

CALIFORNIA HIGH-SPEED TRAIN

Project Environmental Impact Report /
Environmental Impact Statement

DRAFT FINAL

Historic Property Survey Report

Merced to Fresno Section
Project EIR/EIS

February 2012



CALIFORNIA
High-Speed Rail Authority



U.S. Department of Transportation
Federal Railroad Administration



DRAFT FINAL
TECHNICAL REPORT

Merced to Fresno Section
Historic Property Survey Report

Prepared by:

California High-Speed Rail Authority and Federal Railroad Administration

February 2012

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List of Abbreviated Terms

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
APN	assessor parcel number
ASR	Archaeological Survey Report
AU	auger test unit
Authority	California High-Speed Rail Authority
BLM	Bureau of Land Management
BNSF	Burlington Northern Santa Fe Railway
Caltrans	California Department of Transportation
CASHPO	California State Historic Preservation Officer
CCIC	Central California Information Center
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CRHR	California Register of Historical Resources
DPR	Department of Parks and Recreation
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FOE	Findings of Effect
FRA	Federal Railroad Administration
GPS	global positioning system
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HASR	Historic Architectural Survey Report
HLRC	Historical Landmarks and Records Commission
HMF	heavy maintenance facility
HPSR	Historic Property Survey Report

HST	high-speed train
LOD	limits of disturbance
MOA	memorandum of agreement
mph	miles per hour
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHP	California State Office of Historic Preservation
PA	Programmatic Agreement
PG&E	Pacific Gas and Electric
QI	qualified investigator
SHPO	State Historic Preservation Office
SR	State Route
SSJVIC	Southern San Joaquin Valley Information Center
STP	shovel test probe
TCP	traditional cultural property
THPO	Tribal Historic Preservation Office
UPRR	Union Pacific Railroad

1.0 Project Description

The purpose of the Merced to Fresno Section of the HST Project is to implement the California HST System between Merced and Fresno, providing the public with electric-powered high-speed rail service that provides predictable and consistent travel times between major urban centers and connectivity to airports, mass transit systems, and the highway network in the south San Joaquin Valley, and to connect the northern and southern portions of the HST System. The approximately 65-mile-long corridor between Merced and Fresno is an essential part of the statewide HST System. The Merced to Fresno Section is the location where the HST would intersect and connect with the Bay Area and Sacramento branches of the HST System; it would provide a potential location for the heavy maintenance facility (HMF) where the HSTs would be assembled and maintained, as well as a test track for the trains; it would also provide Merced and Fresno access to a new transportation mode and would contribute to increased mobility throughout California.

1.1 No Project Alternative

The No Project Alternative refers to the projected growth planned for the region through the 2035 time horizon without the HST Project and serves as a basis of comparison for environmental analysis of the HST build alternatives. The No Project Alternative includes planned improvements to the highway, aviation, conventional passenger rail, and freight rail systems in the Merced to Fresno project area. There are many environmental impacts that would result under the No Project Alternative.

1.2 High-Speed Train Alternatives

As shown in Figure 1-1, there are three HST alignment alternatives proposed for the Merced to Fresno Section of the HST System: the UPRR/SR 99 Alternative, which would primarily parallel the UPRR railway; the BNSF Alternative, which would parallel the BNSF railway for a portion of the distance between Merced and Fresno; and the Hybrid Alternative, which combines features of the UPRR/SR 99 and BNSF alternatives. In addition, there is an HST station proposed for both the City of Merced and the City of Fresno, there is a wye connection (see text box on page 1-3) west to the Bay Area, and there are five potential sites for a proposed HMF.

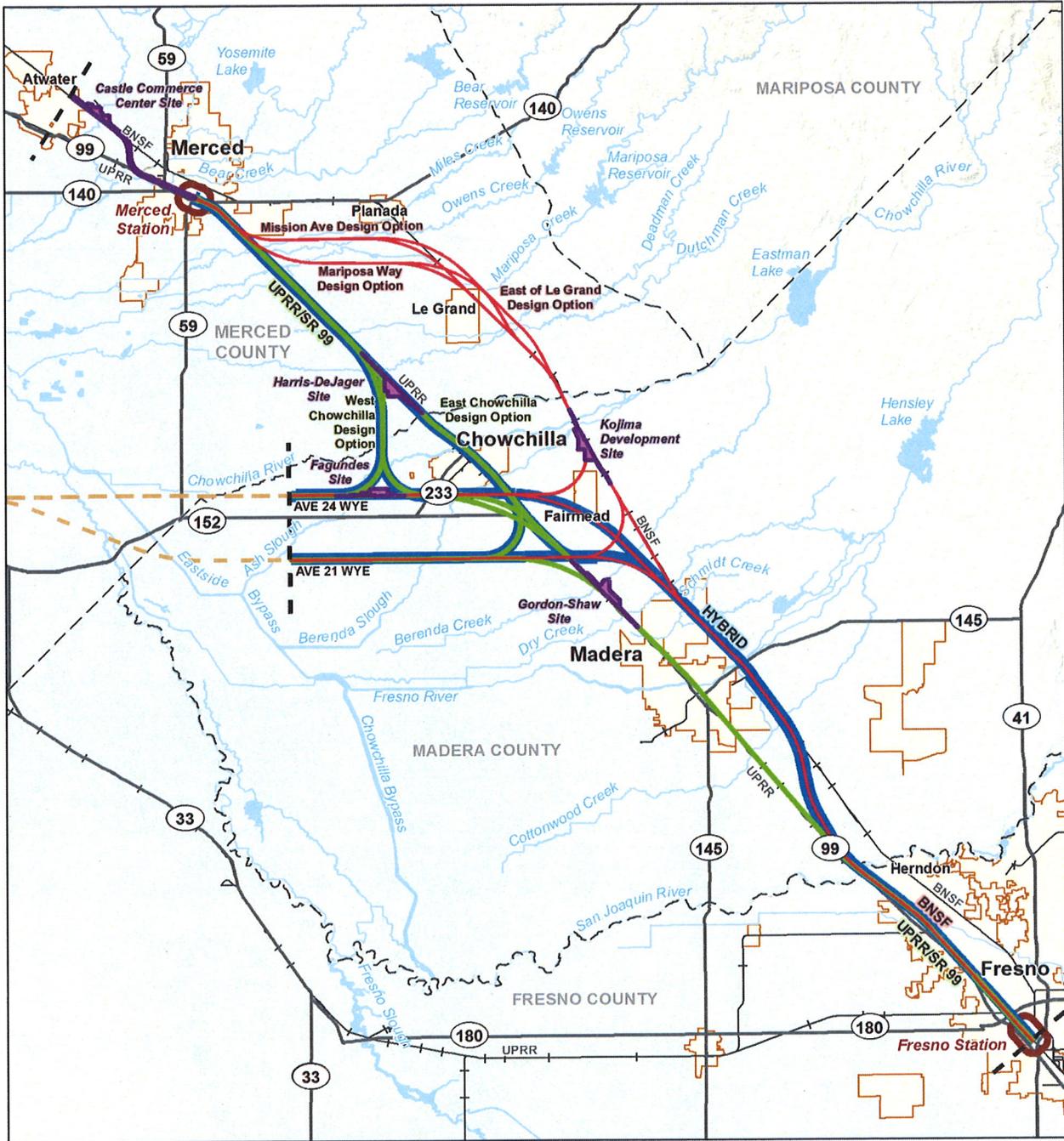
The Authority has identified the Hybrid Alternative as the preferred alternative for the north-south alignment between Merced and Fresno. The Hybrid Alternative would connect to San Jose to the west along one of three wye design options. The San Jose to Merced Section Project EIR/EIS will fully evaluate the east-west alignment alternatives and wye configurations, including the Ave 24 Wye, the Ave 21 Wye, and another wye design option, the SR 152 Wye, which has not been reviewed in this document. A decision regarding the preferred east-west alignment, including the preferred wye design option, will take place after circulation of the San Jose to Merced Section Project EIR/EIS; that decision will finalize the alignment and profile of the Hybrid Alternative. In addition, the Authority has identified the Mariposa Street Station Alternative as the preferred alternative for an HST station in Downtown Fresno.

1.2.1 UPRR/SR 99 Alternative

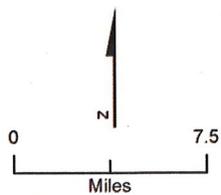
This section describes the UPRR/SR 99 Alternative, including the Chowchilla design options, wyes, and HST stations.

1.2.1.1 North-South Alignment

The north-south alignment of the UPRR/SR 99 Alternative would begin at the HST station in Downtown Merced, located on the west side of the UPRR right-of-way. South of the station and leaving Downtown Merced, the alternative would be at-grade and cross under SR 99. Approaching the City of Chowchilla, the UPRR/SR 99 Alternative has two design options: the East Chowchilla design option, which would pass Chowchilla on the east side of town, and the West Chowchilla design option, which would pass Chowchilla



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- BNSF Alternative
- UPRR/SR 99 Alternative
- Hybrid Alternative
- Project Limit
- Connection to Other Section
- Station Study Area
- Potential Heavy Maintenance Facility
- City Limit
- County Boundary
- Railroad
- State / US Highway

Figure 1-1
 Merced to Fresno Section
 HST Alternatives

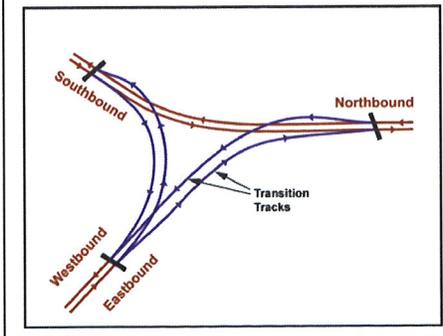
3 to 4 miles west of the city before turning back to rejoin the UPRR/SR 99 transportation corridor. These design options would take the following routes:

- East Chowchilla design option:** This design option would transition from the west side of the UPRR/SR 99 corridor to an elevated structure as it crosses the UPRR railway and N. Chowchilla Boulevard just north of Avenue 27, continuing on an elevated structure away from the UPRR corridor along the west side of and parallel to SR 99 to cross Berenda Slough. Toward the south side of Chowchilla, this design option would cross over SR 99 north of the SR 99/SR 152 interchange near Avenue 23½ south of Chowchilla. Continuing south on the east side of SR 99 and the UPRR corridor, this design option would remain elevated for 7.1 miles through the communities of Fairmead and Berenda until reaching the Dry Creek Crossing. The East Chowchilla design option connects to the HST sections to the west via either the Ave 24 or Ave 21 wyes (described below).
- West Chowchilla design option:** This design option would travel due south from Sandy Mush Road north of Chowchilla, following the west side of Road 11¾. The alignment would turn southeast toward the UPRR/SR 99 corridor south of Chowchilla. The West Chowchilla design option would cross over the UPRR and SR 99 east of the Fairmead city limits to again parallel the UPRR/SR 99 corridor. The West Chowchilla design option would result in a net decrease of approximately 13 miles of track for the HST System compared to the East Chowchilla design option and would remain outside the limits of the City of Chowchilla. The West Chowchilla design option connects to the HST sections to the west via the Ave 24 Wye, but not the Ave 21 Wye.

The UPRR/SR 99 Alternative would continue toward Madera along the east side of the UPRR south of Dry Creek and remain on an elevated profile for 8.9 miles through Madera. After crossing over Cottonwood Creek and Avenue 12, the HST alignment would transition to an at-grade profile and continue to be at-grade until north of the San Joaquin River. After the San Joaquin River crossing, the HST alignment would require realignment (a mostly westward shift) of Golden State Boulevard and of a portion of SR 99 to create right-of-way adjacent to the UPRR railroad that would not preclude future expansion of these roadways. After crossing the San Joaquin River, the alternative would rise over the UPRR railway on an elevated guideway, supported by straddle bents, before crossing over the existing Herndon Avenue and again descending into an at-grade profile and continuing west of and parallel to the UPRR right-of-way. After elevating to cross the UPRR railway on the southern bank of the San Joaquin River, south of Herndon Avenue, the alternative would transition from an elevated to an at-grade profile. Traveling south from Golden State Boulevard at-grade, the alternative would cross under the reconstructed Ashlan Avenue and Clinton Avenue overhead structures. Advancing south from Clinton Avenue between Clinton Avenue and Belmont Avenue, the HST guideway would run at-grade adjacent to the western boundary of the UPRR right-of-way and then enter the HST station in Downtown Fresno. The HST guideway would descend in a retained-cut to pass under the San Joaquin Valley Railroad spur line and SR 180, transition back to at-grade before Stanislaus Street, and continue to be at-grade into the station. As part of a station design option, Tulare Street would become either an overpass or undercrossing at the station.

What is a “Wye”?

The word “wye” refers to the “Y”-like formation that is created where train tracks branch off the mainline to continue in different directions. The transition to a wye requires splitting two tracks into four tracks that cross over one another before the wye “legs” can diverge in opposite directions to allow bidirectional travel. For the Merced to Fresno Section of the HST System, the two tracks traveling east-west from the San Jose to Merced Section must become four tracks—a set of two tracks branching to the north and a set of two tracks branching to the south.



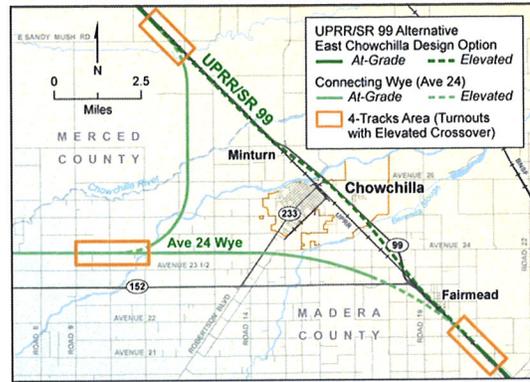
1.2.1.2 Wye Design Options

The following text describes the wye connection from the San Jose to Merced Section to the Merced to Fresno Section. There are two variations of the Ave 24 Wye for the UPRR/SR 99 Alternative because of the West Chowchilla design option. The

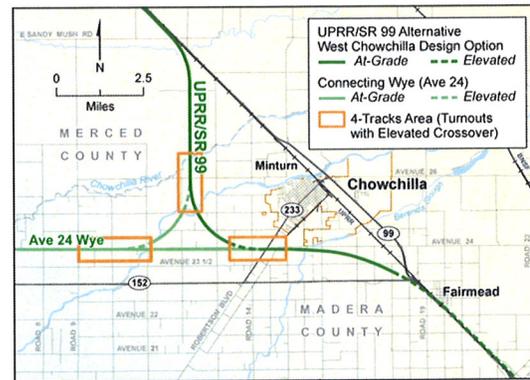
Ave 21 Wye does not connect to the West Chowchilla design option and therefore does not have a variation.

Ave 24 Wye

The Ave 24 Wye design option would travel along the south side of eastbound Avenue 24 toward the UPRR/SR 99 Alternative and would begin diverging onto two sets of tracks west of Road 11 and west of the City of Chowchilla. Under the East Chowchilla design option, the northbound set of tracks would travel northeast across Road 12, joining the UPRR/SR 99 north-south alignment on the west side of the UPRR right-of-way just north of Sandy Mush Road. Under the West Chowchilla design option, the northbound set of tracks would travel northeast across Road 12 and would join the UPRR/SR 99 north-south alignment just south of Avenue 26. The southbound HST guideway would continue east along Avenue 24, turning south near SR 233 southeast of Chowchilla, crossing SR 99 and the UPRR railway to connect to the UPRR/SR 99 Alternative north-south alignment on the east side of the UPRR near Avenue 21½. Under the West Chowchilla design option, the southbound tracks would turn south near Road 16 south of Chowchilla, crossing SR 99 and the UPRR to connect to the UPRR/SR 99 north-south alignment on the east side of the UPRR adjacent to the city limits of Fairmead.



(a) Ave 24 Wye with the East Chowchilla Design Option



(b) Ave 24 Wye with the West Chowchilla Design Option

Figure 1-2a and b
 Ave 24 Wye and Chowchilla Design Options

Figure 1-2a shows the wye alignment for the East Chowchilla design option and Figure 1-2b shows the alignment for the West Chowchilla design option. Together, the figures illustrate the difference in the wye triangle formation for each design option connection. The north-south alignment of the West Chowchilla design option between Merced and Fresno diverges along Avenue 24 onto Road 12, on the north branch of the wye, allowing the HST alternative to avoid traveling through Chowchilla and to avoid constraining the city within the wye triangle.

Ave 21 Wye

The Ave 21 Wye would travel along the north side of Avenue 21. Just west of Road 16, the HST tracks would diverge north and south to connect to the UPRR/SR 99 Alternative, with the north leg of the wye joining the north-south alignment at Avenue 23½ and the south leg at Avenue 19½.

1.2.1.3 HST Stations

The Downtown Merced and Downtown Fresno station areas would each occupy several blocks, to include station plazas, drop-offs, a multimodal transit center, and parking structures. The areas would include the station platform and associated building and access structure, as well as lengths of platform tracks to accommodate local and express service at the stations. As currently proposed, both the Downtown Merced and Downtown Fresno stations would be at-grade, including all trackway and platforms, passenger services and concessions, and back-of-house functions.

Downtown Merced Station

The Downtown Merced Station would be between Martin Luther King Jr. Way to the northwest and G Street to the southeast. The station would be accessible from both sides of the UPRR, but the primary

station house would front 16th Street. The major access points from SR 99 include V Street, R Street, Martin Luther King Jr. Way, and G Street. Primary access to the parking facility would be from West 15th Street and West 14th Street, just one block east of SR 99. The closest access to the parking facility from the SR 99 freeway would be R Street, which has a full interchange with the freeway. The site proposal includes a parking structure that would have the potential for up to 6 levels with a capacity of approximately 2,250 cars and an approximate height of 50 feet.

Downtown Fresno Station Alternatives

There are two station alternatives under consideration in Fresno: the Mariposa Street Station Alternative and the Kern Street Station Alternative.

Mariposa Street Station Alternative (Preferred Alternative)

The Mariposa Street Station Alternative is located in Downtown Fresno, less than 0.5 mile east of SR 99. The station would be centered on Mariposa Street and bordered by Fresno Street on the north, Tulare Street on the south, H Street on the east, and G Street on the west. The station building would be approximately 75,000 square feet, with a maximum height of approximately 60 feet. The two-level station would be at-grade, with passenger access provided both east and west of the HST guideway and the UPRR tracks, which would run parallel with one another adjacent to the station. Entrances would be located at both G and H Streets. The eastern entrance would be at the intersection of H Street and Mariposa Street, with platform access provided via the pedestrian overcrossing. The main western entrance would be located at G Street and Mariposa Street.

The majority of station facilities would be located east of the UPRR tracks. The station and associated facilities would occupy approximately 18.5 acres, including 13 acres dedicated to the station, bus transit center, surface parking lots, and kiss-and-ride accommodations. A new intermodal facility would be included in the station footprint on the parcel bordered by Fresno Street to the north, Mariposa Street to the south, Broadway Street to the east, and H Street to the west. The site proposal includes the potential for up to three parking structures occupying a total of 5.5 acres. Two of the three potential parking structures would each sit on 2 acres, and each would have a capacity of approximately 1,500 cars. The third parking structure would have a slightly smaller footprint (1.5 acres), with five levels and a capacity of approximately 1,100 cars. Surface parking lots would provide approximately 300 additional parking spaces.

Kern Street Station Alternative

The Kern Street Station Alternative for the HST station would also be in Downtown Fresno and would be centered on Kern Street between Tulare Street and Inyo Street. This station would include the same components and acreage as the Mariposa Street Station Alternative, but the station would not encroach on the historic Southern Pacific Railroad depot just north of Tulare Street and would not require relocation of existing Greyhound facilities. Two of the three potential parking structures would each sit on 2 acres and each would have a capacity of approximately 1,500 cars. The third structure would have a slightly smaller footprint (1.5 acres) and a capacity of approximately 1,100 cars. Like the Mariposa Street Station Alternative, the majority of station facilities under the Kern Street Station Alternative would be east of the HST tracks.

1.2.2 BNSF Alternative

This section describes the BNSF Alternative, including the Le Grand design options and wyes. It does not include a discussion of the HST stations, because the station descriptions are identical for each of the three HST alignment alternatives.

1.2.2.1 North-South Alignment

The north-south alignment of the BNSF Alternative would begin at the proposed Downtown Merced Station. This alternative would remain at-grade through Merced and would cross under SR 99 at the



south end of the city. Just south of the interchange at SR 99 and E Childs Avenue, the BNSF Alternative would cross over SR 99 and UPRR as it begins to curve to the east, crossing over the E Mission Avenue interchange. It would then travel east to the vicinity of Le Grand, where it would turn south and travel adjacent to the BNSF tracks.

