3.6 Cultural Resources

3.6.1 Introduction

This section describes the regulatory setting and affected environment for cultural resources. The term cultural resources refers to built-environment resources (e.g., buildings, structures, objects, districts), archaeological resources, and human remains. This section addresses cultural resources that are known to occur or have the potential to occur in the cultural resources RSA and describes the potential impacts on those resources during construction and operation of the proposed Project. This section also identifies the potential for cumulative impacts of the proposed Project on cultural resources when considered in combination with other relevant projects.

3.6.2 Regulatory Setting

This section identifies the applicable federal, state, regional, and local laws, regulations, and orders that are relevant to the analysis of cultural resources. This section also addresses the proposed Project's consistency with the regulations described herein.

3.6.2.1 Federal

National Historic Preservation Act, Section 106

Although the proposed Project is not anticipated to require compliance with Section 106 of the National Historic Preservation Act (NHPA), the National Register of Historic Places (NRHP) and federal guidelines related to the treatment of cultural resources are relevant for the purposes of determining whether significant cultural resources, as defined under CEQA, are present and guiding the treatment of such resources.

National Historic Preservation Act and National Register of Historic Places

Built-environment and archaeological resources are protected through the NHPA (16 United States Code 470f). The NHPA requires project review of effects on historic properties only when projects involve federal funding or permitting or occur on federal land; therefore, it is not applicable to discretionary actions at the municipal level. However, the NHPA establishes the NRHP, which provides a framework for resource evaluation and informs the process for determining impacts on historical resources under CEQA.

The NRHP is the nation's official comprehensive inventory of historic properties. Administered by the National Park Service, the NRHP includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. Typically, a resource that is more than 50 years of age is eligible for listing in the NRHP if it meets any one of the four eligibility criteria and retains sufficient historical integrity. A resource less than 50 years old may be eligible if it can be demonstrated that it is of "exceptional importance" or a contributor to a historic district. NRHP criteria are defined in *National Register Bulletin Number 15:* How to Apply the National Register Criteria for Evaluation.

Properties that are listed in the NRHP, as well as properties that are formally determined to be eligible for listing in the NRHP, are automatically listed in the California Register of Historical Resources (CRHR), described below, and therefore considered historical resources under CEQA.

The Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation

These standards, effective as of 1983, provide technical advice for archaeological and historic preservation practices. Their purposes are (1) to organize the information gathered about preservation activities; (2) to describe results to be achieved by federal agencies, states, and others when planning for the identification, evaluation, registration, and treatment of historic properties; and (3) to integrate the diverse efforts of many entities performing historic preservation into a systemic effort to preserve the nation's culture heritage (48 Code of Federal Regulations [CFR] 44716).

The Secretary of the Interior's Standards for Rehabilitation

These standards were established by the Secretary of the Interior in 1986 as a way to homogenize rehabilitation efforts of nationally significant historic properties and buildings. These standards pertain to actions involved in returning a property to a state of utility through repair or alteration. This allows for the preservation of historic and cultural values of the property, while giving it an efficient contemporary use (36 CFR 67).

The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings

The Standards for the Treatment of Historic Properties are a compilation of 34 guidelines to promote the responsible preservation of U.S. historic cultural resources. The standards specifically address preservation, rehabilitation, restoration, and reconstruction of historic materials. The standards are not intended to be the sole basis for decision-making in regard to whether a historic property should be saved, but rather are intended to provide consistency in conservation and restoration practice (36 CFR 68).

3.6.2.2 State

California Environmental Quality Act Public Resources Code Section 21082.2 and CEQA Guidelines

CEQA requires the lead agency to consider the effects of a project on historical resources. State CEQA Guidelines Section 15064.5 provides specific guidance for determining the significance of impacts on historical resources (State CEQA Guidelines Section 15064.5(b)) and unique archaeological resources (State CEQA Guidelines Section 15064.5(b) and Public Resources Code [PRC] Section 21083.2). Under CEQA, these resources are called "historical resources" whether they are of historic or pre-European contact age. CEQA Section 21084.1 defines historical resources as those listed, or eligible for listing, in the CRHR, or those listed in the historical register of a local jurisdiction (county or city) unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant. NRHP-listed "historic properties" 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. CEQA Section 21083.2 and State CEQA Guidelines Section 15064.5(c) provide further definitions and guidance for archaeological sites and their treatment.

California Register of Historical Resources (PRC Section 5024.1)

PRC Section 5024.1 establishes the CRHR, which 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, criteria 1–4, are similar to those of the NRHP:

- Criterion 1: Resources associated with important events that have made a significant contribution to the broad patterns of our history.
- Criterion 2: Resources associated with the lives of persons important to our past.
- Criterion 3: Resources that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master.
- Criterion 4: Resources that have 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 California Code of Regulations Section 4850). The regulations set forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

Unique Archaeological Resources

State CEQA Guidelines Section 15064.5(c) specifies how CEQA applies to archaeological sites, including archaeological sites that are historical resources, unique archaeological resources, or neither.

PRC Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- It contains information needed to answer important scientific research questions, and there is a demonstrable public interest in that information.
- It has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- It is directly associated with a scientifically recognized important prehistoric or historic event or person.

State CEQA Guidelines Sections 15064.5(d) and (e) specify responsibilities and respectful treatment of human remains, including Native American human remains, that are found or likely to be found within a project site.

Discovery of Human Remains

With respect to the potential discovery of human remains, § 7050.5 of the California Health and Human Safety Code states the following:

a. Every person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the Public Resources Code. The provisions of this subdivision shall not apply to any person carrying out an agreement developed pursuant to subdivision (l) of Section 5097.94 of the Public Resources Code or to any person authorized to implement Section 5097.98 of the Public Resources Code.

b. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

c. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. (California Health and Human Safety Code Section 7050.5)

After notification, the Native American Heritage Commission will follow the procedures outlined in PRC § 5097.98, which include notification of Most Likely Descendants (MLD), if possible, and recommendations for treatment of the remains. Also, knowing or willful possession of Native American human remains or artifacts taken from a grave or cairn is a felony under State law, pursuant to PRC § 5097.99.

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

The California Native American Graves Protection and Repatriation Act establishes a state repatriation policy that strives to ensure that all California Native American human remains and cultural items are treated with dignity and respect, and asserts intent for the state to provide mechanisms for aiding California Native American tribes, including non-federally recognized tribes, in repatriating remains and cultural items.

3.6.2.3 Regional

Alameda County

Alameda County adopted a historic preservation ordinance (2012-5, Chapter 17.62) that codifies definitions and procedures for identifying and preserving historic resources within the

unincorporated communities of Alameda County, including parameters for designating historic resources for the Alameda County Register. Because the parameters for designation meet the standard set by CEQA for qualified registers (State CEQA Guidelines Section 15064.5(a)(2)), any resources that are already designated on the Alameda County Register would be considered CEQA historical resources.

3.6.2.4 Local

City of Oakland

The City of Oakland's General Plan includes policies for designating, modifying, and demolishing cultural and historic resources under two broad goals: to "use historic preservation to foster economic vitality and quality of life" and to "prevent unnecessary destruction of properties of special historical, cultural, and aesthetic value." These are supported by a number of policies, which are elaborated upon in the Oakland General Plan Historic Preservation Element, Chapter 4, Preservation Incentives and Regulations. Because the parameters for designation under the City of Oakland policies meet the standard set by CEQA for qualified registers (State CEQA Guidelines Section 15064.5(a)(2)), any resources that are already designated would be considered CEQA historical resources.

City of San Leandro

Title 4, Public Welfare, Chapter 4-26, Historic Preservation, of the San Leandro municipal code defines the regulations and procedures for identifying, designating, protecting, enhancing, and using historical resources within the city. This chapter includes specific regulations for recording, designating, and altering such resources within the city, and also includes procedures for demolishing, destroying, relocating, or removing a designated historic resource. Because the parameters for designation defined by the City of San Leandro meet the standard set by CEQA for qualified registers (State CEQA Guidelines Section 15064.5(a)(2)), any resources that are already designated would be considered CEQA historical resources.

