
3.6 CULTURAL RESOURCES

Introduction

This section summarizes the history of the project corridor and the cultural resources from prehistoric and historic periods in the vicinity. Construction and operation of the Proposed Project could disturb these archaeological and historical resources. Consultations with the Northwest Information Center of the California Historical Resources System at Sonoma State University, the regional repository and archival database center for cultural resources, and with the Native American Heritage Commission, as well as field surveys and reviews of local, state, and federal inventories of historic resources, have informed this description of the cultural setting.

Potential cultural resources along the project corridor include:

- Prehistoric or Native American resources can include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials.
- Historic resources can include nails, bottles, ceramics or other items often found in refuse deposits, as well as historic buildings, structures, and other features.

Comments received in response to the NOPs requested that the EIR conduct a Native American Heritage Commission Sacred Lands file check. Research for this project included consultation with the Native American Heritage Commission, as described below.

Existing Conditions

Research Methods

Research for this project consisted of prefield archival study, consultation with Native Americans and persons knowledgeable in local history, and on-foot archaeological survey. Information contained in this section of the EIR is abstracted from technical reports prepared for this EIR by Archaeological/Historical Consultants.¹

Archival Research. Archival record searches for the Proposed Project were conducted at the Northwest Information Center of the California Historic Resources Information System at

¹ Baker, S. and L. H. Shoup, *eBART Project EIR, Archaeological Survey Report: eBART Project, Contra Costa County, California*, September 2008; Archaeological/Historical Consultants, *Historical Resources Evaluation Report: San Pablo & Tulare Railroad/Central Pacific Railroad*, 2008.

Sonoma State University, Rohnert Park in October 2005 and January 2008. The Information Center provided data on previously recorded cultural sites and prior archaeological surveys conducted within the Area of Potential Effect (APE) for the Proposed Project, as well as an additional area beyond the APE. The APE encompasses the area where construction and operation of the Proposed Project could directly affect cultural resources if present. Information in this section pertaining to the larger area, generally one-quarter mile beyond the APE and referred to as the project area, has been collected in order to provide a better idea of the cultural resources sensitivity and historical context of the project vicinity.

Historic, archaeological, ethnographic, and ethnohistoric research was also undertaken at the following locations:

- Anthropology, Bancroft, Bioscience, Newspaper, Main, and Map Libraries, University of California, Berkeley
- California State Library and California State Railroad Museum Library, Sacramento
- Contra Costa County Historical Society, Martinez
- Contra Costa County Library, Pleasant Hill

Historic research focused on historic themes relevant to eastern Contra Costa County. These included exploration, settlement, and the development of agriculture and transportation.

Key historic inventory lists were inspected, including the National Register of Historic Places, California Inventory of Historic Resources, California List of State Historic Landmarks, Contra Costa County Historic Resources Inventory, and the California State Historic Preservation Office's Historic Property Data file.

Native American Consultation. On December 9, 2005, a letter was sent to the Native American Heritage Commission (NAHC) and to Native American contacts. The letter solicited information and concerns about Native American cultural resources within the project vicinity. Debbie Pilas-Treadway of the NAHC; Ann Marie Sayers, Chairperson of the Indian Canyon Mutsun Band of Costanoans; and Ms. Ramona Garibay of the Trina Marine Ruano Family each responded with no information about the project area and no particular concerns.

Archaeological Survey. For large areas of the Proposed Project that were unpaved (e.g., station and parking areas around the Hillcrest Avenue Station), the ground was surveyed on foot in systematic transects approximately two to ten meters apart, depending on terrain, and inspected for evidence of cultural occupation, including midden soil, shell, bone, modified lithic materials, fire-cracked rock, and historic debris and features. Where necessary, cultural resources were photographed and standard DPR 523 forms were prepared.

Cultural Overview

Regional Prehistory. Archaeological excavations at a number of sites in the region date between about 7500 B.C. and the historic contact period, although settlement may have begun more than 10,000 years ago. Three cultural patterns are relevant to the project area: Windmill Pattern, Berkeley Pattern, and Augustine Pattern.

Large numbers of projectile points and quantities of animal bone in Windmill sites indicate that the Windmill Pattern was characterized by extensive hunting of large mammals (elk, deer, antelope), small mammals (especially rabbits), and waterfowl. There was also considerable fishing, using fish spears, hooks, and fish line sinkers. The presence of mortars indicates use of acorns and perhaps other seeds. Windmill people were also skilled in manufacturing flaked and ground lithic artifacts, including charmstones, and also made bone, baked clay, basketry, and shell items.

The subsequent Berkeley Pattern probably first appeared about 1500 B.C. in the San Francisco Bay Area, gradually spreading (perhaps unevenly) into the interior. The Berkeley Pattern is characterized by a dietary emphasis on acorns and increased use of mortars and pestles, as well as “a well-developed bone industry, distinctive diagonal flaking of large concave-base points, and certain forms of *Olivella* and *Haliotis* ... beads and ornaments.”² Mortuary patterns are more diverse than in the Windmill Pattern, and included both inhumation and a few cremations. Grave goods point to some social status differentiation.

The more recent Augustine Pattern is typified by intensified subsistence regimes, including hunting, gathering, and fishing, associated with greatly increased populations and extensive exchange networks. Social stratification, accompanied by “elaborate ceremonialism,” cremation of high status individuals, and grave good burning, was well developed. The use of the bow and arrow, manufacture of coiled baskets, and shaped mortars and pestles were important technological innovations. This pattern may have begun as early as the first century A.D.³

It appears that sedentary village life in interior Contra Costa County began between 2500 B.C. and A.D. 1 and that an increasingly complex social organization gradually emerged, including an “evolution from an egalitarian society... to a system of social ranking based upon ascribed status.”⁴ A complicated picture has emerged of cultural expansion and replacement of populations over the millennia, culminating in the expansion of Bay Miwok populations into the west delta region around 900-1000 A.D.⁵

² Moratto, Michael J., *California Archaeology*, 1984.

³ Moratto, Michael J., *California Archaeology*, 1984.

⁴ Moratto, Michael J., *California Archaeology*, 1984.

⁵ Bennyhoff, James A., *Variation with the Meganos Culture*. In *Toward a New Taxonomic Framework for Central California Archaeology*. 1994.

