
75 South Autumn Street (ID#0566)	75 South Autumn Street; San Jose; Santa Clara	Local criteria	Residence building. Character-defining features include gable front roof line with knee brackets, exposed rafters, bargeboard, dentils, and a wood-frame attic window.	Boundary includes the parcel associated with APN 25938015.
Harold Hellwig Ironworks (ID#4594)	150 S Montgomery Street; San Jose; Santa Clara	Local criteria	Industrial building. Character-defining features include rectangular plan formed by two attached volumes; two-story gabled volume at the west end of the building, clad in clinker brick and featuring clay roof tiles; original window configuration at the west façade, with molded crest and brick apron; deeply set window openings and round vents at the north and south façades; elongated east volume with flat-over-hipped roof; regular bay divisions at the north and south façades, separated by brick pilasters and generally containing pairings of steel-sash windows; and stepped brick cornice.	Boundary for local listing is restricted to the footprint of the industrial building; for the purposes of this study, the boundary is the parcel associated with APN 25948053.

Sources: Authority 2019a, 2019b
 APN = Assessor's Parcel Number
 CRHR = California Register of Historical Resources
 MP = mile post
 No. = number
 NRHP = National Register of Historic Places
 SPRR = Southern Pacific Railroad
 UPRR = Union Pacific Railroad



Source: Authority 2019a

MARCH 2020

Figure 3.16-1 Potentially Affected Historic Property Locations—San Francisco to South San Francisco Subsection



Source: Authority 2019a

MARCH 2020

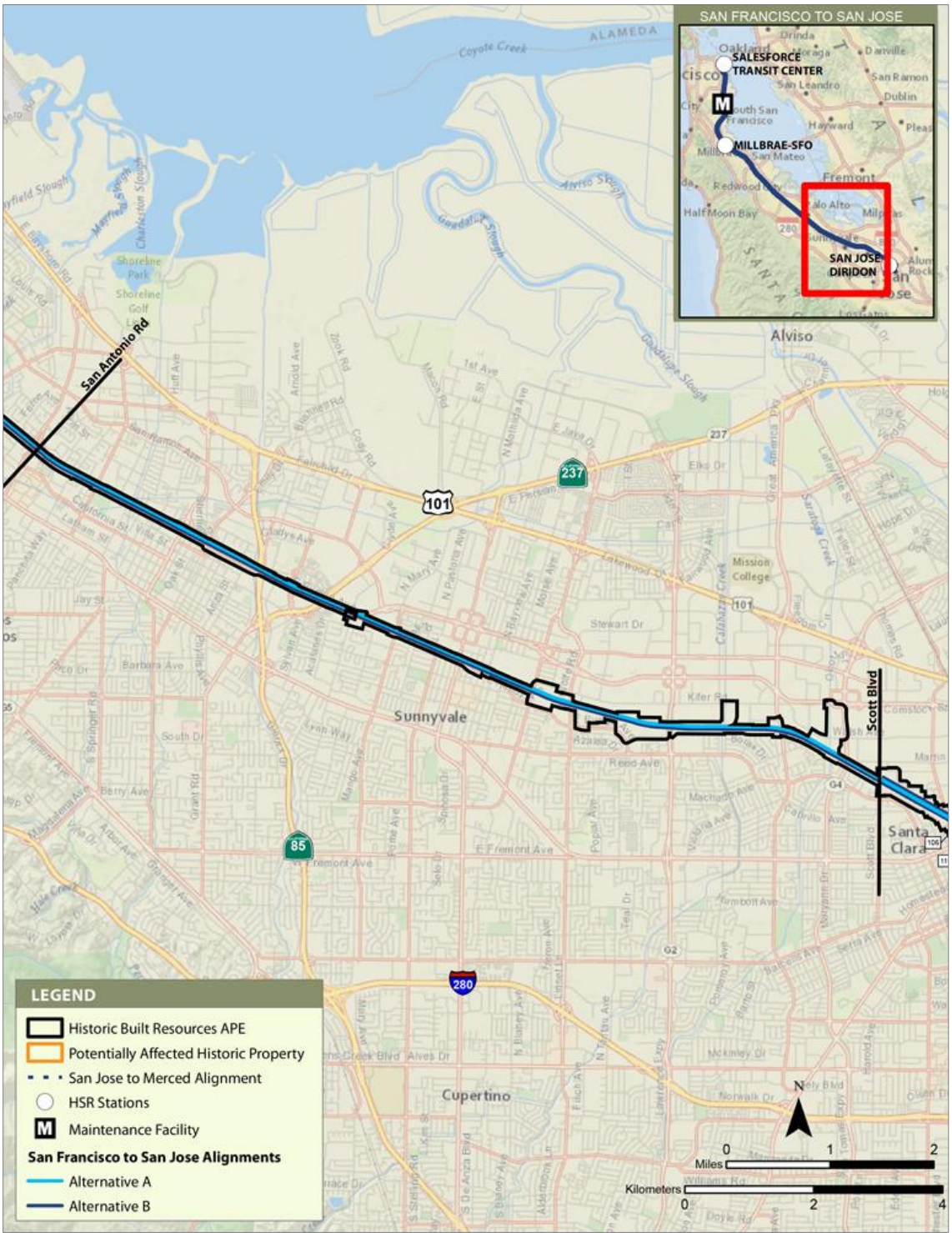
Figure 3.16-2 Potentially Affected Historic Property Locations—San Bruno to San Mateo Subsection



Source: Authority 2019a

MARCH 2020

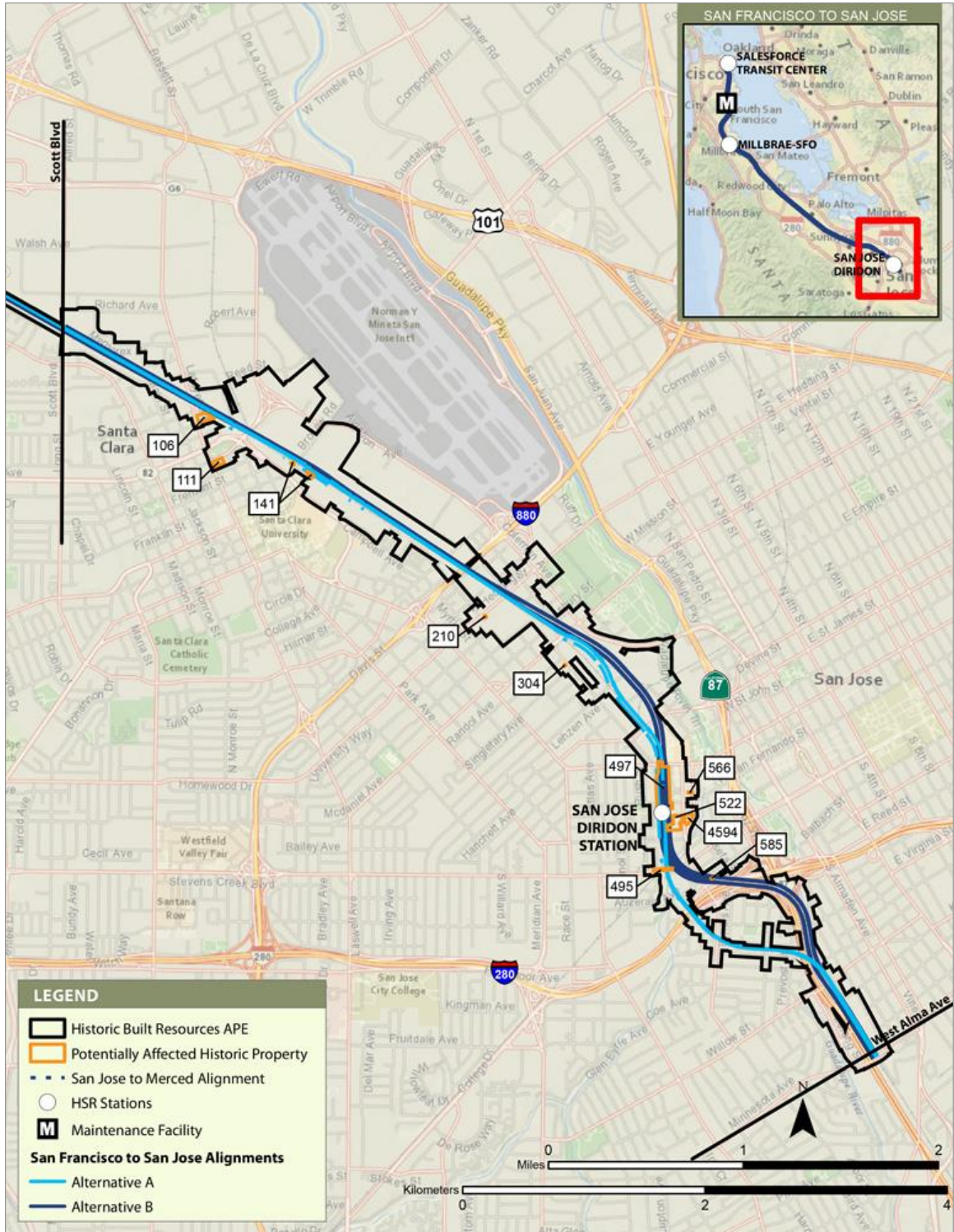
Figure 3.16-3 Potentially Affected Historic Property Locations—San Mateo to Palo Alto Subsection



Source: Authority 2019a, 2019b

MARCH 2020

Figure 3.16-4 Potentially Affected Historic Property Locations—Mountain View to Santa Clara Subsection



Source: Authority 2019b

MARCH 2020

Figure 3.16-5 Potentially Affected Historic Property Locations—San Jose Diridon Station Approach Subsection

3.16.6.3 Resources of Importance to Native Americans and Other Interested Parties

Consultation with the NAHC, Native Americans, and other interested parties did not result in the identification of specific archaeological resources of importance to Native Americans and other interested parties in the APE. On May 16, 2016, a formal notification of Decision to Undertake a Project and Notification of Consulting Opportunity, pursuant to Cal. Public Res. Code Section 21080.3.1 (AB 52), was sent to Bay Area tribes listed on the NAHC Contact Lists for San Francisco, San Mateo, and Santa Clara Counties. No response to this notification was received. On June 28, 2016, the Authority hosted a Tribal Information Meeting to discuss the San Francisco to San Jose and San Jose to Merced Project Sections. During this and follow-up consultations, no Traditional Tribal Properties were identified and no California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Cal. Public Res. Code Section 21080.3.1.

3.16.7 Environmental Consequences

3.16.7.1 Overview

This section describes the impacts and potential impacts on cultural resources in the APE. No reconnaissance-level field survey was conducted for this archaeological investigation because of access and visibility limitations; the APE is in a paved and landscaped urban environment with little or no visibility of native soils at the surface. Therefore, all impacts on specific known and as-yet-unknown archaeological resources may not be determined at this time. Construction of the project alternatives would occur in urbanized areas. The project alternatives would have the potential to adversely affect archaeological resources and historic built resources in urbanized and suburban areas. Until surveys or additional investigations can be completed, the project is assumed to have the potential to affect 27 historic built resources that are listed or eligible for listing in the NRHP and 27 archaeological resources that are listed in the NRHP or assumed eligible for listing in the NRHP. All historic built and archaeological resources identified within the APE that were listed or eligible for listing in the NHRP were determined also to be historical resources for CEQA. In addition, there are seven CEQA-only resources identified by local agencies in the APE. For this resource topic, the DDV would result in different levels of impacts for Alternative A (with and without the DDV) for certain subtopics. Where different levels of impact would occur, Alternative A's impacts with and without the DDV are noted. Unless so noted, Alternative A with and without the DDV would result in the same level of impact.

The Authority has incorporated project features (IAMFs) into the project design that will minimize or avoid disturbance of cultural resources (see Volume 2, Appendix 2-E). These project features require thorough documentation of resources in close enough proximity to be potentially damaged during construction prior to initiating construction, and establish guidance and procedures for avoiding inadvertent damage and demolition during construction.

Cultural resource specialists will create a geospatial data layer to identify the locations of all known archaeological and historic built resources and provide it to the design builder's required project archaeologist (CUL-IAMF#1). Based on the information presented in this layer, the project archaeologist will notify construction staff which areas will require pre-construction cultural resource surveys or archaeological monitoring. Construction staff will be trained through a worker environmental awareness program (WEAP) that describes the legal context for cultural resource protection and the types of cultural sites, features, and artifacts that could be uncovered during construction. The WEAP training sessions will enable construction personnel to recognize potential archaeological resources if uncovered during construction if a monitor is not present, and what actions to then take, thereby minimizing the impact on that resource from construction activities (CUL-IAMF#2). Archaeologists will conduct pre-construction cultural resource surveys in all areas not previously surveyed because of lack of legal access except for locations that lack ground exposure, such as paved areas (CUL-IAMF#3). These surveys will reduce the area that could contain unknown archaeological resources or historic properties and will therefore minimize potential impacts on unknown resources by providing assurance that HSR cultural resource

protocols and procedures will be applied to previously inaccessible portions of the APE. The geospatial data and surveys will further inform the relocation of access areas and laydown sites if their location will potentially affect newly discovered archaeological resources or historic built resources (CUL-IAMF#4). Monitoring requirements, including preparation of an archaeological monitoring plan (CUL-IAMF#5) for archaeologically sensitive areas, and use of the plan during construction, will further reduce the potential to disturb archaeological materials. However, even with these actions, project construction could disturb and damage archaeological materials.

Cultural resource specialists will prepare pre-construction conditions assessments for resources not adversely affected by the project where the project footprint crosses into the historic property boundary or where resources sensitive to impacts are identified. To protect the resources, the MOA, supported by a more detailed BETP, will be prepared to stipulate which properties will be included in the pre-construction conditions assessment and plan for protection of historic built resources and repair of inadvertent damage, and will articulate the requirements of those protection activities (CUL-IAMF#6). An architectural historian will monitor the efficacy of the protective measures, as defined in the plan. Should any inadvertent damage occur during construction, the contractor's qualified architectural historian and, if needed, a structural engineer will assess the damage and determine the best approach to repair the buildings, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO. A built environment monitoring plan (BEMP) will be prepared prior to construction to detail the monitoring methods and process required prior to initiation of ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will use these planning documents to put protective measures in place prior to the start of construction (CUL-IAMF#8).

3.16.7.2 Archaeological Resources

Activities that affect archaeological resources are typically associated with project construction. All known archaeological resources in the APE are assumed at present to be eligible for the NRHP or CRHR, because the SHPO has not completed formal consultation on them for previous projects and most of the resources could not be formally evaluated for this project because of lack of access. If NRHP- and CRHR-listed or -eligible archaeological resources are in the project footprint, construction activities would likely result in permanent physical disturbance or destruction of those resources; consequently, construction impacts are not considered temporary impacts. Soil excavation or compaction resulting from the use of heavy machinery on the construction site or in staging areas or any other area of ground-disturbing activities may affect the integrity of artifact-bearing deposits associated with known and as-yet-undiscovered archaeological resources, including buried sites. For all project alternatives, unknown or unrecorded archaeological resources, including subsurface buried archaeological deposits, may be present. Disturbance and removal of archaeological resources would result in adverse effects on archaeological resources under Section 106 and could cause substantial adverse changes in the significance of an archaeological resource and a significant impact under CEQA pursuant to Cal. Code Regs. Section 15064.5.

The settings of archaeological resources do not generally contribute to their significance; consequently, adjacent visual or auditory impacts during construction or operations would not adversely affect them. Exceptions to this could be for resources of cultural importance to Native Americans. Although there are no resources of this type known at this time, because much of the APE could not be surveyed, as-yet undocumented resources of importance to Native Americans and other interested parties could be affected.

The project would affect known archaeological resources under both project alternatives and could affect unknown archaeological resources. Any archaeological resource within the APE was assumed eligible for the NRHP or CRHR and therefore any impact would be considered significant under CEQA. Through the mitigation measures presented in Section 3.16.8, Mitigation Measures, such impacts will be mitigated or otherwise addressed if possible. The project would also adversely affect known historic properties under both alternatives pursuant to Section 106 criteria for adverse effect (36 C.F.R. § 800.5). Development of an MOA will memorialize agreed-upon measures to avoid, minimize, or mitigate adverse effects under Section 106.

Alternative A with the DDV alignment would shift up to 23 feet east into a new area of footprint, which would expand the APE compared to Alternative A without the DDV. The difference in footprint associated with the DDV would not affect any additional known archaeological resources compared to Alternative A without the DDV.

No Project Impacts

The population in San Francisco, San Mateo, and Santa Clara Counties is expected to grow through 2040 (see Section 2.6.1.1, Projections Used in Planning). Development to accommodate this population increase would continue under the No Project Alternative and would result in associated impacts on archaeological resources. The No Project Alternative considers the impacts of conditions forecast by current plans for land use and transportation near the project, including planned improvements to the highway, aviation, conventional passenger rail, freight rail, and port systems through the 2040 planning horizon. Without the project, there would be more vehicle miles traveled, resulting in increased pressure to improve capacity for all transportation modes throughout the area. The Authority estimates that additional highway and airport projects (up to 4,300 highway lane miles, 115 airport gates, and 4 airport runways) would be planned and constructed to achieve equivalent capacity and relieve this increased pressure (Authority and FRA 2012). Planned and other reasonably foreseeable projects that are anticipated to be constructed by 2040 include shopping centers, industrial parks, transportation projects, and residential developments.

Surveys to determine the presence of archaeological resources and consideration of potential project impacts on such resources are required for projects with federal approvals or funding and in accordance with CEQA. If cultural resources are discovered, laws summarized in Section 3.16.2, encourage project design modifications to minimize or avoid impacts on significant resources. When projects are unable to avoid impacts, measures are required to mitigate the loss of such resources. Development activities, including demolition, new construction, ground disturbance and compaction in construction and staging areas, accelerated erosion or increased flooding associated with changes in drainage patterns, and development of new borrow sites, could lead to impacts on cultural resources.

These impacts could include the disturbance of unknown archaeological resources. Further, increased public access to areas containing cultural resources as a result of development also has the potential to affect archaeological resources through intentional or unintentional artifact collection, vandalism, and destruction.

Volume 2, Appendix 3.18-A, Cumulative Nontransportation Plans and Projects List, and Appendix 3.18-B, Cumulative Transportation Plans and Projects Lists, provide full lists of anticipated future development projects. The residential and commercial growth expected in the City and County of San Francisco, San Mateo County, and Santa Clara County is anticipated to affect cultural resources through construction-related surface disturbance, which could lead to the unearthing of sensitive archaeological resources or the disturbance of as-yet-unknown TCPs.

Under the No Project Alternative, recent development trends are anticipated to continue, leading to impacts on cultural resources. Existing land would be converted for residential, commercial, and industrial development, as well as for transportation infrastructure, to accommodate future growth, potentially disturbing archaeological resources. Planned development and transportation projects that would occur as part of the No Project Alternative would likely include various forms of mitigation to address impacts on archaeological and built resources.

Project Impacts

Construction Impacts

Construction of the project alternatives would consist predominantly of track modifications; relocation of overhead contact system (OCS) poles; and installation of communication radio towers, four-quadrant gates at at-grade crossings, and perimeter fencing along the right-of-way. At certain locations along the corridor the project would relocate or close roadways, modify and expand existing stations, expand or build new structures, build a new LMF under both project

alternatives, and build additional passing tracks and viaducts (under Alternative B). Activities associated with constructing this infrastructure include establishing equipment and materials storage areas close to construction sites; demolishing existing structures to expand the existing Millbrae Station; clearing and grubbing; handling, storing, hauling, excavating, and placing fill; possible pile driving; modifications of bridges and roadways; and utility relocations. Chapter 2, Alternatives, describes construction activities.

Impact CUL#1: Permanent Disturbance of Unknown Archaeological Resources

Construction of the project alternatives could potentially affect unknown archaeological resources through ground-disturbing activities. Unknown archaeological resources might encompass the full range of pre-contact or historic-period activities conducted over time, including pre-contact lithic scatters and village sites, historic-period homestead remains, and human burials.

Unknown or unrecorded archaeological resources that are not observable when conducting standard surface archaeological inspections, including subsurface buried archaeological deposits, may exist in urbanized and suburban areas, although most ground-disturbing activities would take place within an existing, disturbed Caltrain right-of-way; therefore, the potential for archaeological resources at or near the ground surface at these locations is anticipated to be low. Unknown or unrecorded archaeological resources may also exist in areas where permission to enter has not been granted. The potential for encountering pre-contact archaeological resources would differ between the project alternatives, although both project alternatives would be constructed in the same general geography and result in similar amounts of ground disturbance. Based on the presence of water and gentle slopes, a total of 390.4 acres would be considered sensitive for pre-contact archaeological resources under Alternative A, and a total of 578.2 acres would be considered sensitive under Alternative B. The total acreage of historic-period sensitivity under Alternative A would be 28.4 acres and under Alternative B would be 28.6 acres. Altogether, the total pre-contact archaeological sensitivity for Alternative A would be 418.8 acres and 606.8 acres for Alternative B.

The Authority will limit potential impacts on unknown archaeological resources by developing an MOA. The Authority and SHPO would use the MOA to enforce the required actions arising from the Section 106 consultation.

CEQA Conclusion

There would be a significant impact under CEQA for Alternatives A and B because both have the potential to cause a substantial adverse change in the significance of an archaeological resource or as-yet-unknown archaeological resource in the APE as a result of destruction or alteration of the resource by ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Conclusion

There would be an adverse effect under Section 106 for Alternatives A and B because both alternatives have the potential to affect the significance of an archaeological resource in the APE or as-yet-unknown archaeological resources as a result of destruction or alteration of the resource from ground-disturbing activities during project construction.

Impact CUL#2: Permanent Disturbance of Known Archaeological Resources

Alternatives A and B cross all or part of the 27 known archaeological resources in the project footprint. These cultural resources would be subject to phased evaluation, and they are assumed eligible until they can be evaluated and their eligibility determined. Grading, trenching, and excavating in the project footprint during construction, as well as compaction resulting from the use of heavy machinery and other vehicular traffic on the construction site or in TCEs, may affect the integrity of artifact-bearing archaeological deposits.

Many archaeological deposits in the project footprint are shallow, and grading to depths of 2 or 3 feet below the ground surface could destroy an archaeological resource. Grading or excavation would occur mostly in specific areas of track modification as well as for new construction such as

the new Millbrae Station building, the new San Jose Diridon Station building, the LMF, passing track and viaduct under Alternative B, four-quadrant gates, pole relocations, traction power facilities, and radio towers. Some of the soils in these areas, such as locations where the LMF could be constructed, have been highly disturbed in the past. Consequently, the potential of discovering archaeological resources close to the ground surface in these locations would be low. However, the project requirements for surveys, testing, data collection, and monitoring would minimize loss of information through identification and data recovery. While these actions would minimize some potential impacts on archaeological resources, they would not avoid all impacts. These potential impacts are described by resource from north to south.

San Francisco to South San Francisco Subsection

CA-SFR-171 (P-38-004638)

Alternatives A and B, which would be at grade at this resource, would incorporate about 78 feet on the west half of the resource in the permanent blended Caltrain/HSR right-of-way and a sliver⁴ of TCE extending about 15 feet into the northwest corner of the resource boundary. Construction-related activities, including track modifications, in the right-of-way and TCEs may damage or destroy a portion of the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because construction within the right-of-way could cause a substantial adverse change in the significance of the resource due to destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

CA-SFR-191H (P-38-005131)

Alternatives A and B, which would be at grade at this resource, would incorporate the southern margin of the resource in the permanent blended right-of-way. Construction activities associated with track modifications could damage or destroy the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because construction within the right-of-way could cause a substantial adverse change in the significance of the resource due to destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

CA-SMA-378H (P-41-002160)

Alternative A, which would be at grade at this resource, would incorporate about 100 feet of the northwestern portion of the resource in the TCE and the rest of the resource would be covered by the permanent blended right-of-way. Under Alternative B, the northern half of the site would be covered by the LMF and the southern half of the site would be covered by the permanent blended right-of-way. Construction-related activities, including track modifications and grading or

⁴ For the purposes of this analysis, the term *sliver* refers to a narrow strip of property that is less than 25 feet wide.

excavation in the right-of-way, the LMF area, and TCEs may damage or destroy a portion of the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because the track modifications within the blended right-of-way and grading or excavation associated with the TCE and LMF could cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts, thus impairing the integrity of the overall resource. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

CA-SMA-418H (P-41-002395)

Alternatives A and B, which would be at grade at this resource, would incorporate the entire resource in the permanent blended right-of-way. Construction activities associated with track modifications could damage or destroy the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because the track modifications within the blended right-of-way could cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts, thus impairing the integrity of the overall resource. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

San Bruno to San Mateo Subsection

CA-SMA-47 (P-41-000051)

Alternatives A and B, which would be at grade at this resource, would incorporate about 100 feet of the center of the resource in the permanent blended right-of-way. Construction-related activities in this area would be minimal, consisting only of minor railbed modifications to level ballast; therefore, work in the blended right-of-way at this location would likely not damage or destroy a portion of the resource.

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because construction activities in this area would be minimal and consist only of minor railbed modifications. It is not anticipated that substantial adverse changes in the significance of an archaeological resource would be caused due to the destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Therefore, CEQA does not require any mitigation.

Section 106 Findings

For Alternatives A and B, effects on this archaeological resource would be avoided. There would be no adverse effect under Section 106.

CA-SMA-422 (P-41-002400)

This small pre-contact midden consists of a point on a map. Under Alternatives A and B, the permanent blended right-of-way would encompass the entire resource boundary. Construction activities associated with track modifications could damage or destroy the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because the track modifications within the blended right-of-way could cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts, thus impairing the integrity of the overall resource. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

CA-SMA-423/HST-94H (P-41-002401)

Under Alternatives A and B, a permanent HSR access road, communication radio tower, and TCE would cover 200 feet of the western portion of the resource. A communication radio tower involving disturbance of 40 feet by 25 feet would be constructed at the western edge of the resource. Construction of the access road and communication radio tower would likely include grading and excavation that could damage or destroy a portion of the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because the construction of the TCE, permanent access road, and communication radio tower could cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, these actions would not avoid all impacts, thus diminishing the resource's integrity. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would still be adverse under Section 106.