To minimize impacts on the natural environment and the community of Le Grand, the project design includes four design options:

- **Mission Ave design option:** This design option would turn east to travel along the north side of Mission Avenue at Le Grand and then would elevate through Le Grand adjacent to and along the west side of the BNSF corridor.
- **Mission Ave East of Le Grand design option:** This design option would vary from the Mission Ave design option by traveling approximately 1 mile farther east before turning southeast to cross Santa Fe Avenue and the BNSF tracks south of Mission Avenue. The HST alignment would parallel the BNSF for 0.5 mile to the east, avoiding the urban limits of Le Grand. This design option would cross Santa Fe Avenue and the BNSF railroad again approximately 0.5 mile north of Marguerite Road and would continue adjacent to the west side of the BNSF corridor.
- **Mariposa Way design option:** This design option would travel 1 mile farther than the Mission Ave design option before crossing SR 99 near Vassar Road and turning east toward Le Grand along the south side of Mariposa Way. East of Simonson Road, the HST alignment would turn to the southeast. Just prior to Savana Road in Le Grand, the HST alignment would transition from at-grade to elevated to pass through Le Grand on a 1.7-mile-long guideway adjacent to and along the west side of the BNSF corridor.
- **Mariposa Way East of Le Grand design option:** This design option would vary from the Mariposa Way design option by traveling approximately 1 mile farther east before turning southeast to cross Santa Fe Avenue and the BNSF tracks less than 0.5 mile south of Mariposa Way. The HST alignment would parallel the BNSF to the east of the railway for 0.5 mile, avoiding the urban limits of Le Grand. This design option would cross Santa Fe Avenue and the BNSF again approximately 0.5 mile north of Marguerite Road and would continue adjacent to the west side of the BNSF corridor.

Continuing southeast along the west side of the BNSF corridor, the BNSF Alternative would begin to curve just before Plainsburg Road through a predominantly rural and agricultural area. One mile south of Le Grand, the HST alignment would cross Deadman and Dutchman creeks. The alignment would deviate from the BNSF corridor just southeast of S White Rock Road, where it would remain at-grade for another 7 miles, except at the bridge crossings, and would continue on the west side of the BNSF corridor through the community of Sharon. The HST alignment would continue at-grade through the community of Kismet until crossing at Dry Creek. The BNSF Alternative would then continue at-grade through agricultural areas along the west side of the BNSF corridor through the community of Madera Acres north of the City of Madera; in the vicinity of Madera Acres, the HST Project would provide a grade separation of Road 26 and Road 28, which would cross over both the existing BNSF tracks and the new HST guideway. South of Avenue 15 east of Madera, the alignment would transition toward the UPRR corridor, following the east side of the UPRR corridor near Avenue 9 south of Madera, then continuing along nearly the same route as the UPRR/SR 99 Alternative over the San Joaquin River to enter the community of Herndon. After crossing the San Joaquin River, the alignment would be the same as for the UPRR/SR 99 Alternative.

1.2.2.2 Wye Design Options

The Ave 24 Wye and the Ave 21 Wye would be the same as described for the UPRR/SR 99 Alternative (East Chowchilla design option), except as noted below.

Ave 24 Wye

As with the UPRR/SR 99 Alternative, the Ave 24 Wye would follow along the south side of Avenue 24 and would begin diverging into two sets of tracks (i.e., four tracks) beginning west of Road 17. Two tracks would travel north near Road 20½, where they would join the north-south alignment of the BNSF Alternative on the west side of the BNSF corridor near Avenue 26½. The two southbound tracks would join the BNSF Alternative on the west side of the BNSF corridor south of Avenue 21.

Ave 21 Wye

As with the UPRR/SR 99 Alternative, the Ave 21 Wye would travel along the north side of Avenue 21. Two tracks would diverge, turning north and south to connect to the north-south alignment of the BNSF Alternative just west of Road 21. The north leg of the wye would join the north-south alignment just south of Avenue 24 and the south leg would join the north-south alignment just east of Frontage Road/Road 26 north of the community of Madera Acres.

1.2.3 Hybrid Alternative (Preferred Alternative)

This section describes the Hybrid Alternative, which generally follows the alignment of the UPRR/SR 99 Alternative in the north and the BNSF Alternative in the south. It does not include a discussion of the HST stations because the station descriptions are identical for each of the three HST alternatives.

1.2.3.1 North-South Alignment

From north to south, generally, the Hybrid Alternative would follow the UPRR/SR 99 alignment with either the West Chowchilla design option with the Ave 24 Wye or the East Chowchilla design option with the Ave 21 Wye. Approaching the Chowchilla city limits, the Hybrid Alternative would follow one of two options:

- In conjunction with the Ave 24 Wye, the HST alignment would veer due south from Sandy Mush Road along a curve and would continue at-grade for 4 miles parallel to and on the west side of Road 11¾. The Hybrid Alternative would then curve to a corridor on the south side of Avenue 24 and would travel parallel for the next 4.3 miles. Along this curve, the southbound HST track would become an elevated structure for approximately 9,000 feet to cross over the Ave 24 Wye connection tracks and Ash Slough, while the northbound HST track would remain at-grade. Continuing east on the south side of Avenue 24, the HST alignment would become identical to the Ave 24 Wye connection for the BNSF Alternative and would follow the alignment of the BNSF Alternative until Madera.
- In conjunction with the Ave 21 Wye connection, the HST alignment would transition from the west side of UPRR and SR 99 to an elevated structure as it crosses the UPRR and N. Chowchilla Boulevard just north of Avenue 27, continuing on an elevated structure along the west side of and parallel to SR 99 away from the UPRR corridor while it crosses Berenda Slough. Toward the south side of Chowchilla, the alignment (with the Ave 21 Wye) would cross over SR 99 north of the SR 99/SR 152 interchange near Avenue 23½ south of Chowchilla. It would continue to follow along the east side of SR 99 until reaching Avenue 21, where it would curve east and run parallel to Avenue 21, briefly. The alignment would then follow a path similar to the Ave 21 Wye connection for the BNSF Alternative, but with a tighter 220 miles per hour (mph) curve. The alternative would then follow the BNSF Alternative alignment until Madera.

Through Madera and until reaching the San Joaquin River, the Hybrid Alternative is the same as the BNSF Alternative. Once crossing the San Joaquin River, the alignment of the Hybrid Alternative becomes the same as for the UPRR/SR 99 Alternative, including the westward realignments of Golden State Boulevard and SR 99.

1.2.3.2 Wye Design Options

The wye connections for the Hybrid Alternative follow Avenue 24 and Avenue 21, similar to those of the UPRR/SR 99 and BNSF alternatives.

Ave 24 Wye

The Ave 24 Wye is the same as the combination of the UPRR/SR 99 Alternative with the West Chowchilla design option, and the Ave 24 Wye for the BNSF Alternative.

Ave 21 Wye

The Ave 21 Wye is similar to the combination of the UPRR/SR 99 Alternative with the Ave 21 Wye on the northbound leg and the BNSF Alternative with the Ave 21 Wye on the southbound leg. However, the south leg under the Hybrid Alternative would follow a tighter, 220 mph curve than the BNSF Alternative, which follows a 250 mph curve.

1.2.4 Heavy Maintenance Facility Alternatives

The Authority is studying five HMF sites (see Figure 1-1) within the Merced to Fresno Section, one of which may be selected. (The sponsor of the Harris-DeJager site withdrew its proposal from the Authority's consideration of potential HMF sites [Kopshever 2011]. However, to remain consistent with previous analysis and provide a basis of comparison among the HMFs, evaluation of the site continues in this document.)

- **Castle Commerce Center HMF site** – A 370-acre site located 6 miles northwest of Merced, at the former Castle Air Force Base in northern unincorporated Merced County. It is adjacent to and on the east side of the BNSF mainline, 1.75 miles south of the UPRR mainline, off of Santa Fe Drive and Shuttle Road, 2.75 miles from the existing SR 99 interchange. The Castle Commerce Center HMF would be accessible by all HST alternatives.
- **Harris-DeJager HMF site (withdrawn from consideration)** – A 401-acre site located north of Chowchilla adjacent to and on the west side of the UPRR corridor, along S Vista Road and near the SR 99 interchange under construction. The Harris-DeJager HMF would be accessible by the UPRR/SR 99 and Hybrid alternatives if coming from the Ave 21 Wye and the UPRR/SR 99 Alternative with the East Chowchilla design option and the Ave 24 Wye.
- **Fagundes HMF site** – A 231-acre site, located 3 miles southwest of Chowchilla on the north side of SR 152, between Road 11 and Road 12. This HMF would be accessible by all HST alternatives with the Ave 24 Wye.
- **Gordon-Shaw HMF site** – A 364-acre site adjacent to and on the east side of the UPRR corridor, extending from north of Berenda Boulevard to Avenue 19. The Gordon-Shaw HMF would be accessible from the UPRR/SR 99 Alternative.
- **Kojima Development HMF site** – A 392-acre site on the west side of the BNSF corridor east of Chowchilla, located along Santa Fe Drive and Robertson Boulevard (Avenue 26). The Kojima Development HMF would be accessible by the BNSF Alternative with the Ave 21 Wye.

1.3 Project Construction

At-grade track sections would be built using conventional railroad construction techniques. A typical sequence includes clearing, grubbing, contouring, and compacting of the rail bed; application of ballast; laying track; and installing electrical and communications systems. The precast segmental construction method is proposed for elevated track sections. In this construction method, large concrete bridge segments would be mass-produced at an onsite temporary casting yard. Precast segments would then be transported atop the already completed portions of the elevated track and installed using a special gantry

crane positioned on the viaduct. Although the precast segmental method is the favored technique for viaduct construction, other methods may be used, including cast-in-place, box girder, or precast span-by-span techniques. Construction is currently planned to commence in 2012 and conclude in 2017.

1.4 Definition of the Area of Potential Effects

Section 106 requires that an Area of Potential Effects (APE) be defined for the project. An APE is defined in 36 Code of Federal Regulations (CFR) Section 800.16(d) as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking; it may be different for different kinds of effects caused by the undertaking and different types of resources. The APE for this undertaking was developed in accordance with guidelines set forth in Attachment B of the Programmatic Agreement (PA) (Appendix E of this report) drafted by the Federal Railroad Administration (FRA), the Advisory Council on Historic Preservation (ACHP), and the California State Historic Preservation Officer. The PA also provides guidelines for consultation procedures; federal agency oversight in compliance with the National Historic Preservation Act (NHPA); guidelines for identification and evaluation of historic properties; and assessment of adverse effects.

The Historic Property Survey Report (HPSR) presents the APE for both archaeology and built environment resources for the project (see Appendix A-1 and A-2). It should be noted that while the Merced to Fresno Section project area and both APEs extend to Ventura Street in Downtown Fresno, this report (as well as the Historic Architectural Survey Report [HASR] and Archaeological Survey Report [ASR]), only includes analysis to E. Amador Street. The Fresno to Bakersfield Section technical reports (HPSR, HASR, and ASR) include analysis of the resources south of E. Amador Street to Ventura Street, including the Fresno Station. This separation avoids redundancy in the technical analysis needed for formal Section 106 compliance.

The APEs will be submitted to the California State Office of Historic Preservation (OHP) for concurrence and were used to identify the historic properties and historical resources considered in this report. See the following sections for more detailed descriptions of the archaeological and built environment APEs as well as Section 1.2 for a detailed discussion of the alternatives.

1.4.1 Archaeological APE

According to Attachment B of the PA, for archaeological properties, an APE is typically established based on an undertaking's potential for direct effects from ground-disturbing activities. On occasion, archaeological sites may also have qualities that could be affected indirectly.

The APE for archaeological properties is the area of ground proposed to be disturbed during construction of the undertaking, including grading, cut-and-fill, easements, staging areas, utility relocation, borrow pits, and biological mitigation areas, if any. The APE for archaeological resources is shown in Appendix A-1. The Attachment B, Page B-1, of the PA (included in Appendix E) states the following:

"Traditional cultural properties and cultural landscapes are more likely to be subject to indirect, as well as direct, effects, thus the APE for such properties is usually broader than the archaeological APE in order to include the potential for such effects. For instance, the first row of potential properties beyond the right-of-way may be subject to such effects and thus included in an indirect APE when warranted."

The APE for the Merced to Fresno Section was submitted to the OHP and received concurrence on August 16, 2010. Since that time, the construction footprint has evolved, but still remains within that overall corridor. The APE in this document was refined in accordance with the criteria stipulated in the PA and by 36 CFR 800.16(d), and reflects the configuration of the project alignment alternatives and infrastructure elements as of the end of March, 2011.

The APE for archaeological properties extends from northwest of the City of Merced, southeasterly to the City of Fresno, and includes all locations potentially subject to HST project-related ground-disturbing activities associated with the build alternatives (described in more detail in following section).

Horizontal APE: In general, the APE along the UPRR/SR 99 Alternative alignment primarily follows the existing UPRR corridor, and ranges from 100 feet to 2,500 feet wide, expanding and contracting with anticipated HST Project effects (see Appendix A-1). The BNSF Alternative alignment splits from the UPRR tracks south of Merced and then follows the BNSF alignment (and parallels the UPRR tracks roughly 4½ miles to the east) until it rejoins the UPRR tracks at the Madera/Fresno county line. The APE along this alternative is much narrower, ranging from 150 feet to 300 feet wide. The Hybrid Alternative is a combination of elements of the UPRR/SR 99 Alternative and the BNSF Alternative, and follows the UPRR/SR 99 Alternative from the northern terminus of the segment south (and to the west of) Chowchilla. It then traverses eastward to follow the BNSF Alternative south to the southernmost terminus. The APE along this alternative ranges from 100 feet to 2,500 feet, based on the possible location of project elements.

Vertical APE: The vertical effects associated with the build alternatives are not known with great specificity at this time and the 'vertical' APE will be modified as that information becomes available. That said, the majority of the effects will be near-surface, that is, to a depth of less than 6 feet. This is not the case, however, for elevated sections of the corridor, where it is assumed that supporting columns for elevated trackage (or road crossovers) will have the potential to penetrate the entire soil column of Holocene, potentially artifact-bearing deposits. To a lesser extent, the installation of catenary poles has the potential to disturb any deeply-buried artifact that may be present in the APE. Information on the size and depth of the footers for these poles is not currently known, but will be incorporated in the APE once design has advanced to a point where the extent of ground disturbance is known. It is assumed that these poles would extend through most, if not all, of the Holocene soils to reach a solid base.

It should be noted that construction staging areas, access roads, temporary roads or detour roads, and other elements of the project with the potential to disturb or affect existing land surfaces will also be added to the APE as details of those features and the horizontal and vertical extent of their effects become known.

1.4.2 Built Environment APE

The initial APE for the Merced to Fresno Section was approved by the California State Historic Preservation Officer (CASHPO) on August 16, 2010 (M.W. Donaldson to J. Ketelsen or R. Rodland, August 16, 2010). Since then, the APE has been refined to reflect changes in the alignment and guidelines set forth in Attachment B of the PA. The refined APE, included in Appendix A-2 for concurrence by the CASHPO, was used to determine the survey population for this HPSR. The APE may be revised according to future refinements to the proposed rail alignment alternatives and as engineering revisions become available. All APE refinements or changes will be subject to consultation with the CASHPO. The current APE is shown in Appendix A-2 of this HPSR.

The built environment APE for the Merced to Fresno Section includes all legal parcels intersected by the proposed limits of disturbance (LOD), or the footprint of actual facilities proposed for construction (e.g., tracks, grade separations, stations, switchyards, and maintenance facilities), and construction staging areas, and includes properties that could be directly affected by the undertaking. If built environment resources existed on a large rural parcel within 150 feet of the proposed HST right-of-way, or if it was determined that the resources on that parcel were otherwise potentially affected by the project, the entire parcel was included in the APE. If built environment resources on a large rural parcel were more than 150 feet away from the proposed HST at-grade right-of-way, and were otherwise not potentially affected by the project, the APE boundary was set at the limits of the proposed HST right-of-way. In these cases, resources outside the APE on that parcel did not require further survey.

The built environment APE also includes properties adjacent to those intersected by the proposed HST project if the built environment resources on those parcels may be indirectly affected by the undertaking

as the result of visual or audible changes that may cause changes in traffic or land use patterns. The built environment APE is further defined according to the following parameters set forth in Attachment B of the PA (Appendix E):

The APE for historic architectural properties includes all properties that contain buildings, structures or objects more than 50 years of age at the time of the survey is completed by the QIs, as follows:

- *Properties within the proposed project right-of-way;*
- *Properties where historic materials or associated landscape features would be demolished, moved, or altered by construction;*
- *Properties near the undertaking where railroad materials, features, and activities HAVE NOT been part of their historic setting and where the introduction of visual or audible elements may affect the use or characteristics of those properties that would be the basis for their eligibility for listing in the National Register; and*
- *Properties near the undertaking that were either used by a railroad, served by a railroad, or where railroad materials, features, and activities HAVE long been part of their historic setting, but only in such cases where the undertaking would result in a substantial change from the historic use, access, or noise and vibration levels that were present 50 years ago, or during the period of significance of a property, if different.*

For the HST project, a key phrase in the APE definition in the Section 106 regulations contained within 36 CFR 800.16(d) is 'may cause alterations in the character or use of historic properties' because many of the undertakings involve the construction of high-speed rail alongside existing railroads. In such cases, potential historic properties near the proposed undertaking historically had railroad features, materials, and activities within their setting that contributed to their character, or may even have been used by or served by the railroad. For example:

- *The character and use of a historic railroad passenger or freight depot or railroad bridge would not change unless it would be put out of service, destroyed, altered, or moved for the undertaking;*
- *The character and use of an industrial building next to existing railroad tracks would not change unless freight railroad service was an important association and the spur lines or loading areas would be removed by the undertaking;*
- *The character and use of buildings would not change if they would be separated from the undertaking by an existing railroad; however,*
- *The character of a non-railroad or non-industrial building would likely change if the building is visually sensitive and the proposed undertaking introduces an elevated grade separation or other large building or structure;*
- *The use of a non-railroad or non-industrial building would likely change if the building is sensitive to noise, like a school, museum or library, and the frequency of noise or vibration events from passing trains is increased over historic-era railroad events.*

However, some sections of an undertaking may be introducing rail service where none existed during the historic era, for example, along a highway or through agricultural fields. For such sections, the undertaking is more likely to change the character or use of a historic property, and the APE would take into account changes to its setting and the introduction of visible or audible elements that are out of character with the property. Other effects to be considered when delineating the APE may include, but are not limited to, physical damage or destruction of all or part of a property; physical alterations; moving or realigning a historic

property; isolating a property from its setting; visual, audible, or atmospheric intrusions; shadow effects; damage from vibrations; and change in access or use (Authority and FRA 2011a).



2.0 Summary of Findings

This chapter summarizes the project, the purpose of the Historic Property Survey Report (HPSR), the archaeological resources evaluated, and the built environment resources evaluated.

2.1 Project Summary

The California High-Speed Rail Authority (Authority) proposes to construct, operate, and maintain an electric-powered HST system in California. When completed, the nearly 800-mile train system would provide new passenger rail service to more than 90% of the state's population. More than 200 weekday trains would serve the statewide intercity travel market. The HST would be capable of operating at speeds of up to 220 mph, with state-of-the-art safety, signaling, and automated train control systems. The system would connect and serve the major metropolitan areas of California, extending from San Francisco and Sacramento in the north to San Diego in the south.

In 2005, the Authority and the FRA prepared a Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) (Statewide Program EIR/EIS) evaluating HST's ability to meet the existing and future capacity demands on California's intercity transportation system (Authority and FRA 2005). This was the first phase of a tiered environmental review process (Tier 1) for the proposed statewide HST system. The Authority and the FRA completed a second Program EIR/EIS in July 2008 to identify a preferred alignment for the Bay Area to Central Valley section (Authority and FRA 2008).

The Authority and FRA are now undertaking second-tier, project environmental evaluations for sections of the statewide HST system. This HPSR is for the Merced to Fresno Section. The Merced to Fresno Section begins in Atwater at the Castle Commerce Center HMF, extends southeasterly to the proposed Merced HST station in Downtown Merced, and then southeast to the proposed Fresno HST station in Downtown Fresno. Information from this report is summarized in the project EIR/EIS for the Merced to Fresno HST Section and will be part of the administrative record supporting the environmental review of the proposed project.

For the HST system, including the Merced to Fresno Section, the FRA is the lead federal agency for compliance with the National Environmental Policy Act (NEPA) and other federal laws. The Authority is serving as a joint-lead agency under NEPA and is the lead agency for compliance with the California Environmental Quality Act (CEQA).

2.2 Purpose of the Historic Property Survey Report

This report describes work conducted by AECOM to identify cultural resources that may be affected by the California HST Project, Merced to Fresno Section, being implemented by the Authority and FRA. The overall California HST Project consists of construction of new rail alignments connecting northern and southern California; this particular document focuses on the approximately 60-mile-long corridor between Merced and Fresno (as shown in Figure 1-1). The HPSR has been prepared to assist the project proponent (the Authority) and the lead federal agency (the FRA) with compliance with Section 106 of the NHPA. The HPSR follows the procedures set forth in the PA (Appendix E). The HPSR also assists the Authority and FRA to comply with CEQA and the CEQA Guidelines, as they pertain to historical resources, for this project.

The purpose of the HPSR is (1) to present the APE for archaeology and built environment resources for the project, (2) to identify known and potential historic properties within that APE, and (3) to present the historic status and the findings of evaluations of significance of the historic properties identified within the APE. Per Attachment C, Section A of the PA, the HPSR includes documentation of all properties in the APE that are listed in, determined, recommended, or presumed eligible for listing in the National Register of Historic Places (NRHP). The HPSR also addresses properties that are ineligible for the NRHP, but meet one of the following conditions:

1. The property was identified as significant in a state, regional, or local survey of historic properties.
2. The property was designated under a state, regional, or local ordinance with criteria for evaluating properties with historic or architectural significance.
3. The property was identified by the State Historic Preservation Office (SHPO), Tribal Historic Preservation Office (THPO), or any party identified as a result of Stipulations IV and V.
4. The property is not exempt from evaluation as identified in Attachment D and would be acquired, destroyed, demolished, or substantially altered as a result of the undertaking.