City of Hayward

The City of Hayward adopted a historic preservation ordinance (Article 11 of the City's municipal code) that codifies procedures for altering, relocating, or demolishing historic resources, as well as designating historic resources on the city's local register. It also discusses incentives for the preservation of designated historic resources. Because the parameters for designation adopted by the City of Hayward meet the standard set by CEQA for qualified registers (State CEQA Guidelines Section 15064.5(a)(2)), any resources that are already designated would be considered CEQA historical resources.

City of Union City

The City of Union City's 2040 General Plan includes policies for designating, modifying, and demolishing cultural and historic resources under Goal RC-4: To protect, to the extent possible, the city's significant archaeological and historical resources. Goal RC-4 is supported by a number of policies, as follows.

- Policy RC-4.1: Preserve Public Landmarks. The City shall encourage the preservation of public landmarks.

- Policy RC-4.2: Support the Preservation and Rehabilitation of Historical Resources. The City shall support public and private efforts to preserve, rehabilitate, and continue the use of historic structures and sites.
- Policy RC-4.3: Use Appropriate Standards to Evaluate Historical Resources. The City shall use appropriate federal, State, and local standards in evaluating the significance of historical resources within the City.
- Policy RC-4.4: Incorporate Historical Resources into the Landmark and Historic Preservation Overlay Zone. The City shall work with property owners to apply the Landmark and Historic Preservation Overlay Zone to properties or buildings of historic significance. The properties or buildings may be those that provide significant examples of architectural styles of the past, are landmarks in the history of architecture, are unique and irreplaceable assets to the City and its neighborhoods or provide for future generations examples of the physical surroundings in which past generations lived.
- Policy RC-4.5: Support Union City Historical Museum. The City shall continue to encourage and provide support for the Union City Historical Museum.
- Policy RC-4.6: Protection of Archeological Resources. The City shall strive to ensure that significant archaeological resources are adequately identified and protected from destruction through avoidance where feasible. In the event that any previously unidentified cultural resources are uncovered during site preparation, excavation, or other construction activity, all such activity shall cease until these resources have been evaluated by a qualified archaeologist (or other qualified specialist as appropriate) and specific measures can be implemented to protect these resources in accordance with Sections 21083.2 and 21084.1 of the California Public Resource Code (PRC). Where such resources are Native American, the developer shall prepare the assessment in consultation with appropriate Native America tribe(s).
- Policy RC-4.7: Treatment of Remains. Consistent with California Health and Safety Code Section 7050.5 and California PRC Section 5097.98, if human remains are encountered, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin. The remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the coroner determines the remains to be Native American, the NAHC [Native American Heritage Commission] shall be contacted within 24 hours. The NAHC must then immediately identify the MLD(s) of receiving notification of the discovery. The MLD(s) shall then make recommendations within 48 hours and engage in consultations concerning the treatment of the remains.

Because the parameters for designation of resources outlined by the policies adopted by the City of Union City meet the standard set by CEQA for qualified registers (State CEQA Guidelines Section 15064.5(a)(2)), any resources that are already designated would be considered CEQA historical resources.

City of Newark

The City of Newark's municipal code (Chapter 17.20 – Historical Resources) includes procedures for designating, modifying, and demolishing historic resources. The City has also established criteria for designating historic resources as "primary" or "secondary" landmarks depending on such factors as the age of the resource and its relationship to a historic event, person, or architectural style. Because

the parameters for designation adopted by the City of Newark meet the standard set by CEQA for qualified registers (State CEQA Guidelines Section 5064.5(a)(2)), any resources that are already designated under City policies would be considered CEQA historical resources.

City of Fremont

The City of Fremont has adopted a historic resources ordinance (Chapter 18.175 of the City's municipal code) that codifies procedures for adding or removing resources to the City's historic register; altering, demolishing, or relocating resources on the local register; and evaluating potential resources prior to demolition or relocation. Because the parameters for designation adopted by the City of Fremont meet the standard set by CEQA for qualified registers (State CEQA Guidelines Section 15064.5(a)(2)), any resources that are already designated under City policies would be considered CEQA historical resources.

3.6.3 Methods for Evaluating Environmental Impacts

This section defines the RSA for cultural resources and describes the methods used to analyze the impacts on cultural resources within the RSA.

3.6.3.1 Resource Study Area

As defined in Section 3.1, Introduction, RSAs are the geographic boundaries within which the environmental investigations specific to each resource topic were conducted.

The RSA for built-environment resources and archeological resources includes the geographic area in which proposed Project activities could impact built-environment and archaeological resources, should they exist. The RSA for built-environment resources and archeological resources encompasses the Project Footprint plus a 0.125-mile (or ⅛-mile) buffer outside of the footprint.

3.6.3.2 Built-Environment Resources – Data Sources

Background research was conducted to identify cultural resources and studies within the RSA to assess the potential for built-environment resources. The background research consisted of records searches at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS), a literature and historical map review, and a field survey. The results of these tasks are summarized below. Refer to Appendix D, Attachment 1, Historical Resources for details.

California Historical Resources Information Systems Record Search

Staff at the NWIC conducted five records searches to identify previous cultural resources studies and site records within the RSA. The first occurred on July 25, 2019 (NWIC File No. 19-0146) and the second on August 13, 2021 (NWIC File No. 21-0209). Supplemental records searches were conducted on March 10, 2022, May 4, 2023, and September 5, 2023. The results revealed 52 previously recorded built-environment resources within the RSA. In addition to the NWIC records, the following State of California inventories for the resource study area were reviewed:

- Five Views: An Ethnic Historic Site Survey for California (Office of Historic Preservation [OHP] 1988);
- California Historical Landmarks (OHP 2022a);

- California Points of Historical Interest (OHP 2022b); and
- Built Environment Determinations of Eligibility (OHP 2012).

Native American Heritage Commission Sacred Land File Search

The NAHC is a state agency that maintains the Sacred Lands File, an official list of sites that are of cultural and religious importance to California Native American tribes. A review of the NAHC Sacred Lands File was conducted on July 15, 2020, for any Native American cultural resources within the 2019 proposed station areas, rather than the entire resource study area. On September 20, 2021, a subsequent search was conducted that encompassed the entire RSA.

Built-Environment Desktop Review and Field Survey

Prior to the field survey, ICF completed a desktop review to identify buildings and built-environment resources older than 45 years old using the records search results, Google Earth, county tax assessor records, historic aerial photographs, historic maps, and ParcelQuest. ICF cross-referenced this information with the records search results as KMZ files in Google Earth to identify all properties older than 45 years within the record search area, paying particular attention to those found within the study area for built-environment resources.

The field survey was completed from the public right-of-way (ROW) September 14–15, 2021, and February 11, 2023. For inaccessible resources or resources not visible from the public ROW, ICF used available desktop information (aerial imagery, Google Street views, county assessor's records, building permits, etc.) to complete the survey. During the field survey, paper maps and smartphones were used to photograph and survey locations. Architectural styles, integrity, and obvious visible alterations were also noted. During the field survey, researchers photographed and noted visible alterations to previously identified or previously evaluated built-environment resources to compare existing conditions with extant documentation to figure out if the previous NRHP and CRHR evaluations meet present-day technical standards and to document any changes in integrity that may have occurred since the most recent recordation.

In those areas of the Project footprint where all Project activities stay within the existing railroad or roadway ROW and where those components do not add any new features to the adjacent setting, no field survey was conducted because the Project footprint does not extend beyond the existing railroad or roadway ROW and Project activities were limited to at-grade surface improvements to roadways and rail. In those areas of the Project footprint, a desktop review in Google Earth was completed to ensure that no built-environment resources crossed into the Project footprint. Similarly, in areas of proposed roadway improvements, if those roadway improvements replace features in-kind or are utilitarian upgrades and stay within the existing road ROW, a desktop review in Google Earth was completed to ensure that no potential built-environment resources crossed into the Project footprint.