The most extensive and significant excavations in east Contra Costa County took place in the 1980s and 1990s as a result of the development of the Vasco and Kellogg Reservoirs a few miles south of the project area.⁶ Radiocarbon dates from archaeological site Ca-CCo-696 indicate that the Kellogg Creek area was occupied by at least 9800 years ago, and perhaps before, by Paleoindians. Under three meters of deposit (with one meter of sterile earth above it), a paleosol, or ancient buried soil horizon, was found that contained large obsidian spear or dart points and chipped and ground tools. Another paleosol, dated to 3000-2000 years ago, was found in the same site under a meter of soil. It contained 170 human graves, as well as hearths, possible house floors, grinding and hunting tools, and ceremonial objects. Although human activity might have taken place between these two episodes of human use, there were intervening periods of climatic instability and any site evidence might have been swept away.

More recent excavations in 2005 and 2006 at Ca-CCo-548, near the John Marsh House on Marsh Creek to the west of Brentwood and Byron, have yielded cultural evidence from a large village site and a major prehistoric cemetery. Almost 500 burials and numerous associated artifacts have been found. Dating for this site is incomplete, but probably ranges from between 6000-7000 years before present to about 1500 years before present. The site contains major Windmill and Berkeley components.⁷

Ethnography. Early publications dealing with the distribution of linguistic groups recognized three major groups in the region: Eastern Miwok (Bay Miwok and Plains Miwok), Costanoan/Ohlone, and Northern Valley Yokuts. The northern part of the project area, which includes Pittsburg and Antioch was within the territory of Bay Miwok groups, including the Ompin and Julpun groups.⁸

The Miwok were successful intensive food collectors and hunters who utilized a wide range of resources in a very favorable environment. Those populations living adjacent to the great bays and waterways of the region relied heavily on shellfish and aquatic animals for food. In the interior, plant foods in plentiful variety were gathered on a seasonal basis, with acorns the most important vegetal staple, since they could be stored in great quantity. Deer, elk, and antelope were the major game hunted, while rabbits and other small animals, game birds, waterfowl, and fish were also important. Stone, bone, and shell tools and ornaments were manufactured and the fiber crafts, especially basketry, were well developed. For the native people of east Contra Costa County, the landscape itself was sacred. A number of groups from as far away as the Sierra Nevada revered Mount Diablo as a place to pray and hold ceremonies, and the mountain figured in a number of world creation myths.

⁶ Bramlette, Alan G. et al., *Archaeological Resources Inventory for Los Vaqueros Water Conveyance Alignments, Contra Costa County, California*. 1991; Ziesing, Grace, ed., *From Rancho to Reservoir: History and Archaeology of the Los Vaqueros Watershed, California*, 1997.

⁷ Wiberg, Randy, archaeologist, telephone communication, 2006.

⁸ Milliken, Randall, *Ethnogeography of the Los Vaqueros Region*. In *Native American History Studies for the Los Vaqueros Project: A Synthesis*, 1997.

Ethnohistory. Establishment of Spanish missions in the San Francisco Bay Area, beginning with Mission San Francisco in 1776, had an immediate impact on native peoples. Because of their relative distance from the missions, people in the project area were somewhat protected from missionization until the second or third decade of the 19th century. By 1812, most of the project area was probably devoid of permanent inhabitants.⁹ After secularization of the missions in the 1830s, some natives went to work on nearby ranchos, perhaps gravitating to home lands, but little information is available about this period.

The Gold Rush of 1848 brought a huge influx of Americans, as well as other nationalities, resulting in the end of the Bay and Valley native populations. Little is known about Native Americans in Contra Costa County during the American period, although at least one report confirms that there were still some ex-Mission Indians living in the east county in the 1850s and 1860s.¹⁰ Whether any of these were descendants of the Ompin or Julpun Bay Miwok is unknown.

History. Transportation and agriculture have been central to the project area's history for over 150 years, with sporadic industrial and ongoing suburban developments becoming important in and near the project area in more recent times.

From the days of the earliest European explorers in the 1770s, the project area and environs have been a key link in a regional transportation network tying the cities along San Francisco Bay to the interior hinterlands to the east. The area's proximity to San Francisco, the largest population center of the western United States during the second half of the 19th century, was an important factor in regional development, as was the fact that two large Mexican era land grants occupied key parts of east Contra Costa County. Their existence limited the number of small agricultural landholdings that family farmers could occupy, creating over time a complex system of a few very powerful large owners, some medium and small owners and many sharecroppers, renters and waged farm laborers.

Early Settlement, 1830s–1850s. The project area was on the fringes of settlement during California's colonial era. Lying to the east of Mount Diablo, miles from the mission, pueblo and presidio settlements of the Spanish, Mexicans, and their Indian converts, the project area was an isolated region controlled by Native Californians. Parts of the project area are in the northernmost land grant, Rancho Los Medanos, which ran from the San Joaquin riverbank south to the hills leading to Mount Diablo. The land grant was sold in 1849 to Colonel Stevenson, a New Yorker who named his ranch New York Ranch and laid out on part of it the site of a city that he ambitiously called New York of the Pacific. A nearby river landing, called Pittsburg Landing, became a major shipping point. By 1911 New York of the Pacific had officially become the City of Pittsburg.¹¹

⁹ Milliken, Randall, *The Mission and Rancho Eras, 1806-1845*. In *Native American History Studies for the Los Vaqueros Project: A Synthesis*, 1997.

¹⁰ Loud, L.L., Field Notes, CCo-241 (Nelson Mound No. 250), n.d.

¹¹ Hoover, Mildred B. et al., *Historic Spots in California*, 1990.

Antioch, the other major town in the project area, was originally called Smith's Landing. It was settled in 1849 by two brothers, William and Joseph Smith, who bought land from John Marsh, the earliest American settler in the region. A group of New Englanders soon arrived there and a new town, called Antioch, was platted on the land in 1851. Sheep raising was an important early enterprise for Antioch, but more importantly, the town became an important agricultural shipping and support center for east county farmers who worked the land west, east, and south of Antioch. The town had grain warehouses, a farm equipment agency, as well as other merchandise stores and services by the mid-1860s.¹²

Coal Mining and Grain Farming, 1850s–1890s. The end of the Gold Rush saw the real beginnings of industrialization in California, a process centered in San Francisco during this era. When deposits of soft coal were discovered in the foothills of Mount Diablo, a few miles to the south of the project area, their development became imperative for San Francisco industry. Exploitation of these coal seams, located in an approximately 6-mile long belt 4 to 5 miles south of the river front, began in 1859 and by the 1860s small towns had begun to grow at convenient points adjacent to the best coal deposits. During the next several decades, the mining towns of Nortonville, Somersville, Stewartville, Judsonville and West Hartley prospered, then disappeared.