A separate document—the Merced to Fresno Section HASR—has been prepared to document historic architectural resources that are not listed in and do not appear to be eligible for listing in the NRHP or the California Register of Historical Resources (CRHR); are not exempt from evaluation as identified in Attachment D of the PA; and were not reported in the HPSR, but that must be evaluated to fulfill Section 106 and CEQA obligations. Similarly, a separate document—the Merced to Fresno Section ASR—has been prepared to document archaeological inventory efforts and archaeological properties that do not appear to be eligible for the NRHP, are not exempt from evaluation as identified in Attachment D of the PA, and were not reported in the HPSR.

This HPSR (as well as the HASR and ASR) will be submitted to the CASHPO for concurrence in the adequacy of the APE and the identification and evaluation findings of the studies. To facilitate review by the appropriate individual, many of the sections within this report are divided into separate subsections for archaeological resources and built environment resources. Upon CASHPO concurrence with the eligibility determinations, future documents will present the findings of the effects analysis and propose appropriate mitigation for any adverse effects to historic properties that are identified by the Findings of Effect (FOE) report. The results of these studies will be used as the basis for the identification of cultural resources in the EIR/EIS that is being prepared for the Merced to Fresno Section of the HST system.

2.3 Archaeological Resources

According to direction provided in the PA (see Appendix E), archaeological sites that have not been tested will be considered to be eligible for the NRHP until their eligibility can be fully evaluated. Under that guidance, six archaeological sites and five archaeologically sensitive areas discussed in this HPSR are also included in the ASR, where they are treated as potentially eligible resources pending completion of formal evaluations. This HPSR (and the ASR) will likely be subject to modification on completion of formal site evaluations, as some of the sites currently discussed here may ultimately be considered ineligible properties and therefore will be discussed only in the ASR (Authority and FRA 2012e).

Background research and an archaeological survey were conducted to identify archaeological resources that may be affected by the proposed Merced to Fresno Section of the California HST Project. The HST Project investigation included multiple records searches at two California Historical Resources Information System (CHRIS) centers and at the California Department of Transportation (Caltrans). In addition, the Sacred Lands File of the Native American Heritage Commission (NAHC) was reviewed. A wide variety of historical maps, including Sanborn Company fire insurance maps, were also reviewed in order to locate and evaluate potential archaeological sites. The historic context was developed through a bibliographic review of pertinent research to establish the overall archaeological and historic context. This bibliographic review included relevant geomorphic and geoarchaeological literature pertinent to defining the potential for buried archaeological resources within the archaeological APE. The records search revealed five previously recorded archaeological resources within the APE for the project. No sites listed in the NAHC's Sacred Lands file are within the archaeological APE.

After the results of the records searches were obtained, pedestrian inventories of accessible portions of the APE for the various alignments were performed in 2010 and 2011, regardless of whether the area had been inventoried previously. Archaeologists walked parallel transects within the APE, over areas with variable surface visibility. During the 2010 surveys, ground surface visibility ranged between 65% and

85% and averaged about 75% across the project alignment. In the alignment and parcel surveys in 2011, visibility varied considerably and ranged from 0 to 100% and averaged about 30% to 50%. All parcels with the potential to be impacted by project activities were included within the APE and were field examined by archaeologists, where access was permitted. A brief shovel testing/auger program was undertaken in 2010 at several drainage crossings along the UPRR/SR 99 Alternative to look for cultural deposits no greater than 6 feet beneath the current ground surface.

Archaeological field survey within the APE covered approximately 3,945 acres of land where access was obtained. The surveyed areas included:

- 26% of the UPRR (approximately 1,096 acres)
- 15% of the BNSF (approximately 759 acres)
- 20% of the Hybrid (approximately 851 acres)
- 70% of the HMFs (approximately 1,239 acres)

Thirteen archaeological resources were identified within the APE, either previously determined to be eligible for the NRHP, or potentially eligible for listing as part of this project. The significant and/or potentially significant archaeological resources within the boundaries of the APE include five previously recorded sites, three newly identified sites, and five archaeologically sensitive areas identified as areas of concern through consultation with property owners and with Native American contacts. It should be noted that all archaeologically sensitive locations within the APE that could not be definitively shown to have lost integrity were considered potentially eligible for NRHP listing, in accordance with the stipulations of the PA.

The eligible and potentially eligible archaeological resources in or adjacent to the APE are the following:

- CA-MER-381/H: Eligible archaeological site, prehistoric and historic components present
- CA-MER-383: Eligible prehistoric archaeological site
- P-24-001862: Potentially eligible prehistoric site
- CA-MAD-2064H: Potentially eligible historic archaeological remains of [REDACTED] Station
- CA-MAD-2121H: Potentially eligible historic archaeological remains of a Chinese railroad labor camp
- HST-H-JL-01: Potentially eligible historic archaeological remains of early 20th ca. residential site
- HST-H-JL-02: Potentially eligible historic archaeological remains of early 20th ca. residential site
- HST-H/P-TC-01: Potentially eligible prehistoric and historic archaeological site
- [REDACTED]: Potentially eligible prehistoric site
- [REDACTED]: Potentially eligible prehistoric site
- Undocumented Human Burials: Potentially eligible archaeological resource
- Two Potential Prehistoric/Ethnographic Villages: Potentially eligible archaeological resources

2.4 Built Environment Resources

The APE for built environment resources is shown in Appendix A-2, which includes the assessor parcel numbers (APNs) that serve as the map reference numbers for built environment resources inventoried and evaluated in this study. Two built environment resources, Robertson Boulevard Tree Row and the Weber Avenue Overcrossing (Bridge 42C0071), do not have APN numbers and are identified on the maps by name. Evaluations of all built environment resources are presented on Department of Parks and Recreation (DPR) 523 forms and other recordation forms prepared for previous studies (Appendix C). In Appendix C, the recordation forms are organized north-to-south in the project area by county, and then in ascending numerical order by APN. The remainder of this summary outlines the conclusions of the inventory and evaluation of built environment resources in the APE for the project.

A total of 151 buildings, structures, objects, districts, and landscapes are included in this HPSR that met the above criteria and were either known built environment resources (identified by previous studies) or required inventory and evaluation because they had not been previously evaluated. The built environment resources presented in this report fall within the towns/cities of Atwater, Merced, Le Grand,

Chowchilla, Madera, and Fresno in the counties of Merced, Madera, and Fresno and are 50 years of age or older (constructed in or before 1960).

Of the 151 built environment resources addressed in this report, two were previously listed in or determined eligible for listing in the NRHP and CRHR. This HPSR evaluated and updated evaluations for the remaining 149 properties under NRHP and CRHR criteria. A summary of the findings for the built environment resources addressed in this HPSR is as follows (definitions of the status codes are provided in Appendix D):

- One property, Forestiere Underground Gardens, is listed in the NRHP and CRHR.
- One property, Weber Avenue Overcrossing (Bridge 42C0071), was previously determined eligible for listing in the NRHP.
- Four properties appeared eligible for NRHP and CRHR through previous survey efforts. Only three of these properties are recommended eligible for listing in the NRHP and the CRHR as part of the current survey.
- Six properties are recommended eligible for listing in the NRHP and CRHR as part of the current survey.
- Therefore, of the 151 built environment resources surveyed in the APE, 11 historic properties were listed in, have been determined eligible for listing in, or appear to meet the criteria for listing in the NRHP.

All built environment resources were also evaluated in accordance with Section 15064.5(a)(2)–(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code. Of the 151 built environment resources included in the HPSR, 7 are historical resources for the purposes of CEQA only.

- The remaining 133 built environment resources addressed in the HPSR did not appear to meet the criteria for listing in either the NRHP or the CRHR, or were not found to be historic resources for the purposes of CEQA, but would be acquired, destroyed, demolished, or substantially altered as a result of the undertaking (Attachment C, Section A.5.d of the PA).

3.0 Consulting Parties, Public Participation

The PA sets forth the procedures for the identification and participation of consulting parties and the public in the Section 106 process for the project. Stipulation V, Part B of the PA requires that a list of consulting parties, a summary of coordination efforts, and public comments be submitted to the CASHPO for review, comment, and concurrence. That information, provided below, will be submitted as part of the HPSR to the CASHPO and revised following the public comment period. The public, local agencies, and other interested parties have the opportunity to comment on the findings of the historic properties surveys at public meetings and through review of the Draft and Final EIS/EIR documents (see Appendix E for a copy of the PA, Section V). Public participation will also be afforded in the Memorandum of Agreement and Treatment Plan development process (PA, Section V).

Consultation with the CASHPO and the appropriate interested parties regarding potential effects on built environment properties has been ongoing throughout this project. As part of the outreach process, letters were sent to interested parties in 2009 and supplemental letters were sent in July 2010 (see Appendix B). No responses were received from the first (2009) and second (2010) round of letters. The recipients, listed below, include such interested parties as area museums and local historical societies, in compliance with the consultation requirements of NHPA and its implementing regulations (36 CFR 800). Interested parties contacted during this process included the following:

- Clovis-Big Dry Creek Historical Society, in the Clovis Museum
- Fresno Art Museum
- Fresno City and County Historical Society
- Gustine Museum
- Kearney Mansion Museum
- Madera County Historical Society
- Merced County Historical Society and Merced County Courthouse Museum
- Society for California Archaeology Department of Anthropology, California State University, Fresno

As per PA stipulation V.A., these interest groups and interested individuals will be invited to comment on the treatments proposed, and those with demonstrated interest in the project will be invited to participate as consulting parties.

In addition to the interested party letters sent out in 2009 and 2010, a public meeting was held with the City of Fresno Historic Preservation Commission on September 19, 2011 to discuss findings in the draft EIR/EIS on potential impacts to resources within the City of Fresno's jurisdiction. The Historic Preservation Commission provided a staff report outlining questions and comments on the Draft EIR/EIS document. The Merced to Fresno section has responded as necessary by incorporating changes into the Final EIR/EIS and applicable technical reports.

Information collected during the public comment period for the Draft EIR/EIS was incorporated into the Final EIR/EIS and technical reports (HPSR, HASR, and ASR) following the public review period.

3.1 Additional Consulting Parties

FRA and the Authority are identifying all consulting parties for the Memorandum of Agreement (MOA) per Section 106 of the NHPA (see 36 CFR 800.2 (c) (3)). In December 2011, FRA and the Authority invited local governments to participate as consulting parties to comment on potential effects of the HST Project to historic properties within their jurisdiction. Potential consulting parties contacted during this process included the following:

- City of Merced
- City of Madera
- Madera County
- City of Fresno

- Fresno County

As of January 2012, the City of Fresno, the County of Fresno, and the City of Madera have accepted the invitation to become consulting parties (Appendix B). Consulting parties will have the opportunity to review and comment on the Finding of Effect (FOE) report and participate in the development of measures to avoid, minimize and mitigate adverse effects to historic properties.

3.2 Native American Consultation

Consultation with the CASHPO and the California Native American Heritage Commission and representatives of Native American tribes regarding potential impacts on archaeological sites and traditional cultural properties (TCPs) has been ongoing throughout this project. Native American outreach began with an initial letter to the tribes in December 2009. Formal Consultation between FRA and federally designated Native American Tribes began in February 2010.

The following is a list of Native American tribes in the project corridor that were invited to participate in the process. Those who have participated (e.g., attended meetings, responded to letters, and/or provided information regarding the presence of resources within the project area) are identified below as such:

Federally Recognized Tribes:

- Big Sandy Rancheria¹ of Mono Indians of California, Auberry, CA 93602 (participated)
- California Valley Miwok Tribe, Stockton, CA 95210
- Cold Springs Rancheria of Mono Indians of California, Tollhouse, CA 93667
- North Fork Rancheria of Mono Indians of California, North Fork, CA 93643
- Picayune Rancheria of Chuckchansi Indians of California, Coarsegold, CA 93614
- Santa Rosa Indian Community of the Santa Rosa Rancheria, Lemoore, CA 93245
- Table Mountain Rancheria of California, Friant, CA 93626-0177
- Tule River Indian Tribe of the Tule River Reservation, Porterville, CA 93528

Non-Federally Recognized Tribes and Tribal Organizations:

- Chowchilla Tribe of Yokuts, Fresno, CA 93720 (participated)
- Amah Mutsun Band of Mission Indians, Woodside, CA 95821 (participated)
- Dumna Wo-Wah Tribal Government, Auberry, CA 93602 (participated)
- Southern Sierra Miwuk Nation, Mariposa, CA 95338 (participated)
- Choinumni Tribe, Clovis, CA 93611
- Chukchansi Yokotch Tribe, Raymond, CA 93644
- Dumna Tribal Government, Fresno, CA 93702
- Dumna Cultural Preservation Association, Fresno, CA 92716
- Dunlap Band of Mono Indians, Dunlap, CA 93621
- Esohm Valley Band of Indians, Salinas, CA 93906
- Kawaiisu Tribe of Tejon Reservation, Kernville, CA 92716
- Kern Valley Indian Council, Weldon, CA 93283
- Kings River Choinumni Farm Tribe, Clovis, CA 93612-2211
- North Fork Mono Tribe, Clovis, CA 93619
- North Valley Yokuts Tribe, Linden, CA 95236
- Sierra Tribal Consortium, Fresno, CA 93728
- Sierra Nevada Native American Coalition, Dunlap, CA 93621
- Chumash Council of Bakersfield, Bakersfield, CA 93302
- Tejon Indian Tribe, Wasco, CA 93280
- Traditional Choinumni Tribe, Sanger, CA

¹ The Spanish word Rancheria refers to the workers' quarters of a rancho and has become extended into English to mean a native village.

- Yokuts Archaeological Advisory Team, Porterville, CA 93258

Individuals Registered with the Native American Heritage Commission:

- Delia Dominguez, Covina, CA 91722 (Yowlumne; Kitanemuk)
- Frank Arrendondo, Santa Barbara, CA 93102 (Chumash)

Three meetings with tribal representatives were held in Fresno. Table 3-1 summarizes the outreach with Native American Tribes undertaken to date.

Table 3-1
 Tribal Contacts and Consultation

Action	Date	Summary
Initial search conducted for Native American Tribes in Project Study Area.	March 2009	Informational search undertaken for broad area.
Invitations sent to attend scoping meeting.	March 2009	Fact sheet on project sent out.
Native American Heritage Commission Sacred Lands Search.	March 2009	Native American Heritage Commission contacted to request a search of the Sacred Lands file for the project corridor and the NAHC responded with a list of groups and individuals who might have information on cultural resources within the project APE.
Letters sent to individual contacts provided by NAHC.	October 2009	
Telephone contacts.	November 2009	A phone call and a follow-up call was placed to each contact provided by the NAHC requesting comment or information.
Consultation request letter mailed to tribes listed in the Tribal Consultation Plan.	December 17, 2009	
Second NAHC Sacred Lands Search.	January 2010	A second request was sent reflecting changes to the original alignment sent in April 2009.
Letter initiating request for government-to-government coordination mailed from FRA to federally recognized tribes.	February 25, 2010	Responses received from the Fernandeño Tataviam Band of Mission Indians (March 8, 2010), the Pala Band of Mission Indians (March 16, 2011), the Pechanga Temecula Band of Luiseño Indians (March 30, 2011), the San Manuel Band of Serrano Mission Indians (March 21, 2011), the Soboba Band of Luiseño Indians (March 8, 2011) and the United auburn Indian Community (March 17, 2010).
Informational meeting for all interested tribal members.	July 22, 2010	Organized meeting in Visalia to allow a forum for the Native American community to provide feedback. No Native American representatives

Action	Date	Summary
		attended.
Consultation Meeting for all interested tribal members.	August 16, 2010	Representatives from Dumna, Amah Mutsun, Choinumni Tribes, and Big Sandy Rancheria attended this meeting held in Fresno or participated by phone. FRA and Authority representatives presented project information.
Letter follow-up on the initial request for government-to-government consultation between the FRA and federally recognized tribes, and issues an invitation to participate in a telephone conference scheduled for December 15, 2011 mailed from FRA to federally recognized tribes.	December 6, 2010	
Telephone conference for coordination between the FRA and federally recognized tribes.	December 15, 2010	
Letter from FRA to federally recognized tribes summarizes the December 15, 2010 conference call as a "productive session" and issues an invitation to a second telephone conference planned for January 19, 2011. The draft PA was enclosed with this letter, and the FRA invited participation in the PA's development, as well as the forthcoming draft Memorandum of Agreement (MOA) template.	December 28, 2010	Responses received from the Pechanga Temecula Band of Luiseño Indians (February 18, 2011), and the Soboba Band of Luiseño Indians (February 24, 2011).
Letter sent from FRA to federally recognized tribes invites tribes to meet with the FRA to consult about the HST system between June 20 and 24, 2011 in the project area.	May 27, 2011	California Valley Miwok Tribe responded on June 17, 2011, by saying: "The California Valley Miwok Tribe has no comments at this time."
Native American (Informal) Consultation Meeting to obtain input from interested Native American Groups and Individuals.	June 1, 2011	Meeting convened by the FRA and the Authority in Fresno, California to update tribal representatives regarding status of cultural resources investigations; request representatives to delineate areas of interest and potential responsibility, and to obtain input regarding concerns and/or interests. Questions and concerns offered by attendees addressed monitoring during construction, repatriation of human remains, the source of aggregate for construction, and general environmental inquiries. Representatives from the federally recognized Big Sandy Rancheria and the Cold Spring Rancheria, both with interests in the Fresno-Bakersfield section study area attended the meeting; representatives from the non-

Action	Date	Summary
		federally recognized Southern Sierra Miwuk Nation and the Sierra Nevada Native American Coalition, who share interests in the area were also in attendance.
Formal Tribal Consultation with Federally Recognized Tribes.	June 22-23, 2011	FRA representatives consulted with representatives from the San Manuel Band of Serrano Mission Indians and Soboba Band of Luiseño Indians on June 22, 2011. FRA representatives consulted with representatives from the Pechanga Temecula Band of Luiseño Indians on June 23, 2011.
Consultation Meeting for all interested tribal members.	July 27, 2011	Representatives from all tribal entities that were identified by the NAHC, and through coordination efforts over the past two years, were invited to this meeting. Meeting involved representatives from both the Merced to Fresno and Fresno to Bakersfield sections, as tribal areas overlap in the Fresno portion of both projects. Representatives from the following federally recognized tribes were at the meeting: North Fork Rancheria, Tule River Tribe, Picayune Rancheria, and Table Mountain Rancheria. Representatives from the following non-federally recognized groups attended the meeting: Traditional Choinumni and North Fork Mono.
Public Meeting Regarding Preferred Alternative	December 13, 2011	Representatives from all tribal entities, including federally-recognized tribes, groups and individuals identified by the NAHC, and through coordination efforts over the past two years were invited to this meeting via telephone outreach and mailings.
Native American (Informal) Consultation Meeting to provide project update regarding Authority's selection of the Preferred Alternative, status of technical reports and compliance documents, and to obtain input from interested Native American groups and individuals	January 10, 2012	Representatives from all tribal entities including federally-recognized tribes, groups and individuals identified by the NAHC, and through coordination efforts over the past two years were invited to this meeting via telephone outreach and mailings. Meeting convened by the Authority in Fresno, California, to update tribal representatives regarding status of cultural resources investigations and request input regarding concerns and/or interests. Questions and concerns offered by attendees included confidentiality of site information, monitoring during construction, and

Action	Date	Summary
		repatriation of human remains. Representatives from the following non-federally recognized groups attended the meeting: Chowchilla Tribe of Yokuts, Eshom/Wuksachi, Amah Mutsun Tribal Band. Also in attendance was one person with Yaqui/Apache affiliation.
APE = Area of Potential Effects FRA = Federal Railroad Administration NAHC = Native American Heritage Commission		

These coordination efforts have included discussion of the following:

1. Members of tribes offered to provide confidential information on TCPs and possible archaeological sites so that the project may avoid or minimize impacts. TCPs have not been identified to date. Some sensitive archaeological sites have been identified and discussed herein.
2. Members of the tribes will provide the Authority with geographic boundaries that separate the various tribes' interests so that, if cultural sites are found, appropriate coordination and development of the MOA for the treatment of these sites can proceed with the appropriate tribal representatives.
3. An MOA will be developed among affected parties and consulting parties to resolve adverse effects on historic properties that result from the undertaking.
4. Native American outreach activities are ongoing. Native American tribes have been consulted during the project in accordance with the framework in Attachment E of the PA. Tribal entities were notified about the initiation of the Section 106 process in 2009, and were consulted during the preparation of the PA between 2010 and its execution in 2011. Native Americans have also been consulted about the APE and about potentially sensitive cultural and archaeological resources. Native Americans will continue to be consulted at each key decision point of the Section 106, CEQA, and NEPA processes, and their input integrated into the project planning process.

4.0 Summary of Identification Effort

This chapter describes the inventory and field methods employed, the methods to characterize historic context and previously recorded historic properties, and involvement of the public, including Native American groups and individuals. The methods outlined here represent the implementation of the *Merced to Fresno Archaeological Identification and Evaluation Plan* and the *Merced to Fresno Architectural Survey and Evaluation Plan* (Authority and FRA 2009b, c), which were submitted to and approved by the Project Management Team and the Authority. Relevant aspects of the PA were incorporated into both inventory and evaluation plans and were also implemented during the course of the identification effort.