Consultation Outreach per Public Resources Code Section 21080.3.1

Letters requesting information concerning historical resources found within or near the RSA were sent to various groups on February 10, 2022. The following groups were contacted:

- Alameda County Historical Society;
- Ardenwood Historic Farm;

- California Nursery Historical Park;
- Niles Canyon Railway, Pacific Locomotive Association;
- Niles Main Street Association;
- Railroad Museum at Ardenwood; and
- San Leandro Historical Railway Society.

To date, ICF received one response from Jack Burgess, Treasurer for the Society for the Preservation of Carter Railroad Resources (SPCRR) on February 22, 2022. The SPCRR runs the Railroad Museum at Ardenwood. The Treasurer requested more information on where the Project proposes construction of the Ardenwood Station and parking area, and whether the Project proposes a passing track in the vicinity of the station. ICF replied with the requested information in an email on February 23, 2022, and received no further questions. To date, no further replies from the interested parties have been received.

3.6.3.3 Archaeological Resources – Data Sources

ICF conducted background research to identify cultural resources and studies within the RSA and to assess the potential for subsurface archaeological deposits. The background research consisted of a records search at the NWIC and a literature and historical map review. The results of these tasks are summarized below.

Records Search

As discussed above in Section 3.6.3.2 for Built Environment resources, four cultural resources record searches of the RSA were conducted by staff at NWIC for the proposed Project Study Area to identify previous recorded cultural resources.

The initial search was conducted on July 20, 2019 (NWIC File No. 19-0146) and focused on the 2019 proposed station areas rather than the entire Project Study Area. On August 13, 2021 (NWIC File No. 21-0209), an additional records search was conducted, which included the Project Study Area and RSA. Supplemental records searches were conducted by ICF on May 5, 2023 (NWIC File Number 22-1723) and September 5, 2023 (NWIC File Number 23-0307).

ICF also reviewed the following State of California inventories for the RSA:

- Five Views: An Ethnic Historic Site Survey for California (OHP 1988);
- California Historical Landmarks (OHP 2022a);
- California Points of Historical Interest (OHP 2022b); and
- Archaeological Resources Determinations of Eligibility (OHP 2012).

Geological Map Analysis

A review of geologic maps was completed to assess the proposed Project's potential for containing as-yet undocumented buried archaeological resources. For the purposes of this analysis, the phrase *buried archaeological sensitivity* is used to characterize a given area's likelihood for containing buried archaeological resources. For example, if an area is defined as having a high degree of buried

archaeological sensitivity, it is considered to have a high likelihood for containing buried archaeological resources. The analysis considers two factors to determine archaeological sensitivity: landform age and depositional environment (which refers to the way in which a landform is formed).

The term *geologic unit* is used to describe discrete accumulations of sediment or rock with a shared origin and age. Based on landform age and depositional environment, the proposed Project is divided into three categories of archaeological sensitivity: *high*, *moderate*, and *low*. To determine archaeological sensitivity, ICF reviewed the digital database of Quaternary deposits produced by Knudsen et al. (2000). This database compiled from 1:24000- and 1:100,000-scale geologic maps. ICF then determined the ages and depositional environment for all geologic units that intersect with the Project; and then categorized each geologic unit as *high*, *moderate*, or *low* sensitivity based on the aforementioned criteria.

For the purposes of this analysis, landforms identified as having formed prior to the Holocene were considered to have *low sensitivity* for buried archaeological resources. Terrestrial landforms formed during the early Holocene were also considered to have *low sensitivity* for buried archaeological sites, while terrestrial landforms formed during the middle to late Holocene were considered to have *high sensitivity* for buried archaeological resources. Historic landforms formed within the past 150 years, including artificial fill, were also considered to have *moderate sensitivity* for buried archaeological sites.

The Project footprint extends across numerous geologic units that range in age from the Pleistocene to within the last 150 years. Additional information about these units, including their geologic abbreviations, age, and archaeological sensitivity are described in Appendix D, Attachment 2 Archaeological Background Materials.

Table 3.6-1 describes the relative proportion of each level of archaeological sensitivity within the Project Footprint. The majority of the Project Footprint (76.15-percent) was determined to have a high degree of sensitivity for containing buried archaeological resources. A portion of the Project footprint was excluded from these proportions as these areas are currently underwater.

Table 3.6-1. Archaeological Sensitivity within the Project Footprint

Archaeological Sensitivity	Geologic Abbreviation[1]	Relative Proportion
High	**Qhfy, Qhly, Qhty, Qha, Qhf, Qhf1, Qhf2, Qhff, Qhl, Qht**	**76.15%**
Moderate	**ac, afbm, alf, Qhbm**	**7.72%**
Low	**Qhc, Qf, Ql, Qt, Qpt, br**	**16.13%**

Knudsen, Keith L., Janet M. Sowers, Robert C. Witter, Cal M. Wentworth, and Edward J. Helley 2000

1 Abbreviations are defined in Appendix D, Attachment 2.

Historic Map Review

ICF reviewed archival maps for the presence of historic-period buildings and/or structures within the Project Footprint to assess the potential for historic-period archaeological deposits (e.g., artifact-filled features such as wells or privies). Table 3.6-2 describes the historic maps reviewed.

Table 3.6-2. Archival Map Review

Map	Results
1870 GLO Plat Map Township 2 South, Range 3 West, Mount Diablo Meridian	This map depicts the Coast Subdivision within Rancho San Leandro, near the San Francisco Bay, on the south side of San Leandro Creek.
1873 GLO Plat Map Township 5 South, Range 1 West, Mount Diablo Meridian	This map depicts the Coast Subdivision within "Lands of Ex Mission San Jose claimed with specific boundaries under Act of Congress approved March 3rd, 1865."
1876 GLO Plat Map Township 3 South, Range 2 West, Mount Diablo Meridian	This map depicts the Coast Subdivision within Rancho San Lorenzo.
1883 GLO Plat Map Township 4 South, Range 2 West, Mount Diablo Meridian	This map depicts the Coast Subdivision Niles/Oakland Subdivisions within Rancho Potrero de los Cerritos.
1883 GLO Plat Map Township 5 South, Range 2 West, Mount Diablo Meridian	This map depicts Coast Subdivision within "Lands of Ex Mission San Jose claimed with specific boundaries under Act of Congress approved March 3rd, 1865."
1890 Sanborn Fire Insurance Map, Alvarado, Alameda County.	This map depicts the Coast Subdivision as SPRR south of Smith Street and Granger's Road in Alvarado. A depot with a freight house and an office is depicted within the Project footprint. Granger's Stable and Warehouse, the Riverside Hotel, unnamed dwellings, and a horse shed are depicted in the vicinity.
1899 *Hayward, Calif.* USGS topographic quadrangle (1:62,500)	This map depicts the Coast Subdivision as the SPRR running through San Leandro, San Lorenzo, and Arroyo de la Alameda. Roberts Landing and Mt Eden Station as well as unnamed buildings are depicted on the eastern and western side of the railroad tracks.

Table 3.6-2. Archival Map Review

Map	Results
1908 Sanborn Fire Insurance Map, Alvarado, Alameda County.	No changes from the 1890 map are depicted within the Coast Subdivision.
1908 Sanborn Fire Insurance Map, Newark, Alameda County.	This map depicts the Coast Subdivision as the SPRR Main Track. The Southern Pacific Company's Yard, which includes side tracks, a depot, warehouses, and storage buildings, is depicted within the Project footprint. An unnamed dwelling, a boarding and lodging house, and a residential building with rooms for boarders and lodgers are also depicted within the Project footprint.
1915 *Hayward, Calif.* USGS topographic quadrangle (1:62,500)	No changes from the 1899 map are depicted within the Coast Subdivision.
1925 Sanborn Fire Insurance Map, Oakland, Alameda County.	This map depicts the Coast Subdivision as the SPRR Main Track. The Nielson Packing Company is depicted adjacent to the Project footprint.