In the late 1860s, the Black Diamond Coal Mining Company railroad was constructed from the mines across Los Medanos Rancho to the river at the location of today's City of Pittsburg. Eventually three railroads were built from the mines to the waterfront. One of these routes is still called Railroad Avenue today. The last of these three coal transportation railroads, the Empire Railroad, was located farthest to the east. It was built from the coal towns of Stewartville and Judsonville to Antioch in 1877–1878. This railroad was about 5.5 miles long connecting the Empire Coal Mine to tide-water at Antioch, where the coal was loaded on barges. The location where it crossed the Southern Pacific Railroad became known as "Empire," and was later developed as a brick and pottery manufacturing center.¹³

Another major economic mainstay of east Contra Costa County during the 1860s and 1870s was grain (wheat and barley) farming. Antioch and New York of the Pacific were important shipping points. This pattern profoundly changed in 1876-1878 when the Southern Pacific's "San Pedro and Tulare Railroad" was constructed through the newly prosperous agricultural region.

Railroads, Oil, and the Early Industrial Revolution, 1870s–1900s. Prior to 1878, wagons, horses, stage lines, buckboards and riverboats were the key means of transport. After that, railroads took over. The Southern Pacific Railroad became the primary mode of grain shipping. The arrival of the Southern Pacific Railroad also resulted in the establishment of a

¹² Emanuels, George, *California's Contra Costa County: An Illustrated History*, 1986, Hoover, Mildred B. et al., *Historic Spots in California*, 1990.

¹³ California State Mining Bureau, *Seventh Annual Report of the State Mineralogist*, 1888; *Twelfth Annual Report of the State Mineralogist*, 1894; Hoover, Mildred B. et al., *Historic Spots in California*, 1966; Hohlmayer, Earl J., *Looking Back: Tales of Old Antioch and Other Places*, 1991.

number of small stations near route: Los Medanos, Prince, Antioch, Jersey, Newlove, and Neroly. A number of these stopping places typically had wood frame buildings for passengers and freight along with a loading platform.¹⁴

The arrival of the railroad also marked the development of an oil transportation corridor along the railroad's route. During the first years of the 20th century, the California oil industry was growing rapidly, and the Standard Oil Company built a major refinery at Richmond in 1901-1902. In order to transport crude oil to this refinery from the newly discovered Kern County oil fields, the Standard Oil Company built an eight-inch pipeline approximately 280 miles along the Southern Pacific right-of-way. A large oil pumping facility was established at the Los Medanos Station on the Southern Pacific line near the project area.

The 20th Century and the Arrival of New Industries and Big Investors. During the early years of the 20th century, the project area became attractive to big investors as a location for industrial and agro-industrial development. San Francisco businessman C.A. Hooper purchased the giant Rancho Los Medanos in 1903. This began a period of intense, Hooper-sponsored industrialization in and around Pittsburg and Antioch. Hooper's large industrial establishments attracted other businesses, including oil refineries and a PG&E steam electric plant. As a result, the area was transformed into a major industrial center. Largely on the strength of the Hooper-established facilities on the Los Medanos grant, by 1939 Contra Costa County was the fourth largest manufacturing center in California, behind only Los Angeles, San Francisco, and Alameda counties.¹⁵

Recent Times: State Route 4 and Suburban Growth. Following World War II, the project area has been characterized by large-scale suburban growth, spurred by the advent of mass automobile ownership and the construction of new highways, such as Highway 24 and SR 4, which linked Alameda and Contra Costa Counties. Use of these highways greatly increased following the opening of the Caldecott Tunnel in the 1930s and the World War II economic boom after 1945.

Antioch has been among California's fastest growing cities since the 1940s, more than doubling its population between 1940 and 1950. A mainly blue-collar town in 1950, Antioch increased its numbers by more than 250 percent between 1950 and 1980, with concomitant growth of subdivisions by the 1950s. By 2000 its population had almost doubled again and had become much more diverse in terms of race and ethnicity.¹⁶

¹⁴ Signor, John R., *Southern Pacific's Western Division*, 2003.

¹⁵ Hohlmayer, Earl J., *Looking Back: Tales of Old Antioch and Other Places*, 1991; U.S. Bureau of the Census, *Census of Manufacturers, 1940, 1942*.

¹⁶ Heidecker, Kelly R., *Archaeological Survey Report for the State Route 4 (East) Widening Project: Loveridge Road to State Route 160*, 2004; Moffat, Riley, *Population History of California 1850-1980*, 1982; U.S. Bureau of the Census, *Census of Population 1950, 1952*; www. epodunk.com.

Cultural Resource Surveys

An Area of Potential Effect (APE) for cultural resources has been delineated to encompass the areas of direct impact, including the project corridor and adjacent eBART development, such as proposed stations, parking lots, and construction staging areas. The purpose of the APE is to define the specific study area for cultural resources and to identify listed or potential historic and archaeological resources that could be affected by the Proposed Project.

Previous Cultural Resources Surveys. Information on previous cultural resource surveys and recorded sites within one-quarter mile of the project APE was obtained through a records search at the Northwest Information Center, California Historic Resources Information System, Sonoma State University, in October 2005 with an update in January 2008. Several relatively new reports were also obtained directly from other agencies. In addition, a perusal was made of the National Register of Historic Places, the California Inventory of Historic Resources, and the Contra Costa County Historic Resources Inventory.

No sites currently listed on the National Register of Historic Places,¹⁷ the California Register, the Contra Costa County Historic Resources Inventory (1989), or the list of California Historical Landmarks (1990) are within the project area. A summary of the prior investigations is provided here and more detailed information can be reviewed in the Archaeological Survey Report prepared for this EIR by Archaeological/Historical Consultants. This summary divides the project corridor into three subareas: Bay Point to Loveridge Road, Loveridge Road to west of Laurel Road, and the Hillcrest Avenue Station area.