4.1 Archaeological Resources

This section describes the methods used to identify cultural resources in the HST project APE, to satisfy the relevant statutory and regulatory framework. The methodology is consistent with state and federal standards, and was developed to meet the requirements of CEQA, Section 106, and the PA for the project.

The overall cultural resources inventory effort will necessarily be completed in phases, when access to private lands within the APE is acquired and as the APE is refined. A phased identification process is specifically authorized under 36 CFR 8004.2(b)(2).

4.1.1 Methods

4.1.1.1 Background Literature Search

To determine whether prehistoric or historic cultural resources were previously recorded within the APE, cultural resources literature searches were performed at the Central California Information Center (CCIC) on April 22, 2009, and at the Southern San Joaquin Valley Information Center (SSJVIC) on May 7, 2009, November 30, 2009, January 5, 2010, January 25, 2010 and April 20, 2010. The Caltrans District 6 office was visited on May 21 and again on May 26, 2010, to examine records of road improvement projects along SR 99 and connectors within the HST project APE. The records searches included a half-mile radius around each of the preferred alternatives, UPRR/SR 99 and BNSF, the Wyes, and the HMF sites.

In addition to official maps and records, the following sources of information at the CHRIS centers were consulted as part of the records searches:

- National Register of Historic Places–Listed Properties (2010).
- California Register of Historical Resources–Listed Properties (2010).
- California Inventory of Historical Resources (1976 and updates).
- California State Historical Landmarks (1996 and updates).
- The Survey of Surveys (1989).
- Government Land Office maps.
- California Points of Historical Interest (1992 and updates).
- Directory of Properties in the Historic Property Data Files for Merced, Madera, and Fresno Counties (2010).

The records searches by the CHRIS centers indicated that over 130 cultural resources studies have been conducted within the project corridor, and over 105 cultural resources studies have been conducted within the 0.5-mile radius of the project APE.

4.1.1.2 Field Survey Methodology

Both field survey and subsurface archaeological testing were performed in the APE for the Merced to Fresno Section of the HST. Field survey efforts were conducted in both 2010 and 2011. The 2010 field efforts were conducted by one team of four archaeologists, while the 2011 survey consisted of three crews of four archaeologists. All four teams, led by professional archaeologists meeting Secretary of the Interior's Professional Qualifications Standards (48 FR 44738-44739 - Appendix A to 36 CFR Part 61) investigated accessible areas within the APE by walking parallel transects. The survey crews were furnished with large-scale aerial maps or map books that depicted the APE and various landscape features to make route identification as simple as possible. The crews also used a Trimble Geo XHT global positioning system (GPS), with the same mapping in its database to provide additional assistance in identifying the APE in areas where fewer visual checkpoints existed, to ensure that survey was being conducted within the proper corridor.

Given differences in ground surface visibility across the APE, mainly due to factors such as vegetation cover or urban development (paving, etc.), variability in field survey methods was employed as dictated by surface conditions. Areas of dense underbrush and heavy crop cover were sampled to the degree possible, i.e. examining dirt from rodent burrows and walking between underbrush clusters rather than on parallel transects when dense vegetation would have required substantial clearing to expose transects. Paved or submerged locations were not surveyed. In areas within railroad right-of-way (which is defined as 50 feet on either side of the centerline of the tracks), the 25 feet on either side of the track centerline was examined from the side but archaeologists did not approach any closer because UPRR regulations prohibited encroachment within 25 feet of the rail; the bulk of this 25-foot strip was generally covered by ballast and so no surface soils were visible. Construction-disturbed soils and paved roadways were frequently found beyond the 25-foot non-encroachment zone. The archaeological field team investigated accessible areas within the APE by walking parallel transects generally spaced no more than 15 meters apart, periodically zigzagging between transects; this transect interval was applied to all surveyed parcels, regardless of previous disturbances, except when surface visibility was curtailed as described above.

In 2010, professional archaeologists conducted limited additional archaeological investigations in areas where the project intersects natural creek, slough, and stream areas. [REDACTED]

[REDACTED] These focused efforts included more intensive pedestrian survey (using a 5- to 10-meter transect interval) and limited subsurface exploration using shovel test probes (STPs) and auger test units (AUs). These tests were limited strictly to parcels with access permission and, as stated above, were crossed by an extant drainage; historic mapping has not yet been examined for the locations of reconfigured drainages.

STP and AU excavation methods consisted of 50-centimeter-diameter probes to depths exceeding the effective use of shovels (approximately 1 meter), and then auger-bore samples in 20-centimeter increments with hand augers until reaching the water table or the useful limit (approximately 2 meters) of the auger. Probe locations were selected based on discretionary criteria including location within the APE and stream-adjacent locations where the dense riparian vegetation would allow. In some areas where shovels were unable to penetrate disturbed upper soils, only AUs were used for sampling. All sediments were screened through quarter-inch mesh screens, and observations of the surrounding environment, soil descriptions, and profiles of each excavation unit were recorded. Five creek crossing areas—Ash Slough, Dry Creek, Berenda Slough, Berenda Creek, and Cottonwood Creek—were partially explored where they crossed the UPRR/SR 99 Alternative. The five locations tested encompass the small area where a drainage crossing and access permission coincided; no new archaeological deposits were encountered in any of the stream crossings tested..

4.1.1.3 Tribal Consultation

In addition to the above efforts, and as a result of contact letters sent to various Native American individuals and organizations identified in the Draft Tribal Consultation Plan, archaeologists held a field

meeting with Mr. Jim Redmoon, Cultural Resources Manager for the Dumna Wo-Wah Tribal Council on May 27, 2010. Mr. Redmoon shared specific information regarding the location of two village sites [REDACTED] which may overlap the HST project APE, as well as the location of a Native American burial site [REDACTED] which is within the APE for either alternative.

4.2 Built Environment Resources

Built environment resources consist of buildings, structures, and/or objects. These resources can exist singly or as part of a larger district, system, or historic cultural landscape. In addition to buildings, built environment resources include engineering features (e.g., dams, canals, railroads) and objects such as a statue, gatepost, or fountain. When built environment resources appear eligible for listing, are determined eligible for listing, or have been listed in the NRHP, they are called *historic properties*. CEQA and the CEQA guidelines use the term *historical resources* for these properties and for resources eligible for the CRHR. For the purposes of this report, which will be summarized in the EIS/EIR for the project, the term *historic properties* will be used to refer to built environment resources that are listed, determined eligible for, or that appear to be eligible for listing in the NRHP, while *historical resources* will be used for those eligible for, or listed in the CRHR only. The term *built environment resources* will apply generically to these resources regardless of historic status.

4.2.1.1 Previously Identified Built Environment Resources and Previous Surveys

Architectural historians meeting the professional qualifications of the Secretary of the Interior's Standards for Architectural History and meeting the definition of qualified investigator (QI), as per the PA, conducted the identification and evaluation of built environment resources for the Merced to Fresno Section of the HST.

Records searches conducted at the CCIC for Merced County and at the SSJVIC for Madera and Fresno Counties (and described in Section 4.1.1) also included retrieval of background information on previously recorded built environment resources. Additional record searches for built environment resources was conducted at both information centers on January 26, 2011, April 4, 2011, June 6, 2011, and June 29, 2011. Background information provided by the CHRIS centers was used to identify built environment resources listed in, determined eligible, or potentially eligible for listing in the NRHP and CRHR within the APE. This background information included the following:

- NRHP and CRHR Listings (2011)
- Directory of Properties in the Historic Property Data Files for Merced, Madera, and Fresno Counties (OHP 2011)
- California Inventory of Historic Resources (OHP 1976)
- California Points of Historical Interest (OHP 1992)
- California Historical Landmarks (OHP [1990] 1995)
- Previous Environmental Studies within the Project Area

The records provided by the CHRIS centers indicated that a total of 103 built environment resources were previously recorded within the APE. See Table 4-1 for more detailed information on these resources. As previously stated in Section 3.0, built environment resources south of E. Amador Street in Downtown Fresno are addressed in the HPSR and HASR for the Fresno to Bakersfield Section, and therefore, are not included in Table 4-1.

Of the 103 built environment resources previously recorded in the APE, 46 resources are no longer extant. Of the remaining 57 resources, only one was listed in the NRHP (Status Code 1) and one resource was determined eligible for listing in the NRHP (Status Code 2). Eight resources appeared to be eligible for listing in the NRHP and CRHR (Status Code 3) and six were recognized as historically significant by

local government (Status Code 5). In addition, 27 resources were determined not eligible for listing in the NRHP (Status Code 6), and 14 resources had not been fully evaluated (Status Code 7) or had no status code assigned in the HRI list.

The project QIs also reviewed local registers and lists of historic properties and consulted with local government planning staff to thoroughly account for previously identified historic properties and include them in the HPSR survey population. No additional local landmarks other than those identified through the CHRIS center searches were identified in the APE for Merced or Madera County. Additional built environment resources not found in the records provided by the CHRIS centers were identified as local landmarks in Downtown Fresno by the Fresno County Historical Landmarks and Records Commission (HLRC). Those resources are identified in the HPSR for the Fresno to Bakersfield Section.

Of the 103 previously identified built environment resources identified in the records provided by the CHRIS centers, 24 were exempted according to provisions set forth in Attachment D of the PA (Appendix E). For a more detailed description of the methodology for exempted resources, see Section 4.2.2. In summary, only 21 of the 103 previously recorded built environment resources required documentation for this HPSR (see Table 4-1). Another 130 built environment resources were newly identified in the field by the QIs, amounting to a total of 151 properties documented in this report.

Table 4-1

Previously Identified Built Environment Resources within the HST Project Area of Potential Effects

APN/ Map ID # ^a	Primary Number	Resource Description	CHRIS Status Code ^b	Documentation Status
All Counties				
	P-24-000097	Southern Pacific Railroad	6Y	Exempt
	P-24-001881	BNSF Railway	6Y	Exempt
Merced County				
	P-24-000084	Lingard Lateral/Givens Lateral/Hadley Lateral	6U	Exempt
	P-24-000085	Koff Lateral Canal	6Y	Exempt
	P-24-000086	Hartley Lateral Canal	6Y	Exempt
	P-24-000096	Farmdale Canal Segment; Farmdale Lateral Canal	6Y	Exempt
051-010-010	P-24-000444	T-47, Repair Hangar, Building 47	6Y	DPR 523 Forms Updated in HASR, Not Eligible
051-010-010	P-24-000445	T-51, Repair Hangar, Building 51	6Y	DPR 523 Forms Updated in HASR, Not Eligible
051-010-010	P-24-000446	T-54, Line Maintenance Building, Building 54	6Y	DPR 523 Forms Updated in HASR, Not Eligible
	P-24-000447	T-84, (Type F-2) Fire Station	6Y	Not Extant
	P-24-000450	Building #332 (Type S-A), Supply Room	6Y	Not Extant

APN/ Map ID # ^a	Primary Number	Resource Description	CHRIS Status Code ^b	Documentation Status
	P-24-000455	T-331, Recreation Building	6Y	Not Extant
	P-24-000465	T-521 Commissary Warehouse, Cold Storage	6Y	Not Extant
	P-24-000466	T-522 Commissary Warehouse, Cold Storage	6Y	Not Extant
	P-24-000467	T-531 (Type SH-18), Warehouse, Commissary Storage	6Y	Not Extant
	P-24-000468	T-532 (Type SH-13), Warehouse	6Y	Not Extant
	P-24-000469	T-533, Warehouse	6Y	Not Extant
	P-24-000470	T-534 (Type SH-9), Ordnance and Signal Warehouse	6Y	Not Extant
005-070-025	P-24-000471	T-535, Warehouse/Traffic Management Office	6Y	DPR 523 Forms Updated in HPSR, Not Eligible
	P-24-000472	T-537 (Type SH-18), Warehouse	6Y	Not Extant
	P-24-000473	T-545 (Type A-4), Administration Office, 1950s HQ, Group Air Base, SPS Operations	6Y	Not Extant
	P-24-000474	T-551, Ordnance Utility Shop	6Y	Not Extant
	P-24-000475	T-553, Paint Storage and Painting	6Y	Not Extant
	P-24-000476	T-554 Motor Repair Shop	6Y	Not Extant
	P-24-000477	T-556 (Type SP-2), Motor Repair Shop/Wood Craft Shop	6Y	Not Extant
051-010-010	P-24-000478	T-561 (Type SA-2, A-1), Publications Building/Reprographics/Information Management	6Y	DPR 523 Forms Updated in HPSR, Not Eligible
005-070-034	P-24-000482	T-372, Storehouse, or T-524, Ammunition Storage/Building 908, Base Maintenance Shop	6Y	DPR 523 Forms Updated in HPSR, Not Eligible
005-070-034	P-24-000483	T-917, Pump House, Waste Treatment System	6Y	DPR 523 Forms Updated in HPSR, Not Eligible
051-030-006	P-24-000484	T-301, Building 1041	6Y	DPR 523 Forms Updated in HASR, Not Eligible
051-030-006	P-24-000485	T-308, Barracks, Building 1042	6Y	DPR 523 Forms Updated in HASR, Not Eligible
051-030-006	P-24-000486	T-358, Building 1035	6Y	DPR 523 Forms Updated in HASR, Not Eligible

APN/ Map ID # ^a	Primary Number	Resource Description	CHRIS Status Code ^b	Documentation Status
	P-24-000598	DeRoos Complex and Site of Ted's Market	6Y	Not Extant
	P-24-000600	207 Parsons Avenue	6Y	Not Extant
	P-24-000606	Fairfield Canal	6Y	Exempt
	P-24-000614	3318 Harvard Lane	6Y	Not Extant
066-050-003	P-24-000615	1383-1385 Yale Avenue	6Y	DPR 523 Forms Updated in HPSR, Not Eligible
	P-24-000616	3316 Harvard Lane	6Y	Not Extant
	P-24-000644	Bridge 39-1L	6Y, 7R, Caltrans Category 5	Exempt
	P-24-000646	Bridge 39-4L	7R, Caltrans Category 5	Not Extant
	P-24-000647	Bridge 39-6L	6Y, 7R, Caltrans Category 5	Exempt
	P-24-000649	Bridge 39-57L	6Y, 7R, Caltrans Category 5	Exempt
	P-24-000650	Bridge 39-59L	6Y, 7R (not listed in Caltrans Inventory)	Not Extant
	P-24-000657	Bridge 39-108L	7R, Caltrans Category 5	Exempt
	P-24-000738	Southern Pacific Freight Station	3S	Not Extant
035-160-010	P-24-000737	Evergreen Memorial Park/De Long Memorial Park	5S2	DPR 523 Forms Updated in HPSR, CEQA Resource
034-205-005	P-24-000749	KAMB/California Highway Patrol Building	3S	DPR 523 Forms Updated in HPSR, NRHP Eligible
	P-24-000821	Cardwell Grain and Milling Company	3S	Not Extant
031-211-018	P-24-000863	1424 Q Street	7R	DPR 523 Forms Updated in HASR, Not Eligible
	P-24-000909	Little Snelling	5D2	Not Extant
	P-24-000910	629 W 14th St	5D2	Not Extant
	P-24-000911	637 W 14th St	5D2	Not Extant
	P-24-000912	Joseph Couza Home	5D2	Not Extant

APN/ Map ID # ^a	Primary Number	Resource Description	CHRIS Status Code ^b	Documentation Status
	P-24-000913	729 W 14th St	3S	Not Extant
	P-24-000914	733 W 14th St	5D2	Not Extant
	P-24-000915	743 W 14th St	5D2	Not Extant
031-213-015	P-24-000916	Caswell T. Hunter Home	5S2	DPR 523 Forms Updated in HPSR, CEQA Resource
031-213-016	P-24-000917	Frank Bacigalupi Home	5S2	DPR 523 Forms Updated in HPSR, CEQA Resource
031-213-017	P-24-000918	Jacob Schafer Home	5S2	DPR 523 Forms Updated in HPSR, CEQA Resource
	P-24-000919	911 W 14th St	5S2	Not Extant
031-243-004	P-24-000920	Merced Beverage and Supply Co.	3S	DPR 523 Forms Updated in HPSR, CEQA Resource
035-010-005	P-24-000921	Merced County Hospital	3S	Recorded with "streamlined documentation" in HASR, Not Eligible
031-231-005	P-24-000922	PG&E Merced Receiving Station	3S	DPR 523 Forms Updated in HPSR, NRHP Eligible
	P-24-000923	632 W 15th St	5D2	Not Extant
	P-24-000924	Mayflower Apartments	3S	Not Extant
	P-24-000925	706 W 15th St	3S	Not Extant
	P-24-000926	712 W 15th St	7N	Not Extant
	P-24-000927	Dan's Appliance Repair	3S	Not Extant
	P-24-000928	742 W 15th St	3S	Not Extant
	P-24-000929	822 W 15th St	5S2	Not Extant
031-211-007	P-24-000930	912 W 15th Street	5S2	DPR 523 Forms Updated in HPSR, CEQA Resource
	P-24-000931	916 W 15th Street	5S2	Not Extant
031-360-001 031-360-027	P-24-000932	Merced Southern Pacific Railroad Station	3S	DPR 523 Forms Updated in HPSR, NRHP Eligible
	P-24-000933	64 W 16th Street	7N	Not Extant
031-162-013	P-24-000934	Hotel Des Pyrenees	7R	Recorded with "streamlined documentation" in HASR, Not Eligible

APN/ Map ID # ^a	Primary Number	Resource Description	CHRIS Status Code ^b	Documentation Status
031-154-011	P-24-000935	Oy Kuong Laundry/Ranch Restaurant	5S2	DPR 523 Forms Updated in HPSR, CEQA Resource
031-152-012	P-24-000936	315 W 16th Street	7R	DPR 523 Forms Updated in HASR, Not Eligible
	P-24-000942	Richfield Oil Company	5S2	Not Extant
	P-24-001570	639 W 14th St	5D2	Not Extant
	P-24-001696	Bridge 39-07	6Y, Caltrans Category 5	Exempt
	P-24-001711	Farmers Insurance	6Y	Not Extant
	P-24-001712	Bridge 39-58	6Y (not listed in Caltrans Inventory)	Not Extant
	P-24-001713	Bridge 39-99	6Y, Caltrans Category 5	Not Extant
	P-24-001714	Bridge 39-50	6Y (not listed in Caltrans Inventory)	Not Extant
	P-24-001715	Abandoned section of SR 99	6Y	Exempt
	P-24-001716	Bridge 39-100	6Y, Caltrans Category 5	Exempt
059-330-006	P-24-001854	1732 N Highway 99	6Y	DPR 523 Forms Updated in HASR, Not Eligible
318-101-024	P-24-001877	ATSF Le Grand Railroad Station	No Status Code Assigned	DPR 523 Forms Updated in HPSR, Not Eligible
	P-24-001886	Doane Lateral	6Y	Exempt
	P-24-001909	Merced Irrigation District	3	Exempt
Madera County				
	P-20-002487	Mammoth Orange Drive-In	2S2, 7W	Exempt, moved
	P-20-002489	Boyd Lateral Canal	4S1/7N1	Exempt
	P-20-002490	Califa Canal	4S1/7N1	Exempt
	P-20-002491	Lateral 32.2 (Madera Canal)	3S	Exempt

APN/ Map ID # ^a	Primary Number	Resource Description	CHRIS Status Code ^b	Documentation Status
011-320-001	P-20-002494	3 D's Motel	3S	DPR 523 Forms Updated in HASR, Not Eligible
	P-20-002512	SR RR Bridge over Ash Slough	No Status Code Assigned	Exempt
No APN	P-20-002519	Robertson Blvd Palm Trees	7L	DPR 523 Forms Updated in HPSR, NRHP Eligible
	P-20-002662	BNSF Railway between MP 1008.9 and 1013.9	No Status Code Assigned	Exempt
	P-20-002696	East Madera Underpass, Bridge 41-0027	7, Caltrans Category 4	Exempt
Fresno County				
No APN	P-10-004513	Belmont Avenue Subway and Traffic Circle	Caltrans Category 4	DPR 523 Forms Updated in HPSR, NRHP Eligible
	P-10-005573	Herndon Canal	6Y	Exempt
510-23-303 510-23-304	Not in HRI List	Forestiere Underground Gardens	1S/1CL	DPR 523 Forms Updated in HPSR, NRHP Listed
450-02-008	Not in HRI List	Roeding Park	No Status Code Assigned	DPR 523 Forms Updated in HPSR, NRHP Eligible
No APN	No Primary Number Assigned	Weber Avenue Overcrossing (Bridge 42C0071)	2S2, 2S, Caltrans Category 2	DPR 523 Forms Updated in HPSR, NRHP Eligible
^a APN/Map ID numbers only included for those properties surveyed and evaluated in the HPSR and HASR reports. ^b See Appendix D, California Historical Resource Status Codes, for description of status codes. Caltrans Category 2 = Eligible for National Register listing Caltrans Category 4 = Unevaluated Caltrans Category 5 = Ineligible for National Register listing				

4.2.2 Field and Research Methodology

Project QIs conducted all intensive-level field survey and field research for preparation of this draft HPSR during several periods between August 2010 and June 2011. Consistent with the PA and the *Merced to Fresno Architectural Survey and Evaluation Plan* (Authority and FRA 2009c), QIs conducted an intensive-level survey of properties within the APE that were 50 years of age or older at the time of survey (constructed in or before 1960). All field survey was conducted from public thoroughfares, except in cases where the property owners were contacted and agreed to provide entry to properties not adequately visible from a public thoroughfare. Access to those properties was arranged in the manner specified in the project protocol for such contact, and the inventory was completed for these properties.