GLO = General Land Office

A review of archival maps shows 19th century development of the area, generally indicating a potential for intact historic-period deposits (e.g., artifact-filled features, such as wells or privies). Development continued into the 20th century as more homes and businesses were constructed adjacent to the railroad tracks.

For the most part, the Project footprint exists within the alignment of historic railroad tracks and roads. However, some areas of the Project footprint exist outside of these historic alignments and overlap with historic structures that include:

- A railroad depot south of Smith Street and Granger's Road in Alvarado (Sanborn Map Company 1890).
- The Southern Pacific Company's Yard, including sidetracks, a depot, warehouses, and storage buildings, at the location of the Newark Railroad Complex, south of Thorton Avenue and north of Carter Avenue in Newark (Sanborn Map Company 1908).
- An unnamed dwelling, a boarding and lodging house, and a residential building with rooms for boarders and lodgers, south of Thorton Avenue and east of Ash Street (Sanborn Map Company 1908).

The majority of the Project footprint, however, was not detailed on the Sanborn maps, indicating that physical development at these locations was too sparse at the time to warrant inspection by the

insurance industry. Historic structures may exist in portions of the Project footprint that were not detailed on the Sanborn maps.

Field Survey

2021 Field Survey

On September 17, 2021, a field survey was conducted by ICF archaeologist, Megan Watson, as part of identification efforts early in the Project design. Prior to the field survey, a desktop review was conducted to identify locations within the Project footprint that may have exposed ground surface suitable for pedestrian survey.

The majority of the Project footprint was located within railroad ROW and private property with limited public access; therefore, no field survey was conducted at these locations. A select few areas were both surveyable and accessible, and in these areas, all exposed soils were inspected for precontact archaeological materials (e.g., artifacts such as stone tools and lithic debitage, groundstone) historic-period artifacts (e.g., metal, glass, ceramics) and soil discoloration that might indicate the presence of archaeological deposits.

A few select areas within the Project footprint with exposed surface area and public access were targeted for pedestrian survey on September 17, 2021. However, even in these targeted areas ground surface visibility was poor, with 0-percent visibility due to the introduction of gravel. No archaeological resources were identified during the pedestrian survey.

2022 Field Survey (Proposed Ardenwood Station Location)

On October 28, 2022, due to the concerns expressed through a Tribal consultation meeting (see Section 3.19 Tribal Cultural Resources), ICF archaeologists completed further survey work.

All exposed soils were inspected for precontact archaeological materials (e.g., stone tools and lithic debitage, groundstone) historic-period artifacts (e.g., metal, glass, ceramics) and soils discoloration that might indicate the presence of archaeological deposits.

Ground visibility was moderate, with some gravel and vegetation obscuring the surface. No archaeological resources were identified during the pedestrian survey.

2023 Field Survey

On December 12, 2023, an ICF archaeologist conducted a field survey of previously recorded resources located within the Project footprint. During this survey, the following three previously recorded archaeological resources were revisited:

- CA-ALA-330/P-01-000106 (Shell Mound);
- CA-ALA-545H/P-01-000224 (Historic Artifact Scatter); and
- P-01-011558 (Oyster Midden).

The ground surface was carefully examined for evidence of precontact archaeological materials, historic-period artifacts, and soil discoloration that might indicate the presence of archaeological deposits at each of the three sites.

Surface evidence of archeological deposits was identified at the locations of two previously recorded resources during the survey, CA-ALA-330 (P-01-000106) and P-01-011558.

- **CA-ALA-330 (P-01-000106).** The survey identified surface evidence of cultural resources in the vicinity of the previously recorded resource boundary. Cultural materials observed include shells (California horn snail, oyster, and clam) west and south of the previously recorded site boundaries. Abalone shell fragments were identified north of the previously recorded site boundaries and indicate that the site extends north, south, and west of the previously recorded site boundaries.
- **CA-ALA-545H (P-01-000224).** This resource was located within the Project footprint but outside the UPRR property and could not be surveyed due to lack of access.
- **P-01-011558.** The survey identified surface evidence of cultural resources in the vicinity of the previously recorded resource boundary. Cultural materials observed include shells (oyster and clam) and a shard of milk glass.

3.6.3.4 CEQA Thresholds

To satisfy CEQA requirements, cultural resources impacts were analyzed in accordance with Appendix G of the CEQA Guidelines. According to the CEQA Guidelines, CCR, Title 14, Section 15002(g), "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in CEQA Guidelines Section 15064(b)(1), the significance of an activity may vary with the setting. The impact analysis identifies and analyzes construction (short-term) and operation (long-term) impacts, as well as direct and indirect impacts (see PRC Section 21065). The proposed Project would have significant cultural resources impacts under CEQA if it would:

a. Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5;
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5: or
c. Disturb any human remains, including those interred outside of formal cemeteries.

3.6.4 Affected Environment

3.6.4.1 Environmental Setting

The Project alignments are within unsectioned lands of Townships 2 South, Range 3 West; 3 South, Range 2 West; 3 South, Range 3 West; 4 South, Range 1 West; 4 South, Range 2 West; 5 South, Range 1 West; and 5 South, Range 2 West Mount Diablo Base Line and Meridian, as depicted on the United States Geological Survey (USGS) *San Leandro, Hayward, Newark,* and *Niles, California* 7.5-minute topographic quadrangles. Freshwater sources within and adjacent to the proposed Project are discussed in the confidential Archaeological Resources Study Report.

The proposed Project is along the western margin of the Diablo Range of the Coast Ranges geomorphic province on a broad, gently sloping alluvial plain (California Geological Survey 2002; Dibblee and Minch 2005a, 2005b). The entirety of the proposed Project is landward of the pre-development bay shoreline. The Diablo range is primarily composed of uplifted, Mesozoic-aged (between 250 and 66 million years old) and Cenozoic-aged (less than 66 million years old)

sedimentary rock, while the alluvial plain was formed via the downslope movement of sediment during the Pleistocene and Holocene epochs (Dibblee and Minch 2005a, 2005b). In the present day, large portions of the proposed Project have been graded and paved.

The native vegetation consists of California coastal prairie scrub mosaic (Küchler 1977). The native plant community associated with the Coastal Prairie-Scrub Mosaic includes low to moderate-sized shrubs; common species include oatgrass (*Danthonia californica*), red fescue (*Festuca rubra*), tufted hairgrass (*Deschampsia cespitosa*), California brome (*Bromus carinatus carinatus),* meadow barley (*Hordeum brachyantherum*), and coyotebush (*Baccharis pilularis*). Seeds from some of these locally available grasses were collected and eaten for food, including barley hairgrass and brome, as evidenced by charred seeds collected from archaeological site CA-ALA-566 in Hayward and at other sites throughout Central California (Gmoser 1998; Wohlgemuth 1996, 2004).

Native vegetation communities of this region supported a variety of wildlife, including those of economic importance to the Ohlone (see Section 3.6.4.3, Ethnography), the native occupants of the area. Native fauna of the valley included Tule elk (*Cervus elaphus nannodes*), bobcat (*Lynx rufus*), black-tailed deer (*Odocoileus hemionus*), and grizzly bear (*Ursus horribilis*), as well as a myriad of small mammals, reptiles, amphibians, and birds.