P-41-000498

Under Alternatives A and B, a permanent easement for electrical utilities, blended right-of-way, station platform reconstruction, and TCEs would parallel the south edge of the resource for approximately 45 feet south of Carolan Avenue. Construction-related activities in the blended right-of-way, TCE, and utility relocation areas, including grading or excavation, may damage or destroy a portion of the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because construction in the blended right-of-way, TCEs, and utility relocation areas could cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5 (b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

CA-SMA-102 (P-41-000105)

This resource was recorded at three locations; therefore, it consists of separate loci or areas that could be affected. Under Alternatives A and B, no project elements would intersect the boundaries of the western locus and smaller southern locus. Under both alternatives, the blended right-of-way would intersect 35 feet of the southern boundary of the middle locus, and a TCE associated with a communication radio tower co-located with an existing Caltrain paralleling station would intersect 160 feet of the eastern portion of this locus. Construction-related activities in the blended right-of-way and TCE, including grading or excavation, may lead to damage to or destruction of a portion of the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because construction in the blended right-of-way and TCEs could cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

CA-SMA-316 (P-41-000310)

Under Alternatives A and B, the blended right-of-way would cover a 35-foot area of the northern edge of the resource. Construction-related activities in the blended right-of-way, including track modifications, may damage or destroy a portion of the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because track modifications in the blended right-of-way could cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

CA-SMA-317 (P-41-000311)

Under Alternatives A and B, 28 feet of the southern portion of the resource would be covered by an at-grade crossing, entailing excavation and possible drilling for the installation of four-quadrant gates. In addition, a permanent sewer relocation, telecommunication relocation, station platform reconstruction, permanent blended Caltrain/HSR right-of-way, and TCEs would cover the entire resource. Telephone and fiber optic lines would be relocated within the resource boundary. Construction-related activities involving grading or excavation in the blended right-of-way for telecommunication relocation, a station platform reconstruction, and TCE areas may damage or destroy a large portion of the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because construction in the blended right-of-way, telecommunication relocation, station platform reconstruction, and TCEs could cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

CA-SMA-4 (P-41-000009)

Under Alternatives A and B, 80 feet of the southern portion of the resource would be intersected by the permanent blended right-of-way, TCE, and an at-grade crossing, encompassing about 12 feet of three separate areas of the blended right-of-way. The at-grade crossing would require excavation and possible drilling within roadway rights-of-way for the installation of four-quadrant gates. Within the right-of-way and TCE, all construction-related activities would be allowed, including grading or excavation that could result in damage to or destruction of a portion of the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because construction in the right-of-way and TCE could have the potential to cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts. Construction within the right-of-way and TCE would result in the loss of important information, thus diminishing the resource's integrity. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

CA-SMA-232 (P-41-000230)

Under Alternatives A and B, the blended right-of-way would extend 60 feet into the southern portion of the resource. In the right-of-way, grading or excavation for track modifications would occur, which may result in damage or destruction of a portion of the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because construction in the right-of-way could cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts. Construction in the right-of-way would result in the loss of important information, thus diminishing the resource's integrity. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

CA-SMA-233 (P-41-000231)

Under Alternatives A and B, the blended right-of-way would cover the entire resource. Track modifications would occur in this general area; however, the resource is within the station parking lot, which would not experience any ground-disturbing activities.

CEQA Conclusion

There would be no impact under CEQA for Alternatives A and B because ground-disturbing activities would not occur within the resource boundary. It is not anticipated that a substantial adverse change in the significance of the resource would result from destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Therefore, CEQA does not require any mitigation.

Section 106 Findings

For Alternatives A and B, effects on this archaeological resource would be avoided. There would be no adverse effect under Section 106.

CA-SMA-419 (P-41-002396)

Under Alternatives A and B, there would be an at-grade crossing and a 160-foot TCE in the center of the resource. The blended right-of-way would intersect the resource, encompassing an area 208 feet long and 85 feet wide, and a four-quadrant gate would be constructed within the blended right-of-way at the northern end of the TCE. Within the right-of-way and TCE, all construction-related activities would be allowed, including grading or excavation that may result in damage or destruction of a portion of the resource. Construction of the four-quadrant gate would likely require excavation and possible drilling activities.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because construction in the right-of-way and TCE could cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts. Construction in the right-of-way and TCE would result in the loss of important information, thus diminishing the resource's integrity. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

San Mateo to Palo Alto Subsection**CA-SMA-420 (P-41-002397)**

Under Alternatives A and B, a permanent maintenance access easement and blended right-of-way would extend into a portion of the northern and eastern boundaries of the resource. Within the right-of-way and maintenance access easement, all construction-related activities would be allowed, including grading or excavation that could result in damage or destruction of a portion of the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because construction within the right-of-way and maintenance access easement would cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts. Construction in the right-of-way and maintenance access easement would result in the loss of important information, thus diminishing the resource's integrity. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

CA-SMA-421 (P-41-002398)

This resource is very small, with boundaries consisting of a single map point. Under Alternative A, the project would include blended right-of-way, which would cover the entire resource, and would also include track shifts. Under Alternative B, a four-track passing area would be constructed, requiring additional right-of-way acquisition, demolition, grading, and OCS pole relocation. Excavation and demolition activities associated with track shifts under Alternative A or construction of the passing track under Alternative B may result in damage or destruction of a portion of the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because construction in the right-of-way could cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts. Construction in the right-of-way would result in the loss of important information, thus diminishing the resource's integrity. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

CA-SMA-358/H (P-41-000506)

Under Alternatives A and B, the blended right-of-way would intersect the resource for 60 feet at the northern boundary of the resource. In the right-of-way, all construction-related activities would be allowed, including grading or excavation that could result in damage or destruction of a portion of the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because construction in the right-of-way could cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts. Construction within the right-of-way would result in the loss of important information, thus diminishing the resource's integrity. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

CA-SMA-424/CA-SCL-939 (P-41-002402/P-43-003137)

Under Alternatives A and B, most of the resource would be covered by the blended right-of-way and an at-grade crossing in the eastern half of the resource. Construction activities at the at-grade crossing would consist of excavation and possible drilling for a four-quadrant gate and excavation or grading for track modifications, which may result in damage or destruction of a portion of the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because construction within the right-of-way could cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts. Construction within the right-of-way would result in the loss of important information, thus diminishing the resource's integrity. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

CA-SCL-600 (P-43-000595)

Under Alternatives A and B, the blended right-of-way would intersect 100 feet of the northern portion of the resource just southwest of Alma Street. Within the right-of-way, all construction-related activities would be allowed, including grading or excavation that could result in damage or destruction of a portion of the resource.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because construction in the right-of-way could cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological resources, they would not avoid all impacts. Construction in the right-of-way would result in the loss of important information, thus diminishing the resource's integrity. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

Mountain View to Santa Clara Subsection**CA-SCL-1 (P-43-003172)**

Under Alternatives A and B, the HSR right-of-way would intersect 1,026 feet of the resource. Track modifications would occur north of a road crossing 200 feet of the southwestern portion of the resource. Construction activities in these areas such as grading or excavation would damage or destroy a portion of the southern half of the resource, resulting in loss of important information.

CEQA Conclusion

Under Alternatives A and B, the impact would be significant under CEQA because construction within the right-of-way could cause a substantial adverse change in the significance of the resource through destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on the archaeological resource, they would not avoid all impacts, thus impairing the integrity of the overall resource. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternatives A and B, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological resource. The effect would remain adverse under Section 106.

CA-SCL-22 (P-43-000042)

Under Alternatives A and B, the HSR right-of-way would cover all of the resource except for a 6-foot sliver at the southern boundary. Minor railbed modifications would occur at this location, which consists of leveling ballast; therefore, work in the blended right-of-way at this location would likely not damage or destroy a portion of the resource.

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because construction activities in this area would be minimal, consisting only of minor railbed modifications. It is not anticipated that substantial adverse changes in the significance of an archaeological resource would be caused by the destruction or alteration of the resource from ground-disturbing activities during project construction (14 Cal. Code Regs. § 15064.5(b)(1)). Therefore, CEQA does not require any mitigation.

Section 106 Findings

For Alternatives A and B, effects on this archaeological resource would be avoided. There would be no adverse effect under Section 106.

San Jose Diridon Station Approach Subsection**CA-SCL-30 (P-43-000050)**

Alternatives A and B (Viaduct to Interstate [I-] 880), which would be at grade at this resource, would incorporate about 10 feet on the north edge of the site within the permanent blended Caltrain/HSR right-of-way, and a sliver extending about 50 feet south that would be included in the existing Caltrain right-of-way. Alternative B (Viaduct to Scott Boulevard), which would be built on a longer viaduct here, would incorporate about 60 feet of the north edge of the site within the Caltrain right-of-way. Construction activities such as grading or excavation could result in damage to or destruction of the site or portions of the site.

CEQA Conclusion

The impact would be significant under CEQA for Alternative A and Alternative B (Viaduct to I-880) because construction of the new blended Caltrain/HSR right-of-way would result in damage to or destruction of a portion of the site and loss of important information, thus diminishing the resource's integrity. Although project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological sites, they would not avoid all impacts. The impact would also be significant under CEQA for Alternative B (Viaduct to Scott Boulevard) because construction within the Caltrain right-of-way would result in damage to or destruction of a portion of the site, thus diminishing the resource's integrity. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For both project alternatives, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological site. The effect would remain adverse under Section 106.

889 Elm Street, San Jose (Resource ID 0196)

Under Alternatives A and B (both viaduct options) the project would incorporate the northern portion of this resource, approximately 800 feet south of the combined Caltrain/HSR right-of-way, within a TCE. Within the TCE, all construction-related activities would be allowed, including grading or excavation that could result in damage or destruction of a portion of the site.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because construction within the TCE could result in damage or destruction of a portion of the site. Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological sites, they would not avoid all impacts. Construction within the TCE would result in the loss of important information, thus diminishing the resource's integrity. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For both project alternatives, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological site. The effect would remain adverse under Section 106.

CA-SCL-855 (P-43-001617)—Former SPRR-UPRR Yards

Under Alternative A, the site is not within the project footprint. Under Alternative B (Viaduct to I-880), which would be on viaduct at this location, a TCE would parallel the south edge of the site for approximately 800 feet in a shopping center parking lot; about 175 feet of this would be an area of new Union Pacific Railroad (UPRR) right-of-way. Also, there would be three small utility relocation areas on the south edge of the site. The eastern site boundary along Taylor Street is part of a TCE extending about 160 feet north-south, then merging into a TCE along the northern site boundary along Coleman Avenue for approximately 2,450 feet east-west. Construction-related activities in the new UPRR right-of-way, TCEs, and utility relocation areas including grading or excavation may lead to damage or destruction of a portion of the site. Under Alternative B (Viaduct to Scott Boulevard), which would also be on viaduct at this point, a permanent HSR right-of-way would parallel the south edge of the site for approximately 800 feet in a shopping center parking lot, including two small utility relocation areas. The northern site boundary runs along the edge of Coleman Avenue in a TCE for approximately 2,450 feet east-west. Construction-related activities in the permanent HSR right-of-way and TCEs, including grading or excavation, may lead to damage or destruction of a portion of the site.

CEQA Conclusion

Under Alternative A, there would be no impacts because the site is not within the project footprint. Therefore, CEQA does not require any mitigation.

The impact would be significant under CEQA for Alternative B (Viaduct to I-880), because construction in the new UPRR right-of-way, TCEs, and utility relocation areas would result in damage or destruction of a portion of the site and loss of information potential, impairing the integrity of the overall site. Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological sites, they would not avoid all impacts. The impact would also be significant under CEQA for Alternative B (Viaduct to Scott Boulevard), because construction in the permanent HSR right-of-way, TCEs, and utility relocation areas would result in damage or destruction of a portion of the site and loss of information potential, impairing the integrity of the overall site. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For Alternative A, there would be no effects. For Alternative B (both viaduct options), the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological site. The effect would remain adverse under Section 106 for Alternative B.

CA-SCL-690 (P-43-001071)

Under Alternative A, which would be at grade at this resource, the entire site would be encompassed by the permanent blended Caltrain/HSR right-of-way. Under Alternative B (both viaduct options), which would be on aerial viaduct at this location, the project would intersect the western edge of this resource within a TCE about 10 feet wide and 465 feet long. Construction activities such as grading or excavation could result in damage or destruction of a portion of the site and could affect the reburial area.

CEQA Conclusion

The impact would be significant under CEQA for Alternatives A and B because construction activities within the TCE and blended Caltrain/HSR right-of-way could result in damage or destruction of this portion of the site, damage to human remains, and loss of information potential. Although the project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological sites, they would not avoid all impacts, thus impairing the integrity of the overall site. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

For both project alternatives, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological site. The effects would remain adverse under Section 106.

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Under Alternative A, which would be at grade at this resource, the entire site would be encompassed by the permanent blended Caltrain/HSR right-of-way. Under Alternative B (both viaduct options), there would be no impacts because the site is not within the project footprint.

CEQA Conclusion

The impact would be significant under CEQA for Alternative A, because construction of the new blended Caltrain/HSR right-of-way would result in damage or destruction of the site and loss of important information, diminishing the resource's integrity. Although project requirements for surveys, testing, data collection, and monitoring would minimize some potential impacts on archaeological sites, they would not avoid all impacts. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Under Alternative B there would be no impacts because the site is not within the project footprint. Therefore, CEQA does not require mitigation.

Section 106 Findings

Under Alternative A, the project requirements for surveys, testing, data collection, and monitoring would minimize some potential adverse effects, but they would not avoid all effects on this archaeological site. The effects would remain adverse under Section 106 for Alternative A. Under Alternative B, there would be no effects.

Impact CUL#3: Temporary Public Access and Disturbance of Archaeological Resources

Construction activities associated with the project would not result in higher potential for public access to archaeological resources by people who previously would not have been able to enter the property where the resource is located because the work areas would be inaccessible to the public. All work areas would be fenced and access controlled, allowing access only to authorized construction personnel; therefore, they would not provide access for persons to loot sites and would not expose resources to compaction through pedestrian or vehicular traffic. Additionally, the project would include increased site protection measures, such as nighttime security patrols, through the MOA and ATP.

These design characteristics and features would be the same for both project alternatives. There would be no impacts on unknown archaeological resources because of temporary public access from either project alternative.

CEQA Conclusion

The impact under CEQA would be less than significant because design characteristics of the project alternatives would preclude public access to the HSR right-of-way and consequently to potential archaeological resources. Construction of the project alternatives would not result in an adverse change in the significance of an archaeological resource from destruction or alteration of a resource, because there is no higher potential for damage as a result of increased public access. Construction of the project alternatives would not result in impacts on an archaeological resource. Therefore, CEQA does not require any mitigation.

Section 106 Conclusion

There would be no effect under Section 106 for Alternatives A and B because design characteristics of the project alternatives would preclude public access to the HSR right-of-way and to potential archaeological resources. Therefore, construction of the project alternatives would not result in an adverse effect on an archaeological resource from destruction or alteration of a resource caused by public access.

Operations Impacts

Routine operations and maintenance of the project alternatives are not expected to require ground disturbance in previously undisturbed sediments that could cause additional impacts on archaeological resources. Operations of either of the project alternatives would not cause damage to or loss of cultural resources. There would be no impact during operations under either of the project alternatives. Therefore, CEQA does not require mitigation.

3.16.7.3 Historic Built Resources

Historic built resources can be adversely affected if character-defining features are altered. As with archaeological resources, activities that affect historic built resources are typically associated with project construction. Activities that could result in impacts on historic built resources from construction of a project include, but are not limited to, relocation or realignment of resources; demolition and removal of all or portions of buildings, structures, linear features, or landscaping; settlement resulting from adjacent excavation or dewatering; vibration-induced damage; and the alteration of visual character, reducing the feeling and association of the property with its historic setting. Permanent limitation of physical access to a historic property could result in its abandonment and eventual demolition. Construction-period alterations to a setting, such as increased noise levels or materials storage, are considered temporary and as such are not considered an adverse effect or a substantial adverse change to historic built resources. Adverse effects resulting from train operations would be limited to noise, vibration, or both caused by passing trains if an aspect of the historic property's significance is derived from a quiet environment.

The project would affect known historic built resources under both project alternatives. The project would result in a substantial adverse change in the significance of historic built resources pursuant to CEQA Guidelines Section 15064.5 and would therefore be considered a significant impact. Through the mitigation measures presented in Section 3.16.8, such impacts may be mitigated or resolved. Both alternatives would also adversely affect known historic properties pursuant to Section 106 criteria for adverse effect (36 C.F.R. § 800.5). Development of an MOA and BETP will memorialize agreed-upon avoidance, minimization, and mitigation measures to resolve adverse effects under Section 106. The difference in footprint associated with the DDV under Alternative A would not affect any additional known historic built resources compared to Alternative A without the DDV.

No Project Impacts

The expected growth and development described in the No Project Impacts discussion in Section 3.16.7.2, Archaeological Resources, would be the same for historic built resources. Planned and other reasonably foreseeable projects listed in Volume 2, Appendix 3.18-A and Appendix 3.18-B would have the potential to affect historic built resources.

Surveys to determine the presence of historic built resources and consideration of potential project impacts on such resources are required for projects involving state and federal approvals or funding. If historic built resources are present, these laws encourage project design modifications that would minimize or avoid impacts on significant resources. When projects are unable to avoid impacts, measures are required to lessen impacts or mitigate the loss of such resources. Development activities including demolition, alteration, and new construction could lead to impacts on historic built resources. These impacts could include the demolition, destruction, relocation, or alteration of historic built resources or their setting.

Under the No Project Alternative, recent development trends are anticipated to continue, leading to impacts on historic built resources. Existing historic resources would be converted for residential, commercial, and industrial development, as well as for transportation infrastructure to accommodate future growth, potentially damaging, altering, or destroying historic built resources. Planned development and transportation projects that would occur as part of the No Project Alternative would likely include various forms of mitigation to address impacts.

Project Impacts

Construction Impacts

Chapter 2 describes construction activities in detail. Potential impacts on historic built resources would include demolition, alteration, or inadvertent damage to historic built resources from construction activities and operations after construction. There would be potential for impacts from the project alternatives because the features constructed could alter the setting of historic built resources, potentially impairing their integrity of feeling, setting, or association.

Impact CUL#4: Permanent Demolition, Destruction, Relocation, or Alteration of Built Resources or Setting

Construction activities under both project alternatives could result in demolition, relocation, and alteration of built resources, the setting of the resources, or both. Where the permanent HSR right-of-way would cross over a historic property, character-defining features or entire resources could be demolished to make way for the construction of track structures or other facilities. The permanent HSR right-of-way that would be introduced directly adjacent to built resources would alter their setting, with the potential to impair the resource's integrity of feeling, setting, and association. In other words, introducing a very large, modern transportation infrastructure (e.g., the viaducts in the San Jose Diridon Station Approach Subsection) would make it difficult to understand the historic visual context of the resource, and thus how it functioned and related to its local context during its period of significance. TCEs may be used in a variety of ways, including but not limited to materials staging, operation of construction equipment, and installation of protective fencing. Once a TCE is created, any activities in support of project construction would be allowed in that area. These activities have the potential to result in physical damage to resources or their character-defining features. Potential impacts would vary by resource and project alternative.

NRHP/CRHR-Listed or Eligible-for-Listing Resources

This section analyzes construction activities for their potential to affect identified historic built resources within the APE. Table 3.16-3 shows the built resources within the APE that have been listed or determined eligible for listing in the NRHP and CRHR. Summary descriptions of these built resources are available in Chapter 8 of the San Francisco to San Jose HASR and San Jose to Merced HASR, and detailed evaluations are provided in DPR forms included as Appendix D of both HASR documents (Authority 2019a, 2019b).

San Francisco Fire Department Auxiliary Water Supply System (ID#01)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figures 3 and 4), underground pipes associated with the AWSS are in four locations in the APE where construction activities would occur. While the AWSS is a city-wide system, the locations that intersect with proposed project activities are Fourth Street between Townsend and King Streets, Fifth Street between Bluxome Street and King Street, Townsend Street and King Street Station beneath the Sixth Street I-280 freeway ramp, and intersection of Seventh Street and Mission Bay Drive.

In these locations, the project would include activities such as TCEs, reconstruction of station platforms and pedestrian access ramps, installation of a four-quadrant gate, and construction of blended rail right-of-way in portions of Barry Street. None of these project activities would include subsurface excavation to the depth where the AWSS pipes are located.

Underground pipes associated with the AWSS system are also located under the existing Caltrain right-of-way beneath Southern Embarcadero Freeway between Mariposa Street and 18th Street, Cesar Chavez Street between Mississippi Street and Pennsylvania Avenue, and Evans Street at I-280. While the HSR system would use existing tracks for HSR service, the project would not include track modifications that would alter the horizontal alignment of the existing Caltrain right-of-way at these locations.

In addition, underground pipes associated with the AWSS system are located under the existing Caltrain right-of-way in tunnels parallel with Seventh Street between Berry Street and Mission

Bay Drive, beneath the Southern Embarcadero Freeway at 20th Street and 22nd Street, and beneath Palou Avenue. However, the project would not include work in the tunnels.

CEQA Conclusion

There would be no impact under CEQA for Alternatives A and B because the project would not cause a substantial adverse change to any of the contributing features of the district, and characteristics that qualify it for listing in the CRHR would not be materially impaired. AWSS pipes are present underground in existing road or rail rights-of-way in 11 locations that intersect with project features. However, none of the construction activities would entail subsurface excavation to the depth where the AWSS pipes are located. Moreover, given the extensive nature of the city-wide AWSS system, any alteration from pipe relocation associated with the project would represent such a relatively small change to the historic district as a whole that the alteration would not diminish the ability of the resource to convey the significance as a district. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not alter the characteristics that qualify the AWSS pipe system for inclusion in the NRHP. The integrity of the resource would not be diminished and thus the alternatives would have no effect.

Central Waterfront Historic District (ID#03; ID#03a; ID#03b)

According to 2001 and 2008 evaluations, the Central Waterfront Historic District is significant at the local level under NRHP Criterion A under the themes of industrial development and settlement during the period between 1854 and 1948. It is also significant at the local level under CRHR Criterion 1 under the themes of industrial development and settlement, and CRHR Criterion 3 for its concentration of late 19th- and early 20th-century American industrial architecture. Although no specific character-defining features were identified in either the 2001 or 2008 evaluations of the historic district, the San Francisco to San Jose HASR, which received SHPO concurrence in August 2019, identified the integrity of its contributing buildings and structures, including SPRR Tunnel Nos. 1 and 2, the mostly flat natural topography including eastern waterfront; transportation grid (including railroad); and its 19th- and 20th-century industrial and residential architecture.

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figures 5, 6, and 7), the existing rail right-of-way enters the district at grade in the northwest corner of the Central Waterfront Historic District, transitions from grade to tunnel in several locations (tunnel south of 18th Street, at grade north of 22nd Street, and tunnel south of 23rd Street) before exiting the district boundary at 25th Street. Alternatives A and B would not include work in tunnels, including tracks in SPRR Tunnel No. 1/Bayshore Cutoff Tunnel No. 1 (ID#3a) and SPRR Tunnel No. 2/Bayshore Cutoff Tunnel No. 2 (ID#3b). The HSR system would use existing tracks for HSR service, but would not include track modifications that would alter the horizontal alignment of the existing Caltrain right-of-way. In addition, Alternatives A and B include construction of a communications radio tower co-located with a Caltrain paralleling station in a vacant lot (not a district contributor) west of I-280 on the western edge of the district.

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because the project would not cause a substantial adverse change in the significance of the Central Waterfront Historic District. Alterations to the railroad tracks would not materially impair the characteristics that qualify it for listing in the CRHR. Under Alternatives A and B, no modification to the SPRR Tunnel No. 1 and SPRR Tunnel No. 2 district contributors would be undertaken. None of the character-defining features of these structures (i.e., original alignment; length; bore dimensions; original brick, concrete, and steel I-beam construction; and red brick with sandstone architectural details at tunnel portals) would be altered. While the transportation grid, including the railroad, is considered to be a contributing feature of the district, the project does not propose modifications to the rail in this location and would not undermine the resource's ability to convey its significance under NRHP/CRHR Criterion A/1 or CRHR Criterion 3. While the project would also include construction of a communications radio tower west of I-280 on the western edge of the district, the tower would be built adjacent to an existing Caltrain paralleling station on a

property that is not a district contributor. The existing elevated I-280 would block the view of the tower from the rest of the district on the east side of the highway. Under such circumstances, the tower would not affect a contributing feature of the district and would not represent an impact on the setting that would undermine the resource's integrity of feeling or association. Therefore, CEQA does not require mitigation.

Section 106 Findings

The project would not alter contributing components of the Central Waterfront Historic District, including tunnels or the transportation grid. Introduction of the radio tower would not alter any contributing components or the setting of the district. Accordingly, Alternatives A and B would not alter characteristics that qualify the Central Waterfront Historic District for inclusion in the NRHP. The integrity of the resource would not be diminished. Thus, both alternatives would have no effect.

Southern Pacific Railroad Tunnel No. 3 District (ID#05)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 8), existing at-grade Caltrain tracks would be used to accommodate blended Caltrain/HSR service, but no work would take place in the tunnel structure and no alterations to the structure have been proposed.

CEQA Conclusion

There would be no impact under CEQA for Alternatives A and B because there would be no alterations that would materially impair characteristics that qualify SPRR Tunnel No. 3 for listing in the CRHR. The project would not cause a substantial adverse change in the significance of the resource. No modification to SPRR Tunnel No. 3 would be undertaken. None of the structure's character-defining features (i.e., original alignment; length; bore dimensions; original brick, concrete, and steel I-beam construction; and red brick with sandstone architectural details at tunnel portals) would be altered. Thus, the property would retain its integrity of location, setting, design, materials, workmanship, feeling, and association that convey its significance under Criteria A/1 and C/3. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not alter characteristics that qualify SPRR Tunnel No. 3 for inclusion in the NRHP. The integrity of the resource would not be diminished and thus both alternatives would have no effect.

Southern Pacific Railroad Tunnel No. 4 (ID#06)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 9), existing at-grade Caltrain tracks would be used to accommodate blended service, but no work would take place in the tunnel structure and no alterations to the structure have been proposed.

CEQA Conclusion

There would be no impact under CEQA for Alternatives A and B because there would be no alterations that would materially impair characteristics that qualify SPRR Tunnel No. 4 for listing in the CRHR. The project would not cause a substantial adverse change in the significance of the resource. Under Alternatives A and B, no modification to SPRR Tunnel No. 4 would be undertaken. None of the structure's character-defining features (i.e., original alignment; length; bore dimensions; original brick, concrete, and steel I-beam construction; and red brick with sandstone architectural details at tunnel portals) would be altered. Thus, the property would retain its integrity of location, design, materials, and workmanship that convey its significance under Criteria A/1 and C/3. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not alter characteristics that qualify SPRR Tunnel No. 4 for inclusion in the NRHP. The integrity of the resource would not be diminished and thus both alternatives would have no effect.

Southern Pacific Railroad Bayshore Roundhouse (ID#07)

Under Alternative A (Volume 2, Appendix 3.16-C, Figure 10), the project would not include any activities within the property boundary of the SPRR Bayshore Roundhouse. Outside the parcel boundary, construction activities would include reconstruction of the Bayshore Caltrain Station

and associated surface parking lot approximately 530 feet south of the current location and extension of the southbound platform at the Bayshore Caltrain Station to accommodate the realignment of the mainline tracks for the East Brisbane LMF; upgrades to existing Caltrain tracks in existing Caltrain right-of-way to accommodate blended Caltrain/HSR service, including horizontal track modifications approximately 1,200 feet east of the resource; modifications associated with OCS poles and inclusion of an OCS pole electrical safety zone; construction of a new LMF on the east side of the existing Caltrain right-of-way, approximately 1,500 feet east of the resource; a permanent maintenance access easement approximately 1,200 feet east of the resource; and a TCE approximately 1,190 feet east of the resource.