Once the built environment APE was defined (see Section 1.4.2), the QIs began fieldwork to account for all buildings, structures, and objects, districts, and landscapes found within the APE. This survey took into account known resources (see above) and identified any additional resources that would require survey for the HPSR, including previously identified built environment resources that did not appear in the CHRIS center search results or properties that appeared to be potentially eligible for listing in the NRHP or CRHR. The survey also took into account built environment resources that were not likely to be found eligible for listing in the NRHP or CRHR, but would likely be demolished, destroyed, acquired, or substantially altered as part of the undertaking (See Attachment C, Part A of the PA in Appendix E). These known resources, potentially eligible properties, and resources likely to be found ineligible, but would be destroyed, became the survey population for this HPSR and were then subject to intensive-level surveys. Properties that met the PA definition of "streamlined documentation" and those that required evaluation but were not likely to be found eligible for listing in the NRHP or CRHR, but would not be destroyed, demolished, acquired, or substantially altered, are addressed in the HASR submittal for this project.

When certain common built environment resources were encountered during the field surveys, they were treated using the allowances noted in Attachment D of the Programmatic Agreement: "Properties Exempt from Evaluation." Given the proposed project's location between Merced and Fresno in the Central Valley, these were largely limited to railroad, water supply, and highway features. Attachment D of the PA identifies categories of properties that do not warrant documentation and evaluation unless deemed otherwise in the professional judgment of QIs in the field. For these types of features, the exemptions were defined under three categories listed in Attachment D: Railroad Related Features; Water Conveyance and Control Features; and Highway and Roadside Features. Except in cases where related features had been previously listed or determined eligible for listing in the NRHP or CRHR through a formal consultation process, or were judged to be eligible for listing by the QIs in the field, no documentation was prepared.

To confirm specific construction dates for built environment resources and to narrow estimated dates of construction, background research was conducted through county assessor records and through review of historic plat maps, USGS topographic maps, historic aerial photographs, and other documents. Field survey and preliminary research helped to determine which resources were built in or before 1960. The QIs conducted property-specific research once identification of the intensive-level survey population was complete.

The historical overview presented in this report and the property-specific research conducted for the significance evaluations were based on a wide range of primary and secondary material gathered by historians and architectural historians. Research on the historic themes and survey population was conducted in both archival and published records, including but not limited to, California State Library – California History Room (Sacramento); California State Archives (Sacramento); California State Railroad Museum (Sacramento); Online Archive of California; Los Angeles Public Library Online Database Collections; Merced County Assessor's Office; Merced County Planning and Community Development Department; City of Merced Planning Division; Merced County Library; Merced County Courthouse Museum/Merced County Historical Society; Madera County Assessor's Office; City of Madera Planning Department; Madera County Library; Chowchilla Library; Fresno County Assessor's Office; City of Fresno Planning and Development; Fresno County Library – California History and Genealogy Room; California State University, Fresno – Henry Madden Library.

The project historians and architectural historians also reviewed CHRIS, California Historical Landmarks and Points of Historical Interest publications and updates, the NRHP, the CRHR, and local register listings. In addition, the historians and architectural historians used published and digital versions of the population schedule of the U.S. Census Bureau information (U.S. Census Bureau 1850–1930).

Additionally, project QIs reviewed previous cultural resources reports, historic-period maps and atlases, historic photographs, aerial photography, local and state historical resources lists, and city directories. A review of the Caltrans "Historic Bridge Inventory" (Caltrans 2006) identified 14 bridges within the project limits; only one is listed as Category 2 (eligible for listing in the NRHP); two are listed as Category 4

(historical significance not determined); eight are listed as Category 5 (not eligible for listing in the NRHP); and two were not listed in the inventory. Weber Avenue Overcrossing and Belmont Avenue Subway were documented in the HPSR report and the remaining 12 bridges were exempted according to guidelines set forth in the PA.

5.0 Cultural Context

The cultural resources found in or likely to be encountered in the project area are a result of human behaviors within, and adaptations to, the environment. To better understand the origin and meaning of these resources, an environmental and cultural context must be established. The following paragraphs briefly describe the natural setting of the project area, and summarize cultural developments through the historic past.

5.1 Natural Setting

The HST project area is situated in the San Joaquin Valley (the Valley), a large north-south running basin in the central part of California. Geologically, the Valley has undergone periods of uplift and subsidence over millions of years. The Valley was filled with an interior ocean during the Jurassic and Cretaceous periods, up until the late Pliocene (ca. 5 million years ago). As a result, the Valley partially filled with sediment while inundated, then continued to fill with alluvial soils washed down from the Sierra Nevada and Coast Ranges. During the Pleistocene (ca. 2 million years ago) climate fluctuations alternately triggered depositional and erosional episodes in the region (DMJM+Harris 2004). The northern portion of the Central Valley is drained by the Sacramento River, and the southern portion is drained by the San Joaquin River. The two rivers merge north of the project area, forming a system of channels and marshes comprising the Sacramento-San Joaquin Delta (Delta). The valley bottom is comprised of active alluvial fans along the mountain ranges, alkali basins, and river floodplains consisting of well-sorted flood deposited soils. Natural levees in these floodplains offered natural locations for prehistoric occupation (Rosenthal et al. 2007).

5.2 Prehistoric Setting

Because they are generally development-driven, relatively few archaeological investigations have occurred within the San Joaquin Valley where relatively little such development has occurred until recent decades. Also, the presence during the late Pleistocene and Holocene of a series of large lakes in the southern part of the valley that were a focus for prehistoric human activity has resulted in a greater number of archaeological investigations in the southern valley area. Consequently, less is known about the archaeology in the northern valley area than many other regions in the Central Valley. However, the results of work conducted primarily in the last 50 years have increased understanding of the region's prehistory. Structured archaeological investigations within the northern San Joaquin Valley largely commenced in the 1960s (Olsen and Payen 1968, 1969; Riddell and Olsen 1969; Treganza 1960). Studies conducted along the eastern Diablo Mountain Range resulted in the identification of a cultural sequence similar to, but distinct from, that identified for the San Joaquin River Delta region approximately 50 miles northwest of the APE. The confluence of the Sacramento and San Joaquin rivers form this delta just east of where the rivers enter Suisun Bay, an upper arm of San Francisco Bay. Excavations conducted for the construction of reservoir projects in the region revealed a series of cultural complexes, focused on exploiting foothill and valley resources. These data indicate that prehistoric people occupied the valley for a period minimally extending from ca. 3000 B.C. to A.D. 1850.

Throughout central California, the prehistoric period is divided into three broad temporal periods that encompass similar cultural characteristics. The Paleo-Indian period extends from ca. 9000 to 6000 B.C. The Archaic period extends from 6000 B.C. to A.D. 500 and is divided into the Lower (6000 – 3000 B.C.), Middle (3000 – 1000 B.C.), and Upper (1000 B.C. – A.D. 500) periods (Fredrickson 1974:1[1]:49). The Emergent or Late Prehistoric period encompasses the period between A.D. 500 and sustained historic contact, which in some areas was as late as A.D. 1850 (Fredrickson 1973, 1974:1[1]:41–53, 1994:93–103). The drying of pluvial lakes adjacent to the Sierras, at the transition from the Paleo-Indian period to the Lower Archaic period, is one example of the variations in climate and environment that generally coincide with these broad chronological divisions throughout the state. It has been estimated that the thick deposits of Holocene alluvium (up to 10 meters) that accumulated along the lower stretches of the Sacramento River and San Joaquin River drainage systems during the last 5,000 to 6,000 years buried

sites from the earlier Paleo-Indian and Lower Archaic Periods (Moratto 1984:214). Recent geoarchaeological studies support this conclusion (Rosenthal and Meyer 2004a, 2004b; White 2003). At the end of the Pleistocene (approximately 9050 calibrated [cal] B.C.) and the early Middle Holocene (approximately 5550 cal B.C.), periods of climate change and associated alluvial deposition occurred throughout central California lowlands, including the San Joaquin Valley (Rosenthal et al. 2007:151). Such episodes buried many of the earliest known archaeological sites in central California. Further, a recent project along the banks of the San Joaquin River near the city of Fresno discovered archaeological sites buried beneath up to 1 meter of alluvium (Flint 2001). Rosenthal and others (2007) have recently synthesized the archeological data for the Central Valley and have updated the temporal sequence for the area (2007:147–163).

5.2.1.1 Paleo-Indian 11,550–8550 CAL B.C. (13,550–10,550 BP)

During this period, wetter climatic conditions predominated and the retreat of the Sierran glaciers produced substantial amounts of runoff into the drainages flowing into the valley. At the end of the Pleistocene (approximately 9050 CAL B.C.), considerable deposition in the alluvial fans and floodplains occurred throughout the central California lowlands, including the San Joaquin Valley (Rosenthal et al. 2007:151). In the northern San Joaquin Valley and adjacent Delta region, the prehistoric period is estimated to have extended from at least 12,000 years ago until historic contact, although few recorded archaeological sites in the region predate 5000 years ago. Characteristic fluted projectile points attributed to the Paleo-Indian period have been discovered in the Central Valley in relatively few scattered surface locations. Most such finds have been in the southern San Joaquin Valley around the Tulare Lake Basin. Within the northern San Joaquin Valley, fluted points have been found at only two sites, Tracy Lake in San Joaquin County and the Wolfsen mound site (CA-MER-215) in Merced County (Dillon 2002:110–128; Heizer 1938:12[5]:180–182; Peak and Weber 1978).

5.2.1.2 Lower Archaic 8550–5550 CAL B.C. (10,550–7550 BP)

During the Lower Archaic, the wet conditions during the Paleo-Indian period continued. As indicated for the Paleo-Indian period, in the northern San Joaquin Valley, few recorded archaeological sites in the region predate 5000 years ago. The thick deposits of Holocene alluvium (up to 10 meters) that accumulated along the lower stretches of the Sacramento River and San Joaquin River drainage systems during the last 5000–6000 years, buried sites from the earlier Paleo-Indian and Lower Archaic periods (Moratto 1984:214). Consequently, like the Paleo-Indian period, most evidence for human activity during the Lower Archaic is represented by isolated finds with most occurring around the lake basins in the southern part of the valley. Such evidence includes stemmed projectile points and flaked crescents. According to Rosenthal and others, in proximity to the project area, only one Lower Archaic artifact has been found and this was in the Sacramento Valley north of the project area (2007:151). While numerous Lower Archaic surface finds have been made around the lake basins to the south, the only archaeological deposit dated to this period was identified in a deeply buried soil along the ancient shoreline of Buena Vista Lake at CA-KER-116, which produced three flaked crescents, and radiocarbon dates on freshwater mussel shell of between 7175 and 6450 CAL B.C. (Rosenthal et al. 2007:151).

5.2.1.3 Middle Archaic 5550–550 CAL B.C. (7,550–2550 BP)

The Middle Archaic is marked by a substantial change in climate with drier conditions present throughout central California. The lakes in the southern part of the Central Valley shrank substantially or dried up entirely during this period, and alluvial landforms stabilized with little deposition occurring. It is during this period that human occupation can first be substantially documented in the archaeological record in the vicinity of the project area of the valley. Also, according to Rosenthal and others (2007:152–153), beginning during the Middle Archaic, two distinct settlement-subsistence adaptations can be documented for the area; one centering on the valley floor and the other on the adjacent foothills. Interestingly, sites attributable to the early Middle Archaic (ca. 5550–2050 CAL B.C.), are sparse on the valley floor, but relatively abundant in the foothills. This occurrence is most likely due to the deep burial of the sites on the valley floor during subsequent periods of alluvial deposition, whereas sites situated in the upper elevations and slopes of the foothills would be less likely to accumulate substantial sedimentary deposits.

Only four dated site deposits and a few dated isolates are attributable to this period on the floor of the valley with most of these occurring in buried contexts. One of these sites, located in the Sacramento Valley, was discovered, by augering, at a depth of more than 3 meters (Rosenthal et al. 2007:153). In contrast to these few occurrences, a number of sites dating between 4050 and 2050 CAL B.C. have been documented in the adjacent foothill areas with many also occurring in buried contexts, but generally at less substantial depths. These foothill sites are characterized by expedient flaked cobble tools used for chopping, pounding, and scraping, as well as cobbles used as grinding implements (Rosenthal et al. 2007:153).

A number of sites and site components associated with the late Middle Archaic (post 2550 B.C.) are documented in the northern San Joaquin Valley and Sacramento Valley and Delta. According to Rosenthal and others, "The late Middle Archaic record reveals a distinct adaptive pattern reflecting the emergence of logistically organized subsistence practices and increasing residential stability along river corridors of the Sacramento and San Joaquin Valleys" (2007:153). This adaptive association with water courses, which appears to have started during the middle part of the period, was clearly established by the end of the period. Site assemblages from this period contain non-utilitarian artifacts and evidence of trade, and faunal remains indicate year-round site occupation. These late Middle Archaic assemblages are also associated with one of the earliest defined cultural patterns in central California, the Windmill Pattern (Fredrickson 1974; Moratto 1984). This pattern was originally defined by consistency of burial orientation and by elaborate grave offerings. While, originally, most were associated with the Sacramento Delta area, recent finds indicate a distribution throughout the San Joaquin Valley (Rosenthal et al. 2007). The late Middle Archaic is also characterized as demonstrating the first substantial evidence for fishing (bone gorges and composite hooks, and spears), basketry (basketry awls, baked clay basketry impressions), simple pottery, and finely made plummet stones of indefinite function.

Based on investigations at sites on the western margins of the San Joaquin Valley, Olsen and Payen (1969) developed a series of four complexes, the Positas, Pacheco, Gonzaga, and Panoche complexes, all occurring subsequent to the Paleo-Indian and Lower Archaic periods. The Positas complex can be attributed to the Middle Archaic, possibly dating to as early as 5300 years ago and as late as 4600 years ago. Characteristic artifacts of the Positas Complex include small shaped mortars, short cylindrical pestles, milling stones, cobble manos, perforated flat cobbles, and spire-topped *Olivella* shell beads. At site CA-MER-94, the artifact assemblage also includes a small bone bead and two projectile points (one leaf-shaped and one stemmed). Based on artifact forms, this complex may be related to the Windmill Pattern of the Delta and Sacramento Valley (Moratto 1984).

5.2.1.4 Upper Archaic – 550 CAL B.C to CAL A.D. 1100 (2,550–900 BP)

The inception of the Upper Archaic coincides with beginning of Late Holocene environmental conditions consisting of a cooler and wetter, but more stable climate. The onset of these conditions occurred abruptly as indicated by the apparently rapid re-inundation of lakes in the region that were desiccated during the Middle Archaic. Also occurring as a result of these conditions was the resumption of substantial sediment deposition in the valley, resulting in the burial of the stable and weathered landforms created by the dry conditions during the Middle Archaic. The archaeological record is more substantial for the Upper Archaic than for the previous periods. Elaboration and diversity in artifact assemblages continued from the late Middle Archaic. According to Rosenthal and others (2007:156) these assemblage characteristics reflected more pronounced cultural diversity and a "geographically complex mosaic of distinct sociopolitical entities marked by contrasting burial postures, artifact styles, and other elements of material culture." This increase in complexity was particularly pronounced in the eastern Sacramento Delta area where the Windmill Pattern was apparently replaced by the Berkeley Pattern with clear connections to groups in the San Francisco Bay and adjacent coastal areas. In the northern San Joaquin Valley, the Windmill Pattern continued as far south as Merced County, through the Upper Archaic. The archaeological record for the period indicates that an expanded resource base now included resources that could be harvested and processed in bulk such as acorns, salmon, shellfish, rabbits, and deer. A substantial reliance on the acorn as a food staple is also reflected by the considerable presence in the archaeological record of mortars and pestles and a rich content of archaeobotanical materials. The considerable presence of obsidian in the archaeological record indicates a substantial trade in this

material. Interestingly, the obsidian recovered at sites in the San Joaquin Valley derived mostly from sources on the east side of the Sierra, such as Bodie Hills, Casa Diablo, and Coso, while sites in the Sacramento Valley reflect trade mostly with sources in the North Coast Ranges such as Borax Lake and the northern Napa Valley (Rosenthal et al. 2007).

Rosenthal and others (2007:156) postulate that in the San Joaquin Valley, during the Upper Archaic, the lower foothill woodlands may have represented a boundary area where valley people periodically colonized riparian and other well-watered foothill locations along the base of the Sierra, such as at sites CA-MAD-117 and CA-MAD-159 along the Chowchilla River, where Moratto has defined a Chowchilla Phase (800 B.C.–A.D. 550 [1984:323]), and at CA-MAD-171 along the Fresno River (Moratto 1972, 1984; Fenenga 1973). While in the western areas of the San Joaquin Valley, sites dating to the Upper Archaic have been investigated, little archaeological evidence exists for the Upper Archaic in the southern San Joaquin Valley. Based on investigations at sites in the western San Joaquin Valley, Olsen and Payen (1969) defined the Pacheco Complex, which can be dated to both the Middle and Upper Archaic periods (ca. 2600 B.C.–A.D. 300) by the presence of shell beads and specific shell bead typology. The beads include rectangular mussel, *square Haliotis*, and thick rectangular *Olivella* shell. At CA-MER-94, the Pacheco Complex artifact assemblage also comprised large side-notched and stemless projectile points, bone awls, stone scrapers, and an abundance of ground stone artifacts (slab milling stones, manos, and large and small bowl mortars). Mortuary practices include flexed burials with infrequent grave goods. Circular depressions, up to 12 feet in diameter, have been interpreted as floor surfaces. The combination of milling implements indicates that acorns formed an important part of the diet (Olsen 1970). The shell and bone artifacts are comparable to those found in the Delta during the Middle Archaic period.

5.2.1.5 Emergent Period – CAL A.D. 1000 to Historic (1000–ca 200 BP)

Although several flood and drought episodes have been discerned during the period, the relatively stable climatic conditions established at the outset of the Upper Archaic can be interpreted to have continued into and through the Emergent period. Rosenthal and others observe, however, that it is not clear whether these drought and flood episodes are unusual events or are “a product of the comparatively profound resolution of more recent paleoenvironmental evidence” (2007:157). While the archaeological record for the Emergent period is the most substantial of any of the periods, this record is uneven in terms of its distribution. The Emergent period is associated with the Augustine Pattern of the lower Sacramento Valley/Delta. In the San Joaquin Valley, sporadic research has resulted in few components or phases being identified for the period (Rosenthal et al. 2007:157). In the western San Joaquin Valley, Olsen and Payen (1969), based on the excavated material at CA-MER-3, CA-MER-14, and CA-MER-94, among other sites, have defined two complexes that are both probably associated with the period, the Gonzaga Complex (ca. A.D. 300–1000) and the Panoche Complex (ca. A.D. 1500–1850). Artifacts and features characteristic of the Gonzaga Complex include shaped pestles and bowl mortars, bone awls, squared and tapered-stem projectile points with squared and tapered stems, and grass saws. The lithic assemblage also includes scrapers and core tools; obsidian was flaked to form serrated points. Among the ornaments typical of this complex are distinctive *Haliotis* shell forms and thin rectangular, split-punched, and oval *Olivella* beads (Moratto 1984). Unlike the preceding Pacheco Complex, burials are either extended or flexed. Overall, the cultural traits of the Gonzaga Complex are similar to those found in the Delta during the early Emergent period (Late Prehistoric period). The Panoche Complex features large circular structures; flexed burials and both primary and secondary cremations; a few milling stones; varied mortars and pestles; bone awls; saws; whistles and tubes; small side-notched arrow points; clamshell disk beads; *Haliotis* epidermis beads; and *Olivella* lipped, side-ground, and rough disk beads (Moratto 1984:192-193). In the adjacent foothill areas of the eastern San Joaquin Valley, Moratto has defined two phases coinciding with the Emergent period, the Raymond Phase (ca. A.D. 300–A.D. 1500) and the Madera Phase ca. A.D. 1500–A.D. 1850). The Raymond Phase appears to indicate a period of instability and change with old villages appearing to exhibit cycles of occupation and abandonment after ca. A.D. 500. Violence was common and primary interment of the dead was in flexed positions, although some extended burials noted during the early part of the phase. Compared to Chowchilla Phase burials, Raymond Phase burials were lacking in offerings. The Madera Phase appears to represent a period of prosperity associated with the ancestral Southern Sierra Miwuk. Characteristic of this phase are steatite

disk beads, lightweight arrow points, bedrock mortars and cobble pestles, several types of *Olivella* beads, and occasional pieces of exotic Brown Ware pottery. A steatite industry was also evidenced with the manufacture of beads, bowls, cooking vessels, pipes, arrow-shaft straighteners, and ornaments (Moratto 1972:1984).