3.6.4.2 Precontact Cultural Chronology[1]

In the San Francisco Bay Area region of central California, researchers have developed chronologies to describe the general evolution of precontact cultures through time. These chronologies include the Central California Taxonomic System, which identified three broad culture periods based on artifact variations associated with burials in the lower Sacramento Valley and the Archaic-Emergent temporal sequence developed by Fredrickson (1974), which identified four chronological periods based on technological, subsistence, economic, social, and political behavior. To account for advances in archaeological dating technology and archaeological field data regarding the nature of Native California occupation during the precontact period, these chronologies have been revised into an integrative scheme, which accounts for both a temporal and cultural sequence for the area (Milliken et al. 2007). This scheme, consists of an updated chronological sequence comprising six periods: the Early Holocene/Lower Archaic (8000–3500 cal B.C.), Early Period (3500–500 cal B.C.), Lower Middle Period (500 cal B.C.–A.D. cal 430), Upper Middle Period (cal A.D. 430–1050), Initial Late Period (cal A.D. 1050–1550), and Terminal (Phase 2) Late Period (cal. A.D. 1550–1850) (Milliken et al. 2007).[2]Refer to Attachment 2 of Appendix D Archaeological Background Materials for a detailed description of the each of the six periods.

3.6.4.3 Ethnography

The Project footprint is situated within the ancestral territory of the Ohlone, also referred to by ethnographers as Costanoan, derived from the Spanish word Costeños meaning coast people which was the name given by the Spanish when establishing Missions in Ohlone territory (Margolin 1978:1). Ohlone territory consists of the area from the southern edge of the Carquinez Strait to a portion of the Big Sur and Salinas Rivers south of Monterey Bay, to approximately 50 miles inland from the coast

[1] The term "precontact" as used here is synonymous with the term "prehistory," meaning the time prior to Euro-American contact with indigenous tribes of California. The term is exchanged to avoid pejorative implications that have previously been the subject of tribal concerns.

[2] These phases are academic constructs and do not necessarily reflect the views of Native American tribes.

(Levy 1978). Refer to Attachment 2 of Appendix D, Archaeological Background Materials for further ethnohistoric information for the region.

At least two rancheria communities existed late the 19th and early 20th centuries near the current Project footprint in San Leandro/San Lorenzo and El Molino in Niles. The San Lorenzo Rancheria was located south of Rancho San Leandro, on the north bank of San Lorenzo Creek. A concentration of mineral springs flowed down from the hills to the east, toward San Lorenzo Creek. This area has been referred to as the Diramaderos or "overflow of the springs," likely derived from the Spanish word *derramadero*, which translates to spillway (Grossinger and Brewster 2003). It has been suggested that 150 people may have lived on the north bank of the creek among the groves of willow trees (Grossinger and Brewster 2003: 11). A survey map created in 1855 for a series of court cases depicts what may be the San Lorenzo Rancheria. The map indicates that in 1841 and 1842, the people living on the north bank of the creek had a corral and were cultivating fields of wheat, melons, corn, and beans (Gray 1855).

El molino translates to "the mill," and the El Molino rancheria may have been associated with the milling industry for which the Niles area was known. In 1904, it was estimated that about 50 people were living at the El Molino Rancheria (Country Club of Washington Township 1904: 35). A previously recorded informal resource located in Fremont, C-1520 is thought to be associated with this rancheria (Anastasio et. al 1987).

3.6.4.4 History

Refer to Appendix D Attachment 2 Archaeological Background Materials for a detailed history on Fremont/Niles, Hayward, Union City, Newark, and San Leandro.

3.6.4.5 Summary of Known CEQA Historical Resources and Unevaluated Resources

Built Environment

A total of 42 historic-period resources were found in the Project Study Area. Refer to Appendix D Attachment 1 Historical Resources for the detailed findings and conclusions of the historical resources evaluation. Table 3.6-3 summarizes those resources that are CRHR-eligible historical resources that have been identified within the RSA, as discussed below.

Table 3.6-3. Summary of Built Environment Historical Resources within the RSA

Map ID#	Property/ Resource Identifier	Address/ Property Name or Description	Location	Period of Significance	NRHP/ CRHR Eligibility Criteria
P-01-010742	San Lorenzo Village Historic District	Grant Avenue at Railroad Avenue	San Lorenzo	1944–1958	A/1, B/2, C/3

Table 3.6-3. Summary of Built Environment Historical Resources within the RSA

Map ID#	Property/ Resource Identifier	Address/ Property Name or Description	Location	Period of Significance	NRHP/ CRHR Eligibility Criteria
P-01-010620	Hetch Hetchy Aqueduct Bay Division Pipelines 1 and 2	Sub-surface water conveyance system	Newark	1934–Present	A/1, C/3
P-01-011827	Alameda Creek	Natural water feature	Fremont/ Union City/ Ardenwood	N/A	A/1
P-01-003309	George Washington Patterson House (Ardenwood)	34600 Ardenwood Boulevard	Ardenwood	1856–1914	A/1, C/3

Sources: Survey results quantifications generated from historic resources surveys and evaluation conducted from 2021–2023.

- San Lorenzo Village Historic District (P-01-010742).
    - Eligible under NRHP/CRHR Criteria A/1, B/2, and C/3 on August 22, 2016, by the Federal Communications Commission (FCC) via the Section 106 process.
    - Period of significance: 1944–1958.
    - Boundary: UPRR tracks of the Coast Subdivision on the west, San Lorenzo Creek on the north, the Niles Subdivision railroad tracks east of I-880 on the east, and an irregular southern border following the northern limit of the City of Hayward along Hacienda Avenue, Clubhouse Drive, and a stairstep pattern along the greenbelt north of the Hayward Executive Airport to east of the Coast Subdivision.
    - Character-defining features include the development's spatial layout of approximately 6,000 buildings, 97 percent of which are modestly sized single-family residences alongside its apartment buildings, eight churches, eight public schools, and 60 commercial buildings with community service buildings like a movie theater, community center, library, post office, and fire station. Curving roads and cul-de-sacs with minimal through streets curb access to residential streets to only the main roads. Hesperian Boulevard as the main thoroughfare. Mountable curbs and sidewalks are adjacent to the curb. Western residential neighborhoods have conventional curbs. There are a few mature trees along the western border with mature trees along the eastern half of the development.
- Hetch Hetchy Aqueduct Bay Division Pipelines 1 and 2 (P-01-010620).
    - Eligible under NRHP/CRHR Criteria A/1 and C/3.

  - Period of significance: 1934–Present.
  - Boundary: Bay Division Pipeline 1 and 2 occupy the same ROW from Irvington Portal in Alameda County to Pulgas Tunnel in San Mateo County.
  - Character-defining features include:
    - Contributing part to the original Hetch Hetchy system as designed by John R. Freeman, an expert hydraulic engineer.
    - The Pipelines' original ROW alignment.
    - Bay Division Pipeline 1's 21-mile, 60-inch-diameter cast iron pipe; Bay Division Pipeline 2's variable 60- to 66-inch-diameter pipes.

- George Washington Patterson Home (Ardenwood) (P-01-003309).
  - Listed in the NRHP and CRHR under Criteria A/1 and C/3 in 1985 (1S) and 1988 (3S).
  - Period of significance: 1856–1914.
  - Boundary: The middle portion of the extant Ardenwood Historic Farm focused on and around the footprint of the George W. Patterson House, including the footprints of six adjacent outbuildings (see character-defining features). Excludes the heavily altered eastern portion of the property.
  - Character-defining features include the George W. Patterson House and its adjacent, contributing outbuildings:
    - c. 1850s Milk House.
    - c. 1910 Cook House.
    - c. 1850s Bean Barn.
    - c. 1850s Milk Barn/Equipment Shed.
    - 1910 Hay Barn.
    - 1901 Garage.
    - Landscaping features include the eucalyptus groves across the property as well as one dawn redwood tree and the ¼-mile-long driveway featuring original black walnut and oak trees.

- Alameda Creek (P-01-011827).
  - Listed under NRHP/CRHR Criteria A/1 as a Primary Historic Resource on the City of Fremont Register in 1967.
  - Period of significance: N/A.
  - Boundary: Extant alignment of Alameda Creek from the Sunol and Livermore Valleys through Niles Canyon, Niles, and Union City to the San Francisco Bay.