*Bay Point to Loveridge Road.*¹⁸ No prehistoric or historic archaeological sites have been found in this portion of the project area. Twelve historic buildings were recorded, only one of which (P-07-002499) is within the present APE; the others are adjacent. The 12 buildings are:

- **P-07-001936.** This is a commercial structure, built in 1952, which housed a pizzeria restaurant at the time of recordation. It is located at the corner of Railroad Avenue and California Street and is immediately north of SR 4. Because of its lack of historical significance and integrity, it was believed to be ineligible for the National Register.¹⁹
- **P-07-002499.** This resource includes a concrete bunker, built between 1942 and 1945, and associated with Camp Stoneman, a military base “which played a role in the staging of troops during World War II.”²⁰ It was probably associated with ammunition storage. The bunker is located in a vacant lot just west of the northwest corner of

¹⁷ National Register Information System, 01/08/08, <http://www.nr.nps.gov>.

¹⁸ USGS 7. 5' Honker Bay and Antioch North Quadrangles.

¹⁹ Calpo, Janice, *Primary Record and Building, Structure, and Object Record, P-07-001936*, 2000.

²⁰ Calpo, Janice, *Primary Record and Building, Structure, and Object Record, P-07-002499*, 2000.

Harbor and Bliss Avenues and is currently within the SR 4 right-of-way. This building is not believed to be eligible for the National Register for lack of significance.²¹

- **P-07-2501, -2502, -2503, -2504, 2505, -2506, -2507, -2508, -2509.** These are nine historic single-story residential structures located just to the north of SR 4 and west of Railroad Avenue. These date to 1952/1953. None are believed to be eligible for the National Register.²²
- **P-07-002510.** This is a California National Guard Armory, constructed in 1949. It is located immediately north of SR 4, approximately one-quarter mile west of Railroad Avenue. It was initially thought to be eligible for the National Register²³ but a later review by a federal agency determined it ineligible.²⁴

In addition to the above 12 buildings, several historic structures were also recorded in the SR 4 right-of-way (Table 3.6-1). These include the following:

- **P-07-2498 and P-07-2500.** These are two concrete highway overpass bridges, constructed in 1953. Caltrans Bridge #28-0094 at Railroad Avenue and Caltrans Bridge #28-0095 at Harbor Street were judged not eligible for the National Register because of a lack of historical or architectural significance.²⁵
- **P-07-002695, the Contra Costa Canal.** The Contra Costa Canal is believed to be eligible for the National Register of Historic Places (NRHP) and, consequently, the California Register of Historic Resources (CRHR) because of its association with the construction and operation of the Central Valley project and its contribution to the economic development of eastern Contra Costa County (see Figure 3.6-1).²⁶ Based on available documentation, the Contra Costa Canal is the only structure eligible for national and state listing in this segment.

²¹ Calpo, Janice, *Primary Record and Building, Structure, and Object Record, P-07-002499*, 2000; Bunse, Meta and Bryan Larson, *Primary Record and Building, Structure, Object Record for P-07-002499*, 2002.

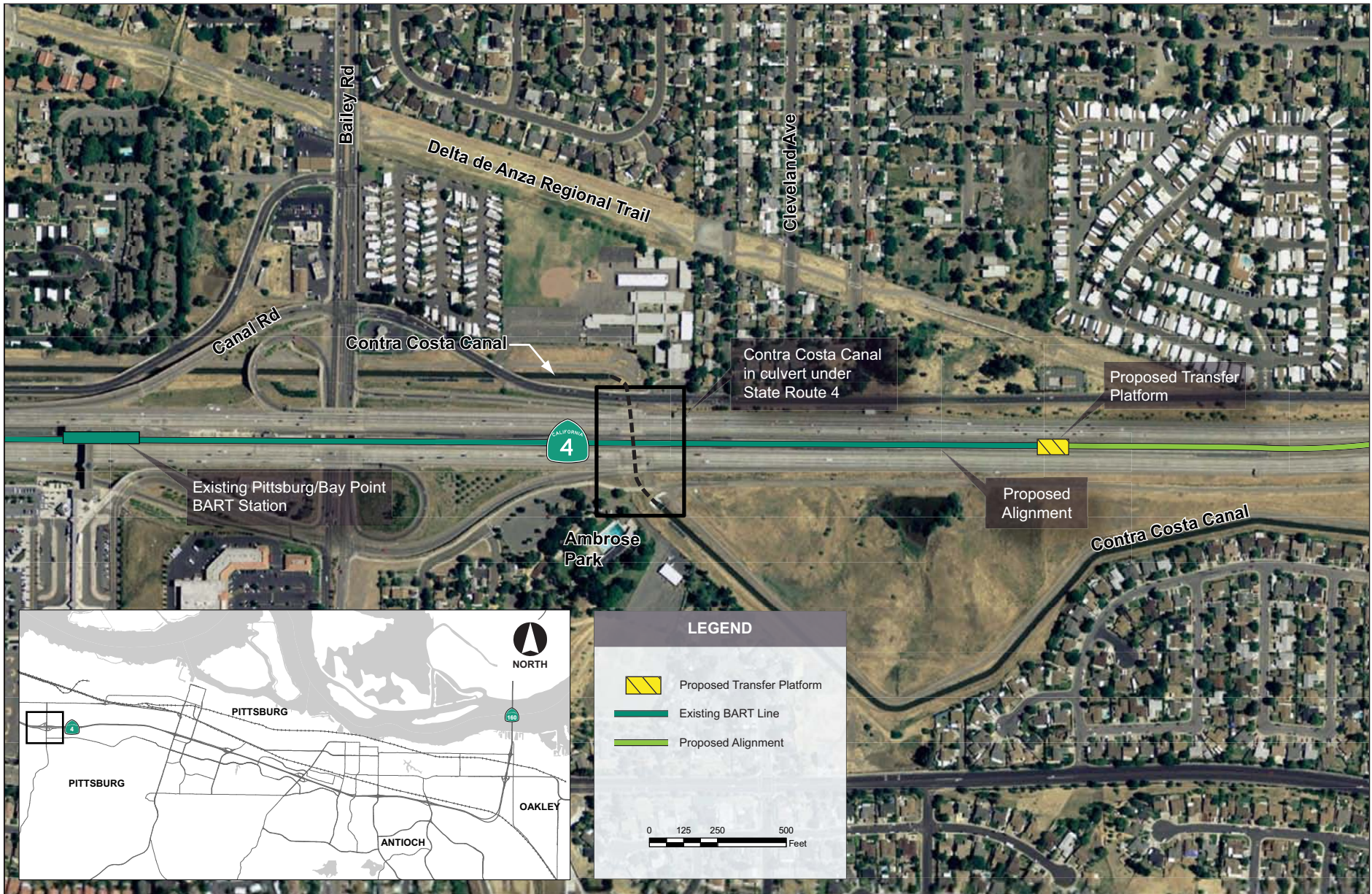
²² Calpo, Janice, *Primary Record and Building, Structure, and Object Record, P-07-002501*, 2000; *Primary Record and Building, Structure, and Object Record, P-07-002502*, 2000; *Primary Record and Building, Structure, and Object Record, P-07-002503*, 2000; *Primary Record and Building, Structure, and Object Record, P-07-002504*, 2000; *Primary Record and Building, Structure, and Object Record, P-07-002505*, 2000; *Primary Record and Building, Structure, and Object Record, P-07-002506*, 2000; *Primary Record and Building, Structure, and Object Record, P-07-002507*, 2000; *Primary Record and Building, Structure, and Object Record, P-07-002508*, 2000; *Primary Record and Building, Structure, and Object Record, P-07-002509*, 2000.