5.2.2 Ethnographic Context

The Merced to Fresno Section of the HST project APE is located primarily within the area traditionally occupied by the Northern Valley Yokuts, a Penutian-speaking central California group (Kroeber 1925; Wallace 1978a:462–470), with marginal overlap with the territory of the Southern Sierra Miwuk (Mi-wuk) to the north and east. The core of Northern Valley Yokuts territory was the San Joaquin River and their lands surrounding the river extended eastward from the crest of the Coast Ranges (Diablo Range) into the Sierra Nevada foothills and southward from Bear Creek (midway between the Mokelumne and Calaveras rivers) to the upper San Joaquin River and today's City of Fresno. Among neighboring groups were the Foothill Yokuts to the southeast, Southern Valley Yokuts to the south, Costanoan (Ohlone) to the west, Salinan to the southwest, Plains and Southern Sierra Miwuk to the north, and Sierran Miwuk on the east (Dick-Bissonette 1994:4). While Kroeber (1925) indicates that the Southern Sierra Miwuk generally held the drainage of the Merced River and adjacent smaller streams and may have divided their territory from the Northern Valley Yokuts at the Fresno River, Wallace ascribes Northern Valley Yokut territory as extending along both sides of the San Joaquin River Valley from approximately Bear Creek to the north to the present-day location of the City of Fresno to the south (Wallace 1978a:462).

Because of their rapid decimation as a result of disease, missionization, and Euro-American settlement, the Northern Valley Yokuts are generally not well documented in the ethnographic record (Wallace 1978a:470). Ethnographers have compiled information on the Yokuts' lifeways from various sources, primarily military and missionary reports and diaries written during the Spanish and Mexican periods (Kroeber 1925:474–543; Latta 1977; Wallace 1978a:462–470).

The Northern Valley Yokuts were organized into at least 11 small political units or tribes (Wallace 1978a). Each tribe had a population of approximately 300 people, most of whom lived within one principal settlement that usually had the same name as the political unit. Typically, the territory of each tribe was situated on major tributaries of the San Joaquin River (Chowchilla, Fresno, Merced, and Stanislaus rivers) or on a portion of the western or southern side of the San Joaquin River. Based on analogy to the Southern Valley Yokuts, the Northern Valley Yokuts were probably divided into totemic moieties, with exogamous clans (Kroeber 1925:493–494).

The Northern Valley Yokuts generally established villages on natural rises or levees along major watercourses (Wallace 1978a:466). Villages consisted of both large communal residences and single-family dwellings, generally round or oval in shape and constructed with tule mats over pole frames. Settlement was concentrated on the eastern side of the San Joaquin River along the permanent waterways flowing from the Sierra Nevada (Wallace 1978a:463). Along the semipermanent watercourses along the Diablo Range foothills to the west of the river, the population was comparatively sparse, and a recent summary suggests that the settlements along the western foothills of the Coast Ranges were inhabited seasonally to collect acorns in the oak woodlands not common on the valley floor (Pettigrew et al. 1994:3-34 through 3-35). Within the villages, structures included sweathouses, ceremonial chambers, and oval single-family dwellings made of tule (Wallace 1978a:465). Early Spanish expeditions described Yokut villages as "well stocked with food and populous" (Wallace 1978a:463), indicating they may have represented substantial settlements. Ethnographic villages near the Merced to Fresno Section of the project area included *Copicha* (at Chowchilla), *Halau* (at Berenda) and *Kohuou* (near Herndon) (Wallace 1978a:470).

Because of their proximity to the San Joaquin River and its major tributaries, fishing was a particularly important part of the Northern Valley Yokuts' subsistence and economic practices (Wallace 1978a:464). During the fall and spring spawning periods, salmon was a dietary mainstay, and other large fish—sturgeon, river perch, western suckers, and Sacramento pike—were available year-round.

Waterfowl, such as ducks and geese, were likely an additional staple and would have been particularly abundant during the spring and fall migrations. In the northern San Joaquin Valley, where abundant natural resources varied seasonally, the Northern Valley Yokuts also hunted and collected plant foods.

Large animals in the region included antelope, deer, elk, and black bears. Acorns from the groves of valley oaks were a staple food and they were collected each fall and stored in granaries.

In addition to acorns, Northern Valley Yokuts collected and consumed a diversity of berries, grass seeds, and tule roots. To gather, collect, and process food resources, a wide variety of tools, implements, and enclosures were employed by the Northern Valley Yokuts (Kroeber 1925:527; Latta 1977; Wallace 1978a:464–465). The bow and arrow, nets, slings, traps, and blinds were likely among the variety of items employed for hunting land mammals and birds. Fishing implements would have included harpoons, hooks, and nets, as well as tule rafts. Tools used to collect plant resources included sharpened digging sticks and woven items, such as burden baskets, carrying nets, and seed beaters. Stone mortars and pestles, and possibly wooden mortars, bedrock and portable mortars, stone knives, stone scrapers, and bone tools, were among the variety of tools used to process foodstuffs. Items obtained by trade with neighboring groups included obsidian bows and arrows, baskets, mussels and abalone, and shell beads and ornaments (Wallace 1978a:465). A variety of trails west to the coast and river routes facilitated trade and regular visits to other tribes.

The nature of the Northern Valley Yokuts' religious beliefs and practices is not known (Kroeber 1925:502). Because they were situated within the area of the south-central California Jimson Weed Cult, the Northern Valley Yokuts likely participated in this practice. The power of shamans would have been used to heal and control the environment. Mortuary practices probably included either cremation or burial in a flexed position, followed by an annual mourning ceremony.

Sierra Miwuk settlement and subsistence systems were based on technological approaches to the exploitation of the diverse natural resources present in the lower and middle elevations of their traditionally occupied territory. In general, Miwuk technology was typical of the region, and few material elements of their daily lives stand out as unique to the tribe. As did many other peoples in the area, the Miwuk utilized an approach that mixed hunting and gathering strategies with main settlements near staple food sources such as acorn-bearing oak groves and smaller sites located on areas of the landscape near where seasonal resources were available (Levy 1978).

Material culture among the Sierra Miwuk differed little from other tribes throughout the region and probably varied from their neighbors mostly as a result of differential resource availability. All groups in the north-central Sierra Nevada used brush, grasses, and tule reeds to build their structures.

Prehistorically, flaked and ground stone implements composed the technological foundation until large-scale European incursions into the area in the mid-19th century, when steel tools became highly valued and preferred. Basketry, in prehistoric and historic times, was a notable Miwuk skill, and the coiled and warp-and-weft products were standard household equipment (Levy 1978).

The most important political and social unit was the tribelet, typically ranging in size between 100 and 300 individuals (Levy 1978). Tribelets maintained control over specific territories, and the settlements within these areas exploited the available natural resources during the course of the year. Each tribelet territory contained an assembly house in the chief's settlement, and this structure was considered the chief's personal property. This house was used for important religious and social events sometimes involving sacred ceremonies and "profane dances." Sacred ceremonies used elaborate ceremonial costumes typically consisting of robes and headdresses made of feathers. The mishandling of such paraphernalia was thought to lead to sickness in the dancers and the audience. Profane (nonreligious) dances were primarily intended as entertainment and did not pose potential risks to participants and spectators since none of the elaborate and powerful regalia was used in their performance.

Although the San Joaquin Valley was only sparsely settled before the advent of the American period in 1848, by the late 1700s influences from the Spanish period coastal missions and presidios were felt in the

interior lands (Wallace 1978a:468–469). By 1805, Native Americans living in the project vicinity were transported to the Spanish missions at San Antonio, San Jose, San Juan Bautista, Santa Clara, and Soledad. As tribal residents were removed, the remaining population suffered from the introduction of new diseases. Military raids into the valley also resulted in local deaths. The malaria epidemic of 1833, in which entire communities and whole tribes were decimated, heralded further disaster. During the early American period, gold-seekers and farmers pushed remaining Native Americans out of the verdant bottomlands, resulting in starvation and the loss of traditional lifeways.

Based on the local environment and population density throughout California, the pre-contact population of Northern Valley Yokuts has been estimated at between 25,000 and 31,000 (Wallace 1978a:463). In 1852, when called to sign one of a series of statewide treaties, representatives of only three Northern Valley Yokuts tribes remained. They agreed to live on a reservation in their traditional territory, but the treaty was never ratified. At present, there are approximately 2,000 Yokuts living on three rancherias—Picayune in Madera County at Coarsegold, Santa Rosa in Kings County, and Table Mountain in Fresno County near Friant—and on the Tule River Reservation, which was established in 1873 in Tulare County near Porterville (White 2009). Some Foothill Yokuts also live with Central Sierran Miwuk on the Tuolumne Rancheria in Tuolumne County. Contemporary Yokuts tribes include the Choinumni, the Chukchansi of Coarsegold, the Tachi (or Tache), and the Wukchumni.

5.3 Historic Setting

5.3.1 San Joaquin Valley

Post-contact history for the state of California generally is divided into three specific periods: the Spanish Period (1769–1822), Mexican Period (1822–1848), and American Period (1848–present) (Schuyler 1978). Although there were brief visits by Spanish, Russian, and British explorers from 1529 to 1769 within the territory claimed by Spain, the Spanish Period in California began in earnest in 1769 with a settlement at San Diego and the first (Mission San Diego de Alcalá) of 21 missions established between 1769 and 1823.

During the Spanish Period, expeditions explored portion of the Central Valley beginning in the 1770s. In 1772, Pedro Fages led a small group of soldiers through the Tejon Pass into southernmost San Joaquin Valley, and 4 years later Francisco Garcés visited the same region (Wallace 1978b:459). In the 1772 expedition Fages also explored the land east of San Francisco Bay, as did Juan Bautista De Anza in 1776, both remarking on the vast interior plains comprising the Central Valley, including the San Joaquin Valley, which is the portion of the Central Valley lying south of Sacramento-San Joaquin River Delta, located in Stockton, California (Gunsky 1989:2–3). In 1806 the Spanish expedition led by Lieutenant Gabriel Moraga, entered the San Joaquin Valley via Pacheco Pass while seeking sites for new missions and also searching for runaway Indian neophytes from the coastal missions. In 1808 Moraga led another expedition from the Bay area as far south as the Merced River. Moraga named the Kings River (*El Río de los Santos Reyes*) and the stream that flows into Lake Buena Vista (*San Joaquin*), an appellation was later applied to the San Joaquin River (Elliott 1882:167; Hoover et al. 1990:85). The final Spanish expedition into the California interior was led by Luis Arguello in 1817.

Two major north-south trails were established in California during the Spanish Period. *El Camino Real* connected the 21 missions that paralleled the coastline between San Diego and Sonoma. Today's Interstate 5 between San Diego and Los Angeles and Highway 101 between Los Angeles and Petaluma generally follow "The King's Highway." In the interior, *El Camino Viejo* was the oldest north-south trail that traversed the entire length of the San Joaquin Valley; much of the trail lay east of the Coast Range and parallels the route of the HST approximately 30 miles to the west (Hoover et al. 2002:85; Elsmere Canyon website). "The Los Angeles Trail" connected today's Los Angeles and East Oakland and was also later known as the Stockton–Los Angeles Road. The same route was a popular cattle and sheep trail from 1849 to the 1880s.

The Mexican Period begins with independence from Spain and is marked by an extensive era of land grants, most of which were in the interior of the state, and by exploration by American fur trappers west of the Sierra Nevada Mountains. In the northern San Joaquin Valley, land grants were issued in today's

Fresno, Merced, San Joaquin, and Stanislaus counties. Jedediah Smith was the first trapper to enter California. His small party trapped and explored along the Sierra Nevada Range in 1826, and entered the Central Valley in 1827. His party trapped and camped along the San Joaquin River, and his travels included friendly encounters with the Southern Valley Yokuts near the Kings River (Clough and Secrest 1984:27). Although the San Joaquin Valley was only sparsely settled during the Spanish and Mexican Periods, the Native American population was decimated by introduced diseases, particularly the malaria epidemic of 1833 (Cook 1978:98). Figure 5-1 depicts a portion of Mexico's western territory, including California, at the end of the Mexican Period in 1847.

The signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican–American War, is the start of the American Period when California and several other western states became a territory of the United States (Gunsky 1989; Schuyler 1978). The discovery of gold in 1848 at Sutter's Mill near Sacramento and the resulting Gold Rush era influenced the history of the state and the nation. Largely as a result of the Gold Rush, California became the 31st state in 1850. Thousands of settlers and immigrants continued to pour into the state, particularly after the completion of the transcontinental railroad in 1869. Many headed for the gold fields, but enterprising individuals and businesses met the increasing demand of the miners for commodities and food, boosting the agriculture, ranching, dairy, manufacturing, fishing, lumber, and transportation industries.

In the 1870s, the Central Pacific Railroad constructed its Southern Pacific line through the San Joaquin Valley to reach southern California, revolutionizing the transportation network, passenger travel, and the ability of farmers and ranchers to sell their goods to distant markets. Figure 5-2 shows the Southern Pacific Railroad at its completion in 1876. No railroad-related built environment resources survive from this period. Chinese laborers made a noted contribution to the construction of the rail line, and settled in communities referred to as Chinatowns, including one in today's City of Fresno (Hoover et al. 1990:171). During this period in the late 1800s, the San Joaquin Valley became the center of California's wheat belt. While ranching remained an important industry, with the expansion of large-scale irrigation in the early 1900s came the production of a variety of fruits and vegetables, vineyards, alfalfa, and cotton, among other crops (Jelinek 1979:47–60).

The establishment of a state highway system in the early 1900s was the next major transportation development. Two north-south highways were planned through the Central Valley. One corresponds to today's SR 99 in the interior; the second to U.S. Highways 1 and 101 along the western slope of the Coast Range. The routes were planned to pass through as many population centers as possible, and particularly the latter half of the 20th century witnessed the growth of existing and new residential, commercial, and industrial complexes along these routes and the modern freeway system. SR 99 was completed as a four-lane expressway between Sacramento and Los Angeles in the 1950s, and Interstate 5 was completed in the 1970s.

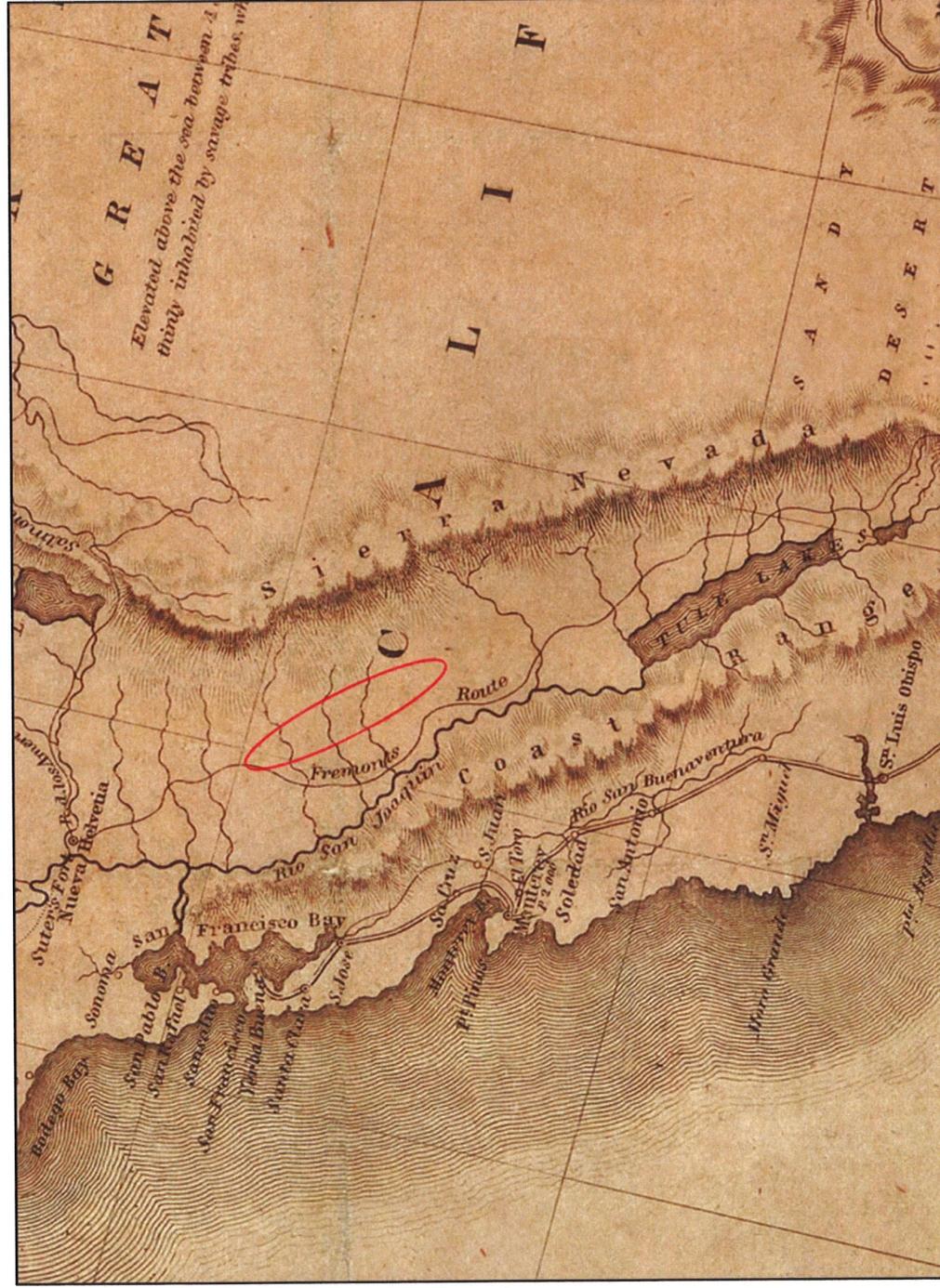


Figure 5-1
Detail from *Mapa de los Estados Unidos de Méjico*, Disturnell, 1847
Approximate project location in red



Figure 5-2
Southern Pacific Railroad in California, Colton, 1876
Approximate project area in red

5.3.2 Merced County

One of the first explorers to the California interior, Gabriel Moraga, set out from San Juan Bautista in 1806 with 25 men in search of a suitable location for an inland mission. Their route took them to a point along today's Merced River. After difficult travel through wetlands, they found and named the river. Moraga explored the area again in 1808 and 1810 (Hoover et al. 1990:198). No mission was ever established within the interior, however, and the mission fathers considered the Moraga expeditions a failure.

To accommodate the large numbers of miners heading to the Sierra Nevada Mountains during the Gold Rush, a toll road was constructed over Pacheco Pass and into Merced County in the 1850s (Hoover et al. 1990:199). Between 1858 and 1861, this route was traversed by the Butterfield overland stage line; rest stations were established along the route at 15-mile intervals. In 1870 the Southern Pacific line of the Central Pacific Railroad was constructed southward into the San Joaquin Valley, connecting the valley to Sacramento and San Francisco. Between Merced and Chowchilla, a post office was established in 1881 along the rail line at today's unincorporated community of Athlone. Service at the Athlone post office was temporarily suspended in 1909 but resumed in 1914 and continued until it was officially closed in 1937 (Durham 1998:741). During the early growth period in the mid- to late-1880s, settlement along the railroad and the region's waterways increased, and settlers raised livestock and grew a variety of crops. Small towns blossomed along the rivers, but the majority did not survive into later times because of floods, drought, or competition by the railroad (Hoover et al. 1990:203). While many of the towns that flourished for a time along the area's rivers ultimately failed, other communities arose along the railroad, usually nucleated around a siding, construction depot, or station facility.

The county's two largest population centers—Atwater and Merced—both developed and grew as a direct result of the railroad's presence and the transportation services this modality offered. A discussion of these two cities can be found below.

Established in 1855 with the annexation of the southwestern portion of Mariposa County, Merced County derives its name from that given to Merced Lake, named for "Our Lady of Mercy" (*Nuestra Señora de la Merced*) by the Spanish expedition of 1775 led by Juan Bautista de Anza (Gudde 1998:234). The same name was given to the Merced River by members of the Spanish expedition led by Gabriel Moraga in 1806 (Hoover et al. 1990:198; Gudde 1998:234). The burgeoning City of Merced was named the county seat in 1872.

Although the bottom lands in the county are fairly well watered, particularly around the Merced and San Joaquin rivers, a series of canals were constructed beginning in the late 1860s to prevent flooding and control irrigation (Elliott 1882:170–171). Construction on the first extensive canal in the state, the San Joaquin and Kings River Canal, began in 1871. The 67-mile canal was completed in 1878. Figure 5-3 shows the irrigation system that then existed in Merced County in 1885.

The eastern portion of Merced County experienced an expansion of a profitable livestock industry. By the 1920s, the county had over 80,000 stock cattle and over 40,000 dairy cattle. Sheep and hogs were also raised in the fertile county grasslands (Outcalt 1925). Today, the county's leading commodity is milk from dairy cows. Poultry (chicken, turkey, and eggs), cattle, and crops are also key economic products. Leading crops include almonds, sweet potatoes, tomatoes, alfalfa hay, and cotton (Merced County Agricultural Commission 2008).