- Character-defining features include its existing alignment within Niles Canyon, along the southern border of Niles, forming the city boundary between Union City and Fremont, and emptying into the San Francisco Bay.

Archaeological Resources

Record searches identified seven previously recorded archaeological resources within the Project footprint. During the 2022 and 2023 pedestrian surveys, ICF archaeologists revisited the locations of the previously recorded resources identified during the records searches. Surface evidence of three archaeological resources were identified during the survey.

Table 3.6-4. Previously Recorded Archaeological Resources within the Project Footprint

Resource Identifier	Resource Type	Evaluation Status
CA-ALA-000020/P-01-000040	Precontact site	No California Historical Resources Status Code (CHRSC) has been assigned to this resource, indicating that it has not been evaluated for the NRHP or the CRHR.
CA-ALA-330/P-01-000106	Precontact site	No CHRSC has been assigned to this resource, indicating that it has not been evaluated for the NRHP or the CRHR.
CA-ALA-545H/ P-01-000224	Historic-period site	In 1994, this resource was evaluated and assigned a CHRSC of 6Y: *Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR of local listing* (OHP 2012).
CA-ALA-549H/ P-01-000228 Roberts Landing Site	Historic-period site	On March 19, 1970, this resource was listed as a California Point of Historical Interest #162. In 1994, this resource was evaluated and assigned a CHRSC of 6Y: *Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR of local listing* (OHP 2012).
P-01-003613	Historic-period site	This resource was assigned a CHRSC of *7N: Needs to be reevaluated - formerly coded as may become NR eligible with specific conditions*. This resource is listed in *Five Views: A History of Japanese Americans in California*.
P-01-003614	Historic-period site	No CHRSC has been assigned to this resource, indicating that it has not been evaluated for the NRHP or the CRHR.
P-01-011558	Precontact site	No CHRSC has been assigned to this resource, indicating that it has not been evaluated for the NRHP or the CRHR.

3.6.5 Best Management Practices

As noted in Chapter 2, Project Alternatives, CCJPA would incorporate a range of BMPs to avoid and minimize adverse effects on the environment that could result from implementation of the proposed Project. BMPs are included in the proposed Project description, and the impact analyses were conducted assuming application of these practices. The BMPs relevant to cultural resources are listed below. Full descriptions of the BMPs are provided in Chapter 2, Project Alternatives.

BMP CUL-1 Conduct Cultural Resources Awareness Training Prior to Project-Related Ground Disturbance.

BMP CUL-2 Stop Work if Archaeological Deposits and/or Human Remains are Encountered During Ground-Disturbing Activities

3.6.6 Environmental Impacts

This section describes the potential environmental impacts on cultural resources as a result of implementation of the proposed Project. Lettering shown within title for each environmental factor below correlates with CEQA Statute and Guidelines, Appendix G table lettering and numbering.

3.6.6.1 a) Cause a Substantial Adverse Change in the Significance of a Historical Resource Pursuant to Section 15064.5

No Project Alternative

The No Project Alternative would not impact any historical resources because the No Project Alternative would not change any character-defining features of any historical resources. Under the No Project Alternative, the railroad would be used in the current manner, which would not result in any new impacts.

Proposed Project

Built Environment Resources

Construction.

Less than Significant Impact. The construction of the proposed Project would directly affect four built-environment historical resources: San Lorenzo Village Historic District, Hetch Hetchy Aqueduct Bay Division Pipelines 1 and 2, George Washington Patterson Ranch (Ardenwood), and Alameda Creek. These resources are described in Section 3.6.4.5 above.

The proposed Project features in the vicinity of the San Lorenzo Village Historic District include ADA sidewalk improvements and signal modifications to an existing, at-grade crossing just within the boundaries of the historic district. While the district's character-defining features include mountable curbs and sidewalks adjacent to the curb and conventional curbs (in the western residential neighborhoods), this area of the historical resource does not have curbs at all. The proposed Project would not impact any character-defining features of the historical resource and so would not impact the resource's integrity of materials, workmanship, or design. The proposed Project modifies existing features within the vicinity of the district and would not add new types of features. The proposed Project would cause a less than significant impact on the resource's integrity of location,

setting, feeling, or association. As such, the proposed Project would cause a less than significant impact on the San Lorenzo Village Historic District.

The proposed Project features in the vicinity of George Washington Patterson Ranch (Ardenwood) include temporary staging, which occurs in already-paved roadway and parking areas adjacent to Newark Boulevard. Temporary staging on the existing pavement has no potential to impact George Washington Patterson Ranch. A driveway around the George Washington Patterson Ranch property encroaches onto the railroad parcels at the western end of the historic resource's boundary. Currently, the driveway is located east of the railroad, running parallel to the railroad. However, before 1980, the driveway was located west of the railroad and parallel to the railroad. The current driveway configuration does not date to the period of significance. The proposed Project also calls for the removal of non-character-defining trees that post-date 1993. While the proposed Project would impact the George Washington Patterson Ranch, the impact would be less than significant.

The proposed Project features in the vicinity of the Hetch Hetchy Aqueduct Bay Division Pipelines 1 and 2 include proposed railroad track upgrades. All of the historical resource's character-defining features in the vicinity of the proposed Project are below grade and include the below-grade alignment ROW and pipes. The proposed Project would not impact any of the resource's aspects of integrity. As such, the proposed Project would not impact the Hetch Hetchy Aqueduct Bay Division Pipelines 1 and 2.

The proposed Project features in the vicinity of Alameda Creek include a new, approximately 750-linear-foot, two-track bridge to replace the existing single-track bridge across Alameda Creek. The structure cannot be a clear span and will require piers in the channel. The resource's character-defining features are limited to its alignment, and no aspects of integrity were identified in the local designation of the creek as a historical resource; based on the character-defining features, it appears that the only key aspect of integrity of the resource is its location. The addition of transportation infrastructure would not impact any aspects of Alameda Creek's integrity. As such, the proposed Project would not impact Alameda Creek.

The proposed Project would have a less than significant impact on built-environment historical resources.

Operations.

No Impact. The proposed Project does not include any increase in the number of daily Capitol Corridor passenger trains or the frequency of service to San Jose. The proposed Project would facilitate shifting Capitol Corridor passenger service between Oakland and Newark from the current Niles Subdivision to the shorter, more direct route on the Coast Subdivision. No changes in freight rail services are anticipated as a result of the Project. The operational component of the proposed Project is consistent within the current operational use of the overall railroad network and no increase in train frequency is proposed.

As such, the operation of the proposed Project has no potential to impact built-environment historical resources.

Archaeological Resources

Construction.

Less than Significant Impact with Mitigation Incorporated. The NWIC records searches identified seven previously recorded archaeological sites, three precontact and four historic-period sites that have not been evaluated for the CRHR and may qualify as historical resources under CEQA (State CEQA Guidelines Section 15064.5(c)(1). For the purposes of the CEQA analysis, these resources are assumed eligible. Proposed Project impacts are described in Table 3.6-5. For the purposes of the CEQA analysis, these resources are assumed eligible.

Table 3.6-5. Previously Recorded Archaeological Sites and Project Construction Components with the Potential to Cause Impacts

Identifier	Resource Type	Project Construction Components
CA-ALA-000020/P-01-000040	Precontact site	Grading to a depth of 1 foot for rail modifications and trenching with a Ditch Witch for signal installation.
CA-ALA-330/ P-01-000106	Precontact site	Excavation to approximately 3 feet below the bottom of the channel and soldier pile or shaft walls drilled to 10–20 feet.
CA-ALA-545H/P-01-000224	Historic-period site	Excavation to approximately 5 feet below the surface for rail modifications/new rail installation and excavation for new bridge pilings will be 50 to 80 feet below ground surface.
CA-ALA-549H/P-01-000228	Historic-period site	Excavation to approximately 5 feet below the surface for rail modifications/new rail installation and trenching with a Ditch Witch for signal installation.
P-01-003613	Historic-period site	Excavation to approximately 5 feet below the surface for rail modifications/new rail installation and trenching with a Ditch Witch for signal installation
P-01-003614	Historic-period site	Excavation to approximately 5 feet below the surface for rail modifications/new rail installation and trenching with a Ditch Witch for signal installation. Relocation of a sewer line at this location will require excavation to a depth of approximately 10 to 20 feet.
P-01-011558	Precontact site	Temporary Construction Easement for staging at this location would require grading to a depth of 6 inches.