Under Alternative B, the project would not include any activities within the parcel boundary of the SPRR Bayshore Roundhouse. Outside the parcel boundary, the project would include upgrades to existing Caltrain tracks in the existing Caltrain right-of-way to accommodate blended Caltrain/HSR service, including horizontal track modifications approximately 1,200 feet east of the resource; extensive track expansion on the west side of the existing Caltrain right-of-way (approximately 460 feet southeast of the resource), including construction of an LMF with 17 tracks in the rail yard adjacent and parallel to a maintenance building containing eight shop tracks with interior access and inspection pits for underside and truck inspections; modifications associated with OCS poles and inclusion of an OCS pole electrical safety zone; and a TCE approximately 430 feet southeast of the resource.

CEQA Conclusion

There would be a less-than-significant impact under CEQA for Alternatives A and B because the change in the SPRR Bayshore Roundhouse's setting would not materially impair characteristics that qualify it for listing in the CRHR. The project would not cause a substantial adverse change in the significance of the resource. Under Alternatives A and B, no project activities would occur within the parcel boundary of the SPRR Bayshore Roundhouse, so there would be no physical alterations to the character-defining features that convey the resource's historic significance under Criteria C/3, including massing, semi-circular footprint, brick construction, turntable pit, and original fenestration and arched window and door openings. Proximity and orientation of the rail line is a character-defining feature of the resource. While modifications under Alternatives A and B would alter the specific relationship of the roundhouse and existing tracks east of the resource, expansion of track and systems in the vicinity of the resource would continue to contextualize its historic function and would not alter the roundhouse's historic setting such that it would undermine integrity of feeling and association. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not alter the characteristics of the SPRR Bayshore Roundhouse that qualify it for inclusion in the NRHP. The integrity of the resource would not be diminished and thus both alternatives would have no effect.

Airport Boulevard Underpass/South San Francisco Subway (ID#08)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 11), existing Caltrain tracks would be upgraded to accommodate blended Caltrain/HSR service. The project would continue to use the Airport Boulevard underpass/South San Francisco subway as a means of conveying the rail right-of-way over Airport Boulevard. Track modifications at this location would include horizontal changes of more than 3 feet. Trackwork in this location may require modifications associated with OCS poles and OCS pole electrical safety zone. In addition, construction in this location would include permanent relocation of stormwater utilities perpendicular to the structure and a TCE adjacent to the stormwater utilities relocation and parallel to the south side of the underpass.

While trackwork, OCS modifications, and inclusion of an OCS pole electrical safety zone would take place on the underpass structure, no alterations to the structure would be undertaken. Similarly, stormwater utility relocation in the vicinity of the underpass would not include alteration to the structure. While construction activities in the TCE would have the potential to result in inadvertent damage or demolition of the resource or its character-defining features, the TCE areas would be returned to their pre-construction conditions after completing construction.

The contractor will prepare a pre-construction conditions assessment of the underpass and, based on the condition of the structure, will develop a plan for its protection if necessary. Any necessary measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6, and will be tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures as defined in the protection plan. Should any inadvertent damage occur during construction, the architectural historian, and if needed a structural engineer, will assess the damage and determine the best approach to repair the underpass, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will use these planning documents to put protective measures in place prior to construction (CUL-IAMF#8).

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because alteration to the resource's setting would not materially impair characteristics that qualify it for listing in the CRHR. The project would not cause a substantial adverse change in the significance of the resource. Under Alternatives A and B, no modification to the Airport Boulevard underpass/South San Francisco subway would be undertaken. None of the structure's character-defining features (i.e., size and massing, concrete deck construction, concrete abutment walls with steel pipe handrails, and Classical architectural ornamentation) would be altered. Thus, the property would retain its integrity of location, design, materials, and workmanship that convey its significance under Criteria A/1 and C/3. While changes would be made to the existing at-grade Caltrain tracks on the underpass, these modifications would not meaningfully alter the structure's setting (which is currently a rail right-of-way and would remain a rail right-of-way). This change would not undermine the resource's integrity of feeling or association as an underpass, nor would it prevent the resource from conveying its significance. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not alter characteristics that qualify the Airport Boulevard underpass/South San Francisco subway for inclusion in the NRHP. The integrity of the resource would not be diminished and thus both alternatives would have no adverse effect.

Southern Pacific Depot/Millbrae Station (ID#12)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 12), the historic SPRR Depot/Millbrae Station (which has been previously relocated to accommodate past station improvements) and associated surface parking along California Drive would be relocated approximately 100 feet north and would be set back from the existing railway right-of-way by an additional 40 feet west to accommodate track modifications. New HSR infrastructure would be constructed at the existing Millbrae Station. The project would also include modifications associated with OCS poles and an OCS pole electrical safety zone, a TCE immediately west of the historic station building relocation site, temporary electrical utilities relocation immediately north and south of the historic station building relocation site, and permanent telecommunication utilities relocation immediately north of the historic station building relocation site. The California Drive right-of-way 20 feet east of the historic station building relocation site would be retained.

The contractor will prepare a pre-construction conditions assessment of the SPRR Depot/Millbrae Station and, based on the condition of the structure, will develop a plan for its protection. Protection plans identify stabilization or other measures required to avoid or minimize inadvertent adverse effects. In this case, other applicable measures will include preparation of a relocation plan for the station, given that its relocation is included as a proposed project activity (CUL-IAMF#6). Protection measures will be in place prior to any construction activities; construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6 and will be tasked to maintain protective measures throughout construction, including during relocation of the station (CUL-IAMF#2). An architectural historian will monitor the

efficacy of the protective measures, as defined in the protection plan and the relocation plan. Should any inadvertent damage occur during construction or relocation, the architectural historian and, if needed, a structural engineer will assess the damage and determine the best approach to repair the depot, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6).

The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will use these planning documents to put protective measures in place prior to construction (CUL-IAMF#8).

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because alteration of the resource's location would not materially impair characteristics that qualify it for listing in the CRHR. The project would not cause a substantial adverse change in the significance of the resource and would not decrease its ability to convey its historic significance under Criteria C/3. While relocation of a historic building would typically undermine integrity of location, the SPRR Depot/Millbrae Station has already been relocated from its original location. Therefore, the relocation proposed as part of the project would not further degrade that aspect of integrity. While location and proximity to the rail line are included as character-defining features of the property, because the proposed relocation site is only 100 feet north and only set back an additional 40 feet from the existing rail right-of-way, it would still retain integrity of setting, feeling, and association. Protective measures will be taken to minimize risk of damage during the relocation process, and inadvertent damage will be repaired. The project would not materially impair other characteristics that qualify the resource for listing in the CRHR, such as scale and massing, plan, hip roof, wood siding, fenestration, exterior wood porch, soffit, knee-brackets and eaves, columns, wooden roof shingles, paint colors, and Millbrae Historical Society plaque. While additional project activities in the vicinity of the depot building would alter the setting, these changes would be consistent with the existing railway setting and would not diminish the depot's ability to convey its historic significance. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would relocate the SPRR Depot/Millbrae Station. While relocation would typically alter one of the qualifying characteristics of a historic resource—the location—and may alter some facets of the setting, the station has already been relocated from its original location. Accordingly, this change would not further alter the characteristics that qualify the resource for inclusion in the NRHP to a degree that it would no longer be considered eligible. In addition, as stipulated in the PA (Volume 2, Appendix 3.16-D), the Authority may determine that there is no adverse effect on historic properties within the APE for an undertaking if conditions agreed upon by SHPO are imposed, such as subsequent SHPO review of rehabilitation plans for consistency with the SOI's Standards for the Treatment of Historic Properties (36 C.F.R. Part 68) and applicable guidelines, to avoid adverse effects. CUL-IAMF#6 includes preparation of a relocation plan, monitoring by an architectural historian of the efficacy of the protective measures defined in the protection plan and the relocation plan, and determination of approaches consistent with SOI's Standards for the Treatment of Historic Properties in the event of damage to the station during construction or relocation, so the overall integrity of the resource would not be diminished by Alternatives A and B. There would be no adverse effect under Section 106.

Jules Francard Grove/Francard Tree Row (ID#13)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 13), the project would not include any activity within the historic property boundary. The tree row is approximately 3,517 feet long from north to south. Immediately adjacent to the east side of the tree row is the existing Caltrain right-of-way. The proposed project would not include track modifications at this location. Approximately 60 feet south of the southernmost tree in the row would be a TCE in the existing roadway of Oak Grove Avenue between California Avenue and Carolan Avenue. Approximately 65 feet south of the southernmost tree in the row would be a TCE in the existing roadway of North Lane, between California Avenue and Carolan Avenue. Alternatives A and B would feature a four-quadrant gate east of the tree row in the Oak Grove Avenue roadway (closer to Carolan Avenue

than to California Avenue), as well as a four-quadrant gate east of the tree row in the North Lane roadway (closer to Carolan Avenue than to California Avenue).

Under Alternatives A and B, construction staff will be alerted of the need to avoid affecting this resource in the reports completed for CUL-IAMF#6. Should any inadvertent damage occur during construction, an architectural historian and, if needed, an arborist will assess the damage and determine the best approach to address the damage, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6).

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because no qualities that qualify the resource for listing in the CRHR would be materially impaired. The project would not cause a substantial adverse change in the significance of the resource. Under Alternatives A and B, no modification to the Jules Francard Grove/Francard Tree Row would be undertaken. None of the tree row's character-defining features (i.e., location of the grove adjacent to the railroad, length of the row, number and size of mature trees) would be altered. Thus, the resource would retain its integrity of location, design, materials, and workmanship that convey its significance under Criteria A/1 and C/3. While Alternatives A and B would include introduction of four-quadrant gates adjacent to the tree row, this additional infrastructure would not undermine the resource's integrity of feeling or association as a tree row, nor would this change prevent the resource from conveying its significance. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not alter qualifying characteristics of the Jules Francard Grove/Francard Tree Row that qualify it for inclusion in the NRHP through upgrading the adjacent rail or installing four-quadrant gates. The integrity of the resource would not be diminished. Thus, Alternatives A and B would have no adverse effect.

Southern Pacific Railroad Depot/Burlingame Railroad Station (ID#14)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 14), the project would not include any activity within the historic property boundary. Alternatives A and B would feature a four-quadrant gate approximately 65 feet north of the depot in the roadway where the existing rail right-of-way intersects North Lane.

Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6. Should any inadvertent damage occur during construction, an architectural historian and, if needed, a structural engineer will assess the damage and determine the best approach to repair the depot, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6).

CEQA Conclusion

The impact would be less than significant under CEQA under Alternatives A and B because no qualities that qualify the resource for listing in the CRHR would be materially impaired. The project would not cause a substantial adverse change in the significance of the resource. Under Alternatives A and B, no modification to the SPRR Depot/Burlingame Railroad Station would be undertaken. None of the depot's character-defining features (i.e., roof tiles salvaged from Mission Dolores and Mission San Antonio de Padua; metal caps and flashing; soffits and eaves; lath and stucco wall finish; canals; window and paneled door frames, sashes and historic-period hardware; fascia trim; metal air grilles; dentil moldings; paint colors; benches; historic-period landscaping; and historic markers; and interior features consist of flooring, benches, exposed rafters and ceiling paneling, wooden bulletin board, the waiting room's wall and ceiling finish, and the ticket office's integrated cabinets and historic-period fixtures) would be altered. Thus, the resource would retain its integrity of location, design, materials, and workmanship that convey its significance under Criteria C/3. While Alternatives A and B would include introduction of a four-quadrant gate north of the depot, this additional infrastructure would not change the resource's setting (which currently includes a rail right-of-way and would remain a rail right-of-way). This change would not undermine the resource's integrity of feeling or association as a train depot, nor

would this change prevent the resource from conveying its significance. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not alter qualifying characteristics of the SPRR Depot/Burlingame Railroad Station that qualify it for inclusion in the NRHP by installing a four-quadrant gate. The integrity of the resource would not be diminished. Thus, Alternatives A and B would have no adverse effect.

Southern Pacific Depot/San Carlos Station (ID#18)

Under Alternative A (Volume 2, Appendix 3.16-C, Figure 15), the project would not include any activity within the historic property boundary, and no modifications would be made to the depot building. Alternative A would not involve any alterations to the existing at-grade Caltrain right-of-way.

Under Alternative B, no modifications would be made to the depot building. Alternative B would include four tracks on embankment in the northern section of existing rail right-of-way, transitioning to four tracks of at-grade rail right-of-way in the southern section of the existing right-of-way (east of the existing depot building). Upgrades to the existing rail would support blended service east of the depot and include installation of passing tracks in the existing right-of-way east of the station. The current platforms and pedestrian underpass would be removed and relocated approximately 2,260 feet south, and a permanent OCS pole electrical safety zone easement and a TCE would be located east of the blended right-of-way (outside the historic property boundary). Any project construction activities would be allowed in areas designated as TCE, including but not limited to materials staging, operation of construction equipment, and installation of protective fencing. After construction is complete, the TCE area (outside the historic property boundary) would be returned to its pre-construction condition, and there would be no permanent change in the setting of the resource.

For Alternatives A and B, the contractor will prepare a pre-construction conditions assessment of the SPRR Depot/San Carlos Station. Based on the condition of the structure, the contractor will develop a plan for its protection. These measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6, and they will be tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures as defined in the protection plan. Should any inadvertent damage occur during construction, the architectural historian and, if needed, a structural engineer will assess the damage and determine the best approach to repair the depot, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will use these planning documents to put protective measures in place prior to construction (CUL-IAMF#8).

CEQA Conclusion

There would be no impact under CEQA for Alternative A because no qualities that qualify the resource for listing in the CRHR would be materially impaired. The project would not cause a substantial adverse change in the significance of the resource. Under Alternative A, no modification to the SPRR Depot/San Carlos Station would be undertaken. None of the depot's character-defining features (i.e., sandstone masonry; mortar color, composition, and beaded application; slate roof; roof cresting; roof finials; flashing, gutters and downspouts; fascia and cornice molding; soffits and eaves; dentil course on tower; braces under roof eaves; windows, paneled doors; bay doors; historic-period hardware; scored concrete paving in loggia; historic exterior light fixtures and globes; and existing paint colors; interior features such as the scored concrete floor, window sills and historic-period hardware, brick fireplace, wall finish, historic-period tile flooring in restrooms, historic-period doors and bathroom fixtures) would be altered. Noncontributing features in the parcel boundary include the pedestrian underpass and station platforms. The resource would retain its integrity of location, design, materials, and workmanship that convey its significance under Criteria C/3. Therefore, CEQA does not require mitigation.

Similarly, the impact would be less than significant under CEQA for Alternative B because no qualities that qualify the resource for listing in the CRHR would be materially impaired. The project would not cause a substantial adverse change in the significance of the resource. Alternative B would not alter any of the depot's character-defining features and its integrity of location, design, materials, and workmanship would be retained. While modifications to the existing at-grade Caltrain tracks and OCS, relocation of the current platforms and pedestrian underpass, inclusion of OCS pole electrical safety zone, and elevation of a portion of the nearby track from at grade to embankment would alter the depot's setting, because the physical context of the depot would continue to be that of a rail right-of-way, these changes would not undermine the resource's integrity of feeling or association as train depot, nor would this change prevent the resource from conveying its significance. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternative A would not alter qualifying characteristics of the SPRR Depot/San Carlos Station that qualify it for inclusion in the NRHP by changing the existing at-grade Caltrain tracks and OCS adjacent to the depot. The integrity of the resource would not be diminished. Thus, Alternative A would have no adverse effect.

Alternative B would not alter qualifying characteristics of the SPRR Depot/San Carlos Station that qualify it for inclusion in the NRHP by changing at-grade Caltrain tracks, relocating existing platforms and pedestrian underpass, modifying the OCS, introducing a new OCS pole electrical safety zone, or elevating a portion of the nearby track from at grade to embankment. The integrity of the resource would not be diminished. Thus, Alternative B would have no adverse effect.

Southern Pacific Railroad Dumbarton Cutoff Linear Historic District (ID#21; ID#21a)

The SPRR Dumbarton Cutoff Linear Historic District (ID#21) is composed of the Dumbarton Cutoff railroad line (ID#21a) and its appurtenances (i.e., two bridges, an underpass, and two culverts). Only a small segment of the linear historic district—the westernmost end of the Dumbarton Cutoff tracks that connect to the SPRR main line—is in the project vicinity. The Dumbarton Cutoff Linear Historic District is significant under Criteria A/1 for its association with significant systemwide improvements to the SPRR, the economic growth of San Francisco during the first half of the 20th century, and national defense activities during World Wars I and II. The district meets Criteria B/2 for its association with SPRR president E. H. Harriman, who led the growth of the SPRR during the first two decades of the 20th century and envisioned and spearheaded the construction of the cutoff. In addition, the historic district is significant under Criteria C/3 because some of its contributing bridges (located outside the APE) are representative examples of their respective type.

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figures 17 and 18), the project would not include any at-grade track modifications to the existing Caltrain right-of-way to support blended service. There are no proposed changes to the Dumbarton Cutoff Railroad line where it meets the mainline. The project would include an existing permanent easement 150 feet north of the cutoff line. Within the easement area, a communications radio tower co-located with a Caltrain switching station would be constructed approximately 160 feet northeast of where the Dumbarton Cutoff Railroad Line meets the existing Caltrain right-of-way.

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because no alterations to the railroad tracks or setting would materially impair the characteristics that qualify the resource for listing in the CRHR. The project would not cause a substantial adverse change in the significance of the SPRR Dumbarton Cutoff Linear Historic District. While a segment of the Dumbarton Cutoff railroad line, which is considered to be a contributing feature of the SPRR Dumbarton Cutoff Linear Historic District, is in the project vicinity, no track modifications would be made to the cutoff or the mainline where it meets the cutoff as part of Alternatives A and B. The project would not alter the cutoff line's character-defining features (i.e., alignment, location, and all rails, ties, ballast, and signal structures dating to the period of significance). The project includes construction of a communications radio tower co-located with a Caltrain switching station approximately 160 feet northeast of where the Dumbarton Cutoff Railroad Line meets the existing Caltrain right-of-way, but the tower would be built in a lot that is not a district contributor. The

tower would not affect a contributing feature of the district and would not affect the setting or undermine the resource's integrity of feeling or association. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not substantially alter the characteristics that qualify the SPRR Dumbarton Cutoff Linear Historic District for inclusion in the NRHP. While the project would alter the cutoff railroad line's setting, this change would be relatively minor in the context of the extent of the district as a whole, and the integrity of the resource would not be substantially diminished overall. Thus, the alternatives would have no adverse effect.

Willie Mays Jr. House (ID#22)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 19), the project would include upgrades to the existing Caltrain right-of-way to support blended service. Track modifications in this location would include horizontal alignment changes of more than 1 foot and less than 3 feet. The project would not include any activities within the parcel associated with the Willie Mays Jr. House.

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because no qualities that qualify the resource for listing in the CRHR would be materially impaired. The project would not cause a substantial adverse change in the significance of the resource. Under Alternatives A and B, no modification to the Willie Mays Jr. House would be undertaken and no project activities would take place within the property's legal parcel boundary. While the presence of mature trees is included among the property's character-defining features, and tree trimming may be required if trees at the rear (west) side of the parcel overhang into the rail right-of-way, this alteration would not be substantial enough to undermine the property's integrity such that it could no longer convey its significance. The resource would retain its integrity of location, design, materials, and workmanship that convey its significance under Criteria B/2. While changes would be made to the existing at-grade Caltrain tracks adjacent to the residence, these modifications would not meaningfully alter the setting (which currently includes a rail right-of-way). This change would not undermine the resource's integrity of feeling or association, nor would this change prevent the resource from conveying its significance. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not substantially alter the characteristics that qualify the Willie Mays Jr. House for inclusion in the NRHP. Accordingly, the integrity of the resource would not be substantially diminished and the alternatives would have no adverse effect.

Southern Pacific Depot/Atherton Station (ID#24)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 20), the project would include upgrades to the existing Caltrain right-of-way to support blended service. Track modifications at this location would include horizontal alignment changes of more than 1 foot and less than 3 feet. Track work may require relocation of OCS poles and OCS pole electrical safety zones. Alternatives A and B would not modify the existing depot building. Temporary electrical utilities relocation would take place in the existing Fair Oaks Lane right-of-way north of the station. A TCE would also be included in the existing Fair Oaks Lane right-of-way north of the station. Any project construction activities would be allowed in areas designated as TCE, including but not limited to materials staging, operation of construction equipment, and installation of protective fencing. After construction is complete, the TCE area would be returned to its pre-construction condition.

The contractor will prepare a pre-construction conditions assessment of the SPRR Depot/Atherton Station. Based on the condition of the structure, the contractor will develop a plan for its protection. These measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6, and they will be tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the

protective measures as defined in the protection plan. Should any inadvertent damage occur during construction, the architectural historian and, if needed, a structural engineer will assess the damage and determine the best approach to repair the depot, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will use these planning documents to put protective measures in place prior to construction (CUL-IAMF#8).

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because no qualities that qualify the resource for listing in the CRHR would be materially impaired. The project would not cause a substantial adverse change in the significance of the resource. Under Alternatives A and B, no modification to the SPRR Depot/Atherton Station would be undertaken. None of the depot's character-defining features (i.e., Mediterranean Revival style; original massing and shape; tiled hip roof; roof brackets; concrete columns; and interior finish) would be altered. The surrounding pavement and street furniture are modern additions that post-date the period of significance and do not contribute to the architectural significance of this building. Alteration to the site, would not undermine the station's historic significance. Thus, the resource would retain its integrity of location, design, materials, and workmanship that convey its significance under Criteria C/3. While changes would be made to the existing at-grade Caltrain tracks east of the depot and to the OCS, these modifications, would not meaningfully alter the setting (which currently includes a rail right-of-way and associated rail-related uses). These changes would not undermine the resource's integrity of feeling or association as a train depot, nor would this prevent the resource from conveying its significance. A temporary electrical utilities relocation in the existing Fair Oaks Lane right-of-way would not result in a permanent change in the setting of the resource. After construction, the TCE area would be returned to its pre-construction condition, so this activity also would not permanently change the integrity of the resource's setting. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not substantially alter the characteristics that qualify the SPRR Depot/Atherton Station for inclusion in the NRHP. The integrity of the resource would not be substantially diminished and the alternatives would have no adverse effect.

Carriage House and Water Tower, Holbrook-Palmer Estate (Elmwood) (ID#25)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 21), the project would not include any activity inside the legal parcel boundary of the Holbrook-Palmer Estate. Both alternatives would include at-grade upgrades to the existing Caltrain right-of-way west of the parcel's western property boundary to support blended service. Track modifications in this location would include horizontal alignment changes of more than 1 foot and less than 3 feet. Track work may require relocation of OCS poles and OCS pole electrical safety zones. The project would also include installation of a new four-quadrant gate where the existing Caltrain right-of-way intersects with Watkins Avenue, approximately 1,073 feet southwest of the water tower and 1,133 feet southwest of the carriage house.

CEQA Conclusion

There would be no impact under CEQA for Alternatives A and B because no qualities that qualify the carriage house or water tower for listing in the CRHR would be materially impaired. The project would not cause a substantial adverse change in the significance of either building. Under Alternatives A and B, no modification to the carriage house or water tower would be undertaken. None of the depot's character-defining features (i.e., each building's proximity and orientation to one another, their size and massing, original materials, and distinctive features of their respective styles) would be altered. Thus, the resource would retain its integrity of location, design, materials, and workmanship that convey its significance under Criteria C/3. While changes would be made to the existing at-grade Caltrain tracks and OCS east of the depot, these modifications would not meaningfully alter the setting (which currently includes a rail right-of-way and associated rail-related uses). The project would not include any activity inside the legal parcel

boundary of the Holbrook-Palmer Estate; the nearest track modification would be 985 feet west and screened by trees and other nonhistoric built features on the estate. Similarly, the new four-quadrant gate at Watkins Avenue would not be visible from the carriage house and water tower locations, would not alter the resource's setting, and would not undermine the resource's integrity of feeling or association such that it prevents the resource from conveying its significance. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not substantially alter the characteristics that qualify the carriage house and water tower, Holbrook-Palmer Estate (Elmwood) for inclusion in the NRHP. Accordingly, the integrity of the resource would not be substantially diminished and the alternatives would have no adverse effect.

Southern Pacific Railroad Depot/Menlo Park Railroad Station (ID#28)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 23), the project would not include any modifications to the SPRR Depot/Menlo Park Railroad Station building. The project would not include track modifications in this location. Both alternatives feature two potential locations for a communication radio tower. Alternate site 1 would be approximately 250 feet north of the station's northern parcel boundary. Alternate site 2 would be in the southeast corner of the legal parcel boundary (immediately west of the existing Caltrain right-of-way). Four-quadrant gates would be located where the existing Caltrain right-of-way intersects Oak Grove Avenue (north of the parcel) and Ravenswood Avenue (south of the parcel). The project would also include a TCE in the existing Oak Grove Avenue right-of-way and in the existing Ravenswood Avenue right-of-way. Any construction activities would be allowed in areas designated as TCE, including but not limited to materials staging, operation of construction equipment, and installation of protective fencing. After construction is complete, the TCE area would be returned to its pre-construction condition.

The contractor will prepare a pre-construction conditions assessment of the SPRR Depot/Menlo Park Station. Based on the condition of the structure, the contractor will develop a plan for its protection. These measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6, and they will be tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures as defined in the protection plan. Should any inadvertent damage occur during construction, the architectural historian and, if needed, a structural engineer will assess the damage and determine the best approach to repair the depot, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will use these planning documents to put protective measures in place prior to construction (CUL-IAMF#8).

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because no qualities that qualify the depot for listing in the CRHR would be materially impaired. The project would not cause a substantial adverse change in the significance of the resource. Under Alternatives A and B, no modification to the SPRR Depot/Menlo Park Railroad Station would be undertaken. None of the depot's character-defining features (i.e., wood siding and shingles; nonmetal window frames and sashes; scored concrete floor; wood shingle roof with cresting, finials, eaves, soffits and brackets; wood air vents; exterior doors and door frames; wood screen doors; wood turned trim; exterior light fixtures and globes; palm trees; and interior features including wainscoting, door and window trim and hardwood, interior windows separating the offices, paneled doors, ticket counter, tongue-and-groove ceiling, and built-in cabinets) would be altered. Thus, the resource would retain its integrity of location, design, materials, and workmanship that convey its significance under Criteria A/1 and C/3. Because the depot's setting currently includes a rail right-of-way and associated rail-related uses, introduction of a communications radio tower (in either of the proposed locations) and four-quadrant gates at Oak

Grove Avenue and Ravenswood Avenue would not meaningfully alter the setting. These changes would not undermine the resource's integrity of feeling or association as a train depot, or prevent the resource from conveying its significance. The project would not include track modifications in this location, so that aspect of the depot's setting would also remain unchanged. In addition, after construction, the TCE area would be returned to its pre-construction condition. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not substantially alter the characteristics that qualify the SPRR Depot/Menlo Park Railroad Station for inclusion in the NRHP. The integrity of the resource would not be substantially diminished and the alternatives would have no adverse effect.