²³ Lassel, S. *Primary Record and Building, Structure, and Object Record, P-07-002510*, 1999.

²⁴ California Office of Historic Preservation, *Directory of Properties in the Historic Property Data File for Contra Costa County*, August 8, 2005.

²⁵ Calpo, Janice, *Primary Record and Building, Structure, and Object Record, P-07-002498*, 2000; *Primary Record and Building, Structure, and Object Record, P-07-002500*, 2000; California Office of Historic Preservation, *Directory of Properties in the Historic Property Data File for Contra Costa County*, January 16, 2003.

²⁶ Herbert, Rand, *Primary Record and Feature Record, P-07-002695*, 2002.



Source: PBS&J, 2008.

PROPOSED PROJECT AND HISTORIC CONTRA COSTA CANAL
FIGURE 3.6-1

**Table 3.6-1
Structures Built In or Before 1957 Over or Under SR 4 from Bay Point to Loveridge Road**

APN	Feature	Location	CRHR or NRHP Eligibility
Bridge #28-0094	Bridge Overpass	Railroad Avenue at SR 4	Not eligible
Bridge #28-0095	Bridge Overpass	Harbor Street at SR 4	Not eligible
N/A	Contra Costa Canal	Undercrossing east of Bailey Road	Eligible

Source: Compiled from cultural resources records (DPR 523 forms) contained in the Cultural Resources Technical Report.

*Loveridge Road to West of Laurel Road.*²⁷ No prehistoric archaeological sites have been recorded within this project segment. One historic archaeological site was recorded and is described below.

- **P-07-002876.** This is an historic-era debris scatter, containing glass and ceramic fragments and dating from the late 19th century to the modern period. Found during the SR 4 Loveridge to SR 160 survey, it was located south of Drake Street between G and F Streets in Antioch, and between the southern Drake Street boundary and the northern boundary of SR 4. This site was probably domestic refuse associated with nearby residences removed prior to initial construction of SR 4. Because of a lack of integrity and information potential, it was believed not eligible for the National Register or California Register.²⁸ It is likely that much of this scatter was removed during the recent SR 4 widening.

One historic linear feature was recorded and is described below.

- **P-07-00813, Ca-CCo-733H (P-07-002568, Ca-CCo-749H).**²⁹ This built structure is a segment of the historic Union Pacific/Southern Pacific Railroad right-of-way, located between west Pittsburg and Antioch. Although the railroad was clearly of some historic significance, it was stated that “[m]any years of upgrades, changes, and continual maintenance have obliterated all evidence of the original railroad.”³⁰ No other formal evaluation of the railroad for its eligibility for the National Register or California register was made. A different segment of the railroad abuts the Proposed Project APE, on land proposed for the Hillcrest Avenue Station east of Hillcrest Avenue (see below).

²⁷ USGS 7. 5' Antioch North, Antioch South, and Brentwood Quadrangles.

²⁸ Heidecker, Kelly R., *Archaeological Survey Report for the State Route 4 (East) Widening Project: Loveridge Road to State Route 160*, 2004; Hilton, Steven and Kelly R. Heidecker, *Primary Record P-07-002876*, 2003.

²⁹ Primary number P-07-002568 and trinomial Ca-CCo-749H were recently removed from use by the California Historic Resources Information System, Sonoma State University, and this segment of the railroad was combined with Primary Number P-07-00813, Ca-CCo-733H, which was used in an earlier recordation of yet another segment of the railroad.

³⁰ Jones & Stokes Associates, *Cultural Resources Inventory Report for the Williams Communications, Inc. Fiber Optic Cable System Installation Project, Pittsburg to Sacramento, California*, 1999.

During the cultural resources survey for the SR 4 widening project between Loveridge Road and SR 160, ten structures older than 50 years were identified in the APE and included bridges and culverts, road undercrossing and overcrossings, a power line, and a railroad spur (see Table 3.6-2). All of these properties were evaluated, but none were believed eligible for the California or National Register.³¹

Table 3.6-2
Structures Built In or Before 1957 Over, Under, or Immediately Adjacent
to SR 4 from Loveridge to SR 160

APN	Feature	Location	CRHR or NRHP Eligibility
N/A	Camp Stoneman Railroad Spur	At Loveridge	Not eligible
N/A	Culvert	Kirker Creek, SR 4	Not eligible
Bridge 28-0264, 28-0108, 28-0096, 28-096W	Road & Railroad Bridges	Loveridge Road, RR spur bridges, pumphouse, SR 4	Not eligible
N/A	Power Lines	North side of SR 4	Not eligible
Bridge 28-0105	Utilities Undercrossing	West of Century Boulevard under SR 4	Not eligible
Bridge 28-0099 L/R	Traffic Undercrossing	Century Boulevard under SR 4	Not eligible
N/A	Los Medanos Wasteway, Culvert	Under SR 4	Not eligible
Bridge 28-0265K	Culvert	Contra Loma Boulevard under SR 4	Not eligible
Bridge 28-0098L/R	Traffic Undercrossing	Contra Loma Boulevard under SR 4	Not eligible
Bridge 28-0097	Traffic Overcrossing	G Street over SR 4	Not eligible

Source: Adapted from Bunse, Meta, *Historical Resources Evaluation Report, State Route 4 (East) Widening Project: Loveridge Road to State Route 160*, Appendix A, Table A2, 2004.