A review of geologic maps to assess the proposed Project's potential for containing as-yet undocumented buried archaeological resources indicates the proposed Project extends across numerous geologic units with varying degrees of archaeological sensitivity that range from high, to

moderate, and low; however, the majority has a high degree of sensitivity for containing buried archaeological resources.

A review of archival maps to assess the potential for intact historic-period deposits indicated that, by the late 19th century, the proposed Project consisted of railroad tracks and adjacent buildings. The majority of the proposed Project exists within the alignment of historic railroad tracks and roads. However, some construction areas exist outside of these historic alignments and overlap with historic buildings and structures. Although these areas have undergone residential and commercial development throughout the mid to late 20th century, intact deposits associated with these buildings and structures from the late-19th and early 20th century may still exist subsurface.

The proposed Project includes implementation of **BMP CUL-1: Conduct Resource Awareness Training Prior to Project-Related Disturbance** and **BMP CUL-2: Stop Work if Archaeological Deposits and/or Human Remains are Encountered During Ground-Disturbing Activities**. BMP CUL-1 would require that all construction workers receive training by a registered professional archaeologist to ensure that contractors can recognize archaeological resources in the event that any are discovered during construction. BMP CUL-2 would require work in the area to stop immediately and procedures outlined in the Archaeological Monitoring, Avoidance, and Treatment Plan (AMATP) to be implemented in the event that archaeological deposits are encountered during Project-related ground disturbance.

Based on the records search results and the desktop archaeological sensitivity assessment, implementation of the proposed Project would result in substantial adverse changes to archaeological deposits that qualify as historical resources. However, due to constraints posed by property access and urban overlay of the proposed Project, the full nature, type, and extent of buried archaeological deposits and features are unknown and have not been evaluated for the CRHR; therefore, a phased identification and evaluation of archeological sites for the CRHR will be established at least at a 30-percent level of design and prior to the start of construction. The implementation of mitigation measures MM CUL-1, MM CUL-2, MM CUL-3, and MM CUL 4 would reduce potential impacts on archaeological resources to a less than significant level.

Operations.

No Impact. The proposed Project does not include any increase in the number of daily Capitol Corridor passenger trains or the frequency of service to San Jose. The proposed Project would facilitate shifting Capitol Corridor passenger service between Oakland and Newark from the current Niles Subdivision to the shorter, more direct route on the Coast Subdivision. No changes in freight rail services are anticipated as a result of the proposed Project. The operational component of the proposed Project is consistent within the current operational use of the overall railroad network and no increase in train frequency is proposed. As such, the operation of the proposed Project has no potential to impact historical archaeological resources.

3.6.6.2 b) Cause a Substantial Adverse Change in the Significance of an Archaeological Resource Pursuant to Section 15064.5

Construction and Operations.

Less than Significant Impact with Mitigation Incorporated. Per the State CEQA Guidelines, "When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource" (State CEQA Guidelines Section 15064.5(c)(1)). Those archaeological

sites that do not qualify as historical resources shall be assessed to determine if these qualify as "unique archaeological resources" (California PRC Section 21083.2; State CEQA Guidelines Section 15064.5(c)(3)).

The proposed Project includes implementation of **BMP CUL-1: Conduct Resource Awareness Training Prior to Project-Related Disturbance** and **BMP CUL-2: Stop Work if Archaeological Deposits and/or Human Remains are Encountered During Ground-Disturbing Activities**. BMP CUL-1 would require that all construction workers receive training by a registered professional archaeologist to ensure that contractors can recognize archaeological resources in the event that any are discovered during construction. BMP CUL-2 would require work in the area to stop immediately and procedures outlined in the AMATP to be implemented in the event that archaeological deposits are encountered during Project-related ground disturbance.

Based on the records search results and the desktop archaeological sensitivity assessment, implementation of the proposed Project would result in substantial adverse changes to archaeological deposits that qualify a qualify as "unique archaeological resources". However, as discussed above, due to constraints posed by property access and urban overlay of the proposed Project, the full nature, type, and extent of buried archaeological deposits and features are unknown and have not been assessed. However, implementation of mitigation measures MM CUL-1, MM CUL-2, MM CUL-3, and MM-CUL 4, would reduce potential impacts on archaeological resources to a less than significant level.

3.6.6.3 c) Disturb Any Human Remains, Including Those Interred Outside of Formal Cemeteries

Construction.

Less than Significant Impact with Mitigation Incorporated. Based on the records search results and the desktop archaeological sensitivity assessment, implementation of the proposed Project could result in substantial adverse changes to archaeological deposits that may contain human remains. However, as discussed above, due to constraints posed by property access and urban overlay of the proposed Project, the full nature, type, and extent of buried archaeological deposits and features has not been assessed, including the presence of human remains.

The proposed Project includes implementation of **BMP CUL-1: Conduct Resource Awareness Training Prior to Project-Related Disturbance** and **BMP CUL-2: Stop Work if Archaeological Deposits and/or Human Remains are Encountered During Ground-Disturbing Activities**. BMP CUL-1 would require that all construction workers receive training by a registered professional archaeologist to ensure that contractors can recognize archaeological resources in the event that any are discovered during construction. BMP CUL-2 would require work in the area to stop immediately and procedures outlined in the AMATP to be implemented in the event that archaeological deposits are encountered during Project-related ground disturbance.

In the event that human remains are identified during Project activities, these remains would be required to be treated in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the PRC, as appropriate. Section 7050.5 of the California Health and Safety Code states that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in

which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the NAHC within 24 hours of this identification. The NAHC will identify a Native American MLD to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Compliance with the California Health and Safety Code and implementation of mitigation measures MM CUL-1, MM CUL-2, MM CUL-3, MM CUL-4, and MM CUL-5 would reduce potential impacts on human remains to a less than significant level.

Operations.

No Impact. The proposed Project does not include any increase in the number of daily Capitol Corridor passenger trains or the frequency of service to San Jose. The Project would facilitate the movement of Capitol Corridor trains on a more direct route between Oakland and Newark on the UPRR Coast Subdivision from its existing route along the UPRR Niles Subdivision. The operational component of the proposed Project is consistent within the overall railroad system and no overall increase in capacity is proposed. As such, the operation of the proposed Project has no potential to impact historical resources or archaeological resources.

3.6.7 Mitigation Measures

The following mitigation measures for cultural resources are required for the proposed Project.

MM CUL-1 Temporary Construction Easement Review and Installation of a Horizontal and Vertical Environmentally Sensitive Area for P-01-011558, as appropriate.

At the 25- and 30- percent rail design phase, the need for the Temporary Construction Easement (TCE) at the location of P-01-11558 will be reviewed and if no longer needed, the TCE will be removed from the construction plans. If the TCE is still needed in the vicinity of P-01-011558, a horizontal and vertical ESA will be established to exclude project construction activities from the vicinity of P-01-011558. The method of ESA installation will be determined during the design phase and will be indicated on all plans, specifications, and estimates. The ESA will be monitored by a qualified archaeologist (meeting the minimum professional qualifications standards (PQS) set forth by the Secretary of the Interior (SOI) (codified in 36 CFR Part 61; 48 FR 44739) during any ground disturbing preconstruction or construction work in the boundaries of the TCE.

MM CUL-2 Implement Archaeological Testing and Evaluation Plan.