Southern Pacific Railroad San Francisquito Creek Bridge (ID#29)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 24), existing Caltrain tracks would be upgraded to accommodate blended service. Construction activities would occur on the SPRR San Francisquito Creek Bridge. Track modifications would include horizontal alignment alteration of more than 1 foot but less than 3 feet. Track work at this location may require modifications to the OCS and OCS pole electrical safety zone. The project would also include installation of a four-quadrant gate where the existing Caltrain rail alignment intersects with Alma Street, 300 feet south of the bridge.

While track work would take place on the bridge structure, no alternations to the structure would be undertaken. The contractor will prepare a pre-construction conditions assessment of the bridge. Based on the condition of the structure, the contractor will develop a plan for its protection. These measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6, and they will be tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures, as defined in the protection plan. Should any inadvertent damage occur during construction, the architectural historian and, if needed, a structural engineer will assess the damage and determine the best approach to repair the bridge, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will use these planning documents to put protective measures in place prior to construction (CUL-IAMF#8).

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because alteration to the resource's setting would not materially impair characteristics that qualify it for listing in the CRHR. The project would not cause a substantial adverse change in the significance of the resource. Under Alternatives A and B, no modification to the SPRR San Francisquito Creek Bridge would be undertaken. None of the structure's character-defining features (i.e., location crossing San Francisquito Creek, its proximity to the tree known as "El Palo Alto," as well as the massing, riveted-steel construction, and its Baltimore Petit through truss design) would be altered. Thus, the property would retain its integrity of location, design, materials, and workmanship that convey its significance under Criteria A/1 and C/3. While changes would be made to the existing at-grade Caltrain tracks on the bridge and to the OCS, these modifications, as well as introduction of four-quadrant gates at Alma Street, would not meaningfully alter the setting (which currently includes a rail right-of-way and associated rail-related uses). This change would not undermine the resource's integrity of feeling or association as a rail bridge, nor would this prevent the resource from conveying its significance. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not alter characteristics that qualify the SPRR San Francisquito Creek Bridge for inclusion in the NRHP. The integrity of the resource would not be diminished. Thus, the alternatives would have no adverse effect.

El Palo Alto (ID#30)

Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 25), would not include modifications to the El Palo Alto tree. The project would include upgrades to existing Caltrain right-of-way to support blended service. Track modifications in this location would include horizontal alignment changes of more than 1 foot and less than 3 feet on the SPRR San Francisquito Creek Bridge (see ID#29) located approximately 10 feet west of the tree. Track work in this location may require relocation of OCS poles and OCS pole electrical safety zones. Both alternatives would include introduction of a four-quadrant gate where the existing Caltrain right-of-way intersects Alma Street, 280 feet south of the tree.

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because alteration to the resource's setting would not materially impair characteristics that qualify it for listing in the CRHR. The project would not cause a substantial adverse change in the significance of the resource. Under Alternatives A and B, no modification to the El Palo Alto tree would be undertaken. None of the resource's character-defining features (i.e., location on the creek, proximity to the rail line, and its size and shape) would be altered. Thus, the resource would retain the integrity that conveys its significance under Criteria A/1. While changes would be made to the existing at-grade Caltrain tracks on the SPRR San Francisquito Creek Bridge and to the OCS, these modifications, as well as introduction of four-quadrant gates at Alma Street, would not meaningfully alter the setting (which currently includes a rail right-of-way and associated rail-related uses). This change would not undermine the resource's integrity of feeling or association, nor would this prevent the resource from conveying its significance. Therefore, CEQA does not require any mitigation.

Section 106 Findings

Alternatives A and B would not alter characteristics that qualify El Palo Alto for inclusion in the NRHP. The integrity of the resource would not be diminished. Thus, the alternatives would have no adverse effect.

Palo Alto Southern Pacific Railroad Depot (ID#31)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 26), the project would not include modifications to the Palo Alto SPRR Depot. Both alternatives would feature upgrades to the existing Caltrain right-of-way and platforms adjacent to the depot to support blended service. Track modifications in this location would include horizontal alignment changes of less than 1 foot.

The contractor will prepare a pre-construction conditions assessment of the Palo Alto SPRR Depot. Based on the condition of the structure, the contractor will develop a plan for its protection. These measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6, and they will be tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures, as defined in the protection plan. Should any inadvertent damage occur during construction, the architectural historian and, if needed, a structural engineer will assess the damage and determine the best approach to repair the bridge, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will use these planning documents to put protective measures in place prior to construction (CUL-IAMF#8).

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because no qualities that qualify the resource for listing in the CRHR would be materially impaired. The project would not cause a substantial adverse change in the significance of the resource. Under Alternatives A and B, no modification to the Palo Alto SPRR Depot would be undertaken. None of the depot's character-defining features (i.e., streamlined Moderne architectural details, massing and composition, glass blocks, curved corners and horizontal striping, portholes, interior ornament and mural) would be altered. Thus, the resource would retain its integrity of location,

design, materials, and workmanship that convey its significance under Criteria C/3. While changes would be made to the existing at-grade Caltrain tracks and platforms adjacent to the depot, as well as to the OCS, these modifications would not meaningfully alter the setting (which currently includes a rail right-of-way). This change would not undermine the resource's integrity of feeling or association as a train depot, nor would this prevent the resource from conveying its significance. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not alter characteristics that qualify the Palo Alto SPRR Depot for inclusion in the NRHP. The integrity of the resource would not be diminished. Thus, the alternatives would have no adverse effect.

University Avenue Underpass (ID#32)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 27), the project would modify existing at-grade Caltrain tracks to accommodate blended HSR service. While track modifications would include a change in horizontal alignment of less than 1 foot to the north and south of the underpass, rail on University Avenue underpass would not be modified.

Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6, and they will be tasked to maintain protective measures throughout construction (CUL-IAMF#2). Should any inadvertent damage occur during construction, an architectural historian and, if needed, a structural engineer will assess the damage and determine the best approach to repair the underpass, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6).

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because alteration to the resource's setting would not materially impair characteristics that qualify it for listing in the CRHR. The project would not cause a substantial adverse change in the significance of the resource. Under Alternatives A and B, no modification to the University Avenue underpass would be undertaken. The structure's character-defining features would not be altered. The underpass would continue to carry both vehicular and rail traffic. Its size, massing, and location would be retained. The structure would continue to be composed of reinforced concrete and steel. Design features would continue to include concrete deck slabs supported by a central pier; row of bevel-cut openings in central pier and piers separating the roadway and walkway; "1940" imprinted in the center pier; concrete abutments described as "double deck cellular"; pedestrian undercrossings and ramps; asymmetrical cloverleaf roadway approaches; four landscaped islands created by cloverleaf approaches; retaining walls; square steel pipe railings at sidewalks and roadways; University Avenue median. The underpass would still include three light standards on University Avenue (two on the southwest side of the underpass and one on the northeast side), and 10 light standards along the cloverleaf approach roads (six on the southwest side and four on the northeast side). Thus, the property would retain its integrity of location, design, materials, and workmanship that convey its significance under Criteria A/1. While no track modifications are proposed for the segment of rail on the underpass, changes would be made to the existing at-grade Caltrain tracks north and south of the underpass, and the project may also include modifications to the OCS. However, these changes would not meaningfully alter the tunnel's setting (which is currently a rail right-of-way), would not undermine the resource's integrity of feeling or association as a rail tunnel, and would not prevent the resource from conveying its significance. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not alter characteristics that qualify the University Avenue underpass for inclusion in the NRHP. The integrity of the resource would not be diminished and thus the alternatives would have no adverse effect.

Embarcadero Underpass (ID#35)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 28), the HSR system would utilize existing and new at-grade tracks to accommodate HSR service, and there would be no track modifications altering the horizontal alignment of the existing right-of-way at this location.

Both alternatives would include introduction of a communication radio tower approximately 72 feet northwest of the underpass in an existing parking lot.

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because alteration to the resource's setting would not materially impair characteristics that qualify it for listing in the CRHR. The project would not cause a substantial adverse change in the significance of the resource. Under Alternatives A and B, no modification to the Embarcadero underpass would be undertaken. None of the structure's character-defining features (i.e., size and massing; location; reinforced concrete and steel construction; pedestrian undercrossings and ramps; and its Moderne-style features and decoration including fluted pilasters, balustrade, lampposts on pedestals, and articulated panels and moldings) would be altered. The property would retain its integrity of location, setting, design, materials, workmanship, feeling, and association that convey its significance under Criteria A/1. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not alter characteristics that qualify the Embarcadero underpass for inclusion in the NRHP. The integrity of the resource would not be diminished and thus the alternatives would have no adverse effect.

Tract 795, Charleston Meadows (ID#37; ID#37a; ID#37b; ID#37c)

Tract 795, commonly known as Charleston Meadows, is a 20-acre residential subdivision comprised of 96 parcels. Most of the subdivision parcels are outside the APE and were not subject to intensive study for this project. The present study evaluated three residences on Park Boulevard at the northeastern boundary of the subdivision that are within the APE—4133 Park Boulevard (ID#37a), 4118 Park Boulevard (ID#37b), and 4126 Park Boulevard (ID#37c)—and concluded, for the purposes of this project, that the houses would be contributors to a historic district if Charleston Meadows were studied in its entirety and found to be eligible.

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figures 29, 30, 31, and 32), the existing rail right-of-way is at grade adjacent to the northeast boundary of the district and adjacent to the northeast boundary of 4133 Park Boulevard (ID#37a). Alternatives A and B would utilize existing tracks for HSR service and would not include track modifications that alter the horizontal alignment of the existing Caltrain right-of-way. In addition, Alternatives A and B would include construction of a communications radio tower. Radio tower 8A alternate site 1 would be on the east side of the existing rail right-of-way, approximately 80 feet east of the district's easternmost boundary and approximately 230 feet southeast of the eastern side of 4133 Park Boulevard (ID#37a), 380 feet southeast of the eastern side of 4118 Park Boulevard (ID#37b), and 360 feet southeast of the eastern side of 4126 Park Boulevard (ID#37c). Radio tower 8A alternate site 2 would be outside the potential historic district boundary in the residential parcel adjacent to the northernmost corner of the historic district, adjacent to the northwest side of 4133 Park Boulevard (ID#37a), 155 feet northeast of 4118 Park Boulevard (ID#37b), and 176 feet northeast of 4126 Park Boulevard (ID#37c). Alternatives A and B would also include installation of a new four-quadrant gate where the existing Caltrain right-of-way intersects Charleston Road, adjacent to the southeast corner of the district and approximately 647 feet southeast of 4133 Park Boulevard (ID#37a), 684 feet southeast of 4118 Park Boulevard (ID#37b), and 632 feet southeast of 4126 Park Boulevard (ID#37c).

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because alteration to the potential district's setting would not materially impair characteristics that could qualify it for listing in the CRHR. The project would not cause a substantial adverse change in the significance of the resource. Under Alternatives A and B, no modification to the district contributors—4133 Park Boulevard (ID#37a), 4118 Park Boulevard (ID#37b), and 4126 Park Boulevard (ID#37c)—would be undertaken. None of the character-defining features of the district or district contributors would be altered. While the project would include construction of a communications radio tower in one of two alternative locations and would also include construction of a new four-quadrant gate, this work would take place outside the district boundary. Neither construction of a tower nor construction of a four-quadrant gate would affect a

contributing feature of the district, and these activities would not represent impacts on the setting sufficient to undermine the potential district's integrity of feeling or association. Therefore, CEQA does not require mitigation.

Section 106 Findings

The project would not alter contributing components of Tract 795, including contributing properties 4133 Park Boulevard (ID#37a), 4118 Park Boulevard (ID#37b), and 4126 Park Boulevard (ID#37c). Introduction of a radio tower and four-quadrant gate would not alter any contributing components or the setting of the district. Alternatives A and B would not alter characteristics that could qualify Tract 795 for inclusion in the NRHP. The integrity of the resource would not be diminished. Thus, both alternatives would have no adverse effect.

Santa Clara Railroad Historical Complex (Santa Clara Depot) (ID#0141)

Under Alternative A and Alternative B (Viaduct to I-880) (Volume 2, Appendix 3.16-C, Figure 35), existing at-grade Caltrain tracks would be upgraded to accommodate blended Caltrain/HSR service. The HSR system would utilize existing and new at-grade tracks to accommodate HSR service through Santa Clara, with additional 27-foot OCS poles. New UPRR and Caltrain tracks would be built just north of the HSR guideway beginning near Benton Street to just past the Santa Clara Railroad Historical Complex. The existing UPRR tracks would be shifted to the north side of the HSR right-of-way. Existing at-grade railroad tracks on the north side of the resource adjacent to the complex are part of its historic setting.

TCEs would be within the property boundary of the Santa Clara Depot and would surround the primary depot building and the Control Tower. The Control Tower, depot building, and southbound platforms would be retained. Any activities in support of project construction would be allowed in areas designated as TCE, including but not limited to materials staging, operation of construction equipment, and installation of protective fencing. Construction activities within the boundaries of the TCE have the potential to result in inadvertent damage to or demolition of the resource or its character-defining features.

Under Alternative B (Viaduct to Scott Boulevard), new HSR tracks on a 35-foot viaduct with additional 27-foot OCS poles would be constructed in the current railroad right-of-way adjacent to the Santa Clara Railroad Historical Complex north of the historic property boundary. The viaduct piers and their footings would be sited to avoid the historic buildings in the station complex, but they would require demolition and rebuilding of the northbound platform, which is not a contributing element of the resource. The new viaduct would be approximately 75 feet north of the primary depot building. Additionally, under Alternative B (Viaduct to Scott Boulevard) an existing fiber optic utility line east of the contributing Speeder Shed and Tool House would be shifted west to a location adjacent to the east façades of these two buildings. Relocation of this utility line would not involve physical change to the contributing buildings of the Santa Clara Railroad Historical Complex. Under Alternative B (Viaduct to Scott Boulevard), a TCE would be located in the area around the three contributing outbuildings (the control tower, speeder shed, and tool house) and the primary depot building, but not within the historic property boundary. Any activities in support of project construction would be allowed in areas designated as TCE, including but not limited to materials staging, operation of construction equipment, and installation of protective fencing. Construction activities within the boundaries of the TCE have the potential to result in inadvertent damage to or demolition of the resource or its character-defining features.

Under both project alternatives, the contractor will prepare a pre-construction conditions assessment of the depot, Tool House, Speeder Shed and Control Tower. Based on the condition of each of the buildings, the contractor will then develop a plan for their protection. These measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be alerted of the need to avoid affecting any of these built resources in the reports completed for CUL-IAMF#6, and they will be tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures as defined in the protection plan. Should any inadvertent damage occur during construction, the design-builder's qualified architectural historian, and if needed a structural engineer, will assess the damage and determine the best approach to repair the buildings, following the SOI's

Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6, CUL-IAMF#8). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will use these planning documents to put protective measures in place during construction (CUL-IAMF#8). After construction is complete, the TCE area will be returned to its pre-construction condition.

CEQA Conclusion

Under Alternative A and Alternative B (Viaduct to I-880), inadvertent damage could occur within the TCE that crosses the resource. The scope of work within the TCE would include project features to protect the resource from inadvertent damage, and the TCE area will be returned to its original state upon completion of construction. Accordingly, Alternative A and Alternative B (Viaduct to I-880) would not physically alter any of the character-defining features of the resource. The shifting of UPRR and Caltrain tracks and construction of OCS poles would cause a limited permanent change to the setting of the resource, which would continue to include at-grade tracks to the north, and would allow the resource's significant historical association with the regional development of rail transportation. The project would not cause a substantial adverse change in the significance of the resource because project features are in place to protect the resource from inadvertent damage so the characteristics that qualify it for listing in the CRHR are not materially impaired. There would be a less-than-significant impact under CEQA for Alternative A and Alternative B (Viaduct to I-880). Therefore, CEQA does not require mitigation.

Under Alternative B (Viaduct to Scott Boulevard), construction of the HSR right-of-way would substantially degrade the historic setting of the resource and its contributing buildings. Alternative B (Viaduct to Scott Boulevard) would result in a change in setting from a railroad complex with at-grade tracks to an elevated track structure above the existing complex. The new viaduct would visually overwhelm the modestly sized, one-story buildings that contribute to the significance of the Santa Clara Railroad Historical Complex. This viaduct option would result in the construction of new viaduct piers in the immediate vicinity of the Depot, Control Tower, Tool Shed and Speeder Shed and potentially cause inadvertent damage to these buildings. These buildings would be partially or entirely encompassed by the TCE, however, and the scope of work in the TCE would include project features to protect the resource from inadvertent damage. Thus, the TCE area will be returned to its original state upon completion of construction. The project would cause a substantial adverse change in the significance of the resource because construction of the HSR right-of-way and resulting degradation of the resource's historic setting as a late-19th/early-20th-century railroad complex would materially impair characteristics that qualify it for listing in the CRHR. Therefore, the impact would be significant under CEQA for Alternative B (Viaduct to Scott Boulevard). Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

Alternative A and Alternative B (Viaduct to I-880) would not alter the characteristics that qualify the historic property for inclusion in the NRHP. The integrity of the property would not be diminished and thus the alternatives would have no adverse effect.

Alternative B (Viaduct to Scott Boulevard) would alter characteristics that qualify the Santa Clara Railroad Historical Complex for inclusion in the NRHP. The effects would impair the historic setting and feeling such that Alternative B (Viaduct to Scott Boulevard) would have an adverse effect.

Bellarmine College Preparatory and Polhemus House (ID#0210)

Under Alternative A (Volume 2, Appendix 3.16-C, Figure 36), the HSR right-of-way would be blended with the Caltrain tracks in the existing Caltrain right-of-way, which is approximately 650 feet northeast of the Polhemus House, which is the historical resource boundary. OCS poles (27 feet tall) would be installed in the Caltrain and HSR right-of-way. Alternative A would not involve any changes to the existing Hedding Street overpass, and no project activities would occur in the immediate vicinity of the Polhemus House.

Under Alternative B (Viaduct to I-880), the HSR right-of-way would be at-grade track transitioning to track on embankment alongside the northeast boundary of the parcel that contains the

Bellarmino College Preparatory campus and Polhemus House. The HSR right-of-way would be approximately 800 feet northeast of the footprint of the Polhemus House. Alternative B (Viaduct to I-880) would involve the construction of a grade-separated overpass at West Hedding Street to cross the HSR right-of-way. The new overpass would have a larger footprint than the current West Hedding Street overpass and would extend into the legal parcel that contains the core of the Bellarmino College Preparatory campus. A retaining wall would be built at the edge of the grade separation, generally located at the parcel boundary along Elm Street and West Hedding Street. The retaining wall would be approximately 20 feet northwest of Polhemus House at West Hedding Street, and approximately 40 feet southwest of Polhemus House at Elm Street. Access to Polhemus House would be maintained following construction of the overpass. Underground sewer utilities would be relocated within the West Hedding Street right-of-way and would not overlap with the footprint of Polhemus House.

Under Alternative B (Viaduct to Scott Boulevard), the HSR right-of-way would be on viaduct along the northeast boundary of the parcel that contains the Bellarmino College Preparatory campus and Polhemus House. The HSR right-of-way would be approximately 750 feet northeast of the footprint of Polhemus House. Alternative B (Viaduct to Scott Boulevard) would involve the removal of the existing West Hedding Street overpass and construction of an undercrossing to pass underneath the HSR right-of-way. As with Alternative B (Viaduct to I-880), underground sewer utilities would be relocated within the West Hedding Street right-of-way and would not overlap with the footprint of Polhemus House.

Under Alternative B (both viaduct options), a TCE would occupy a portion of Elm Street; the TCE would be approximately 30 feet from the southwest side of Polhemus House. The TCE would also occupy the West Hedding Street right-of-way along the northwest boundary of the parcel. The TCE would not overlap with the footprint of Polhemus House and would be limited to areas of landscaped yard southwest and northwest of the residence. After construction is complete, the TCE area would be returned to its pre-construction condition.

CEQA Conclusion

There would be no impact under CEQA for Alternative A. HSR tracks would be blended with Caltrain tracks at grade in the location of existing Caltrain tracks; the new OCS poles in the HSR right-of-way would be sufficiently distant that they would not cause a sustained visual change to the setting of the resource. The project would not cause a substantial adverse change in the significance of the resource because project activities would not materially impair characteristics that qualify it for listing in the CRHR. Therefore, CEQA does not require mitigation.

The impact would be less than significant under CEQA for Alternative B (Viaduct to I-880). None of Polhemus House's character-defining features would be removed because no project activities would occur within the historical resource boundary. The overpass and associated retaining walls at Elm Street and West Hedding Street would constitute a permanent and visible change to Polhemus House's setting (which does not currently contribute to the significance of the historical resource as a good example of a Dutch Colonial Revival-style residence that was moved to its current site following its construction). These changes would lower the resource's integrity of feeling as an impressive residence. However, Alternative B (Viaduct to I-880) would not undermine Polhemus House's integrity to the point that it would no longer express its significant Dutch Colonial Revival architectural style. The retention of its overall massing, roof form with dormers, fenestration pattern, historic exterior materials, and decorative elements would allow the resource to retain its integrity of design, materials, and workmanship that are most important in conveying its significance under Criteria C/3. The project would not cause a substantial adverse change in the significance of the resource because alteration to the resource's setting would not materially impair characteristics that qualify it for listing in the CRHR. Therefore, CEQA does not require mitigation.

Under Alternative B (Viaduct to Scott Boulevard), none of Polhemus House's character-defining features would be removed because no project activities would occur within the historical resource boundary. Similar to Alternative B (Viaduct to I-880), changes within the adjacent West Hedding Street right-of-way would alter the current setting of Polhemus House but would not

prevent the resource from conveying its architectural significance. Alternative B (Viaduct to Scott Boulevard) would not alter Polhemus House's overall massing, roof form with dormers, fenestration pattern, historic exterior materials, and decorative elements that allow the resource to retain its integrity of design, materials, and workmanship that are most important in conveying its significance under Criteria C/3. The project would not cause a substantial adverse change in the significance of the resource because alteration to the resource's setting would not materially impair characteristics that qualify it for listing in the CRHR. The impact would be less than significant under CEQA for Alternative B (Viaduct to Scott Boulevard). Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not alter characteristics that qualify the Polhemus House for inclusion in the NRHP. The integrity of the property would not be diminished and thus the alternatives would have no adverse effect.

623 Stockton Avenue, San Jose (ID#0304)

Under Alternative A (Volume 2, Appendix 3.16-C, Figure 37), the HSR right-of-way would be blended with the Caltrain tracks in the existing Caltrain right-of-way, which is approximately 425 feet northeast of 623 Stockton Avenue. OCS poles (27 feet tall) would be installed in the Caltrain and HSR right-of-way. No project activities would occur in the immediate vicinity of the resource.

Under Alternative B (both viaduct options), the HSR right-of-way would be on viaduct approximately 750 feet northeast of 623 Stockton Avenue, in a location adjacent to the current Caltrain right-of-way. Under Alternative B (Viaduct to I-880), the viaduct would be approximately 50 feet tall with additional 27-foot-tall OCS poles; under Alternative B (Viaduct to Scott Boulevard), the viaduct would be approximately 30 feet tall with additional 27-foot-tall OCS poles.

Under Alternative B (both viaduct options), electrical utility lines would be relocated and would follow the Stockton Avenue alignment. The electrical utility lines would be placed overhead on poles. The relocated electrical lines would pass northeast of 623 Stockton Avenue. During implementation of the project, a TCE would surround the location of the new utility line. The TCE would extend approximately 15 feet onto the subject parcel, so that the nearest edge of the TCE would be 5 feet from the front façade of 623 Stockton Avenue. Consequently, the TCE would not overlap the historic resource boundary. Activities in support of project construction would be allowed in areas designated as TCE, including but not limited to materials staging, operation of construction equipment, and installation of protective fencing. After construction is complete, the front yard of the residence would be returned to its pre-construction condition.

CEQA Conclusion

Under Alternative A, HSR tracks blended with Caltrain tracks at grade in the location of existing Caltrain tracks would be minimally visible from the resource and would not cause any sustained visual changes to the setting of the resource. The project would not cause a substantial adverse change in the significance of the resource because project activities would not materially impair characteristics that qualify it for listing in the CRHR. There would be no impact under CEQA for Alternative A. Therefore, CEQA does not require any mitigation.

Under Alternative B (both viaduct options), no project activities would lead to the removal of any of the resource's character-defining features. The HSR right-of-way on raised viaduct approximately 750 feet from the resource would be within the viewshed of the residence. The new overhead electrical utility line parallel to Stockton Avenue would be visible from the resource but would reflect a common infrastructural feature that is already present in the surrounding Stockton Avenue streetscape and is compatible with the character of a residential neighborhood. Furthermore, the TCE extending into the parcel from Stockton Avenue would not create sustained changes to the parcel and would not overlap the footprint of the historical resource. The retention of the residence's overall massing, hipped roof form with front projecting gable, bay windows, historic exterior materials, and decorative elements would allow the resource to retain its integrity of design, materials, and workmanship that are most important in conveying its significance under Criteria C/3. The project would not cause a substantial adverse change in the significance of the resource because alteration to the resource's setting would not materially impair characteristics

that qualify it for listing in the CRHR. The impact would be less than significant under CEQA for Alternative B (both viaduct options). Therefore, CEQA does not require any mitigation.

Section 106 Findings

Both project alternatives would not alter the characteristics that qualify 623 Stockton Avenue for inclusion in the NRHP. The integrity of the property would not be diminished and thus both alternatives would have no adverse effect.