*Hillcrest Avenue Station Area.*³² In the area east of Hillcrest Avenue proposed for the Hillcrest Avenue Station, two historic buildings are in the APE. These are:

- **P-07-002882.** A house at 2502 Willow Avenue.³³
- **P-07-002883.** A house at the end of Willow Avenue (APN 052-030-105) and also at the end of Willow Avenue but with no address (probably 2500 Willow Avenue; APN 052-030-103).³⁴

³¹ Bunse, Meta, *Historical Resources Evaluation Report, State Route 4 (East) Widening Project: Loveridge Road to State Route 160*, 2004.

³² USGS 7.5' Antioch South Quadrangle.

³³ Larson, Bryan and Meta Bunse, *Primary Record and Building, Structure, and Object Record, 2502 Willow Avenue*, 2002.

³⁴ Larson, Bryan and Meta Bunse, *Primary Record and Building, Structure, and Object Record, Willow Avenue, APN 052-030-103*, 2002.

Both buildings were recorded in 2002 during the cultural resources survey for the SR 4 widening project. Neither of these buildings was believed eligible for the California or National Registers because of a lack of importance and, in the case of P-07-002883, because of a lack of integrity.

A 2007 field inspection of the area between Oakley Road and SR 4 and Hillcrest Avenue and SR 160 was conducted for the County Crossings Project.³⁵ This survey included a portion of the Hillcrest Avenue Station area of the Proposed Project. A brief report noted several features that were believed to be historic, but site records were not prepared. Two of these features are within or immediately adjacent to the present project area, a house at 2500 Willow Avenue and a “foundry.” The house, at the end of Willow Avenue, was recorded as P-07-002883, as noted above.³⁶ The “foundry” was described as a complex of three modern (post-1960s) buildings, two of which were thought to have been built on earlier foundations.³⁷ This structural complex is further discussed below.

Cultural Resources Survey for the Proposed Project. All of the SR 4 alignment through the project area has been previously surveyed, sometimes several times, as described in the previous review of cultural surveys. As a result, no further on-foot survey within the SR 4 right-of-way was deemed necessary or practical. The alignment of the Union Pacific right-of-way (UP ROW) was surveyed on-foot for a previous planning phase of this project.³⁸ Only the proposed station areas, parking lots, storage/maintenance yards, and construction staging areas comprised large blocks of land for additional inspection. They were intensively inspected on foot by a team of two or three archaeologists. Survey transects were inspected in intervals of 5 to 15 meters apart, depending on terrain and vegetation.

The project area abuts the UP ROW east of Hillcrest Avenue. A formal recordation and evaluation of the railroad (now the Union Pacific’s Mococo Line) from Loveridge Avenue to the Town of Byron was made in 2006-2007.³⁹ The railroad line (Primary Number P-07-000813, Ca-CC0-733H) was originally constructed between 1876 and 1878 by the Southern Pacific Railroad under the name San Pablo & Tulare Railroad Company. The railroad was built to capture the agricultural freight and passenger business of the region and, in doing so, was an important factor in the development of east Contra Costa County. Although ties and rails have undoubtedly been replaced and standard maintenance work has been conducted over

³⁵ Holman, Miley, *Letter Report to Dan Revay, FPK Inc., Re: Cultural Resources Field Inspection of the County Crossings Project, Antioch, Contra Costa County, California*, 2007.

³⁶ Larson, Bryan and Meta Bunse, *Primary Record and Building, Structure, and Object Record, Willow Avenue, APN 052-030-013*, 2002.

³⁷ Holman, Miley, *Letter Report to Dan Revay, FPK Inc., Re: Cultural Resources Field Inspection of the County Crossings Project, Antioch, Contra Costa County, California*, 2007.

³⁸ Baker, Suzanne and Laurence H. Shoup, *eBART Project EIR, Archaeological Survey Report: eBART Project, Contra Costa County, California*, September 2008.

³⁹ Baker, Suzanne, *Primary Record and Linear Feature Record, P-07-000813*, 2006; Shoup, Laurence H., *Historic Resources Evaluation Report: San Pablo & Tulare Railroad/Central Pacific Railroad (Southern Pacific Railroad/Union Pacific Railroad), eBart Project, Contra Costa County, California*, 2007.

the years, the railroad alignment has not changed. A number of historic (over 50 years old) features of the line, including trestles and bridges, were identified and recorded during the present survey. Nevertheless, the railroad alignment is believed to be not eligible for the National Register or California Register because of a loss of integrity. Although some of the bridges or trestles have good integrity, they are believed to be not eligible on their own for the National Register or California Register because they lack historic importance.

The Southern Pacific Railroad Station of Newlove once existed in or near the Hillcrest Avenue Station area east of Willow Avenue. Newlove stopped functioning as a railroad station after at least 1959, but the exact date of cessation is unknown. Maps and aerial photographs dating between 1913 and 2000 show that Newlove had probably been a refueling station that over the years had three to seven buildings. Only one original structure remains at the site. At this location, just south of the UP ROW, there currently exists a complex of industrial buildings reported as a “foundry.”⁴⁰ This site was a metals/warehouse/recycling plant and is immediately south of and adjacent to the possible location of the Northside East Station option. Aerial photographs of the metals warehouse/recycling plant show seven or eight closely configured structures in approximately the same locations as the earlier buildings of the Newlove Station. These structures were added between 1978 and 2000.