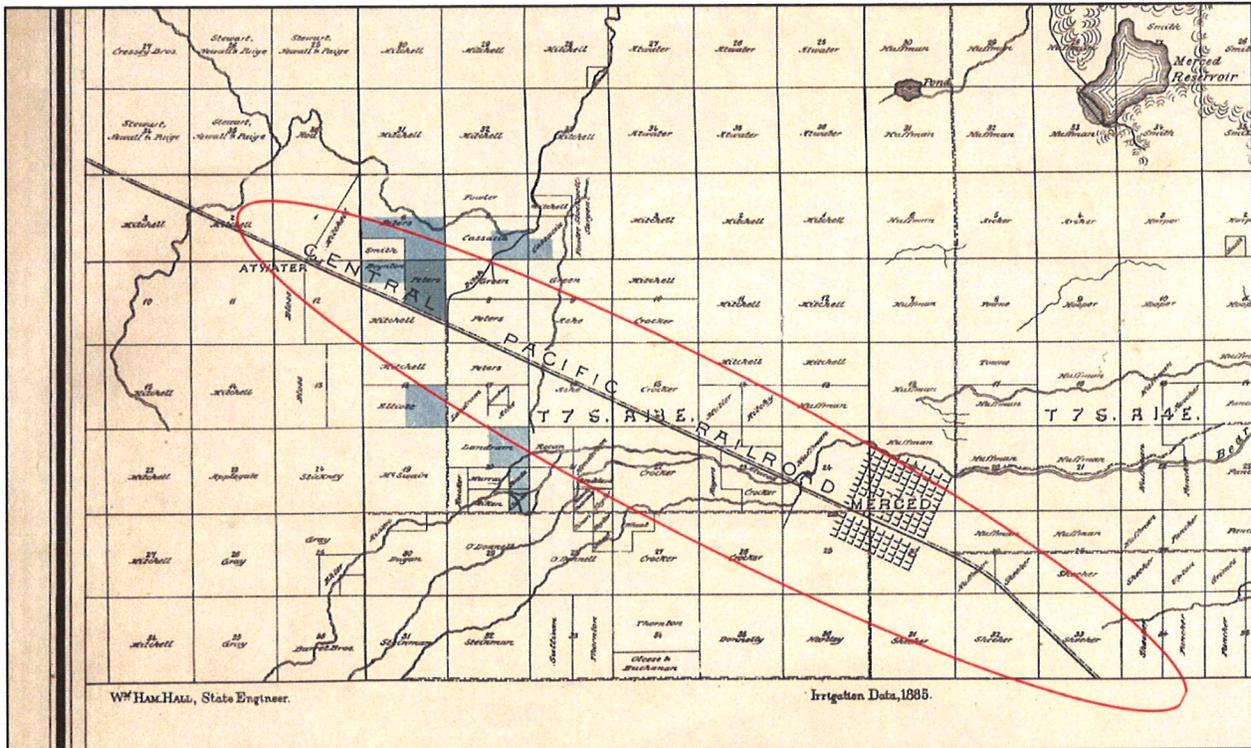


Figure 5-3
 Detail, Merced Irrigation Map, Hall, 1885
 Approximate project location in red, showing locations of the cities of Atwater and Merced

5.3.2.1 City of Atwater

The City of Atwater is located in the central part of the San Joaquin Valley. Situated southwesterly of the former Castle Air Force Base and 6 miles west-northwest of the City of Merced, much of Atwater’s core lies between the Santa Fe Trail (County Road 37) and SR 99 in Merced County.

The history of today’s City of Atwater is rooted in the development of farmland in the northern San Joaquin Valley. Marshall D. Atwater began growth wheat on land in the area as early as 1869, and later rented 6,000 acres of farmland located between the Southern Pacific line and Winton (Atwater Chamber of Commerce 2007). In 1872, Atwater requested the railroad build a siding to handle his grain shipments. This stop later became known as the Atwater Switch.

Attracted by the fertile farmland for growing fruits and other crops, plus the opening of a school at Atwater in 1878, settlement in the area slowly increased (Atwater Chamber of Commerce 2007). In 1884, George S. Bloss Sr. moved to Atwater with his family from Connecticut. The farmer built a two-story home by the railroad tracks in 1892, and another home on Cedar Avenue in 1913, referred to today as the Bloss home. Atwater’s burgeoning agricultural industry prospered in the early 1910s and with a related growth in population, rising from about 200 to 1,000 by the early 1920s (Sanborn 1914; 1923). U.S. census counts show that Atwater remained small through the Great Depression and did not begin to grow substantially until the economic upturn of the post war decades. Table 5-1 shows the population growth in Atwater from 1930 to 2000.

Atwater is also known for its adjacency to Castle Air Force Base. The U.S. Army established the base in 1941, and it housed the Army Air Corps Basic Flying School Winton (Atwater Chamber of Commerce 2007). Four Air Force Base buildings—a warehouse, pump house, ammunition storage, and publications building—constructed between 1941 and 1942 are documented in this report (see updated DPR 523 forms in Appendix C for APN 005-070-025, APN 005-070-034, and APN 051-010-010). In 1946, the base

fell under the control of the Strategic Air Command, and it remained active until it was closed in 1995 at the end of the Cold War. Today, vintage aircraft may be viewed at the Castle Air Museum at the former military facility.

Table 5-1
 Population Statistics,
 City of Atwater 1930 – 2000

Year	Population
1930	917
1940	1,235
1950	2,779
1970	11,640
1980	17,530
1990	22,282
2000	23,113
Sources: U.S. Census Bureau (1930); City of Atwater Department of Commerce (1950); Pacific Municipal Consultants (2000); US-Cities (n.d.).	

5.3.2.2 City of Merced

The City of Merced nucleates around the intersection of SR 99 and U.S. Route 140 in the center of the eastern portion of Merced County.

The entry of the Central Pacific Railroad into the San Joaquin Valley in 1870 prompted creation of a town site and the start of construction of the future City of Merced, which was incorporated in 1889. The City's growth and prosperity was largely a consequence of its location alongside the railroad, and entryway to the mines of the southern Mother Lode area during the Gold Rush years of the 1850s and 1860s (Hoover et al. 1990:203). An early tourism trade to Yosemite also brought impetus for growth in Merced. From the moment California received Yosemite from the federal government in 1864, the state planned the area as a park specifically geared to tourists. The completion of the transcontinental railroad in 1869 allowed eastern tourists to visit and extol the unique beauty of Yosemite. Since Yosemite initially had no direct connection by rail, visitors would travel across the valley in stagecoaches and then horseback to reach the park. This practice continued into at least the 1870s (Hyde 1993:69-72). Merced carries the moniker, "Gateway to Yosemite" and as early as 1872, the El Capitan Hotel in town served as the starting point for the stagecoaches carrying tourists to Yosemite.

By special election, the county seat was moved to the City of Merced in 1872. That year the city boasted two major hotels (El Capitan and Cosmopolitan), a variety of mercantile establishments, restaurants, livery stables, saloons, and grocers, as well as a post office, jail, school, and bank (Elliott 1882:112–115). The Tuolumne Hotel opened the following year. The Merced County Courthouse, a three-story edifice constructed in 1875, is one of the oldest historical buildings in the state (Hoover et al. 1990:203). It is listed on the National Register of Historic Places and is now the Merced County Courthouse Museum.

The railroad continued to foster growth in Downtown Merced through the end of the 19th and early 20th centuries. Vestiges of the residential, commercial, and industrial development alongside the railroad still survive and fall within the APE for the Merced to Fresno Section. The survey population for this HPSR includes two residences from the late 19th century (APN 031-213-015 and APN 031-211-007); four residences constructed in the early 20th century (APN 031-213-017, APN 031-213-016, APN 035-160-

001, and 035-160-007); two commercial buildings from the early 20th century (Oy Kuong Laundry/Ranch Restaurant (APN 031-154-011) and the Merced Beverage and Supply Company (APN 031-243-004); one industrial property, the California Pottery Company (APN 035-130-007); one community services building (KAMB/California Highway Patrol); an early 20th century utility services building (PG&E Building); and one early 20th century railroad depot (Merced Southern Pacific Railroad Station).

Located in the fertile northern San Joaquin Valley, the city continues to grow and prosper. It has always been an important shipping and exchange place, and the agriculture industry remains an important part of the area's commerce. The city is served by two railroads, the Union Pacific and BNSF, and by three busy highways (SRs 59, 99, and 140). In 2005, the tenth campus of the University of California was completed in the city.

5.3.2.3 Le Grand

Le Grand serves as an exemplar among the smaller unincorporated communities that developed in Merced County as a direct result of the railroad. Originally known as "Idlewild" at its earliest period, the community of Le Grand grew to serve the farming district that still surrounds it. The town developed on land owned by Mrs. Luella Dickinson. When her husband, William Le Grand Dickinson, donated land to the San Francisco and San Joaquin Valley Railroad (now the BNSF) for a station, the railroad named the new stop "Le Grand." The Dickinsons made their primary residence in Stockton, California. With the completion of the rail line, the Le Grand Station opened for traffic and the town quickly adopted the name. The station still stands alongside the south side of the railroad and is part of the survey population for this HPSR report (APN 318-101-025). In September 1896, developers filed the first official "Town of Le Grand" subdivision map at the Merced County Courthouse. This plan platted the original 97 lots in town. Within a year, an additional 22 lots opened for development. Further development occurred in the early 20th century and the town grew, causing many businesses to relocate from Plainsburg to Le Grand. During 1908, most of the farmland surrounding Le Grand underwent subdivision into 5-, 10-, and 20-acre parcels and many of these parcels remain intact today. The number of building lots in town continued to grow through 1913, when Le Grand adopted the appearance it still retains today (Merced County Planning Department 1983:II-1; Gudde 2010:208).

5.3.3 Madera County

Spanish expeditions did not enter Madera County, possibly because of the maze of sloughs, sandy washes, and lack of water (Hoover et al. 1990:168). Trappers and explorers, such as Jedediah Smith, led the first historical accounts of visits to Madera County by non-indigenous peoples. Smith led a small group of hunters and trappers from Salt Lake City to the San Joaquin Valley in 1827, and again in 1828. In 1844, John Frémont traversed Madera County and recorded the difficulty of crossing the many sloughs in the area. Miners in the 1850s and 1860s often came through the area from Gilroy, over Pacheco Pass on the Stockton–Los Angeles Road, and journeyed on to the Sierra Nevada mines (Hoover et al. 1990:168–169).

One of the area's pioneers was Major James D. Savage. Savage is credited with "discovering" the Yosemite Valley in 1851 (Madera County 2007). He turned from battling the local Native Americans in his early years to befriending them. Savage named the Yosemite Valley for the local tribe, the "Ah-wah-nee-chee," who had family ties to the Mono Lake Paiutes on the eastern side of the Sierras. Savage was also known for employing Chinese laborers to work the San Joaquin River panning for gold. As another part of their contribution to the history of the county, Chinese laborers built many miles of rock walls in the area between Raymond and Mariposa, many of which are still standing.

Early mining in the Southern Mother Lode, which extended generally from the northwest to southeast throughout Merced County, was conducted by means of surface extraction of heavy minerals from sandy soils, known as placer mining (Hoover et al. 1990:169–170; Madera County 2007). This form of mining was practiced along the Fresno River and in places such as Coarsegold Gulch, Grub Gulch, and Gold Creek. The placer mines of Grub Gulch were very productive throughout the 1880s, accounting for the majority of gold extracted from the region.

The California State Legislature established Madera County in 1893 and named it after its principal town of Madera (Hoover et al. 1990:168). The lawmakers extracted the new county's landmass from the portion of Fresno County north and west of the San Joaquin River. Madera County lies in the geographical center of the state. The completion in 1870 of the Southern Pacific line through the county and a demand from the eastern United States for lumber from Sierra Nevada forests combined to spur the growth of the town of Madera. To facilitate the transportation of cut trees to the railroad, a 63-mile water flume was constructed at a cost of a half million dollars (Hoover et al. 1990:170). With the completion of the flume in 1874, the town of Madera was settled and nucleated around the lower end of the flume. The town name is the Spanish word for wood (*madera*).

The Central Pacific established a series of rail stops and sidings along its route within Madera County in the late 1800s. From north to south, these include today's incorporated communities of Minturn, Berenda, and Borden, among others. Local wheat farmers, Jonas and Thomas Minturn, constructed a railroad siding just northwest of Chowchilla when the railroad reached the area in 1872. The Minturn post office opened a decade later in 1884 and operated until 1922 (Durham 1998:804). Located on the north bank of Berenda Creek on the rail line between Chowchilla and Madera, a four-story hotel and a store were built in 1872 and a post office established at Berenda in 1873 (Durham 1998:745; Elliott 1882:199). The name was changed to Berenda in 1919, and the post office closed in 1935. With the coming of the railroad in 1872, the community of Borden was named in favor of a local community leader instead of the name of Arcola preferred by the original settlers who moved from Alabama in 1868 and established the earliest farm community (known as the Alabama Settlement) in this part of the San Joaquin Valley (Durham 1998:749; Hoover et al. 1990:171). By 1874 the lively town of Borden boasted two stores, two hotels, restaurants, stables, and a barber and physician (Elliott 1882:199). Eight years later, however, it had the appearance of a deserted mining camp. The Borden post office opened in 1873 and was officially closed in 1906. A post office was established in another small community along the rail line, Fairmead, in 1913 but closed in 1940, see Section 5.3.3.2 below (Durham 1998:771).

5.3.3.1 City of Chowchilla

The City of Chowchilla extends southwesterly from the intersection of SR 99 and SR 233, which most of the city's core flanking either side of Robertson Boulevard (SR 233). The city lies between the Ash Slough and the Berenda Slough.

Between the Chowchilla River and Berenda Slough, the Chowchilla post office opened in 1912, and the town incorporated in 1923 (Durham 1998:758). The name Chowchilla apparently derives from the name of the local tribe of Northern Valley Yokuts, who John Frémont mentioned during his forays into what is now Madera County.

The growth of the area and the city is attributed to Orlando A. Robertson, a land developer who invested some four million dollars in the purchase in May 1912 of the Chowchilla Ranch from the California Pastoral & Agricultural Company Ltd. (City of Chowchilla 2005). Robertson divided the acreage into tracts to sell to prospective farmers, but also reserved a portion as a town site. Town infrastructure included a water system, streetlights, and roads, including 12-mile Robertson Boulevard. By the time of the grand opening of this California colony in October 1912, the colony boasted 300 miles of country roads. Rooted in the concepts undergirding the American antebellum religious and utopian community movement, the colony movement for settling land in California began during the late 1850s and flourished during the final 30 years of the 19th century and into the early 20th century. The basis for virtually all colony land - developments was a cooperative for constructing irrigation water canals and distribution systems. Individuals and even small groups could not undertake such activities, but the pooling of money and labor allowed all colony members to benefit (Clark 2001:52-55). The numerous colonies that dotted the southern San Joaquin Valley were unique with the Central Valley and provided a foundation for the flourishing agricultural production of the area today

By 1887, five colonies existed in the vicinity of Fresno: Washington Colony; Central Colony; Church or Temperance Colony; the Scandinavian Colony; and the Nevada Colony. The developers divided each of these colonies into 20-acre lots and provided irrigation to produce crops of grapes, fruits, and vegetables

(Enos 1887:188). In 1913, developer Robertson added 12 miles of track that connected to the Southern Pacific line as an additional guarantee of Chowchilla Colony's success. Known as the Chowchilla Pacific Railroad, the now-abandoned tracks of this short line hosted train service for 40 years.

In 1917, Robertson purchased an adjacent 40,000 acres and with Chicago packer Louis Swift and started the successful Western Meat Ranch (City of Chowchilla 2005). Although management has changed, it continues as a cattle and farming operation. In 1919, Robertson bought and then sold tracts in the 26,000-acre Old Bliss Ranch. Although Robertson's investments were profitable for development at Chowchilla, he lost much of his wealth as other land speculations crashed during the Depression era in the 1930s.

The series of ornamental palm trees that were planted in 1912 by Robertson along Robertson Boulevard continue to signify this historic route. The width of the boulevard was planned as ample turnaround for a team of horses (City of Chowchilla 2005). The Robertson Boulevard Tree Row, also part of SR 233, is listed as a California Point of Historical Interest and is recommended eligible for the NRHP as part of this HPSR report. Not all California Points of Historical Interest are listed on the CRHR or the NRHP. Another early landmark, Hotel Chowchilla at the corner of Third and Robertson, was once one of the finest hotels in the state prior to several fires. The building later housed Woodbury's variety store and was also occupied by Rose Furniture. Today the building is no longer extant.

5.3.3.2 Fairmead

Fairmead Colony dates to 1912 when the Cooperative Land Trust Company of Palo Alto platted this land as a farming community. Fairmead mimicked the other colonies that proliferated throughout the southern San Joaquin Valley. In the initial developmental years, farmers within the Fairmead Colony produced bountiful crops of grains, alfalfa, vegetables, fruits, berries, and flowers. The Fairmead Post Office opened for service in 1913 and within three years of its founding, Fairmead comprised a growing collection of homes, churches, schools, boulevards, parks, and mercantile establishments, along with the attendant infrastructure. The Fairmead Inn, a newspaper, a lumberyard, and a blacksmith shop rounded out the business community during the second decade of the 20th century. Fairmead peaked about 1920 and then entered a gradually and extended state of decline. When the State Highway Department relocated SR 99 in 1930 away from Fairmead, it only exacerbated the colony's economic woes and accelerated the closure of businesses and the loss of citizens to the growing population centers of Chowchilla and Madera. The dramatic decline in Fairmead's population caused the United States Post Office Department to close the Fairmead postal facility in 1940. Little change or substantive improvements occurred in Fairmead since the 1940s and what remains of the old colony continues in a state of declination (Madera County Planning Department 2011:8; Durham 1998:771).

5.3.3.3 City of Madera

The City of Madera nucleates around the intersection of SR 99 and SR 145 at a point about equidistant between Chowchilla and Fresno. Figure 5-4 illustrates how it looked in 1891.

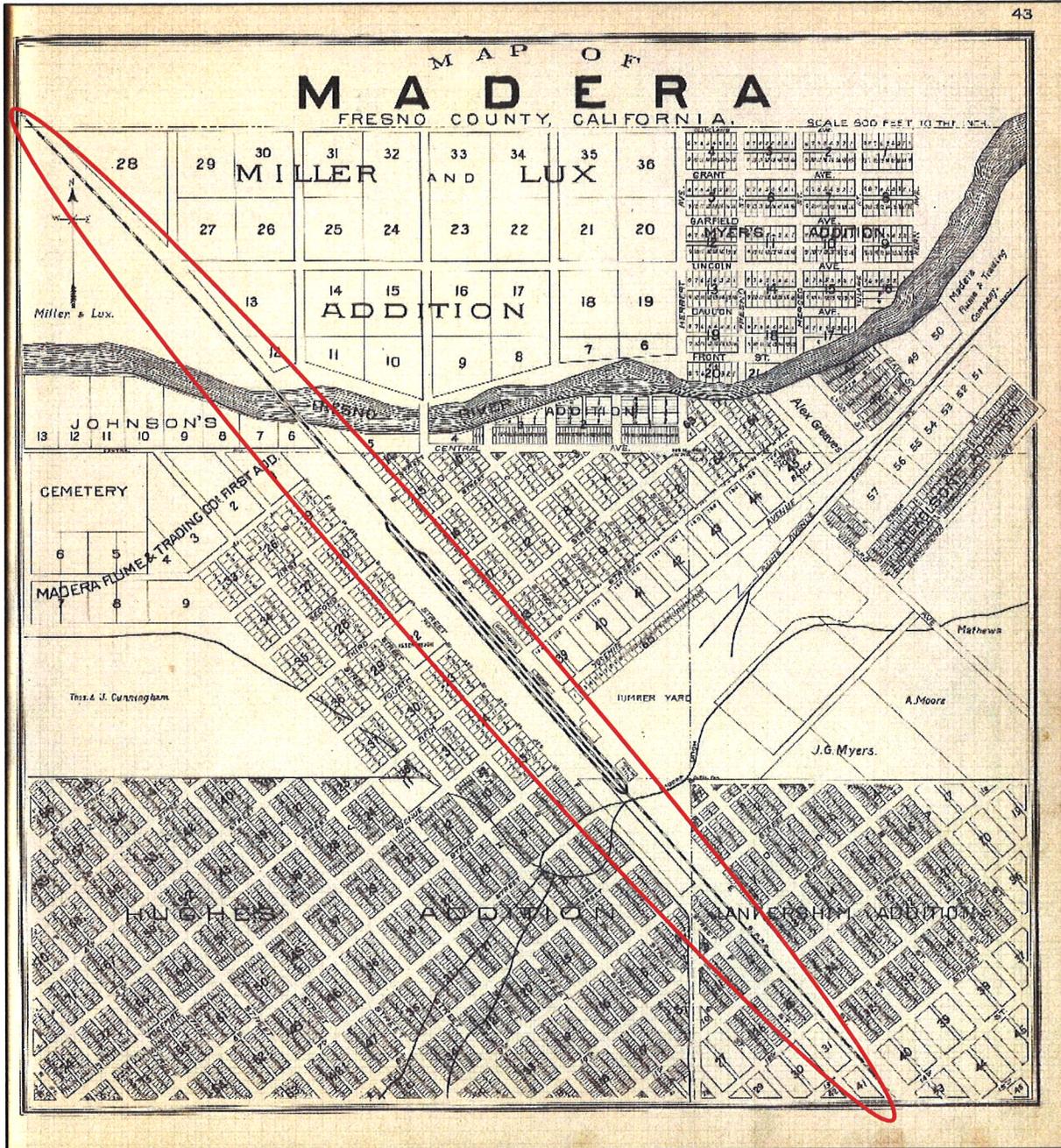


Figure 5-4
 Map of Madera, Thompson, 1891
 Approximate project location in red

On the banks of the Fresno River, the City of Madera was incorporated in 1907 and is the Madera County seat. The Southern Pacific Railroad came through the San Joaquin Valley and the area that would become Madera in 1872, providing the main transportation route into the valley (Solomon 1999:24). The railroad promoted growth and prosperity in the City of Madera through the end of the 19th and into the early 20th century. The Madera Southern Pacific Railroad Station, constructed in 1927, still stands in Downtown Madera and is part of the survey population for this HPSR report. Originating as the town at the end of a 63-mile lumber flume, which the California Lumber Company completed in 1874, Madera rapidly developed. In 1876 the California Lumber Company laid out the town grid (Hoover et al.