Southern Pacific Depot District (Hiram Cahill Depot/Diridon Station) (ID#0497)

Under Alternative A (Volume 2, Appendix 3.16-C, Figure 39), HSR tracks would be blended with Caltrain tracks at grade in the approach to the SPRR Depot. OCS poles (27 feet tall) would be installed within the Caltrain and HSR right-of-way. The new HSR right-of-way would employ the existing rail overpass that crosses West Santa Clara Street, which is a character-defining feature of the historical resource. However, the existing rail tracks within the yard of the station and area where running lines divide into platform tracks would be reconfigured. HSR trains would use the two center platforms of the station, which would be extended to the south to a length of 1,390 to 1,470 feet. Under Alternative A, a new HSR station facility would be built west of the existing historic depot building. The HSR station facility would have a smaller footprint than the facility proposed under Alternative B and would allow a greater distance between its volume and the rear of the historic depot building; under Alternative A, the buildings would not directly abut one another. The new HSR station facility would wrap around the north and south ends of the historic depot building, and the south wing would require the demolition of the car cleaner's shack. The footprint of the new HSR station would also overlap the locations of a portion of the iron fence north of the primary depot building. The existing pedestrian concourse crossing underneath the tracks, which is a character-defining feature of the resource, would be abandoned under Alternative A but would remain in place. The proposed station facility would additionally involve a raised concourse to provide access to the HSR platforms, and vertical circulation paths would require the butterfly sheds at the station platforms to be removed. This alternative would also relocate the current automobile parking lots and transit station north of the SPRR Depot; the transit station would be placed along Cahill, Crandall, and Stover Streets. The DDV would remove up to 7 feet and add up to 10 feet of infill to the platforms between tracks 6 and 7 and between tracks 8 and 9 in a 117-foot section on the north end of the station to accommodate track shifts. The DDV would add up to 4 feet of infill to the platforms between tracks 6 and 7 and between tracks 8 and 9 in a 92-foot section on the south end of the station to accommodate track shifts. These platforms are not historic elements of the Diridon Station. The DDV would also add 2 feet of infill on the west side of the platform between tracks 4 and 5, which is not an historic feature. The butterfly shelter over the platform is a contributing historic feature and would be removed under Alternative A with or without the DDV. The track shifts and platform modifications with the DDV would not affect the character-defining features of the historic Diridon Station.

Under Alternative B, aerial viaducts and platforms would be elevated to approximately 65 feet and serviced by a four-track aerial station facility with elevated mezzanine-level concourse and two 30-foot-wide, 1,410-foot-long dedicated HSR platforms constructed above the existing Caltrain tracks and platforms. The new HSR station facilities would include modern multistory structures built to the north, south, and west of the existing Diridon Station/Hiram Cahill Depot and would be immediately adjacent to the west façade of the SPRR Depot. It is not anticipated that the historic depot building and proposed stations would be physically joined, however. The new HSR station building would encompass approximately 95,000 square feet. The concourse and entrance volume, which would be placed approximately 25 feet north of the historic depot building, would rise to a height that is slightly below the height of the historic depot building's roof peak. The HSR viaduct and platforms placed above the current Caltrain right-of-way, to be built approximately 70 feet west of the historic depot building, would overtop the historic depot building. In addition, the mezzanine-level concourse would allow circulation linkages between the station house and the station platforms. The circulation sequence may include hallways, an access bridge to cross over railroad tracks, stairs, escalators, elevators, and moving sidewalks. Construction of the elevated viaduct and new vertical circulation paths between the mezzanine-level concourse and the Caltrain and Amtrak platforms would require the reconstruction of the lower platforms and

demolition of butterfly sheds, which are a character-defining feature of the resource. The existing pedestrian concourse below the tracks and platforms, also identified as a character-defining feature, would also be removed. Project construction would temporarily affect VTA light rail service, but the current at-grade VTA service would remain in place after construction. While construction of new VTA platforms would be included as part of the project footprint, that work would be performed by others and the impacts of that feature would be analyzed in a separate, future project.

The viaduct under Alternative B would be placed above the existing Santa Clara Street underpass and its Beaux Arts-style lights, but would not physically alter these character-defining features of the SPRR Depot. The viaduct columns and their footings would not overlap with the underpass structure. Alternative B (both viaduct options) would also include an area designated as TCE approximately 90 feet from the east (main) façade of the historic depot building. Additional project components east of the TCE include: HSR station drop-off and pick-up areas (90 feet east and 350 feet northeast of the depot), HSR station bus parking (120 feet east, 116 feet northeast, and 129 feet southeast of the depot), HSR station bike lane (132 feet east of the depot), and a new permanent roadway to extend Cahill Street south of West San Fernando Street (130 feet east of the southeast corner of the depot).

Under both alternatives, while the HSR station service building proposes reuse of the existing SPRR Depot, the preliminary engineering design does not provide details about programming for the historic station, which character-defining features of the station building would be retained or lost, what efforts would be undertaken to comply with the SOI's Standards for Rehabilitation, or what design guidelines would be employed to make new construction compatible with the character of the existing depot building. Under both alternatives, the contractor will prepare a pre-construction conditions assessment of all contributing buildings and structures (with the exception of those that would be removed) and, based on the condition of each of the contributing features, develop a plan for their protection; the measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be informed of the need to avoid affecting any of these built resources, as well as tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures as defined in the protection plan. Should any inadvertent damage occur during construction, the design-builder's qualified architectural historian and, if needed a structural engineer, will assess the damage and determine the best approach to repair the buildings, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6, CUL-IAMF#8). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will use these planning documents to put protective measures in place during construction (CUL-IAMF#8). After construction is complete, areas of TCE will be returned to their pre-construction condition.

CEQA Conclusion

Under Alternative A, more character-defining features of the SPRR Depot complex would be retained than under the other alternatives, primarily the pedestrian concourse; the use of at-grade tracks for HSR trains rather than a raised viaduct would represent less of an intrusion into the setting of the resource, and would allow the HSR right-of-way to be placed within the existing platform sequence. Modifications would be made, however, including reconfiguration of tracks approaching the station and extending the center two rail platforms. Furthermore, character-defining features of the historical resource—including the iron fence and gate, car cleaner's shack, and butterfly shelters—would be demolished during project construction. Construction of the new HSR station facilities immediately west of the SPRR Depot building has the potential to overwhelm the scale of the existing depot complex with modern rail infrastructure. The project would cause a substantial adverse change in the significance of the resource because the demolition of character-defining features and degradation of the resource's historic setting would materially impair characteristics that qualify it for listing in the CRHR. The impact would be significant under CEQA for Alternative A. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Under Alternative B (both viaduct options), the project would reuse the existing depot but demolish character-defining features in the historic property boundary including the wall and fence system, iron gate with square classical posts and curvilinear details on the north side of the depot, two butterfly sheds, concourse with large basket arches leading to tracks, car cleaner's shack, and existing train tracks. In addition, the project would alter the historic setting of the components of the SPRR Depot complex that would be integrated into the new HSR station design, including the primary depot building and Santa Clara underpass, through the introduction of aerial tracks above the existing track and systems and the construction of modern multistory station infrastructure north and west of the existing SPRR Depot. Construction of the viaduct structure and new HSR station facilities immediately west of the SPRR Depot building and above the existing rail platforms would not physically change the historic depot building but would overwhelm the scale of the existing depot complex with modern rail infrastructure. The project would cause a substantial adverse change in the significance of the resource because the demolition of character-defining features and degradation of the resource's historic setting would materially impair characteristics that qualify it for listing in the CRHR. The impact would be significant under CEQA for Alternative B (both viaduct options). Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

Both alternatives would alter characteristics that qualify the SPRR Depot for inclusion in the NRHP. The effects would impair the historic property's integrity of materials, workmanship, feeling and setting such that these alternatives would have an adverse effect.

Sunlite Baking Company (ID#0522)

Under Alternative A (Volume 2, Appendix 3.16-C, Figure 40), the HSR right-of-way would be blended with the Caltrain tracks in the existing Caltrain right-of-way, the closest part of which is approximately 50 feet from the rear façade of the Sunlite Baking Company. OCS poles (27 feet tall) would be installed in the Caltrain and HSR right-of-way. Under Alternative A, Cahill Street would not be extended south beyond Otterson Street, so the alternative would not demolish the Sunlite Baking Company. Additionally, telecommunication utilities would be relocated within the South Montgomery Street right-of-way, which leads east from the Sunlite Baking Company. The utility relocation would occur approximately 50 feet from the primary façade of the resource.

Under Alternative B (both viaduct options), a portion of the resource would be in the path of the permanent HSR right-of-way, with track on viaduct, and a new permanent road right-of-way with bike lane. As a result of the project, the resource would be demolished. Alternative B (both viaduct options) would also construct a new HSR station parking lot in the western half of the parcel and drop-off and pick-up areas in the center of the parcel. These changes would expand the existing Caltrain right-of-way to the west.

CEQA Conclusion

Under Alternative A, the broader setting of the resource would change because of the construction of new HSR station facilities north of the Sunlite Baking Company, but no project activities would impede its ability to convey its significant architectural character. The project would not cause a substantial adverse change in the significance of the resource because project activities would not materially impair characteristics that qualify it for listing in the CRHR. There would be no impact under CEQA for Alternative A. Therefore, CEQA does not require mitigation.

Under Alternative B, the project would cause a substantial adverse change in the significance of the resource by means of demolition, materially impairing characteristics that qualify it for listing in the CRHR. Therefore, the impact would be significant under CEQA for Alternative B. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

Alternative A would not alter the characteristics that qualify the Sunlite Baking Company for inclusion in the NRHP. The integrity of the property would not be diminished and thus Alternative A would have no adverse effect. Alternative B would alter all the characteristics that qualify the

Sunlite Baking Company for inclusion in the NRHP. The effects include demolition of the historic property and thus Alternative B would have an adverse effect.

415 Illinois Avenue, San Jose (ID#0585)

Under Alternative A (Volume 2, Appendix 3.16-C, Figure 42), the HSR right-of-way would be blended with the Caltrain tracks in the existing Caltrain right-of-way, which is approximately 925 feet southwest of the parcel containing 415 Illinois Avenue. OCS poles (27 feet tall) would be installed in the Caltrain and HSR right-of-way. No project activities would occur within the parcel containing the resource or its immediate setting.

Under Alternative B (both viaduct options), the project would demolish the resource and construct an automatic train control (ATC) site on the resource's parcel. This alternative would also build an approximately 60-foot-tall HSR viaduct that extends across the southern corner of the parcel. The viaduct would be approximately 35 feet south of the current location of the resource.

CEQA Conclusion

Under Alternative A, no physical alteration of the resource or its immediate setting would occur. There would be no impact under CEQA for Alternative A. Therefore, CEQA does not require mitigation.

Under Alternative B, the project footprint would cause a substantial adverse change in the significance of the resource because an ATC site on the location of the resource would require demolition of the resource and would materially impair characteristics that qualify it for listing in the CRHR. Therefore, the impact would be significant under CEQA for Alternative B. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Section 106 Findings

Alternative A would not alter the characteristics that qualify 415 Illinois Avenue for inclusion in the NRHP. The integrity of the property would not be diminished and thus Alternative A would have no adverse effect. Alternative B would demolish 415 Illinois Avenue and would destroy the characteristics that qualify the property for inclusion in the NRHP; thus Alternative B would have an adverse effect.

CEQA-Only Resources

McCue Depot/Hotel (ID#19)

Under Alternative A (Volume 2, Appendix 3.16-C, Figure 16), the project would not include any construction activities within the parcel. No modifications would be made to the McCue Depot/Hotel and there would be no track modifications in this location under this alternative.

Under Alternative B, the project would not include any construction activities inside the parcel. The project would include upgrades to the existing Caltrain right-of-way to support blended service 63 feet west of the parcel, including introduction of passing tracks and expansion from the existing two tracks to four tracks. While the existing rail is at grade, under Alternative B, the project would feature track on embankment north of the parcel, transitioning to grade in front of the parcel. Alternative B would also include a permanent HSR electrification safety zone easement 50 feet west of the parcel's western boundary to accommodate the potential relocation of OCS poles and installation of an OCS pole electrical safety zone. A TCE would be located in the Old County Road right-of-way immediately adjacent to the parcel's western boundary. Any project construction activities would be allowed in areas designated as TCE, including but not limited to materials staging, operation of construction equipment, and installation of protective fencing. After construction is complete, the TCE area would be returned to its pre-construction condition.

CEQA Conclusion

There would be no impact under CEQA for Alternative A because no qualities that qualify the resource for listing in the CRHR would be materially impaired. The project would not cause a substantial adverse change in the significance of the resource. Under Alternative A, no modification to the McCue Depot/Hotel would be undertaken. While documentation associated with the property's local designation does not identify character-defining features, none of the

depot features would be altered. Thus, the resource would retain its integrity of location, design, materials, and workmanship that convey its significance under local criteria. No changes would be made to the existing at-grade Caltrain tracks approximately 63 feet west of the parcel; therefore, there would be no meaningful alteration to the setting. With no meaningful change to the setting, integrity of feeling and association would be retained, and the resource would continue to convey its significance. Therefore, CEQA does not require mitigation.

The impact would be less than significant under CEQA for Alternative B because no qualities that qualify the resource for listing in the CRHR would be materially impaired. The project would not cause a substantial adverse change in the significance of the resource. Under Alternative B, no modification to the McCue Depot/Hotel would be undertaken. Consequently, the resource would retain its integrity of location, design, materials, and workmanship that convey its significance under local criteria. Because no changes would be made to the existing at-grade Caltrain tracks 63 feet west of the depot, the project would not meaningfully alter the setting (which currently includes a rail right-of-way and associated rail-related uses). After construction, the TCE area would be returned to its pre-construction condition, resulting in no permanent change to the integrity of the resource's setting. Therefore, CEQA does not require mitigation.

1249 Mills Street (ID#26)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 22), the project would not include any activities within the parcel. No modifications would be made to 1249 Mills Street and there would be no track modifications in this location. The project would include modifications to the OCS and introduction of an OCS pole electrical safety zone and introduction of a communications radio tower approximately 136 feet southwest of the parcel on the opposite side of the existing rail right-of-way.

CEQA Conclusion

The impact would be less than significant under CEQA for Alternatives A and B because no qualities that qualify the resource for listing in the CRHR would be materially impaired. The project would not cause a substantial adverse change in the significance of the resource. Under Alternatives A and B, no modification to 1249 Mills Street would be undertaken. While documentation associated with the property's local designation did not identify character-defining features, none of the property's features would be altered. Thus, the resource would retain its integrity of location, design, materials, and workmanship that convey its significance under local criteria. No changes would be made to the existing at-grade Caltrain tracks adjacent to the parcel's western boundary and, while radio tower 7 would be introduced approximately 136 feet southwest of the parcel, this would not meaningfully alter the setting (which currently includes a rail right-of-way and associated rail-related uses). This change would not undermine the resource's integrity of feeling or association as a residence, nor would it prevent the resource from conveying its significance. Therefore, CEQA does not require mitigation.

Walnut Growers Association/Walnut Factory Lofts (ID#0106)

Under Alternative A and Alternative B (Viaduct to I-880) (Volume 2, Appendix 3.16-C, Figure 33), the HSR right-of-way would be on blended HSR/Caltrain track at grade parallel to the northeast parcel boundary. OCS poles 27 feet tall would be installed in the Caltrain and HSR right-of-way. The HSR right-of-way would be approximately 20 feet from the northeast corner of the Santa Clara Walnut Growers Association building. No project activities would overlap any portion of the parcel. A staging area would be placed in a vacant lot on the opposite side of the HSR right-of-way from the Walnut Growers Association building, approximately 85 feet northeast of the resource.

Under Alternative B (Viaduct to Scott Boulevard), sewer utilities would be relocated in the northeast corner of the parcel but would not overlap the footprint of the Santa Clara Walnut Growers Association building. The HSR right-of-way would run parallel to the northeast parcel boundary on viaduct approximately 50 feet above grade with additional 27-foot-tall OCS poles. The HSR right-of-way would be approximately 85 feet northeast of the Santa Clara Walnut Growers Association building, on the opposite side of the existing Caltrain right-of-way. A TCE would be placed in the Lafayette Street right-of-way, immediately west of the western parcel boundary and Walnut Growers Association building footprint. Any activities in support of project construction would be allowed in areas designated as TCE, including but not limited to upgrading

of existing utilities, construction of new utilities, materials staging, operation of construction equipment, and installation of protective fencing. However, after construction is complete, the TCE area would be returned to its pre-construction condition.

CEQA Conclusion

There would be no impact under CEQA for Alternative A and Alternative B (Viaduct to I-880). The blended HSR/Caltrain tracks at grade in the location of existing Caltrain tracks would introduce OCS poles in the setting of the resource. However, such a change would not disrupt the resource's historical relationship with the adjacent rail tracks and would not diminish the resource's overall setting. Additional project components would not cause sustained changes in or adjacent to the Walnut Growers Association building. The project would not cause a substantial adverse change in the significance of the resource because project activities would not materially impair characteristics that qualify it as a CEQA resource. Therefore, CEQA does not require mitigation.

The impact under CEQA would be less than significant for Alternative B (Viaduct to Scott Boulevard). No project activities on the Walnut Growers Association building would lead to the removal of any of the resource's character-defining features that convey the resource's significant past use as a nut processing facility. The HSR viaduct would be within the viewshed of the Walnut Growers Association building and would alter its setting to an extent; however, the project would not remove the resource's relationship with the adjacent at-grade track (currently occupied by the Caltrain right-of-way), which is associated with its historic use as an industrial nut processing facility. The project would not cause a substantial adverse change in the significance of the resource because alterations to the resource's setting would not materially impair characteristics that qualify it as a CEQA resource. Therefore, CEQA does not require mitigation.

Sociedade do Espiritu Santo Hall (ID#0111)

Under Alternative A and Alternative B (Viaduct to I-880) (Volume 2, Appendix 3.16-C, Figure 34), the project would be on blended HSR/Caltrain track at grade approximately 900 feet northeast of the resource. OCS poles 27 feet tall would be installed in the Caltrain and HSR right-of-way. Areas of Caltrain right-of-way would line the HSR right-of-way. No project components would encroach within the historic resource boundary, which is the footprint of the Sociedade do Espiritu Santo (S.E.S.) Hall.

Under Alternative B (Viaduct to Scott Boulevard), no project activities would occur within the parcel that contains the S.E.S. Hall. The HSR guideway would be approximately 1,000 feet northeast of the S.E.S. Hall on viaduct approximately 50 feet above grade with additional 27-foot OCS poles. A TCE would lead southwest from the HSR right-of-way along De La Cruz Boulevard and would continue along Lewis Street. The TCE at Lewis Street would extend approximately 10 feet into the parcel at the east half of its north edge. The TCE would not overlap the footprint of the S.E.S. Hall, which is the historic property boundary. Any activities in support of project construction would be allowed in areas designated as TCE, including but not limited to upgrading of existing utilities, construction of new utilities, materials staging, operation of construction equipment, and installation of protective fencing. After construction is complete, the TCE area would be returned to its pre-construction condition. The TCE area does not overlap any buildings or features that contribute to the significance of the resource. The De La Cruz Boulevard overpass, approximately 750 feet northeast of the S.E.S. Hall, would be replaced with an undercrossing.

CEQA Conclusion

There would be no impact under CEQA for Alternative A and Alternative B (Viaduct to I-880). HSR tracks would be blended with Caltrain tracks at grade in the location of existing Caltrain tracks, avoiding sustained visual changes to the setting of the resource. The project would not cause a substantial adverse change in the significance of the resource because project activities would not materially impair characteristics that qualify it as a CEQA resource. Therefore, CEQA does not require any mitigation.

The impact under CEQA would be less than significant for Alternative B (Viaduct to Scott Boulevard). No project activities on or in the vicinity of the S.E.S. Hall would lead to the removal

of any of the resource's character-defining features. Furthermore, the current location of the De La Cruz Boulevard overpass would be minimally visible from the S.E.S. Hall and would not alter the residential character of the resource's immediate setting where processions associated with the Festa do Divino Espirito Santo took place during the period of significance. Finally, the TCE extending into the parcel from Lewis Street would not create sustained changes to the resource. The project would not cause a substantial adverse change in the significance of the resource because alterations to the resource's setting would not materially impair characteristics that qualify it as a CEQA resource. Therefore, CEQA does not require mitigation.

San Carlos Street Viaduct (ID#0495)

Under Alternative A (Volume 2, Appendix 3.16-C, Figure 38), the HSR right-of-way would be at grade and blended with the UPRR tracks in the existing UPRR right-of-way, which passes underneath the resource. OCS poles 27 feet tall would be installed in the HSR right-of-way. Alternative A would retain the San Carlos Street viaduct.

Under Alternative B (both viaduct options), the HSR right-of-way would pass near the eastern end of the resource, east of the extant UPRR at-grade railbed over which the resource crosses. A new HSR viaduct, approximately 60 feet above grade, would be built adjacent to the eastern abutment of the resource. The nearest support footings for the new viaduct piers would be approximately 150 feet southeast and 125 feet north of the resource.

An area designated as a TCE would overlap the eastern portion of the resource. Any activities in support of construction of the project would be allowed in areas designated as TCE, including but not limited to materials staging, operation of construction equipment, and installation of protective fencing. Construction activities within the boundaries of the TCE have the potential to result in inadvertent damage to or demolition of the resource or its character-defining features. The contractor will prepare a pre-construction conditions assessment of the San Carlos Street viaduct and, based on the condition of the structure, will develop a plan for its protection; the measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be informed of the need to avoid affecting this built resource, as well as tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures as defined in the protection plan. Should any inadvertent damage occur during construction, the contractor's qualified architectural historian, and if needed a structural engineer, will assess the damage and determine the best approach to repair the San Carlos Street viaduct, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority (CUL-IAMF#6, CUL-IAMF#8). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will use these planning documents to put protective measures in place during construction (CUL-IAMF#8). After construction is complete, areas of TCE will be returned to their pre-construction condition.

CEQA Conclusion

The impact under CEQA would be less than significant for Alternative A. The San Carlos Street Viaduct would be retained and would not require physical alteration to accommodate the at-grade HSR right-of-way blended with existing Caltrain tracks. The project would not cause a substantial adverse change in the significance of the resource because at-grade HSR construction in the vicinity of the resource for Alternative A would not materially impair characteristics that qualify it as a CEQA resource. Therefore, CEQA does not require any mitigation.

The impact under CEQA would be less than significant for Alternative B. No physical alteration of the San Carlos Street viaduct would occur. The project would not cause a substantial adverse change in the significance of the resource because construction of the adjacent HSR viaduct would not materially impair characteristics that qualify it as a CEQA resource. Therefore, CEQA does not require mitigation.

75 South Autumn Street, San Jose (ID#0566)

Under Alternatives A and B (Volume 2, Appendix 3.16-C, Figure 41), the parcel containing 75 South Autumn Street would lie within the path of a new roadway, where Crandall Street would be extended east to meet South Autumn Street. The residence would be demolished under both

alternatives to accommodate the new roadway and the vehicular circulation patterns proposed for the Diridon Station area.

Alternatives A and B would construct the HSR station platforms and right-of-way (75 feet above grade with additional 27-foot OCS poles) approximately 450 feet west of 75 South Autumn Street. Under both alternatives, the on-site transit center currently located north of the San Jose Diridon Station (consisting of paved surface bus parking lanes and waiting shelters) would be relocated to the Crandall Street and Stover Street rights-of-way, approximately 180 feet west of 75 South Autumn Street. Bike lanes would be placed within the Cahill Street right-of-way, approximately 400 feet west of the resource.

CEQA Conclusion

The impact under CEQA would be significant for both project alternatives. The project would cause a substantial adverse change in the significance of the resource because the resource would be demolished, materially impairing characteristics that qualify it as a CEQA resource. Mitigation measures to address this impact are identified in Section 3.16.10. Section 3.16.8 describes these measures in detail.

Harold Hellwig Ironworks (ID#4594)

Under Alternative A (Volume 2, Appendix 3.16-C, Figure 43), the HSR right-of-way would be blended with Caltrain tracks at grade approximately 530 feet west of the parcel containing the Harold Hellwig Ironworks. OCS poles 27 feet tall would be installed in the HSR right-of-way. No project activities would occur on the parcel containing the resource. Telecommunications utilities would be relocated within South Montgomery Street, adjacent to the resource to the west. As under Alternative B, the area west of the Harold Hellwig Ironworks would undergo improvements to accommodate HSR service, including new surface parking areas.

Under Alternative B, the parcel containing the Harold Hellwig Ironworks would be within an area designated as a TCE. Any activities in support of project construction would be allowed in areas designated as TCE, including but not limited to materials staging, operation of construction equipment, and installation of protective fencing. Construction activities within the boundaries of the TCE may result in inadvertent damage to or demolition of the resource or its character-defining features. The contractor will prepare a pre-construction conditions assessment of the Harold Hellwig Ironworks and, based on the condition of the resource, will develop a plan for its protection; the measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be informed of the need to avoid affecting this built resource, as well as tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures, as defined in the protection plan. Should any inadvertent damage occur during construction, the contractor's qualified architectural historian and, if needed, a structural engineer will assess the damage and determine the best approach to repair the building, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will use these planning documents to put protective measures in place prior to the start of construction (CUL-IAMF#8). After construction is complete, the TCE will be returned to its pre-construction condition.

Alternative B would build the HSR right-of-way (75 feet above grade with additional 27-foot OCS poles) and raised HSR station platforms approximately 550 feet west of the Harold Hellwig Ironworks. Electrical utilities would also be placed in the South Montgomery Street right-of-way approximately 35 feet west of the resource.

CEQA Conclusion

The impact under CEQA would be less than significant for Alternative A. No project activities would alter the character-defining features of the Harold Hellwig Ironworks, and nearby station improvements as well as the demolition of the adjacent Sunlite Baking Company building would cause a limited change in the broader setting of the resource. The project would not cause a

substantial adverse change in the significance of the resource because the alteration to the resource's setting would not impair characteristics that qualify it as a CEQA resource.

The impact under CEQA would be less than significant for Alternative B. The project would avoid inadvertent damage to or demolition of the resource. The project would preserve the character-defining features that convey the Harold Hellwig Ironworks' distinctive industrial architecture—including its plan and massing formed by two attached volumes, exterior brick cladding and clay roof tiles, fenestration pattern, and decorative elements. The construction of the HSR viaduct and associated station improvements, as well as the demolition of the neighboring Sunlite Baking Company building, would create a limited disruption to the broader setting of the resource but would not overwhelm the resource's immediate setting of one- to two-story buildings. The project would not cause a substantial adverse change in the significance of the resource because the alteration to the resource's setting would not impair characteristics that qualify it as a CEQA resource.

Impact CUL#5: Noise and Vibration Impacts on Built Resources Caused by Construction Activities

Construction-related vibration impacts could cause permanent destruction or alteration of cultural resources that could affect the resources' ability to convey historic significance. Section 3.4 presents the results of construction-related vibrations analysis within the APE.

The analysis of vibration impacts on historic built resources draws upon the methods and data used to analyze vibration impacts on all types of sensitive receptors, as presented in Section 3.4. The analysis of vibration impacts on cultural resources, however, is supported specifically by the methods used to assess the potential for construction-caused vibration to demolish or damage the physical characteristics that justify a historic built resource's inclusion in the NRHP or CRHR. Vibration that may cause human annoyance does not necessarily relate to physical change in the built environment and, therefore, may not be relevant to an understanding of vibration impacts on historic built resources.