An assessment of the remaining structure was completed to determine its eligibility for the California and National Register. Although the interior and foundation of the remaining Newlove structure may be original, it was determined that the building lacked integrity because the original exterior building materials have been replaced and all other original structures have been removed.⁴¹ As a result, this building is believed to be ineligible for the National Register or California Register. An archaeological survey was completed for the site and no archaeological resources were identified.⁴²

A complete archaeological survey of four parcels—APN 052-030-013, APN 052-030-015, APN 052-030-016, and APN 052-052-006—in the Hillcrest Avenue Station area could not be conducted because the archaeological team could not access the properties in spite of requests for right of entry. The four parcels that could not be evaluated would potentially be occupied by the maintenance annex associated with the Median Station; parking, maintenance yard, and tailtracks associated with the Northside West Station and Median Station East options; and also track work and parking associated with the Northside East Station option.

⁴⁰ Holman, Miley, *Letter Report to Dan Revay, FPK Inc., Re: Cultural Resources Field Inspection of the County Crossings Project, Antioch, Contra Costa County, California*, 2007.

⁴¹ Baker, S. and L. H. Shoup, *eBART Transit Corridor EIR, Archaeological Survey Report: eBART Project, Contra Costa County, California*, September 2008.

⁴² Baker, S. and L. H. Shoup, *eBART Transit Corridor EIR, Archaeological Survey Report: eBART Project, Contra Costa County, California*, September 2008.

Applicable Policies and Regulations

California Environmental Quality Act. As defined by Section 15064.5(a)(3)(A-D) of the State CEQA Guidelines, a resource shall be considered historically significant if the resource meets the criteria for listing on the CRHR, that is, if the resource meets the following criteria:

- A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- B. Is associated with the lives of persons important in our past;
- C. Embodies 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 values; or
- D. Has yielded, or may be likely to yield, information important in prehistory or history.

Criterion D is usually applied only to archaeological sites, rather than in the evaluation of most historic architectural structures, and is not employed for evaluating historic resources in this analysis.

The CRHR and many local preservation ordinances have employed the criteria for eligibility to the NRHP as a model, since the *National Historic Preservation Act of 1966* provides the highest standard for evaluating the significance of historical resources. A resource that meets the NHRP criteria is clearly significant. In addition, a resource that does not meet the NHRP standards may still be considered historically significant at a local or state level. CEQA specifically states that a resource need not be listed on any register to be found historically significant.⁴³

Section 15064.5(c) of the State CEQA Guidelines applies to the analysis of effects on archaeological sites. When a project will affect an archaeological site, a lead agency must determine whether the site is a historic resource, and therefore subject to the NRHP criteria listed above (particularly Criterion D), or whether the site is a unique archaeological resource, as defined in Section 21083.2 of CEQA, and whether the provisions of that section for mitigation apply. Section 21083.2(g) of CEQA 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:

- A. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- B. Has a special and particular quality such as being the oldest of its type or the best available example of its type.

⁴³ California, *Public Resources Code Section 21084.1*.

- C. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If a lead agency determines that an archaeological site is neither historic nor unique, Section 21083.2(h) of CEQA states that the resource requires no further consideration, other than recordation.

Regulations Concerning the Discovery of Human Remains. The California Health and Safety Code provides that six or more human burials at one location constitute a cemetery (Section 8100), and that disturbance of Native American cemeteries is a felony (Section 7052). Section 7050.5 of the Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until a coroner can determine whether the remains are Native American. If the remains are determined to be Native American, the coroner must contact the NAHC, which must then attempt to notify any descendants. Arrangements for appropriate treatment of the remains must be made in consultation with descendants.

Impact Assessment and Mitigation Measures

Standards of Significance

This impact analysis uses the thresholds of significance from Section 15064.5(a)(3)(A-D) of the State CEQA Guidelines, which, as described above, incorporates the National Historic Preservation Act's criteria for determining the significance and integrity of a historic resource (i.e., Section 106). In determining impacts to historic resources under CEQA, an impact analysis must address two issues: whether a significant resource may be affected by the Proposed Project, and whether the effects constitute a substantial adverse change to the extent that the significance of the resource is materially impaired or lost.

If a significant historic resource exists (i.e., significant historical or archaeological resources), the State CEQA Guidelines define a significant impact as effects that would:

- Demolish or materially alter in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources (CEQA Guidelines, Section 15064.5[b][2][A]);
- Demolish or materially alter in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to local ordinance or resolution (PRC Section 5020.1[k]), or its identification in an historical resources survey meeting the requirements of PRC Section 5024.1(g) or (CEQA Guidelines Section 15064.5[b][2][B]);
- Demolish or materially alter in an adverse manner those physical characteristics of a resource that convey its historical significance and that justify its eligibility for

inclusion on the California Register as determined by a lead agency for purposes of CEQA (CEQA Guidelines Section 15064.5[b] [2] [C]); or

- Disturb any human remains, including those interred outside formal cemeteries.

In order to classify impacts, a level of significance is determined and reported in the italicized summary impact statement that precedes each impact discussion. Conclusions of significance are defined as follows: significant (S), potentially significant (PS), less than significant (LTS), no impact (NI), and beneficial (B). If the mitigation measures would not diminish potentially significant or significant impacts to a less-than-significant level, the impacts are classified as “significant and unavoidable effects” (SU). For this section, “CR” refers to Cultural Resources.

Project-Specific Environmental Analysis

Operational Impacts

Impact CR-1 The Contra Costa Canal, the only historic resource identified within the APE, would not be adversely affected by the Proposed Project. (NI)

The Contra Costa Canal is potentially eligible for the NRHP and the CRHR and, thus, is a significant resource for the purposes of CEQA. The canal is a 48-mile-long facility that starts at Rock Slough in east Contra Costa County and ends at the Terminal Reservoir in Martinez. In the vicinity of the project area, the Contra Costa Canal is channelized. The canal runs parallel to and north of SR 4, crosses under SR 4 east of Bailey Road, and then veers to the southeast south of SR 4 (see Figure 3.6-1). Because the Proposed Project would operate in the median of SR 4, it would not cause physical destruction, relocation, or alteration of the historic canal structure, and it would, therefore, not impair the structure’s ability to convey historical significance. Accordingly, no impacts on the Contra Costa Canal are anticipated.