Once the Project footprint reaches a 30 percent level of rail design and prior to the start of construction, an Archaeological Testing and Evaluation Plan (ATEP) will be implemented by a qualified archaeologist in consultation with CCJPA to support the evaluation of cultural resources.

The ATEP should consist of a site-specific context, research design, and field methods to evaluate known resources, and identify resource types that may be encountered within areas of high sensitivity and deep ground disturbance. This plan should include, but not be limited to:

- Background and anticipated resource types;

- Research questions that can be addressed by the collection of data from the defined resource types;
- Field methods and procedures including:
    - Procedures to determine whether a buried component of a known site extends horizontally into the Project footprint;
    - Geoarchaeological trenching or coring; and
    - Cataloging and laboratory analysis.

The ATEP will be submitted to CCJPA and the local consulting tribal representatives for review prior to implementation. The results of the ATEP will be summarized in a technical document that will determine whether further study is necessary. The technical document will also determine whether additional mitigation will be needed. The technical document will be provided to CCJPA for review and approval and submitted to the Northwest Information Center (NWIC).

MM CUL-3 Installation of a Horizontal and Vertical Environmentally Sensitive Area for previously recorded and newly identified archaeological sites as appropriate.

At the 25- and 30- percent rail design phases, the Project plans will be reviewed to determine if the refinements in the project design allow for avoidance of previously recorded and additional sites identified during the archeological testing conducted for the project. If the sites can be avoided, a horizontal and vertical ESA will be established at designated locations to exclude project construction activities from the vicinity of these sites. The method of ESA installation will be determined during design phase and will be indicated on all plans, specifications and estimates. The ESA will be monitored by an archaeologist during any ground-disturbing preconstruction or construction work in the vicinity of the ESA.

MM CUL-4 Draft and Implement Archaeological Monitoring, Avoidance, and Treatment Plan.

Upon completion of the archaeological testing and evaluation, and prior to the start of construction, an AMATP will be developed by a registered professional archaeologist in consultation with CCJPA and local tribal representatives. Monitoring will be required at all recorded site locations, including those proposed to be avoided by Project construction.

The AMATP will include protocols that outline archaeological roles and monitoring best practices, anticipated resource types and an Unanticipated Discovery Protocol. The Unanticipated Discovery Protocol will describe steps to follow if unanticipated archaeological discoveries are made during Project work and identify a chain of contact.

The AMATP will be submitted to consulting tribal representatives and CCJPA for review prior to implementation. Following the completion of ground disturbance associated with Project construction, the results of the archeological monitoring and avoidance pursuant to the AMATP will be summarized in a technical document. The technical document will be provided to CCJPA for review and approval and submitted to the NWIC.

MM CUL-5 Tribal Monitoring.

Tribal monitoring will be required during construction activities at all recorded precontact archaeological site locations, including those proposed to be avoided by Project construction. Tribal monitors will be provided a minimum of one week's notice prior to the commencement of ground-disturbing or construction work.

3.6.8 Cumulative Impact Analysis

The cumulative impact study area for cultural resources is the same as the CEQA study area (see Appendix D, *Historical Resource Inventory and Evaluation Report Capitol Corridor Joint Powers Authority (CCJPA) Capitol Corridor South Bay Connect Project*).

As provided in Section 3.1, the cumulative project list includes multiple past, present, and reasonably foreseeable projects that were considered for the purpose of this cumulative impact analysis.[3] These cumulative projects include infrastructure projects, transportation and transit projects, recreational and community facility projects, and other private development projects within the proposed Project's built-environment resources study area. Based on a review of environmental documents available for these cumulative projects, no projects identify significant impacts on built-environment historical resources. The construction of planned projects identified in the cumulative project list does not significantly impact any aspects of integrity for built-environment historical resources. Furthermore, the current Project does not cause a significant impact on any aspects of integrity of the built-environment historical resources in the study area. Therefore, no cumulative impacts on built-environment historical resources were identified.

Operation of cumulative rail and other regional transportation projects would not impact built-environment historical resources within the study area. Operation of the proposed cumulative infrastructure projects could increase population or noise within the Project Study Area, but those increases have no potential to impair built-environment historical resources.

The archaeological resources study identified seven previously recorded archaeological sites within the Project footprint that have not been evaluated for the CRHR and that are assumed eligible for the purposes of environmental review. Implementation of the proposed Project may cause potentially significant impacts to these known resources. Impacts related to archaeological resources that qualify as historical resources or unique archaeological resources under CEQA are site-specific because they occur on a project level as a result of a project's ground-disturbing activities and, as such, are assessed on a project-by-project basis. One of the seven archaeological sites identified within the Project footprint has been analyzed for cumulative projects, Historic-period archaeological site P-01-003613, the Leslie Salt Company, is within the study area analyzed for the Cargill, Incorporated Solar Sea Salt System Maintenance and Operations Activities, but no impacts were identified in the Environmental Assessment prepared for that project. Other current and future development not on the cumulative project list could impact known archaeological resources. However, due to the developed nature of the Project Corridor, the potential of such projects to encounter and cause, in conjunction with the Project, a significant cumulative impact on archaeological resources is limited. The implementation of mitigation measures MM CUL-1, MM CUL-2, MM CUL-3, MM CUL 4, and MM -CUL-5 would ensure that the Project's contribution would

[3] Attachment D includes a Cumulative Project List and Cumulative Project Map that were compiled to identify other current and reasonably foreseeable future actions to be considered in the cumulative impact analysis.

not be cumulatively considerable by requiring the establishment of environmentally sensitive areas, implementation of a phased archaeological testing and evaluation plan, and preparation and implementation of an AMATP.

In addition, implementation of the Project and of cumulative projects may cause potentially significant impacts to previously unknown archeological resources or human remains. The potential for an individual project to encounter archaeological resources or human remains is unknown. Impacts to cultural resources are site-specific and, as such, are not expected to combine with the development of other projects to cumulatively increase the risk of impacting unknown archaeological resources or human remains. Potential impacts would be mitigated on a case-by-case basis. The proposed Project includes implementation of BMP CUL-1 and BMP CUL-2, which would require cultural resource awareness training for all construction personnel and stop work in the event that archaeological deposits and/or human remains are encountered during ground-disturbing activities to allow for implementation of the AMATP. Implementation of these best management practices and mitigation measures would offset the Project's contribution. Therefore, the Project's contribution to cumulative impacts on archaeological historical resources, unique archaeological sites, and human remains would not be cumulatively considerable, and cumulative impacts would be less than significant.

Operation of cumulative rail and other regional transportation projects would not impact built-environment or archaeological historical resources, unique archaeological sites, or human remains within the study area. Operation of the proposed cumulative infrastructure projects could increase population or noise within the Project Study Area, but those increases have no potential to impact built-environment or archaeological historical resources, unique archaeological sites, or human remains.

3.6.9 CEQA Impact Summary Table

Table 3.6-6 summarizes the cultural resources impacts of the proposed Project.

Table 3.6-6. Cultural Resources Impacts Summary

Impact	Level of Significance Before Mitigation	Incremental Project Contribution to Cumulative Impacts	Mitigation	Level of Significance with Mitigation Incorporated	Incremental Project Cumulative Impact after Mitigation
Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5	SI		MM CUL-1 MM CUL-2 MM CUL-3 MM CUL-4 MM CUL-5 MM CUL-6	S/M	
Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5	SI		MM CUL-1 MM CUL-2 MM CUL-3 MM CUL -4 MM CUL-5 MM CUL-6	S/M	
Disturb any human remains, including those interred outside of formal cemeteries	SI		MM CUL-1 MM CUL-2 MM CUL-3 MM CUL-4 MM CUL-5 MM CUL-6	S/M	

Notes: LTS = Less than Significant Impact, NI = No Impact, N/A = Not Applicable, SI = Significant Impact, S/M = Significant Impact but Mitigable to a Less than Significant Level, CC = Cumulatively Considerable, NCC = Not Cumulatively Considerable.

3.6.10 References

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