Construction of the project would involve demolition of existing structures; clearing and grubbing; handling, storing, hauling, excavating, and placing fill; pile driving; modifications to existing and construction of new structures, bridges, and roadways; utility upgrades and relocations; and construction and modification of railbeds. Section 3.4.4, Methods for Evaluating Impacts, describes methodology for assessing vibration source levels from equipment expected to be used by contractors, estimated site layouts of equipment along the right-of-way, and distance from the construction operations to nearby vibration-sensitive receptors, including built resources; these three datasets are also factors for construction-related vibration impacts on historic built resources.

The FRA identified construction vibration damage criteria for determining damage and annoyance assessments during construction of HSR programs. These criteria identify four types of building categories, which can be used when analyzing potential vibration impacts on historic built resources, ranked from least to most susceptible to potential vibration damage:

1. Reinforced concrete, steel or timber (no plaster)
2. Engineered concrete and masonry (no plaster)
3. Nonengineered timber and masonry buildings
4. Buildings extremely susceptible to vibration damage (FRA 2012: page 10-13)

FRA guidance for vibration impact analysis does not recognize the aspects of integrity or character-defining features of a property when determining the potential vibration impact of project construction activities on historic properties. However, the vibration impact analysis does take into account a building's vibration response, or how a building's structure can either attenuate or amplify ground-borne vibration. Consequently, increased vibration could affect the important aspects of integrity or character-defining features of a historic property such that it may no longer convey its significance.

Building damage occurs when construction activities produce waves in the ground strong enough to cause cosmetic damage, structural damage, or both. The most likely source of damage from vibration during construction would occur where pile driving would take place close to historic

properties (within 50 feet) (Volume 2, Appendix 3.4-A, Noise and Vibration Technical Report, pages 5-89 and 5-113). No historic properties in the San Francisco to South San Francisco, San Bruno to San Mateo, San Mateo to Palo Alto, and Mountain View to Santa Clara Subsections were identified as potentially vulnerable to damage from vibration resulting from construction activities. Therefore, no adverse effects are expected in those subsections. Analysis for properties in the San Jose Diridon Station Approach Subsection follows.

It should be noted that construction activities are also anticipated to temporarily increase noise levels within the vicinity of historic built resources. However, construction noise is not a permanent condition and would not irreversibly alter the significant qualities of a historic built resource's setting in a way that would diminish its integrity of setting, feeling, and association. As such, construction noise does not have the potential to adversely change any historic built resource and is not discussed further in this analysis.

NRHP/CRHR-Listed or Eligible-for-Listing Resources

Santa Clara Railroad Historical Complex (Santa Clara Depot) (ID#0141)

Under Alternative A and Alternative B (Viaduct to I-880), existing at-grade Caltrain tracks would be upgraded to accommodate blended Caltrain and HSR service between 30 and 70 feet from the Depot and within 15 to 30 feet of the Control Tower. Under Alternative B (Viaduct to Scott Boulevard), new HSR tracks on a 35-foot viaduct with additional 27-foot OCS poles would be built in the current railroad right-of-way passing adjacent to, and to the north of, the Santa Clara Railroad Historical Complex. The centerline of the new tracks would be approximately 100 feet north of the Control Tower and Depot. The construction activities in the vicinity of this resource are thoroughly described in Impact CUL#4. TCEs would be located within the property boundary of the Santa Clara Depot and would surround the primary depot building and the Control Tower. However, the TCEs would be outside the historic boundary of the complex. In the historic complex, there are four contributing elements: the Depot, a Maintenance-of-Way Speeder Shed, Maintenance-of-Way Section Tool House, and Control Tower. The following project features would be relevant for this resource: preparation of a pre-construction conditions assessment and a plan for protection of historic built resources and repair of inadvertent damage (CUL-IAMF#6); preparation of a BEMP (CUL-IAMF#7); and protection and stabilization measures (CUL-IAMF#8).

CEQA Conclusion

There would be no impact under CEQA for Alternative A and Alternative B (Viaduct to I-880). Construction activities would not generate sufficient vibration to cause impacts on historical resources. Therefore, CEQA does not require mitigation.

Under Alternative B (Viaduct to Scott Boulevard), construction activities have the potential to cause a substantial adverse change in the significance of the Santa Clara Railroad Historical Complex because pile driving within 50 feet of the historical resource could occur. As a result, character-defining features of this resource, such as roof shingles, siding, roof brackets and windows, could be damaged by vibration. Project features are in place to help protect the resource from inadvertent damage to the characteristics that qualify it for listing in the NRHP and CRHR (CUL-IAMF#6, CUL-IAMF#7, CUL-IAMF#8). Accordingly, the impact would be less than significant under CEQA for Alternative B (Viaduct to Scott Boulevard). Therefore, CEQA does not require mitigation.

Section 106 Findings

Under Alternative A and Alternative B (Viaduct to I-880), the integrity of the materials, workmanship and design that qualify the Santa Clara Railroad Historical Complex for listing in the NRHP would not be diminished. Therefore, construction vibration from these alternatives would have no adverse effect.

Alternative B (Viaduct to Scott Boulevard) could alter characteristics that qualify the Santa Clara Railroad Historical Complex for inclusion in the NRHP. Character-defining features of this resource, such as roof shingles, siding, roof brackets and windows, could be damaged by vibration. Project features are proposed that help protect the characteristics that qualify the property for listing in the NRHP. Therefore, there would be no adverse effect from construction-related vibration for Alternative B (Viaduct to Scott Boulevard).

Bellarmino College Preparatory and Polhemus House (ID#0210)

The HSR right-of-way would be 650 feet northeast of the residence's footprint under Alternative A, 800 feet northeast of the footprint of the house under Alternative B (Viaduct to I-880), and 750 feet away under Alternative B (Viaduct to Scott Boulevard). The construction activities in the vicinity of this resource are thoroughly described in Impact CUL#4.

CEQA Conclusion

There would be no impact under CEQA for either project alternative. Construction activities would occur more than 50 feet from the historic resource boundary, and thus would have no vibration impact on the historical resource. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not alter characteristics that qualify the Polhemus House for inclusion in the NRHP and the integrity of the property would not be diminished. The project alternatives would have no adverse effect.

623 Stockton Avenue, San Jose (ID#0304)

Under Alternative A, the HSR right-of-way would be blended with the existing Caltrain tracks, 425 feet northeast of the property. Under Alternative B (both viaduct options), the HSR right-of-way would be approximately 750 feet northeast of this residence, adjacent to the current Caltrain right-of-way. Additionally, electrical utility lines would be placed overhead on poles adjacent to the Stockton Avenue roadway. The construction activities in the vicinity of this resource are thoroughly described in Impact CUL#4. This cottage-style residence was designed in the Queen Anne style, which incorporates character-defining features such as the asymmetrical façade, varied exterior wall cladding and textures, and stained glass window.

CEQA Conclusion

There would be no impact under CEQA under either project alternative. Under Alternative A, construction activities would occur more than 50 feet from the historical resource boundary and thus would have no vibration impact on the historical resource. Under Alternative B (both viaduct options), construction activities would occur within 50 feet of the resource, but the installation of new electrical utility lines on poles is not anticipated to increase vibration levels. The project would not cause a substantial adverse change in the significance of the resource because project activities would not materially impair characteristics that qualify it for listing in the NRHP/CRHR. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B would not alter the characteristics that qualify 623 Stockton Avenue for inclusion in the NRHP and the integrity of the property would not be diminished. The project alternatives would have no adverse effect.

Southern Pacific Depot District (Hiram Cahill Depot/Diridon Station) (ID#0497)

Under Alternative A, construction of the new HSR station facilities would involve the use of equipment in proximity to the contributing elements of the SPRR Depot, such that those contributing elements would have the potential to experience damage caused by ground-borne vibration from construction. The DDV would involve similar construction methods and would cause a similar degree of construction-related vibration as Alternative A without the DDV. However, project features include the preparation of a pre-construction conditions assessment and a plan for protection of historic built resources and repair of inadvertent damage (CUL-IAMF#6); preparation of a BEMP (CUL-IAMF#7); and protection and stabilization measures (CUL-IAMF#8). The blended at-grade alignment would retain the Santa Clara underpass.

Alternative B (both viaduct options) would feature aerial viaducts elevated to approximately 65 feet and serviced by a four-track aerial station facility with elevated mezzanine-level concourse and two 30-foot-wide, 1,410-foot-long dedicated HSR platforms above the existing Caltrain tracks and platforms. A new HSR station facility would include multistory structures north, south, and west of the existing SPRR Depot (HSR station service building), and would be immediately adjacent to the west façade of the SPRR Depot. The construction activities in the vicinity of this resource are thoroughly described in Impact CUL#4. The NRHP-listed historic district is comprised of the depot, the Car Cleaner's Shack, iron fence, Santa Clara underpass, two

butterfly sheds, and the train tracks within a 12.5-acre boundary. Character-defining features of the depot include the hipped roof with terra cotta tiles, multicolor tapestry brick in an English bond pattern cladding, and terra cotta appliques on the pilasters and side wing façades. Furthermore, the Beaux-Arts-style lights on the Santa Clara underpass are considered a character-defining feature of the district.

Under Alternative B (both viaduct options), pile driving for the construction of aerial tracks would occur within 50 feet of the historical resource, with the potential to cause damage to fragile materials, such as the terra cotta tiles, multicolor tapestry brick and terra cotta appliques as a result of intermittent construction-related vibration. These materials are character-defining features of this Italian Renaissance Revival-style building. Project features include preparation of a pre-construction conditions assessment and a plan for protection of historic built resources and repair of inadvertent damage (CUL-IAMF#6); preparation of a BEMP (CUL-IAMF#7); and protection and/or stabilization measures (CUL-IAMF#8).

CEQA Conclusion

The impact under CEQA would be less than significant for Alternative A. Although project activities have the potential to damage character-defining features of the resource, project features (CUL-IAMF#6, CUL-IAMF#7, CUL-IAMF#8) prevent inadvertent vibration-caused damage to the characteristics that qualify it for listing in the NRHP and CRHR. Alternative A would not cause a substantial adverse change to the historical resource. Therefore, CEQA does not require mitigation.

The impact under CEQA would be less than significant for Alternative B. The project could cause a substantial adverse change in the significance of the resource because construction activities would include pile driving within 50 feet of the historical resources, with the potential to diminish those characteristics that qualify it for listing in the NRHP and CRHR. Project features (CUL-IAMF#6, CUL-IAMF#7, CUL-IAMF#8) protect the resource from inadvertent damage to the characteristics that qualify it for listing in the NRHP and CRHR. Therefore, CEQA does not require mitigation.

Section 106 Findings

Alternatives A and B include construction activities that would increase ground-borne vibration within 50 feet of contributing features of the historic property; this in turn could diminish the integrity of the district's materials, design, and workmanship. Project features help protect the characteristics that qualify the property for listing in the NRHP. Therefore, there would be no adverse effect.

Sunlite Baking Company (ID#0522)

Under Alternative A, the HSR right-of-way would be blended with the Caltrain tracks in the existing Caltrain right-of-way approximately 50 feet south of the parcel that the building sits on. Alternative B (both viaduct options) would be on viaduct crossing through a portion of the resource, requiring its demolition. The construction activities in the vicinity of this resource were thoroughly described in Impact CUL#4. Sunlite Baking Company is an industrial-style building with character-defining features that represent elements of the Moderne style, including smooth stucco siding, stepped entry with streamline canopy, window styles and fluted pilasters separating the bays. The boundary of this historic property is restricted to the footprint of the building.

CEQA Conclusion

There would be no impact under CEQA for Alternative A. The blended at-grade alignment would not cause a substantial adverse change to the historical resource because it would be more than 50 feet from the building. Therefore, CEQA does not require mitigation.

Under Alternative B, construction activities entail the demolition of this historical resource, eliminating the possibility of having vibration impacts. There would be no impact under CEQA. Therefore, CEQA does not require mitigation.

Section 106 Findings

Under Alternative A, vibration related to construction would not have the potential to damage the character-defining features, because vibration-inducing activities would occur more than 50 feet

from the historic property. Therefore, there would be no adverse effect. Under Alternative B, the historic property would be demolished during project construction.

415 Illinois Avenue, San Jose (ID#0585)

Under Alternative A, the HSR right-of-way would be blended with the Caltrain tracks in the existing Caltrain right-of-way, which is approximately 925 feet southwest of the parcel containing 415 Illinois Avenue. The property would be demolished under Alternative B (both viaduct options) for construction of an ATC site. The construction activities in the vicinity of this resource were thoroughly described in Impact CUL#4.

CEQA Conclusion

There would be no impact under CEQA for Alternative A. The blended at-grade alignment would not cause a substantial adverse change to the historical resource because it would be more than 50 feet from the building. Therefore, CEQA does not require mitigation.

There would be no impact under CEQA for Alternative B. Construction activities entail the demolition of this historical resource, eliminating the possibility of having vibration impacts. Therefore, CEQA does not require mitigation.

Section 106 Findings

Under Alternative A, construction vibration would not have the potential to cause damage to the character-defining features because vibration-inducing activities would occur more than 50 feet from the historic property. Therefore, there would be no adverse effect. Under Alternative B, this historic property would be demolished during project construction.

CEQA-Only Resources

Walnut Growers Association/Walnut Factory Lofts (ID#0106)

Under Alternative A and Alternative B (Viaduct to I-880), the blended HSR/Caltrain tracks would be built at grade in the existing Caltrain right-of-way. The HSR right-of-way would be approximately 20 feet from the northeast corner of the Walnut Growers Association building. Under Alternative B (Viaduct to Scott Boulevard), the HSR right-of-way would run parallel to the northeast parcel boundary on viaduct approximately 50 feet above grade and approximately 85 feet northeast of the Walnut Growers Association building, on the opposite side of the existing Caltrain right-of-way. Project features include preparation of a pre-construction conditions assessment and a plan for protection of historic built resources and repair of inadvertent damage (CUL-IAMF#6); preparation of a BEMP (CUL-IAMF#7); and protection and stabilization measures (CUL-IAMF#8).

CEQA Conclusion

The impact would be less than significant under CEQA for Alternative A and Alternative B (Viaduct to I-880). The project could cause a substantial adverse change in the significance of the resource because construction activities would include pile driving within 50 feet of the historical resource, with the potential to diminish those characteristics that qualify it as a CEQA resource. Project features (CUL-IAMF#6, CUL-IAMF#7, CUL-IAMF#8) help protect the resource from inadvertent damage to these characteristics. Therefore, CEQA does not require mitigation.

There would be no impact under CEQA for Alternative B (Viaduct to Scott Boulevard). There would be no construction activities within 50 feet of the Walnut Growers Association/Walnut Factory Lofts, and thus there would be no increased vibration that could cause substantial adverse change to this resource such that it would no longer qualify as a CEQA resource. Therefore, CEQA does not require mitigation.

Sociedade do Espiritu Santo Hall (ID#0111)

Under Alternative A and Alternative B (Viaduct to I-880), the blended HSR/Caltrain tracks would be at grade in the existing Caltrain right-of-way approximately 900 feet northeast of the resource. Under Alternative B (Viaduct to Scott Boulevard), no project activities would be located in the immediate vicinity of the historical resource.

CEQA Conclusion

There would be no impact under CEQA for Alternatives A and B (both viaduct options). There would be no construction activities within 50 feet of the S.E.S. Hall, and thus there would be no

increased vibration that could cause substantial adverse changes to this resource such that it would no longer qualify as a CEQA resource. Therefore, CEQA does not require mitigation.

San Carlos Street Viaduct (ID#0495)

Under Alternative A, the San Carlos Street viaduct would be retained and would not require physical alteration to accommodate the at-grade HSR right-of-way blended with existing Caltrain tracks. Under Alternative B (both viaduct options), an HSR viaduct would be built adjacent to the eastern abutment of the resource, with the new track approximately 60 feet above grade. The nearest support footings for the new viaduct piers would be approximately 150 feet southeast and 125 feet north of the resource.

CEQA Conclusion

There would be no impact under CEQA for Alternative A. There would be no construction activities within 50 feet of the San Carlos Street viaduct, and thus there would be no increased vibration that could cause substantial adverse changes to this resource such that it would no longer qualify as a CEQA resource. Therefore, CEQA does not require mitigation.

The impact would be less than significant under CEQA for Alternative B. The project would not cause a substantial adverse change in the significance of the resource because construction of the adjacent HSR viaduct would not involve vibration-inducing activities that could materially impair characteristics that qualify it as a CEQA resource. Therefore, CEQA does not require mitigation.

75 South Autumn Street, San Jose (ID#0566)

Under Alternatives A and B, the parcel containing 75 South Autumn Street would be in the path of a new roadway, where Crandall Street would be extended east to meet South Autumn Street. The residence would be demolished under both alternatives to accommodate the new roadway and the vehicular circulation patterns proposed for the Diridon Station area.

CEQA Conclusion

There would be no impact under CEQA for both alternatives because the residence would be demolished as described in Impact CUL#4. Therefore, CEQA does not require mitigation.

Harold Hellwig Ironworks (ID#4594)

Under Alternative A, the HSR right-of-way would be blended with Caltrain tracks at grade approximately 530 feet west of the parcel containing the Harold Hellwig Ironworks. Alternative B would build the HSR right-of-way 75 feet above grade, along with raised HSR station platforms, approximately 550 feet west of the Harold Hellwig Ironworks.

CEQA Conclusion

There would be no impact under CEQA for Alternatives A and B because there would be no construction activities within 50 feet of the Harold Hellwig Ironworks, and thus there would be no increased vibration that could cause substantial adverse changes to this resource such that it would no longer qualify as a CEQA resource. Therefore, CEQA does not require mitigation.

Operations Impacts

Impacts resulting from project operations would be limited to noise or vibration caused by passing trains if an aspect of the historic property’s significance is derived from a quiet environment.

Impact CUL#6: Intermittent Noise and Vibration Impacts on Built Resources Caused by Operations

In addition to the potential for physical damage from vibration from construction activities, project operations may introduce visual, audible, and atmospheric elements with the potential to diminish the integrity of a historic property such that it may no longer convey its significance or its association with a historic context. Intermittent operational vibration impacts could cause permanent destruction or alteration of cultural resources that could affect the ability of these resources to convey historic significance. Section 3.4 describes temporary and permanent impacts of operational vibration.

Section 3.4.4 describes methodology for assessing vibration source levels from operating equipment expected to be in use, frequency of use of equipment along the right-of-way, and distance from the operations to nearby vibration-sensitive receptors; these two datasets are also factors for operations-related vibration impacts on cultural resources.

The *San Francisco to San Jose Project Section Noise and Vibration Technical Report* (Volume 2, Appendix 3.4-A) did not identify any noise-sensitive properties that are also historic properties in four of the five subsections: San Francisco to South San Francisco, San Bruno to San Mateo, San Mateo to Palo Alto, and Mountain View to Santa Clara. The *San Jose to Merced Project Section Noise and Vibration Technical Report* (Authority 2019e) did not identify any noise-sensitive properties that are also historic properties in the San Jose Diridon Station Approach Subsection. Unless a quiet setting is considered to be a character-defining feature or an important aspect of integrity of a historic property, operational alterations to a setting, such as increased noise levels, are generally not considered a significant impact or a significant change to historic built resources. In particular, historic transportation-related properties, such as stations, are not typically considered noise sensitive because their purpose and setting is tied directly to existing train noise. There are no NRHP- or CRHR-eligible or CEQA-only built historic resources that have a quiet setting as a character-defining feature or important aspect of integrity in the APE. This applies both in terms of physical damage to character-defining features such that historic properties could no longer convey their significance and in terms of impacts on continued use or economic viability of historic properties that could result from abandonment in response to changed environmental conditions.

Alternative A with the DDV includes minor adjustments to the at-grade track alignment that would allow greater train speeds than under Alternative A without the DDV. As discussed in the Section 3.4 vibration analysis, the increase in train speeds would not generate greater vibration impacts because vibration impacts are influenced more by the number of trains events per day than by minor changes in alignment. The vibration analysis concluded that there would be no difference in vibration impacts between Alternative A with the DDV and Alternative A without the DDV because the number of train events per day would be the same under both scenarios. Consequently, there would be no difference in the vibration impacts on adjacent historic properties from Alternative A with the DDV as compared to Alternative A without the DDV.

CEQA Conclusion

There would be no impact under CEQA for Alternatives A and B because project operations would not result in noise or vibration impacts on historical resources. Therefore, CEQA does not require mitigation.

Section 106 Findings

Under Alternatives A and B, project operations would not result in noise or vibration impacts that would alter characteristics that qualify historic resources for inclusion in the NRHP. Consequently, the integrity of built resources within the APE would not be diminished. Thus, the alternatives would have no adverse effect due to noise or vibration on historic resources.

3.16.8 Mitigation Measures

In compliance with Section 106, mitigation measures are negotiated in consultation that may include federal, state, and local agencies; Native American tribes; and other interested parties. An MOA then formalizes these measures; agreed-upon mitigation would be implemented after the MOA is executed. The mitigation measures and commitments described in this section will occur prior to, during, and following construction.

The following measures are standardized mitigation measures that would be considered in consultation and may be included in an MOA that would be negotiated between consulting parties and executed just prior to the ROD; however, the consulting parties may negotiate other mitigation measures. Some measures listed in this section would be modified in the MOA or associated treatment plans to mitigate impacts on specific properties. Additional property-specific mitigation would also be developed in consultation.

Pre-construction mitigation measures may include moving historic built resources during construction and protecting them should they not be moved to their permanent location until after construction. Post-construction mitigation measures may include restoration of affected landscape, buildings, or structures to pre-construction conditions following the SOI's guidelines for the treatment of historic properties. This restoration would include rehabilitation of properties that suffered unanticipated impacts, to the extent feasible. Mitigation measures that could take place prior to, during, or after construction may include interpretive programs, including displays, interpretive signage, and similar measures.

Mitigation measures will strive to provide the greatest level of protection feasible in light of project costs and logistics, as well as technological and environmental conditions. Preservation in place through methods such as project redesign of relevant facilities to avoid destruction or damage to eligible cultural resources, capping archaeological resources with fill, or deeding resources into conservation easements is always preferable if these methods are also compatible with project objectives. Extensive documentation of historic built resources that will be moved or demolished, or data recovery of significant archaeological resources where destruction is not avoidable, would be at the opposite end of this spectrum.

Under Section 106, regulatory requirements must be followed in accordance with the PA. The PA stipulates that an MOA be prepared for each section of the project to detail the project's commitments to implement these mitigation measures. The Authority is developing the MOA for the project in consultation with the SHPO and STB; the Amah Mutsun Tribal Band of Mission San Juan Bautista, the Indian Canyon Mutsun Band of Costanoan, the Ohlone Tribe, and the Northern Valley Yokuts Tribe; Burlingame Historical Society and Redwood City Historic Resources Advisory Committee; City and County of San Francisco; the City of Brisbane Planning Department, the City of San Jose Planning Division, Department of Planning, Building, and Code Enforcement; the City of San Jose Historic Landmarks Commission; and VTA. The MOA will include input from the signatories, concurring parties, and other interested members of the public and Native American tribes in the development of mitigation measures.

The Section 106 PA stipulates that two treatment plans should be developed: an ATP and a BETP, tiered from each project section MOA. These plans, prepared in consultation with the MOA signatories and consulting parties, provide specific performance standards to avoid, minimize, or reduce each impact to the extent possible and provide enforceable performance standards to follow the NRHP and the SOI's standards when implementing the mitigation measures (Stipulations III and VIII in the PA). These treatment plans will include relevant mitigation measures for the purposes of NEPA and CEQA to be implemented in compliance with Section 106; they will be coordinated with the measures included in this Final EIR/EIS.

Specifically, the ATP will be prepared in consultation with the tribes to focus on the treatment of known and unknown archaeological resources, and it will require the phased identification, evaluation, and mitigation of archaeological resources that may be on parcels for which legal access has yet to be granted. Additionally, it will include provisions that all inaccessible areas will be surveyed prior to the commencement of any ground-disturbing activities. It will also provide requirements for procedures and protocols to be followed in the event of unanticipated discoveries during construction.

The BETP will describe the treatments to be applied to affected properties in the built environment, as well as protection measures for properties to avoid impacts. Although the MOA will not address CEQA-only resources, the BETP will include a chapter describing protection and mitigation measures for these historical resources. The treatments and measures included will be specific to each property that would be or may be adversely affected by the project. The treatment plans will be approved and implemented before the start of construction activities that could adversely affect historic properties or historical resources. These requirements will be included in the construction contracts.

Table 3.16-4 summarizes the standard mitigation measures that have been developed program-wide. The specific requirements for each of the standardized measures are described following the table.

Table 3.16-4 Summary of Mitigation Measures Applicable to Each Alternative

Mitigation Measure	Alternative A	Alternative B
CUL-MM#1: Mitigate Adverse Effects on Archaeological and Built Resources Identified during Phased Identification and Comply with the Stipulations Regarding the Treatment of Archaeological and Historic Built Resources in the PA and MOA	All archaeological and built resources that, after phased identification and evaluation, are determined eligible for the NRHP.	All archaeological and built resources that, after phased identification and evaluation, are determined eligible for the NRHP.
CUL-MM#2: Halt Work in the Event of an Archaeological Discovery, and Comply with the PA, MOA, ATP, and all State and Federal Laws, as Applicable	All archaeological resources	All archaeological resources
CUL-MM#3: Other Mitigation for Effects on NRHP-Eligible Pre-Contact Archaeological Resources	For the following resources, which, after phased identification and evaluation, are determined eligible for the NRHP: <ul style="list-style-type: none"> ▪ CA-SFR-171 ▪ CA-SFR-191H ▪ CA-SMA-422 ▪ P-41-000498 ▪ CA-SMA-102 ▪ CA-SMA-316 ▪ CA-SMA-317 ▪ CA-SMA-4 ▪ CA-SMA-232 ▪ CA-SMA-419 ▪ CA-SMA-420 ▪ CA-SMA-421 ▪ CA-SMA-358/H ▪ CA-SMA-424/CA-SCL-939 ▪ CA-SCL-600 ▪ CA-SCL-690 ▪ CA-SCL-1 	Same as Alternative A
CUL-MM#4: Minimize Adverse Effects through Relocation of Historic Buildings and Structures	N/A	N/A
CUL-MM#5: Minimize Adverse Operational Noise Effects	N/A	N/A
CUL-MM#6: Prepare and Submit Additional Recordation and Documentation	ID#0106 ID#0497 ID#0566	Both viaduct options: ID#0497 ID#0522 ID#0566 Only Viaduct to I-880: ID#0106 Only Viaduct to Scott Blvd: ID#0141

Mitigation Measure	Alternative A	Alternative B
CUL-MM#7: Prepare Interpretive or Educational Materials	ID#0497 ID#0566	Both viaduct options: ID#0497 ID#0522 ID#0566 Only Viaduct to Scott Blvd: ID#0141
CUL-MM#8: Repair of Inadvertent Damage	N/A	N/A
CUL-MM#9: Visual Screening	N/A	N/A
CUL-MM#10: Station Design Consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties	ID#0497	Both viaduct options: ID#0497 Only Viaduct to Scott Blvd: ID#0141
CUL-MM#11: Relocate Automatic Train Control Site to Avoid Demolition of 415 Illinois Avenue	N/A	ID#0585

ATP = archaeological treatment plan
 I- = Interstate
 MOA = memorandum of agreement
 N/A = not applicable
 NRHP = National Register of Historic Places
 PA = programmatic agreement

CUL-MM#1: Mitigate Adverse Effects on Archaeological and Built Resources Identified during Phased Identification and Comply with the Stipulations Regarding the Treatment of Archaeological and Historic Built Resources in the PA and MOA

No properties in the APE have been identified as containing buildings built in or prior to 1966, that could not be adequately recorded from public right-of-way. Therefore, no known properties in the current APE will be surveyed and formally evaluated under NRHP and CRHR criteria during the post-ROD design phase and prior to construction. However, while the degree of design development completed as of ROD does not require additional survey and evaluation, additional design development could precipitate changes to the APE, and may result in the need to survey and evaluate additional properties. Once parcels are accessible and surveys have been completed, including consultation as stipulated in the MOA, additional archaeological and built resources may be identified. For newly identified eligible properties that would be adversely affected, the following process will be followed, which will be presented in detail in the BETP and ATP:

- The Authority will consult with the MOA signatories and concurring parties to determine the preferred treatment of the properties/resources and appropriate mitigation measures.
- For CRHR-eligible archaeological resources, the Authority will determine if these resources could feasibly be preserved in place, or if data recovery is necessary. The methods of preservation in place will be considered in the order of priority provided in CEQA Guidelines Section 15126.4(b)(3). If data recovery is the only feasible treatment the Authority will adopt a data recovery plan as required under CEQA Guidelines Section 15126.4(b)(3)(C).
- Should data recovery be necessary, the principal investigator (PI), in consultation with the MOA signatories and consulting parties, will prepare a data recovery plan for approval from the Authority and in consultation with the MOA signatories. Upon approval, the PI will implement the plan.
- For archaeological resources, the Authority will also determine if the resource is a unique archaeological resource under CEQA. If the resource is not a historical resource but is an archaeological resource, the resource will be treated as required in Cal. Public Res. Code

Section 21083.2 by following protection, data recovery, and other appropriate steps outlined in the ATP. The ATP outlines the review and approval requirements for these documents.