Construction Impacts

Impact CR-2 Construction of the Proposed Project would have the potential for disturbance of previously unknown cultural deposits or human remains during ground-disturbing activities. (PS)

Construction of the Proposed Project would require excavation, grading, fill placement, and other ground-disturbing activities in the SR 4 median and at station, parking, maintenance facility, and ancillary facility (e.g., train control huts and employee parking near the transfer platform) locations, as well as construction staging locations. Archival research of the project area’s history indicates that previously unidentified buried archaeological resources, both prehistoric and historic, could be present in the project area. As a result,

construction for components of the Proposed Project, particularly north of SR 4 in the Hillcrest Avenue Station area, has the potential to damage or destroy undocumented archaeological resources, possibly including human remains. This disturbance would represent a potentially significant impact.

MITIGATION MEASURES. The following mitigation measures would reduce the potentially significant impact on unknown cultural deposits or human remains to less than significant. (LTS)

CR-2.1 Follow protocol and procedures if archaeological resources are encountered. BART shall incorporate the following provisions into grading and construction contracts for portions of the Proposed Project outside the SR 4 median to address the potential to encounter currently unknown cultural resources:

- a) Prior to the initiation of construction or ground-disturbing activities, BART will ensure that all construction personnel involved in ground-disturbing activities shall receive environmental training from a qualified archaeologist that will include discussion of what constitutes cultural resources, the possibility of buried cultural resources, how to recognize such possible buried cultural resources, as well as the procedure to follow if such cultural resources are encountered.
- b) If unknown potential historical or unique archaeological resources are discovered during construction of the Proposed Project, BART will ensure that all work in the immediate vicinity shall be suspended and alteration of the materials and their context shall be avoided pending site investigation by a qualified archaeologist. Work shall be suspended within approximately 50 feet from the discovery or within an appropriate distance to be determined by the archaeologist. Construction work shall not commence again until the archaeologist has been given an opportunity to examine the findings, assess their significance, and offer proposals for any additional exploratory measures deemed necessary for the further evaluation of and/or mitigation of adverse impacts to any potential historical resources or unique archaeological resources that have been encountered.
- c) If the find is determined to be a historical or unique archaeological resource, and if avoidance of the resource would not be feasible, the archaeologist shall prepare a plan for the methodical excavation of those portions of the site that would be adversely affected. The plan shall be designed to result in the

extraction of sufficient volumes of non-redundant archaeological data to address important regional research considerations. The work shall be performed by a qualified archaeological consulting firm, and shall result in detailed technical reports. Such reports shall be submitted to the California Historical Resources Information System. Construction in the vicinity of the find shall be accomplished in accordance with current professional standards and shall not recommence until this work is completed.

- d) BART shall ensure that project personnel involved in ground-disturbing activities are informed that collecting significant historical or unique archaeological resources discovered during development of the project is prohibited by law. Prehistoric or Native American resources can include chert or obsidian flakes, projectile points, mortars and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources can include nails, bottles, ceramics or other items often found in refuse deposits and buried features, such as privy pits and foundations.

CR-2.2 Follow protocol and procedures if human remains are encountered.

If human remains are discovered, there shall be no further excavation or disturbance of the discovery site or any nearby area reasonably suspected to overlie adjacent human remains until BART has complied with the provisions of State CEQA Guidelines Section 15064.5(e). In general, these provisions require that the County Coroner be notified immediately. If the remains are found to be Native American, the County Coroner shall notify the Native American Heritage Commission within 24 hours. The most likely descendant of the deceased Native American shall be notified by the Commission and given the chance to make recommendations for the remains. If the Commission is unable to identify the most likely descendent, or if no recommendations are made within 24 hours, the remains may be re-interred with appropriate dignity elsewhere on the property in a location not subject to further subsurface disturbance. If recommendations are made and not accepted, the Native American Heritage Commission will mediate the issue.

Hillcrest Avenue Station Options Analysis

The operational and construction impacts of the Hillcrest Avenue Station options would be the same as described for the Proposed Project. The locations of the various station option components vary but there are no historic resources known in this area, and the likelihood of encountering unknown cultural deposits, including possibly human remains, is similar for the

different station options. Accordingly, the potential to disturb such resources would be similar for each of the Hillcrest Avenue Station options.

Cumulative Analysis

The regional prehistory, ethnography, and historic research conducted for the Proposed Project suggests that an area encompassing the cities of Pittsburg and Antioch, and watershed lands drained by waterways through these communities, share a common history and pattern of habitation and settlement. The geographic area within east Contra Costa County provides a context within which to examine potential cumulative cultural resources impacts that may result from the Proposed Project in combination with other reasonably foreseeable development as anticipated by the general plans for these communities, the Specific Plans that the cities of Pittsburg and Antioch are preparing around the proposed station areas, the SR 4 widening project between Loveridge Road and SR 160, and increased usage of the Mococo Line.

Impact CR-CU-3 The Proposed Project in combination with other foreseeable development could result in potentially significant cumulative impacts to archaeological resources, including possibly human remains. (PS)

As described under Impact CR-2, unknown and buried archaeological resources, both prehistoric and historic, may be present in the project area and in the vicinity of other proposed projects, such as the SR 4 widening project between Loveridge Road and SR 160, and residential and commercial projects (as projected by ABAG, the cities of Pittsburg and Antioch General Plans, and each city's Specific Plan around the Proposed Project stations). As a result, construction of the Proposed Project, in combination with other projects, has the potential to damage or destroy undocumented archaeological resources, possibly including human remains. Such remains can contain irreplaceable information of importance to both Native Americans and the scientific community. Human remains and certain artifactual items may also be of religious significance for Native Americans. In the last 50 years or more, many irreplaceable archaeological sites have been destroyed by development in Contra Costa County and surrounding regions, many without substantial documentation. As a result, development in east Contra Costa County would have a potentially significant cumulative effect on archaeological resources.

MITIGATION MEASURES. Mitigation Measures CR-2.1 and CR-2.2, which call for the adherence to standard procedures established to address encountering archaeological resources and human remains, respectively, would reduce the potentially significant impacts on cultural resources from the Proposed Project to less than significant. These same mitigation measures or equivalent measures are commonly incorporated into EIRs for development projects that have the potential to significantly affect cultural resources. Implementation of similar measures would therefore be expected of the other reasonably

foreseeable development that might encounter archaeological resources or human remains. As a result, the cultural resource impacts of these projects would be reduced to less than cumulatively considerable, and the cumulative impact would be mitigated to less than significant. (LTS)