- For historic built resources, the PI will amend the BETP to include the treatment and mitigation measures identified by the Authority in consultation with the MOA signatories and concurring parties. The PI will implement the treatment and mitigation measures accordingly.

This mitigation measure is anticipated to be effective because it will decrease the potential for impacts on any newly discovered archaeological or historic built resources through the protections and compliance requirements. This mitigation measure will apply to the project site (entirely within the project footprint). This mitigation measure would not trigger additional ground-disturbing activities outside the project footprint and would not change the character or significantly increase the overall amount of construction activity. Therefore, it is anticipated that the secondary impacts of this mitigation measure would be less than significant under CEQA.

CUL-MM#2: Halt Work in the Event of an Archaeological Discovery, and Comply with the PA, MOA, ATP, and all State and Federal Laws, as Applicable

During construction (any ground-disturbing activities, including cleaning and grubbing) should there be an unanticipated discovery, the contractor will follow the procedures for unanticipated discoveries as stipulated in the PA, MOA, and associated ATP. The procedures must also be consistent with the following: the SOI's Standards and Guidelines for Archaeology and Historic Preservation (48 *Federal Register* 44716–42), as amended; and Guidelines for the Implementation of CEQA, as amended (14 Cal. Code Regs. Chapter 3, Article 9, §§ 15120–15132). Should the discovery include human remains, the Authority will comply with federal and state regulations and guidelines regarding the treatment of human remains, including relevant sections of NAGPRA (§ 3(c)(d)); California Health and Safety Code, Section 8010 et seq.; and Cal. Public Res. Code Section 5097.98; and consult with the NAHC, tribal groups, and the SHPO.

In the event of an unanticipated archaeological discovery, the contractor will cease work in the immediate vicinity of the find, based on the direction of the archaeological monitor or the apparent location of cultural resources if no monitor is present. When the archaeological monitor issues the temporary work stoppage, all ground-disturbing construction activities within a 50-foot radius of the discovery will halt immediately for up to 4 hours. If no qualified archaeologist is present, no work can commence until it is approved by the qualified archaeologist in accordance with the MOA, ATP, and monitoring plan. The contractor's qualified archaeologist will assess the potential significance of the find and make recommendations for further evaluation and treatment as necessary. These steps may include evaluation for the CRHR and NRHP, and necessary treatment to resolve significant impacts if the resource is a historical resource or historic property. If, after documentation is reviewed by the Authority, and it determines it is a historic property and the SHPO concurs that the resource is eligible for the NRHP, or the Authority determines it is eligible for the CRHR, the Authority will consider preservation in place in the order of priority provided in CEQA Guidelines Section 15126.4(b)(3) and in consultation with the signatories and consulting parties to the MOA. If data recovery is the only feasible mitigation, then the PI will prepare a data recovery plan as required under CEQA Guidelines Section 15126.4(b)(3)(C), the MOA, and ATP, for the Authority's approval.

The contractor will notify the Authority, who will notify the California State Lands Commission (CSLC), if the find is a cultural resource on or in the submerged lands of California and consequently under the jurisdiction of the CSLC. The Authority will comply with all applicable rules and regulations promulgated by CSLC with respect to cultural resources in submerged lands.

If human remains are discovered on state-owned or private lands, the contractor will contact the relevant County Coroner to allow the Coroner to determine if an investigation regarding the cause of death is required. If no investigation is required and the remains are of Native American origin the Authority will contact the NAHC to identify the most likely descendant (MLD). The MLD is charged with inspecting the remains and providing recommendations on respectful treatment and disposition of the remains once agreed-upon archaeological treatment (if any) has been

implemented. If the MLD fails to make a recommendation, the remains will be reinterred in a location not subject to further disturbance and the location will be recorded with the NAHC and relevant Information Center of the California Historic Resources Information System. If human remains are part of an archaeological resource (in other words, not recent human remains), the Authority and contractor will, in consultation with the MLD and other consulting parties, consider preservation in place as the first option, in the order of priority called for in CEQA Guidelines Section 15126.4(b)(3).

In consultation with the relevant Native American tribes, the Authority may conduct scientific analysis on the human remains if called for under a data recovery plan and amenable to all consulting parties. The Authority will work with the MLD to satisfy the requirements of Cal. Public Res. Code Section 5097.98. Performance tracking of this mitigation measure will be based on successful implementation and acceptance of the documentation by the SHPO and appropriate consulting parties.

The mitigation measures described in this section and provided in the ATP are consistent with best practices within the professional archaeological community and are commensurate with mitigation measures for other large-scale transportation projects. This mitigation measure is anticipated to be effective because it includes identification efforts, conducting archaeological training, monitoring during construction, stopping work if resources are encountered to allow for assessment of the find, and developing treatment plans, which achieve the stewardship goals of Section 106 and CEQA review.

No ground-disturbing activities or property acquisition would be necessary to comply with this mitigation measure if the site can be preserved in place. In this case, there would be no impacts on other resources as a result of this mitigation measure. If intentional burial is required, the new burial site would be selected in consultation with the MLD, and surveyed by qualified archaeologists prior to excavation. A site would be selected that would not result in impacts on any other resource types, such as biological resources. Therefore, it is anticipated that the secondary impacts of this mitigation, should intentional burial be necessary, would be less than significant under CEQA.

CUL-MM#3: Other Mitigation for Effects on NRHP-Eligible Pre-Contact Archaeological Resources

As a result of limited access to private properties during the environmental review phase of this project, the Authority's ability to fully identify and evaluate archaeological resources in the APE has also been limited. Thus, most of the project APE has not been subject to archaeological field inventories. Because pedestrian field surveys are a necessary component of the archaeological resource identification and evaluation effort, the commitment to complete the field surveys prior to ground-disturbing activities associated with the project, is codified in the MOA that will be executed as a condition of the Final EIR/EIS.

Access to previously inaccessible properties to complete the archaeological resource identification effort is expected to be available after the ROD, during the design-build phase of the project. However, because of the design constraints associated with constructing an HSR system, the ability to shift the alignment to avoid any newly identified archaeological resources at this late phase of the project delivery process is substantially limited or unlikely, because the alignment is already established. As a result, impacts on as-yet-unidentified significant archaeological resources from the project are anticipated; however, the nature and quantity of such impacts remains unknown until completion of the archaeological field identification and evaluation effort.

The MOA and ATP will include protocols for the identification, evaluation, treatment, and data-recovery mitigation of as-yet-unidentified archaeological resources. Efforts to develop meaningful mitigation measures for impacts on as-yet-unidentified Native American archaeological resources that cannot be avoided will be negotiated with the tribal consulting parties. Measures negotiated among the MOA signatories and tribal consulting parties will be the Authority's responsibility to implement.

The mitigation measure described in this section is consistent with best practices within the professional archaeological community and is commensurate with mitigation measures for other large-scale transportation projects. This mitigation measure is anticipated to be effective because it includes specific requirements to mitigate impacts on pre-contact archaeological resources through agreed-upon measures.

If ground disturbance is required, an area would be selected that would not result in impacts on any other resource types, such as biological resources. Therefore, it is anticipated that the impacts of this part of this mitigation measure, would be less than significant under CEQA. Should sites be procured for plant gathering or ceremonial activities, locations would be selected that would not affect other resource types. Mitigation measures that do not result in ground-disturbing activities or property acquisition would have no secondary impacts on other resources as a result of these aspects of this mitigation measure.

CUL-MM#4: Minimize Adverse Effects through Relocation of Historic Buildings and Structures

The Authority-prepared MOA and BETP may identify historic properties/historical resources for relocation to avoid their destruction and minimize adverse effects resulting from physical damage or alteration. The development of plans for relocation and the implementation of relocation will take place before construction within 1,000 feet of the properties. The relocation of the historic properties/historical resources will be specified in the BETP by the Authority or the PI, depending on when the location is identified, and take into account the historic site and layout (i.e., the orientation of the buildings to the cardinal directions), and their potential reuse. The contractor's qualified architectural historian, along with an interdisciplinary team of professionals as appropriate, will prepare a relocation plan that will provide for protection and stabilization of the buildings or structures before, during, and after the move, as well as measures to address inadvertent damage. The plan will be subject to review and approval by the Authority, in consultation with the MOA signatories and concurring parties. The relocation will be implemented according to the plan. As the design progresses, the Authority may determine that additional properties require this mitigation.

This mitigation measure is anticipated to be effective because it will alleviate the impact by moving the location of the historic buildings and structures to avoid demolition. Although moving a resource has the potential for impacts as well, the level of impact is much less than demolition.

Should any buildings have to be moved, a location would be selected that would affect no other resources. Therefore, other than the impacts on the moved buildings or structures, there would be no secondary effects on other resources as a result of this mitigation measure. Under CEQA, moving a historical building or structure to avoid demolition is considered mitigation that would result in a less-than-significant impact.

CUL-MM#5: Minimize Adverse Operational Noise Effects

The Authority-prepared MOA and BETP will identify the historic properties/historical resources that will be subject to treatment to minimize the adverse effects caused by the operational noise of HSR trains. The manner in which each property that is subject to this mitigation will be treated will be developed in consultation with the landowner or land-owning agencies and the Authority, and specified in the BETP. The contractor is responsible for the planning and implementation of the noise abatement mitigation identified in the BETP. The Authority will approve all plans in consultation with the MOA signatories prior to their implementation. Should a noise barrier be selected as mitigation, the contractor will evaluate additional effects on the historic property. If the Authority finds the effects to be adverse in consultation with the MOA signatories and concurring parties, the Authority will develop additional mitigation measures in consultation with the signatories of the MOA. If additional effects are determined to be adverse, mitigation measures will be determined in consultation with the SHPO and MOA signatories and concurring parties and carried out by the contractor. As the design progresses, the Authority may determine that additional properties require this mitigation.

Any alterations to historic properties/historical resources would follow the SOI's guidelines, and therefore result in less-than-significant impacts. Should the measure require a noise barrier, the visual effects of the noise barrier would be analyzed to determine if its construction would result in an adverse visual effect that might be greater than the introduction of operational noise, based on effects on the property's character-defining features. If a noise barrier is determined to be the appropriate mitigation, a location would be selected that would affect no other resources. Therefore, there would be no secondary effects on other resources as a result of this mitigation measure. Other than the potential effects on the sensitive noise receptors by adding a noise barrier, this mitigation would result in a less-than-significant impact under CEQA.

CUL-MM#6: Prepare and Submit Additional Recordation and Documentation

The Authority-prepared MOA and BETP will identify specific historical resources that the project will physically alter, damage, relocate, or destroy and that will require documentation. This documentation may consist of preparation of updated recordation forms (DPR 523), or may be consistent with the Historic American Buildings Survey (HABS), the Historic American Engineering Record (HAER), or the Historic American Landscape Survey (HALS) programs; a Historic Structure Report; or other recordation methods stipulated in the MOA and described in the BETP. The specific mitigation for each property will be determined in consultation with the MOA signatories and concurring parties. The BETP will detail the appropriate type and level of recordation for each property. The recordation undertaken by this treatment will focus on the aspect of integrity the project will affect for each historic property subject to this treatment. For example, historic properties in an urban setting that would experience an adverse visual effect will be photographed to capture exterior and contextual views; interior spaces will not be subject to recordation if they would not be affected. The BETP will specify the appropriate method of documentation for each property, resulting from consultation with the SHPO, MOA signatories, and concurring parties. Such documentation will follow the appropriate guidance for the recordation format and program selected.

Copies of the documentation will be provided to the consulting parties and offered to the appropriate local governments, historical societies and agencies, or other public repositories, such as libraries, as specified in the BETP. The documentation will also be offered in printed and electronic form to any repository or organization to which the SHPO, the Authority, and the local agency with jurisdiction over the property, through consultation, may agree. The electronic copy of the documentation may also be placed on an agency or organization's website. As the design progresses, additional properties may be determined by the Authority as requiring documentation.

In general, photography should capture views of the historic property from multiple views, and could include reproduction of historic images, and architectural or engineering drawings as well. The contractor will complete all fieldwork necessary for photodocumentation, architectural or engineering drawings, and digital recordation through GIS or GPS and the Authority and SHPO will approve it before project construction begins. The written data will include a narrative for the historic property that will utilize existing inventory, evaluation, and nomination documents to the extent possible.

This kind of documentation will require the contractor to engage an interdisciplinary team to adequately complete this mitigation. The team will likely be required to include, at a minimum, an architectural historian, a historian, and a photographer. Other team members may include a landscape architect or computer-aided design and drafting technician. The BETP will detail the required personnel and qualification standards for these preparers. The Authority will submit the documentation to the SHPO for review and comment. If the documentation is to follow the HABS/HAER/HALS program, consultation by the Authority with the National Park Service (NPS) will be required. The contractor's qualified team will prepare the final documentation, NPS will approve it, and the Authority will submit it to the Library of Congress. The BETP will identify the distribution of printed and electronic copies of the photodocumentation, as well as permanent archival disposition of the record, if applicable.

This mitigation measure is anticipated to be effective because it will provide additional information about the existing conditions and history of the historic property, and will provide a record of the

property's history for information potential. The information could inform future public interpretation and educational activities about the property and its related historic contexts.

No ground-disturbing activities or property acquisition would be necessary to comply with this mitigation measure. Therefore, there would be no secondary effects on other resources as a result of this mitigation measure.

CUL-MM#7: Prepare Interpretive or Educational Materials

The Authority-prepared MOA and BETP will identify historic properties and historical resources that will be subject to historic interpretation or preparation of educational materials. Interpretive and educational materials will address the significance of the properties that would be affected by the project. Interpretive or educational materials could include, but are not limited to, brochures, videos, websites, study guides, teaching guides, articles or reports for general publication, commemorative plaques, or exhibits. The BETP will specify the agreed-upon method of interpretation for each property, resulting from consultation with the SHPO, MOA signatories, and concurring parties. The contractor will be responsible for assembling the appropriate interdisciplinary team to fulfill this mitigation. The BETP will specify the required professionals and their qualifications.

In the preparation of the interpretive or educational materials, the contractor's team will utilize previous research included in the environmental technical documents, images, narrative history, drawings, or other material produced for other mitigation measures. The interpretive or educational materials will be made available to the public in physical or digital formats, at local libraries, historical societies, or public buildings, as specified in the BETP.

This mitigation measure is anticipated to be effective because it will preserve the history of properties affected by the project and preserve this information for posterity and educational purposes. No ground-disturbing activities or property acquisition would be necessary to comply with this mitigation measure. Therefore, there would be no secondary effects on other resources as a result of this mitigation measure.

CUL-MM#8: Repair of Inadvertent Damage

The Authority-prepared MOA and BETP will identify properties subject to the preparation of plans for the repair of inadvertent damage; these plans are to be developed prior to the start of construction in the immediate proximity of the historic properties. The HSR standard IAMFs require the contractor to prepare these plans. Should any of the properties or resources be damaged as a result of construction activities, the contractor will repair them in accordance with the approved plan and with the SOI's Standards for Rehabilitation. Inadvertent damage is any damage that results in a significant impact on a historical resource within the meaning of CEQA Guidelines Section 15064.5(b)(2) or adverse effects on historic properties within the meaning of 36 C.F.R. Section 800.5(a)(1). The Authority will review and approve all repairs prior to determining that the treatment has been adequately implemented.

There may be instances where a property or resource that is damaged during construction will be better served by temporary stabilization and protection, with final repairs occurring post-construction. The Authority, in consultation with the MOA signatories, will determine if this is the preferred approach. In such a case, the contractor's interdisciplinary team will prepare plans for the temporary work, for approval by the Authority and MOA signatories prior to construction commencing in the area of the damaged property. Any emergency stabilization deemed necessary by the contractor prior to plan approval must be reversible.

This mitigation measure is anticipated to be effective because it will plan for restoration of historic features, if any inadvertent damage occurs, to their pre-construction condition such that they will continue to be observed as maintaining the character-defining features that define their significance. No ground-disturbing activities or property acquisition would be necessary to comply with this mitigation measure. Therefore, there would be no secondary effects on other resources as a result of this mitigation measure.

CUL-MM#9: Visual Screening

The Authority-prepared MOA and BETP will identify historic properties and historical resources that will be subject to visual screening. Visual screening will be installed by the contractor and consist of plant material that will minimize the view of the project from the property subject to mitigation. This treatment will minimize adverse effects on historic properties and historical resources.

The contractor's interdisciplinary team of architectural historians and landscape architects will select plant species on the basis of species' mature size and shape, growth rate, appropriateness to the historic property, fire resistance, and drought tolerance. The Authority will review and approve the design and recommended plant make-up of the screen in consultation with the MOA signatories and landowner or land-owning agency. No species that are listed on the Invasive Species Council of California's list of invasive species will be planted. The contractor will arrange to have the landscaping continuously maintained for a period specified in the plan and appropriate irrigation systems will be installed if the landscape architect determines it is needed. The plan will define the terms of replacement should the plants die.

This mitigation measure is anticipated to be effective because it will partially obscure the project components causing visual impacts in order to provide a more historically appropriate setting for the affected resources. Any alterations to historic properties/historical resources will follow the SOI's guidelines, and therefore, will result in less-than-significant impacts. Should a property require visual screening, the visual effects will be analyzed to determine if its planting will result in an adverse visual effect that might be greater than the introduction of the project visual impacts, based on effects on the property's character-defining features. If a plant screen is determined to be the appropriate mitigation, a location will be selected that would affect no other resources. Therefore, there would be no secondary effects on other resources as a result of this mitigation measure.

CUL-MM#10: Station Design Consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties

Prior to HSR station construction adjacent to or on an NRHP or CRHR site, the contractor will prepare a historic properties compatibility report for Authority review and approval. Several HSR stations will be constructed adjacent to or on the site of NRHP/CRHR-listed or NRHP/CRHR-eligible railroad stations, within historic districts, or in proximity to other historic properties. At the time of the ROD, the station locations will be identified; station design will be prepared post-ROD. The Authority will issue requests for qualifications (RFQ) to receive statements of qualifications (SOQ) from qualified firms (contractor) for station designs and related services. Such firms will be contracted to provide professional consultant and design services for all design stages through final design. Selected firms will be responsible for making their designs context-sensitive and meeting the SOI's standards for the treatment of historic properties. The Section 106 MOA and BETP will identify stations that require this mitigation measure, as appropriate. The MOA and BETP will also specify consultation roles of MOA signatories and interested parties in the design of the stations. At a minimum, the Authority's professionally qualified architectural historians and the SHPO will receive the opportunity to review and comment on the designs.

If the proposed location is on the site of or adjacent to historic properties, the contractor at a minimum will include on their team a professionally qualified architectural historian, and may also be required to include a historical architect, a landscape architect with experience related to historic properties, an archaeologist, or other historic preservation professionals. The Authority's professionally qualified staff will review and approve selected professionals' qualifications.

The Authority will require the contractor to provide three schemes for Authority review, including an evaluation of each scheme. The deliverables will also include drawings, such as plans, elevations, and renderings. The contractor must include in each evaluation a historic property design compatibility report prepared by a qualified architectural historian describing how the scheme is consistent with the SOI's Standards for Rehabilitation for infill designs or additions, and if any restoration or rehabilitation will be required of the historic buildings and structures and how

such restoration is consistent with the SOI's Standards for Restoration. The report will reference applicable NPS Preservation Briefs, such as #14 New Exterior Additions to Historic Buildings, and discuss size, scale, and massing of the proposed project and how it will be differentiated from the historic property. It will also include application of the criteria of adverse effect (36 C.F.R. § 800.5) to each proposed scheme to ascertain that the selected design will not adversely affect historic properties. For the purposes of evaluating effects on historic properties, the contractor may be required to produce renderings that include adjacent properties. The Authority's professionally qualified staff will review and comment on the report and they may require revision prior to transmitting it to the SHPO and other MOA signatories and consulting parties, as specified in the MOA and BETP.

This mitigation measure is anticipated to be effective because it will ascertain that any work on the historic stations will follow preservation best practices by conforming to the SOI's Standards for Rehabilitation. This measure will make future design work completed post-ROD consistent with the standards to avoid impacts on the historic stations.

No ground-disturbing activities or property acquisition would be necessary to comply with this mitigation measure. Therefore, there would be no secondary effects on other resources as a result of this mitigation measure.

CUL-MM#11: Relocate Automatic Train Control Site to Avoid Demolition of 415 Illinois Avenue

Under Alternatives B (both viaduct options), an ATC site would be built within the parcel containing 415 Illinois Avenue in San Jose. This residence is a one-story worker's cottage that is eligible for listing in the NRHP and is listed in the CRHR. Construction of the ATC site within this parcel could be accommodated only through the demolition of the historic property at 415 Illinois Avenue. Following the completion of the project design of Alternative B (both viaduct options), a suitable alternate location for the ATC site was identified at 365 Bird Avenue, which is near 415 Illinois Avenue and lies within the footprint of Alternative B (both viaduct options). In some instances, the relocation of project elements to avoid the demolition of historic properties would be deemed infeasible. In contrast, the alternate site for the ATC site at 365 Bird Avenue is large enough to contain all necessary components of this project feature; the alternate site will also provide direct mid-block access to Bird Avenue. Furthermore, placement of the ATC site within the parcel containing 365 Bird Avenue will not require the demolition of an historic property. As a result, the project design could feasibly be adjusted to move the ATC site and avoid the demolition of 415 Illinois Avenue.

With this mitigation measure, 415 Illinois Avenue will remain intact in its original location during the construction of the HSR right-of-way on viaduct, which will occur approximately 35 feet south of 415 Illinois Avenue. At this distance, the construction of the HSR viaduct will be near enough to the property that the project could result in vibration-related damage to the characteristics that qualify 415 Illinois Street for listing in the NRHP and CRHR. In order to protect the physical characteristics of 415 Illinois Avenue during HSR construction, this mitigation measure will also require the incorporation of the following project features: preparation of a pre-construction conditions assessment and a plan for protection of historic built resources and repair of inadvertent damage (CUL-IAMF#6), preparation of a BEMP (CUL-IAMF#7), and protection and/or stabilization measures (CUL-IAMF#8).

This mitigation measure is anticipated to be effective because it will relocate the project feature that would require the demolition of the historic property at 415 Illinois Avenue under Alternative B (both viaduct options), and will introduce project features to protect the characteristics of the property from inadvertent damage during construction of the HSR viaduct.

3.16.9 Impact Summary for NEPA Comparison of Alternatives

As described in Section 3.16.5.4, Method for Evaluating Impacts under NEPA, the impacts of project actions under NEPA are compared to the No Project Alternative when evaluating the impact of the project on the resource. The determination of impact is based on the context and intensity of the change that would be generated by project construction and operations. Table 3.16-5 shows the impacts of the project alternatives on cultural resources, summarizing the more detailed information provided in Section 3.16.7.

Table 3.16-5 Comparison of Project Alternative Impacts on Cultural Resources

Impacts	Alternative A	Alternative B
Archaeological Resources		
Impact CUL#1: Permanent Disturbance of Unknown Archaeological Resources	Possible as-yet undocumented resources damaged or destroyed. Because of limited access to private lands within the APE, both alternatives have the potential to damage previously unidentified archaeological resources prior to construction, or buried resources found during construction. The total acreage of historic-period and pre-contact archaeological sensitivity for Alternative A is 418.8 acres of the project footprint.	Similar to Alternative A, but the total acreage of historic-period and pre-contact archaeological sensitivity for Alternative B is 606.8 acres of the project footprint.
Impact CUL#2: Permanent Disturbance of Known Archaeological Resources	23 archaeological resources would be adversely affected. Of these, 9 completely or mostly encompassed; 14 narrow rights-of-way acquisitions.	23 archaeological resources would be adversely affected. Of these, 7 completely or mostly encompassed; 16 narrow rights-of-way acquisitions.
Impact CUL#3: Temporary Public Access and Disturbance of Archaeological resources	None anticipated	Same as Alternative A
Historic Built Resources		
Impact CUL#4: Permanent Demolition, Destruction, Relocation, or Alteration of Built Resources or Setting	1 built resource would be adversely affected: ID#0497	3 built resources would be adversely affected by the Viaduct to I-880 option: ID#0497, ID#0522, ID#0585 4 built resources would be adversely affected by the Viaduct to Scott Blvd option: ID#0141, ID#0497, ID#0522, ID#0585
Impact CUL#5: Noise and Vibration Impacts on Built Resources Caused by Construction Activities	0 built resources would be adversely affected	Same as Alternative A
Impact CUL#6: Intermittent Noise and Vibration Impacts on Built Resources Caused by Operations	0 built resources would be adversely affected	Same as Alternative A

APE = area of potential effects
I- = Interstate

Construction of the project in existing Caltrain right-of-way and new TCEs and permanent right-of-way acquisition may result in permanent disturbance of unknown archaeological resources. Previously unidentified buried archaeological resources may not be identified through survey or testing prior to construction because of limited access to private lands and paved areas. Once access is available, surveys will be conducted prior to construction (CUL-IAMF#3), and access areas and laydown sites will be relocated should newly discovered resources be affected (CUL-IAMF#4). Required worker training will inform personnel how to recognize resources, and what actions to then take, including what to do if a monitor is not present (CUL-IAMF#2). Mitigation available to address disturbance of unknown archaeological resources includes avoidance, evaluation, and data recovery (CUL-MM#1); methods to address unanticipated discoveries (CUL-MM#2); and mitigation for impacts on unidentified Native American archaeological resources (CUL-MM#3).

Construction of the project may result in permanent disturbance of known archaeological resources. Twenty-seven archaeological resources are known to exist in the APE. However, the presence of these resources within the APE has not been field verified, and it is possible that some may no longer be extant or may have been previously disturbed in a way that would make them not eligible for the CRHR or NRHP. Alternatives A and B (under either viaduct option) would affect the same number of resources, a total of 23. The ATP will provide specific performance standards that will avoid, minimize, or mitigate each impact to the extent possible and provide enforceable performance standards to follow the NRHP and the SOI's standards when implementing the mitigation measures. Mitigation available to address disturbance of unknown archaeological resources includes avoidance, evaluation, and data recovery (CUL-MM#1); methods to address unanticipated discoveries (CUL-MM#2); and mitigation for impacts on unidentified Native American archaeological resources (CUL-MM#3).

Construction of the project would not result in impacts on archaeological resources because of the potential for temporary public access to the archaeological resources. Construction sites would be fenced and public access not allowed. Through the ATP, the Authority would implement measures to limit public access during construction, including lighting, fencing, and security patrols as needed. The ATP will therefore prevent impacts on archaeological resources from temporary public access.

Construction of the project would result in the permanent demolition, destruction, relocation, or alteration of built resources, the setting of the resources, or both. Surveys identified 27 historic built NRHP-listed and eligible-for-listing properties within the APE. Of these 27 built historic properties, one would be affected by Alternative A (ID#0497), three would be affected by Alternative B (Viaduct to I-880) (ID#0497, ID#0522, ID#0585), and four would be affected by Alternative B (Viaduct to Scott Boulevard) (ID#0141, ID#0497, ID#0522, ID#0585). The properties that would be affected include single-family residences, historic train depot complexes, and commercial or institutional properties. It is possible that additional properties surveyed and evaluated as NRHP-eligible may also experience demolition, destruction, relocation, or alteration to the property or its setting if there are design changes as the design progresses during the design-build project phase. Impacts could include crossing a historic property and demolishing it or altering the setting in a way that impairs the resource's integrity or setting. Any potential additional adverse effects would be assessed prior to construction, including consultation with MOA signatories and consulting parties. Mitigation is available to address impacts: preparation and submittal of additional recordation and documentation (CUL-MM#6) should design changes result in expansion of the APE, preparation of interpretive or educational materials (CUL-MM#7), station design consistent with the SOI's Standards for the Treatment of Historic Properties (CUL-MM#10), and relocation of the ATC site to avoid demolition of 415 Illinois Avenue (CUL-MM#11).

Under Alternatives A and B (both viaduct options), construction of the project would not result in noise or vibration impacts that would alter characteristics that qualify any of the 27 historic built NRHP-listed and eligible-for-listing properties for inclusion in the NRHP. It is not anticipated that ground-borne vibration would diminish the historical integrity of built resources within the APE. Thus, the alternatives would have no adverse effect on historic resources due to noise or vibration during operation.

Under Alternative A and Alternative B (both viaduct options), project operation activities would not result in noise or vibration impacts that would alter characteristics that qualify any of the 27 historic built NRHP-listed and eligible-for-listing properties for inclusion in the NRHP. Unless a quiet setting is considered to be a character-defining feature or an important aspect of integrity of a historic property, operational alterations to a setting, such as increased noise levels, are generally not considered a significant impact or a significant change to historic built resources. None of these historic properties have a quiet setting as a character-defining feature or important aspect of integrity. Furthermore, it is not anticipated that operational noise would lead to the abandonment of adjacent properties. Accordingly, the integrity of built resources within the APE would not be diminished. Thus, the alternatives would have no adverse effect on historic resources as a result of noise or vibration during operations.

3.16.10 CEQA Significance Conclusions

As described in Section 3.16.5.5, Method for Determining Significance under CEQA, the impacts of project actions under CEQA are evaluated against thresholds to determine whether a project action would result in no impact, a less-than-significant impact, or a significant impact. Table 3.16-6 identifies the CEQA significance conclusions for each impact described in Section 3.16.7. A summary of the significant impacts, mitigation measures, and factors supporting the significance conclusions after mitigation follows the table.

Table 3.16-6 CEQA Significance Conclusions and Mitigation Measures for Cultural Resources

Impacts	Impact Description and CEQA Level of Significance before Mitigation	Mitigation Measure	CEQA Level of Significance after Mitigation
Impact CUL#1: Permanent Disturbance of Unknown Archaeological Resources	Significant for both alternatives: Construction activities such as grading or excavating could disturb unknown archaeological resources.	CUL-MM#1: Mitigate Adverse Effects on Archaeological and Built Resources Identified during Phased Identification and Comply with the Stipulations Regarding the Treatment of Archaeological and Built Resources in the PA and MOA; CUL-MM#2: Halt Work in the Event of an Archaeological Discovery, and Comply with the PA, MOA, ATP, and all State and Federal Laws, as Applicable; CUL-MM#3: Other Mitigation for Effects on Pre-Contact Archaeological Sites	Less than Significant
Impact CUL#2: Permanent Disturbance of a Known Archaeological Resource	Significant for both alternatives for 25 of the 27 resources in the APE: Construction activities such as grading or excavating could disturb known archaeological resources.	CUL-MM#1: Mitigate Adverse Effects on Archaeological and Built Resources Identified during Phased Identification and Comply with the Stipulations Regarding the Treatment of Archaeological and Built Resources in the PA and MOA; CUL-MM#2: Halt Work in the Event of an Archaeological Discovery, and Comply with the PA, MOA, ATP, and all State and Federal Laws, as Applicable; CUL-MM#3: Other Mitigation for Effects on Pre-Contact Archaeological Sites	Less than Significant

Impacts	Impact Description and CEQA Level of Significance before Mitigation	Mitigation Measure	CEQA Level of Significance after Mitigation
Impact CUL#3: Temporary Public Access and Disturbance of Archaeological Resources	Less than significant for both alternatives: Design features of the project alternatives preclude public access to the HSR right-of-way and consequently to potential archaeological resources. Therefore, construction of the project alternatives would not result in impacts on an archaeological resource.	No mitigation measures are required.	N/A
Impact CUL#4: Permanent Demolition, Destruction, Relocation, or Alteration of Built Resources or Setting	Significant for both alternatives: Construction activities would materially impair historic built resources or their setting through the upgrade of rail in the existing Caltrain right-of-way and addition of new rail-related infrastructure.	CUL-MM#6: Prepare and Submit Additional Recordation and Documentation CUL-MM#7: Prepare Interpretive or Educational Materials CUL-MM#10: Station Design Consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties CUL-MM#11: Relocate Automatic Train Control Site to Avoid Demolition of 415 Illinois Avenue	Significant and Unavoidable
Impact CUL#5: Temporary Noise and Vibration Impacts on Built Resources Caused by Construction Activities	No impact for both alternatives.	No mitigation measures are required.	N/A
Impact CUL#6: Intermittent Noise and Vibration Impacts on Built Resources Caused by Operations	No impact for both alternatives.	No mitigation measures are required.	N/A

APE = area of potential effects

ATP = archaeological treatment plan

CEQA = California Environmental Quality Act

HSR = high-speed rail

MOA = memorandum of agreement

N/A = not applicable

PA = programmatic agreement

Impact CUL#1: Permanent Disturbance of Unknown Archaeological Resources

There would be a significant impact under CEQA because both alternatives have the potential to encounter and damage as-yet-unknown archaeological resources. Because of the unknown nature, size, and significance of these resources, it is not possible to state which alternative would have the most impact. Archaeological resources could be identified within the APE during survey, or previously unidentified buried archaeological resources could be found during construction. Pre-construction phased identification surveys would be conducted as parcel access is acquired. Damaging or destroying an archaeological resource reduces the resource's integrity and reduces or eliminates the resource's ability to provide important scientific information. This would result in a significant impact under CEQA.

The Authority would implement mitigation measures to minimize the impacts on unknown archaeological resources. CUL-MM#1 requires mitigation of significant impacts on resources found during these surveys, including resource avoidance if feasible, evaluation, and data recovery if necessary. CUL-MM#2 specifies procedures and protocols to be followed in the event of unanticipated discoveries during construction, including stopping work, preservation of the discovery until evaluated by a qualified archaeologist, and treatment of human remains as required by law. CUL-MM#3 requires consultation efforts to develop meaningful mitigation measures for impacts on as-yet-unidentified Native American archaeological resources that cannot be avoided to be negotiated with the tribal consulting parties. These actions will reduce or eliminate impacts on unknown archaeological resources.

These mitigation measures will reduce the impacts on unknown archaeological resources during project construction. Therefore, the impact would be less than significant.

Impact CUL#2: Permanent Disturbance of Known Archaeological Resources

There would be a significant impact under CEQA for both alternatives. Twenty-seven archaeological resources are known to exist in the APE, although the continued presence of these resources in the APE has not been field verified. Alternatives A and B (both viaduct options) would affect the same number of resources, a total of 25. Grading or excavation for construction could damage or destroy these archaeological resources, diminishing the resource's integrity and thereby eliminating the resource's ability to provide important scientific information.

The Authority will survey areas prior to work (CUL-MM#1) and implement the ATP (CUL-MM#2 and CUL-MM#3), which provides specific performance standards to avoid, minimize, or mitigate each impact to the extent possible and provide enforceable performance standards to follow the NRHP and SOI's standards when implementing the mitigation measures. Specifically, the ATP will focus on the treatment of known and unknown archaeological resources and will require the phased identification, evaluation, and mitigation of archaeological resources in the APE.

The ATP will reduce or eliminate impacts on known archaeological resources for both alternatives. Therefore, the impact would be less than significant.

Impact CUL#4: Permanent Demolition, Destruction, Relocation, or Alteration of Built Resources or Setting

There would be significant impacts under CEQA for both alternatives because construction activities would materially impair multiple historic built resources, their settings, or both through the introduction of a new rail corridor, new roads, and the expansion of existing rail tracks and roads. Cultural resource specialists conducted historic architectural surveys that identified 27 historic built resources listed or eligible for listing in the NRHP/CRHR within the APE and an additional 7 properties considered to be CEQA-only properties. The relative significance of the NRHP-listed and -eligible resources is discussed in Chapter 4. Of these 27 historic built resources, 5 would be adversely affected by a significant impact from at least one of the two alternatives. The built historic resources that would be affected include single-family residences, historic train depot complexes, and commercial or institutional properties. It is possible that additional properties surveyed and evaluated as NRHP-eligible during phased identification may

also experience demolition, destruction, relocation, or alteration to the property or its setting if there are design changes as the design progresses during the design-build project phase.

Project features minimize temporary construction impacts resulting from construction activities and they would not be significant. Significant impacts from permanent construction would occur from introduction of new HSR right-of-way, roadway right-of-way, and development of new stations. The Authority would implement mitigation measures to reduce significant impacts, but significant impacts would remain. This section describes these impacts by alternative, and Table 3.16-7 at the end of this section shows the impacts by resource.

Alternative A

Alternative A would result in significant impacts under CEQA on two built resources (ID#0497 and ID#0566). Construction of the project would demolish or substantially alter two built resources. In the case of ID#0497 the SPRR Depot building would be retained, but character-defining features would be altered, contributing buildings would be demolished. Because the historic setting of this ID#0497 is considered a character-defining feature, introduction of the HSR right-of-way within the historic setting would be a significant impact. In the case of ID#0566, introduction of roadway right-of-way would result in demolition.

The Authority would implement mitigation measures to minimize impacts on cultural resources. Pending concurrence with consulting parties, in all cases, CUL-MM#6 requires that the property be fully documented prior to construction to record the character-defining features, and CUL-MM#7 provides for the creation of interpretive materials using documentation prepared under CUL-MM#6. Additionally, CUL-MM#10 requires that new station facilities be designed in a manner consistent with the SOI's Standards for Rehabilitation. While these mitigation measures alleviate some of the impacts on the resource by documenting and interpreting its history and requiring that new station designs conform to the SOI's Standards for Rehabilitation, these measures will not fully mitigate the demolition or destruction of historical resources and their character-defining features or the alteration to the resources' settings. Therefore, the impacts of Alternative A would be significant and unavoidable.

Alternative B

Alternative B (Viaduct to I-880) would result in significant impacts under CEQA on four built resources (ID#0497, ID#0522, ID#0566, and ID#0585). Of these, construction would demolish or substantially alter all four built resources. Demolition or destruction would result from introduction or substantial changes to the HSR right-of-way, introduction of a road right-of-way, or introduction of an ATC site. Because the historic setting of ID#0497 is considered a character-defining feature, introduction of the HSR right-of-way within the historic setting would be a significant impact. The Authority would implement the same mitigation measures to minimize impacts on cultural resources as described for Alternative A. These measures will not fully mitigate the impacts of demolition or destruction of most of the historic resources and their character-defining features or alterations to the resources' settings. The exception would be 415 Illinois Avenue (ID#0585), for which impacts would be mitigated to a less-than-significant level. Therefore, the impacts of Alternative B (Viaduct to I-880) would be significant and unavoidable for three historic built resources.

Alternative B (Viaduct to Scott Boulevard) would result in significant impacts under CEQA on five built resources (ID#0141, ID#0497, ID#0522, ID#0566, and ID#0585). For four of these properties, ID#0497, ID#0522, ID#0566, and ID#0585, demolition or destruction would result from introduction or substantial changes to the HSR right-of-way, introduction of a road right-of-way, or introduction of an ATC site. Introduction of the HSR right-of-way would affect the historic setting of two resources (ID#0141 and ID#0497). Because the historic setting of these resources is considered a character-defining feature, the change in setting would be a significant impact. The Authority would implement the same mitigation measures to minimize impacts on cultural resources as described for Alternative A. These measures will not fully mitigate the impacts of demolition or destruction of most of the historic resources and their character-defining features or the alteration to the resources' settings. The exception would be 415 Illinois Avenue (ID#0585), for which impacts would be

mitigated to a less-than-significant level. Therefore, the impacts of Alternative B (Viaduct to Scott Boulevard) would be significant and unavoidable for four historic built resources.

Comparison of Alternatives

Construction of the alternatives would cause permanent impacts on historic built resources resulting from physical changes to character-defining features and the seven aspects of integrity, location, design, setting, materials, workmanship, feeling, and association. In general, permanent construction impacts would be greater where the HSR right-of-way is present and where the scale of the HSR track and systems dominates the existing landscape.

As shown in Table 3.16-6, the following mitigation measures would be applied as appropriate and in consultation with consulting parties to affected historic built resources in the APE:

- CUL-MM#6
- CUL-MM#7
- CUL-MM#10
- CUL-MM#11

With these mitigation measures, impacts on two of the five historic built resources can be fully mitigated to a less-than-significant level. Consequently, under CEQA, three of the historic resources have impacts that are significant and unavoidable. Most significant impacts from permanent construction would result from demolition associated with HSR or roadway rights-of-way. While the character of significant impacts would be similar under both alternatives, more would occur under Alternative B (three significant and unavoidable impacts for both viaduct options) than under Alternative A (two significant and unavoidable impacts). The impacts of each alternative can also be characterized in terms of the relative value of the resources that would be affected. Chapter 4 presents discussion of the affected NRHP-listed and NRHP-eligible properties' relative values by alternative for the purposes of analysis under Section 4(f). The relative values of CEQA-only historical resources are not discussed in Chapter 4.

NRHP/CRHR-Listed and Eligible-for-Listing Resources

This section describes the standard mitigation measures that could be applied to historical resources experiencing a significant impact as a result of the project. All measures identified herein may not be applied; the consultation process will support identification of mitigation measures most relevant for resolving adverse effects. Additional mitigation measures may be developed for historic properties listed in or eligible for the NRHP, as negotiated by the Authority and consulting parties during Section 106 consultation.

Santa Clara Railroad Historical Complex (Santa Clara Depot) (ID#0141)

Alternative B (Viaduct to Scott Boulevard) would have a significant impact under CEQA because construction of the HSR right-of-way would degrade the historic setting of the resource and its contributing buildings. Alternative B (Viaduct to Scott Boulevard) would result in a change in setting from a railroad complex with at-grade tracks to an elevated track structure above the existing complex. These changes would materially impair characteristics that qualify the resource for listing in the CRHR.

The Authority would implement mitigation measures to minimize impacts on cultural resources. CUL-MM#6 requires that new or updated documentation be prepared for the property prior to construction to record the existing conditions of the depot complex contributors and its setting, which would be altered under Alternative B (Viaduct to Scott Boulevard). CUL-MM#7 requires creation of an interpretive exhibit about the history of the depot, including its historical operations with the support of the Control Tower, Maintenance-of-Way Speeder Shed, Maintenance-of-Way Section Tool House, and associated features. Using the documentation prepared under CUL-MM#6, a qualified historian and designer will craft a public exhibition documenting the significant history of the property.

CUL-MM#10 acknowledges that the station design will be prepared post-ROD. The Authority will issue RFQs to receive SOQs from qualified firms (contractor) for station designs and related services. Such firms will be contracted to provide professional consultant and design services for

all design stages through final design. Selected firms will be responsible for making their designs context sensitive and meeting the SOI's standards for the treatment of historic properties.

CUL-MM#6, CUL-MM#7, and CUL-MM#10 mitigate the adverse effects on the resource's setting by documenting the heritage embodied in the property and presenting this documentation for public consumption. These mitigation measures will alleviate some of the impact on the resource by documenting and interpreting its history, but they will not compensate for the substantial change in its setting caused by the construction of the elevated HSR track structure. Therefore, the impact would be significant and unavoidable.

Southern Pacific Depot District (Hiram Cahill Depot/Diridon Station) (ID#497)

Alternatives A and B (both viaduct options) would have a significant impact under CEQA because the construction of modern multistory station infrastructure north and west of the existing SPRR Depot would materially impair the property's ability to convey its significance as an Italian Renaissance Revival style railroad depot of high artistic value with a 1932–1935 period of significance. While the project proposes reuse of the existing depot, it would demolish character-defining features located within the historic property boundary, including the annex. Under Alternative B (both viaduct options), the project would alter the historic setting of the contributing Santa Clara underpass through the introduction of aerial tracks above the existing track and systems. Under both alternatives, the project would construct a new HSR station building adjacent to the existing primary station building, as well as a new raised concourse to provide access to new HSR platforms. The project would cause a substantial adverse change in the significance of the resource because the demolition of character-defining features and degradation of the resource's historic setting would materially impair characteristics that qualify it for listing in the CRHR.

The Authority would implement mitigation measures to minimize impacts on cultural resources.

CUL-MM#6 requires that updated documentation be prepared for the property prior to construction to record the existing conditions of the depot complex, specifically its setting and character-defining features (such as the car cleaner's shack, iron fence, and below-grade concourse) that would be demolished or altered under both alternatives. HABS photographs and drawings have previously been prepared for the Diridon Station water tower, which was subsequently demolished. The existing HABS photographs and drawings do not document the character-defining features and setting of the station that would be altered by these alternatives. CUL-MM#7 requires the creation of an interpretive exhibit about the history of the depot, including the annex and associated features. Using the documentation prepared under CUL-MM#6, a qualified historian and designer will craft a public exhibition documenting the significant history of the property. These mitigation measures will alleviate some of the impact on the resource by documenting and interpreting its history, but they will not compensate for the loss of character-defining features of the depot and substantial change in its setting.

CUL-MM#10 acknowledges that the station design will be prepared post-ROD. The Authority will issue RFQs to receive SOQs from qualified firms (contractor) for station designs and related services. Such firms will be contracted to provide professional consultant and design services for all design stages through final design. Selected firms will be responsible for making their designs context sensitive and meeting the SOI's standards for the treatment of historic properties. CUL-MM#10 will make station design conform with the SOI's standards.

CUL-MM#6, CUL-MM#7, and CUL-MM#10 mitigate the adverse effects on the resource by documenting and interpreting its history, but they will not fully mitigate for the loss of character-defining features of the resource, nor the degradation of the historic setting of the contributing Santa Clara underpass. While CUL-MM#10 will make the design of the new HSR station compliant with the SOI's standards, the demolition of several contributing features within the historic property boundary will result in a substantial change to the setting and association of the depot and Santa Clara underpass. Therefore, the impact would be significant and unavoidable under both project alternatives.

Sunlite Baking Company (ID#0522)

Alternative B (both viaduct options) would have a significant impact under CEQA because construction activities would require demolition of the resource and would materially impair characteristics that qualify it for listing in the CRHR. The Authority would implement mitigation measures to compensate for the loss of the resource. CUL-MM#6 requires documentation of the building prior to construction to fully capture the architectural quality of the resource as a distinctive example of the Art Moderne architectural style interpreted for an industrial production facility. CUL-MM#7 requires creation of an interpretive exhibit about the history of the resource and its architecture. Using the documentation prepared under CUL-MM#6, a qualified historian and designer will craft a public exhibition documenting the significant history of the resource. Implementation of CUL-MM#4 was considered; however, because of the Sunlite Baking Company's large footprint and concrete construction, it does not appear that relocation of the building will be effective in avoiding material impairment to the resource's significance.

CUL-MM#6 and CUL-MM#7 provide some mitigation for the adverse effects on the resource by documenting the heritage embodied in the resource and presenting this documentation for public consumption, in effect keeping the heritage of the resource alive through public education. However, because the construction of the alternatives would physically destroy the resource, no project features or mitigation measures could reduce the level of impact. Therefore, the impact would be significant and unavoidable for Alternative B (both viaduct options).

415 Illinois Avenue, San Jose (ID#0585)

Alternative B (both viaduct options) would have a significant impact under CEQA because construction activities would require demolition of the resource and would materially impair characteristics that qualify it for listing in the CRHR. The Authority would implement mitigation measures to attempt to avoid the loss of the resource. CUL-MM#11 allows the ATC site at 415 Illinois Avenue to be moved to an alternate site at 365 Bird Avenue. Relocation of the ATC site to 365 Bird Avenue has been evaluated as feasible for the project design; in this location, construction of the ATC site would not require the removal of a historical resource. Because 415 Illinois Avenue will remain in its current location during construction of the HSR viaduct in its vicinity, CUL-MM#11 also requires measures that will protect the physical characteristics of 415 Illinois Avenue from inadvertent damage caused by construction-related vibration.

CUL-MM#11 mitigates the adverse effects on the resource by avoiding its demolition and protecting it from inadvertent damage during HSR construction. CUL-MM#11 would not cause material impairment to the significance of the resource because it would remain in its current location and would continue to convey its significant architecture under Criteria C/3 as a good example of a 19th-century workers' cottage. With CUL-MM#11 to avoid demolition of 415 Illinois Avenue as a result of HSR construction, the impact would be reduced to a less-than-significant level.

CEQA-Only Resources***75 South Autumn Street (ID#0566)***

Alternatives A and B would have a significant impact under CEQA because construction activities would require demolition of the resource, materially impairing characteristics that qualify it as a CEQA resource. The Authority would implement mitigation measures to compensate for the loss of the resource. CUL-MM#6 requires that the resource be further documented for its architectural characteristics. CUL-MM#7 requires creation of an interpretive exhibit about the history of the resource; the exhibit will be placed near the current location of 75 South Autumn Street. Using the documentation prepared under CUL-MM#6, a qualified historian and designer will craft a public exhibition documenting the significant history of the resource in the residential development of San Jose.

CUL-MM#6 and CUL-MM#7 will provide some mitigation for the adverse effects on the resource by documenting the heritage embodied in the resource and presenting this documentation for public consumption, in effect keeping the heritage of the resource alive through public education. However, because project construction would physically destroy the resource, no project features or mitigation measures could reduce the level of impact. Therefore, the impact would be significant and unavoidable for both project alternatives.

Table 3.16-7 CEQA Significance Conclusions for Impact CUL#4: Permanent Demolition, Destruction, Relocation, or Alteration of Built Resources or Setting

Resource and ID#	Impact Description and CEQA Level of Significance before Mitigation	Mitigation Measure(s)	CEQA Level of Significance after Mitigation
NRHP/CRHR Listed and Eligible-for Listing Resources			
Santa Clara Railroad Historical Complex (Santa Clara Depot) (Resource ID 0141)	Significant under Alternative B (Viaduct to Scott Blvd): Construction of the HSR right-of-way would substantially degrade the historic setting of the resource and its contributing buildings.	CUL-MM#6: Prepare and Submit Additional Recordation and Documentation CUL-MM#7: Prepare Interpretive or Educational Materials CUL-MM#10: Station Design Consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties	Significant and Unavoidable
Southern Pacific Depot District (Hiram Cahill Depot/Diridon Station) (Resource ID 0497)	Significant under both alternatives: Construction of modern multistory station infrastructure north and west of the existing Southern Pacific Depot would materially impair the property's ability to convey its significance as an Italian Renaissance Revival-style railroad depot complex of high artistic value with a 1932-1935 period of significance.	CUL-MM#6: Prepare and Submit Additional Recordation and Documentation CUL-MM#7: Prepare Interpretive or Educational Materials CUL-MM#10: Station Design Consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties	Significant and Unavoidable
Sunlite Baking Company (Resource ID 0522)	Significant under Alternative B (both viaduct options): Construction activities would require demolition of the resource and would materially impair characteristics that qualify it for listing in the CRHR.	CUL-MM#6: Prepare and Submit Additional Recordation and Documentation CUL-MM#7: Prepare Interpretive or Educational Materials	Significant and Unavoidable
415 Illinois Avenue (Resource ID 0585)	Significant under Alternative B (both viaduct options): Construction activities would require demolition of the resource and would materially impair characteristics that qualify it for listing in the CRHR.	CUL-MM#11: Relocate Automatic Train Control Site to Avoid Demolition of 415 Illinois Avenue	Less than Significant
CEQA-Only Resources			
75 South Autumn Street (Resource ID 0566)	Significant under both alternatives: Construction of the new HSR right-of-way would require demolition of the resource and would materially impair characteristics that qualify it as a CEQA resource.	CUL-MM#6: Prepare and Submit Additional Recordation and Documentation CUL-MM#7: Prepare Interpretive or Educational Materials	Significant and Unavoidable

CEQA = California Environmental Quality Act
CRHR = California Register of Historical Resources
HSR = high-speed rail