1990:170–171). Some of the first buildings erected in the city were a hotel, general store, and post office. The Madera County Courthouse, constructed in 1900 of granite blocks, stands today and is the Museum of the Madera County Historical Society. Industrial buildings constructed in the early 20th century in Downtown Madera fall within the APE for this project and are documented in this report, including the Farmers' Warehouse (APNs 007-074-003, 007-074-006, and 007-074-007), Standard Oil/J.W. Meyers, Inc, (APN 011-300-001), and the former People's Ice Company (now Fresno Madera Ice Co., APN 007-074-001). In addition to its historic and current connection with the lumber industry, the City of Madera is actively involved in the agricultural industry. Agricultural products such as fruit and nut crops, alfalfa and wheat, and a variety of vegetables are shipped all over the world from the City (Madera Agricultural Commissioner 2008). Situated alongside the railroad, Madera contains a number of manufacturing enterprises and warehouses devoted to processing the county's agricultural pursuits. The T.S. Woo Distributing (APN 007-076-010) in Downtown Madera was originally used for olive oil manufacturing. Other industrial operations in the APE include the Valley Feed & Fuel Co. (APN 007-101-020), Western Grain and Milling (APN 011-042-004), and Evans Feed and Livestock Supply (APN 007-182-003).

5.3.4 Fresno County

The Spanish bestowed the name *fresno*, or ash, upon the area where the City of Fresno now stands due to the many Oregon ash trees growing in the area along a creek (Gudde 1998:138). The first Europeans to traverse the area were with Captain Pedro Fages in 1772; next was Moraga's 1806 expedition (Hoover et al. 1990:85; Johnson et al. 1993:29). During the early Spanish and Mexican Periods, most of the exploration conducted in the San Joaquin Valley was directed to either finding sites for new missions or retrieving the native neophytes who had run away from the coastal missions. In the later part of the Mexican Period during the 1840s, Kit Carson and John CA. Frémont explored the area.

The main branch of the *El Camino Viejo*, the oldest north-south trail that traversed the entire length of the San Joaquin Valley, passed through the western portion of Fresno County through the present towns of Reedley, Sanger, and Friant (Hoover et al. 1990:86). Used to drive cattle and wild horses to Los Angeles, the trail (later the Stockton–Los Angeles Road) followed the base of the Coast Range to *Arroyo de Panoche Grande* near Mendota and the project area (Clough and Secrest 1984:39).

The construction of the Southern Pacific line into the San Joaquin Valley in the 1870s led to the expansion of the livestock and farming industries in Fresno County, as well as the establishment of communities distributed along the tracks. Today's City of Fresno was initially a railroad stop called Fresno Station. A post office was established in 1872 (Durham 1998:1038). Between Downtown Fresno and the San Joaquin River, today's unincorporated community of Herndon was established in 1872 as Sycamore (Durham 1998:1046). A post office was opened at the Herndon rail stop in 1887 and temporarily closed in 1893, with service resuming in 1907.

Fresno County's agricultural potential was recognized when the otherwise arid land was transformed by irrigation efforts, initiated as early as the 1850s with diversions from local rivers by individual farmers and private companies, a trend that continued throughout the nineteenth century with the incorporation of the Fresno Canal & Irrigation Company (Elliott 1882:102–103; Clough and Secrest 1984:115–117). One of the pioneers of irrigation in the county was Moses Church, who developed some of the area's first canals, and was one of the partners of the Fresno Canal & Irrigation Company. His canals became known as "Church Ditches." Irrigation fostered an era of extensive wheat farming throughout the San Joaquin Valley. By 1887, water from the canal systems irrigated over 600,000 acres within the county (Clough and Secrest 1984:187). Figure 5-5 shows how Fresno County looked in 1891.

Today, Fresno County is known as one of the most productive agricultural regions in the state. According to the county's annual agricultural crop and livestock report for 2008, agricultural production in Fresno County was another record setting year "exceeding the five billion dollar-mark for the second time!" (Fresno Department of Agriculture 2008). This amount represents nearly a 6% increase from the 2007 production value—the first that exceeded five billion dollars—with increases in 2008 in field, seed, fruit and nut crops, livestock and poultry, and industrial crops.

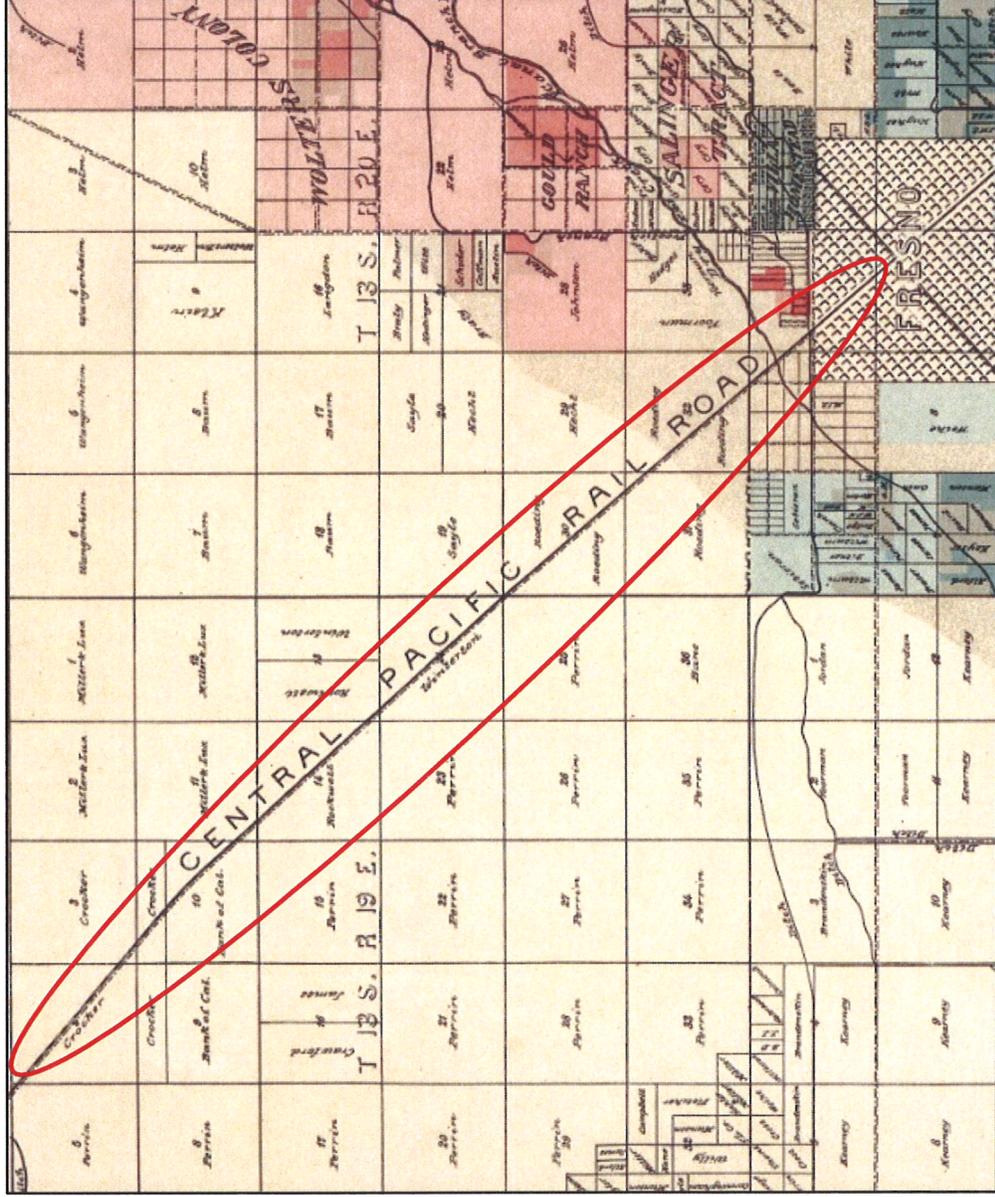


Figure 5-5
Fresno County Irrigation Sheet, Hall, 1885
Approximate project location in red

5.3.4.1 City of Fresno

People began to settle the area that is now the City of Fresno when the town of Millerton flooded in 1867 (Hoover et al. 1990:87–88). The Central Pacific Railroad established a station stop for their Southern Pacific line and named it Fresno Station. A post office was opened at Fresno in 1872, and in 1874 the county seat was moved from Millerton to Fresno (Durham 1998:1038; Hoover et al. 1990:85, 89). The city was incorporated in 1897, and is now the largest city in the San Joaquin Valley.

In the center of the San Joaquin Valley, the City of Fresno is one of the largest agricultural industry trade centers (Hoover et al. 1990:89). The city is also known for the development of gravity irrigation. The people who came to the area to work the agricultural fields and related industries were not always content with the conditions that awaited them in San Joaquin Valley's rich farmlands. From October 1910 until March 1911, the Industrial Workers of the World (IWW or "wobblies") led California's first free speech demonstration in the City of Fresno in their attempt to organize unskilled agricultural laborers (Clough and Secrest 1984:194–195).

The City of Fresno is the home of California's first junior college. Fresno Junior College opened its doors in 1910, and the first enrollment of 28 students was taught by three teachers (Hoover et al. 1990:90). In 1958, the name of the school was changed to Fresno City College. The city also boasts the California State University at Fresno. The college began in 1911 as the State Normal School, and became a teaching college in 1921. In 1949, it began offering advanced degrees and currently has an enrollment of 20,000 students (California State University at Fresno 2008).

Fresno is home to a variety of ethnic groups, beginning in 1885 with the settlement of the Chinese rail laborers who were instrumental in the construction of the Southern Pacific line. The Chinese rail laborers settled on the west side of the city and by the late 1880s were joined in the Chinatown District by other ethnic groups (Clough and Secrest 1984:36–37, 77). In the early 1890s, Fresno's was the second largest Chinatown in the state, the population exceeded only by that in San Francisco. In the mid-1900s, urban renewal and the construction of SR 99 through West Fresno destroyed much of Chinatown and the old tenderloin district. Recently, however, the city is engaged in downtown revitalization efforts and creating a Specific Plan to regulate development and preserve its past, including the Chinatown Historic District (City of Fresno 2010). Bordered by SR 99 on the west, the tracks of the Union Pacific Railroad on the east, Fresno Street on the north, and Ventura Street on the south, the district includes the Downtown Fresno Station, which would be used by the HST project. Figure 5-6 provides a bird's eye view of the City of Fresno in 1901.

Following the establishment of Fresno's Chinatown by Chinese railroad workers, other ethnic groups began to settle in Fresno's Chinatown District during the 20th century. The new arrivals included a large Armenian population, who upon finding a climate and soils similar to those in Armenia, became adept at producing nuts and fruits, including figs, melons, pistachio nuts, and raisins (Hoover et al. 1990:91). During the first years of World War II, Fresno had two assembly centers for temporary detention of Japanese Americans—one at the fairgrounds and another in Pinedale, just north of the city, both of which are California Historical Landmarks. The detention centers were meant to hold people of Japanese ancestry until permanent centers could be established. Many of the Japanese from the Fresno area went to more permanent relocation centers at Manzanar and Tule Lake.

The City of Fresno has the unusual distinction of establishing the first modern landfill in the United States. The Fresno Municipal Sanitary Landfill was the site of many innovations in sanitary landfill operations, such as trenching, compacting, and covering the landfill with soil on a daily basis. The municipal landfill began operating in 1937 but closed in 1987. The site of the landfill is now listed as a National Historic Landmark and is located approximately three miles west of the HST at the southwest corner of West Jensen Avenue and South West Avenue. Similar to other California cities, a network of street cars operated in the urban center starting in 1889, progressing from horse-drawn to steam, cable, and electric (Clough and Secrest 1986:247–251). The urban street car network ended in 1939.

Today, the economy of the City of Fresno remains tied to the agricultural sector; the service industry also makes a substantial contribution to the area's income. At the geographic center of the valley, Fresno is considered to be the hub for commerce, industry, education, health care, and government in northern San Joaquin Valley.

6.0 Historic Properties Identified

This chapter provides a general discussion of the archaeological resources identified, a general discussion of the built environment resources identified, a discussion of the specific NRHP-listed or NRHP-eligible archaeological resources, a specific discussion of the NRHP-listed or NRHP-eligible built environment properties, tables of the historic properties identified, a table that lists the historical resources identified for the purposes of CEQA, and a table that lists ineligible resources that would be demolished, acquired, or substantially altered as part of this project.

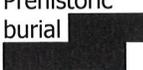
6.1 Archaeological Resources

Thirteen significant archaeological resources; five previously recorded sites, three newly recorded sites, and five archaeologically sensitive areas, three of which were identified through input from Native American contacts, are reported within the Merced to Fresno Section, that have the potential to be affected by the HST project. Table 6-1 summarizes the 13 eligible and potentially eligible archaeological resources.

To date, no TCPs have been recorded in the APE for archaeology. However, that finding may be amended after further consultation with Native American tribes and others, as the undertaking moves forward.

Table 6-1
 Eligible or Potentially Eligible Archaeological Resources and Sensitive Areas
 within or adjacent to the APE*

Resource	Description	Eligibility for NRHP	Reference	Alternatives			
				UPRR/ SR 99	BNSF	Hybrid	HMF
P-24-001862	Prehistoric artifact scatter	Unevaluated; Potentially eligible	Byrd et al. 2007	X	X	X	[REDACTED]
P-24-001676, CA-MER-381/H*	Prehistoric artifact scatter/ Historic remains [REDACTED]	Eligible; unevaluated within the APE	Becker 2003a; Bischoff, and Majewski 2002	X		X	
P-24-001686, CA-MER-383*	Prehistoric artifact habitation site with burials	Eligible; unevaluated within the APE	Johnston 2001; Becker 2003b	X		X	
P-20-002064, CA-MAD-2064H	[REDACTED] Station	Unevaluated; Potentially eligible	Van Bueren and Comeyne 1993	X and (Ave 24 Wye)			
P-20-002122, CA-MAD-2121H	Artifact scatter assoc. with Chinese railroad camp	Unevaluated: Potentially eligible	Waechter et al. 1993	X			

Resource	Description	Eligibility for NRHP	Reference	Alternatives			
				UPRR/ SR 99	BNSF	Hybrid	HMF
HST-H-JL-01	Historic homestead with foundations, artifact scatter	Unevaluated; Potentially eligible	Current project survey	X (Ave 24 Wye)	X (Ave 24 Wye)	X (Ave 24 Wye)	
HST-H-JL-02	Historic artifact scatter	Unevaluated; Potentially eligible	Current project survey		X	X	
HST-H/P-TC-01	Historic foundations, trash deposit /Prehistoric artifact scatter	Unevaluated; Potentially eligible	Current project survey	X	X	X	
Reported burial ground	Prehistoric burial 	Unevaluated; Potentially eligible	Current project survey	X	X	X	
Reported village #1*	Prehistoric village	Unevaluated; Potentially eligible	Current project survey	X	X	X	
Reported village #2*	Prehistoric village	Unevaluated; Potentially eligible	Current project survey	X	X	X	
Prehistoric artifact finds ()	Prehistoric artifact scatter	Unevaluated; Potentially eligible	Current project survey				
Rotary Club Park area, Madera	Prehistoric artifact find	Unevaluated; Potentially eligible	Current project survey	X			

*Indicates a site that is currently described to be adjacent to, but may be within, the APE.

Sources: Data provided by the Central California Information Center in 2009 and 2011; data provided by the South San Joaquin Valley Information Center in 2009, 2010, and 2011.

6.2 Built Environment Resources

The 151 built environment resources inventoried and evaluated in this HPSR reflect the major events and trends discussed in Section 5 (Historical Context). The survey area stretches from the Castle Commerce Center HMF site in Atwater, through Downtown and rural Merced County, through Downtown and rural Madera County, and terminates at E. Amador Street in Downtown Fresno. Built environment resources south of E. Amador Street are addressed in the HPSR for the Fresno to Bakersfield Section of the California HST Project. The majority of the resources surveyed herein are in Merced and Madera Counties.

Of the 151 properties identified in this HPSR, 11 are either listed in, previously determined eligible for, or appear eligible for the NRHP. As such, these properties are considered historic properties under the Section 106 process. Eligibility for the NRHP rests on dual factors: *significance* and *integrity*. The 11 properties meet one or more of the NRHP significance criteria (listed below) for inclusion in the NRHP:

Criterion A: association with "events that have made a significant contribution to the broad patterns of our history."

Criterion B: association with "the lives of persons significant in our past."

Criterion C: resources "that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction."

Criterion D: resources "that have yielded, or may be likely to yield, information important to history or prehistory."

In addition to meeting one or more of the above criteria, the 11 historic properties retain integrity, which is determined through application of seven aspects: location, design, setting, workmanship, materials, feeling, and association. Location and setting relate to the relationship between the property and its surrounding environment. Design, materials, and workmanship relate to construction methods and architectural details. Feeling and association are the least objective of the seven aspects of integrity, and pertain to the overall ability of the property to convey a sense of the historical time and place in which it was constructed.

The remaining 140 properties were fully evaluated for NRHP eligibility in this study and were found either not to meet any of the criteria for listing or not to retain sufficient integrity to convey their potential significance (for complete evaluations see the DPR 523 forms provided in Appendix C). As such, none of these properties are considered historic properties for the purposes of the Section 106 process. However, even though these properties are not eligible for listing in the NRHP, seven of the 140 ineligible properties are considered historic resources for the purposes of CEQA because a local government has recognized or identified the properties. The 133 remaining built environment resources evaluated as part of the HPSR survey population were found to be ineligible for the NRHP and are not CEQA resources, but will be demolished, acquired, or substantially altered as part of the project (See Attachment C, Section A of the PA).

Section 6.5 discusses the architectural contexts of the 11 NRHP historic properties and is organized by general property type. Sections 6.6 and 6.7 provide tables that list all of the built environment resources identified within the APE that this HPSR is required to report, per the PA, including the following:

- Properties listed in the NRHP.
- Properties previously determined eligible for the NRHP.
- Properties determined eligible for the NRHP for which CASHPO concurrence is requested.
- Archaeological properties that are currently being evaluated and are presumed eligible.
- Properties evaluated as not eligible for the National Register, for which CASHPO concurrence is needed early in the NEPA process.

Section 6.8 provides a table of resources recommended as ineligible for listing in the NRHP and do not qualify as CEQA resources, but will be demolished, destroyed, acquired, or substantially altered as part of the project (Attachment C, Section A of the PA)

6.3 NRHP Listed or Eligible Archaeological Properties

Two archaeological resources (CA-MER-381/H and CA-MER-383) that have been determined eligible for listing on the NRHP, are recorded adjacent, but may extend, subsurface, into the APE (see Table 6-1). They are described below.

6.3.1.1 P-24-001676 (CA-MER-381/H) – UPRR/SR 99 and Hybrid Alternatives

This site was located in a highly disturbed context, northeast [REDACTED]. CA-MER-381/H includes prehistoric elements and historic remnants [REDACTED], identified during earlier surveys focused [REDACTED]. The historic remnants consist of numerous structural features and refuse deposits containing a variety of artifacts and faunal remains. The prehistoric element consists of both moderate-density and low-density areas containing flaked stone (including obsidian), ground stone tools, and abundant faunal remains including both bone and marine shell fish remains. Twelve backhoe trenches were excavated during an extended Phase I, which included geomorphological and archaeological data (SRI 2002, Becker 2003a). Site stratigraphy consisted of Holocene stream channel deposits incised into older Pleistocene deposits. Holocene material had been spread over the general area, resulting in artifacts being found in farm fields and roadbeds as well as intact nearer [REDACTED]. Additional work was recommended, and additional excavation and geoarchaeological trenches were excavated during a Phase II investigation that included hand-excavated units and intensive surface survey and mapping efforts (SRI 2002, Becker 2003a). [REDACTED]. The letter report prepared for the project stated that "infilling of this channel appears to have been moderately rapid and uninterrupted by periods of significant down-cutting, suggesting that intact occupation surfaces may be present," as well as pointing out that field leveling over time had dispersed Holocene sediments as well as Pleistocene material, which might cap intact Holocene deposits. The investigators noted that artifact density appeared to increase as they got closer to SR 99 and stated that the site probably extended below the highway. Although the prehistoric artifact density was mostly low, artifacts were recovered at more than 2 meters below ground surface. The site was evaluated during the Plainsburg/Arboleda Freeway Project Environmental Assessment (U.S. Department of Transportation et al. 2006), found eligible for listing in the NRHP under Criterion D, and received CASHPO concurrence with that finding (Mellon 2003).

6.3.1.2 P-24-001686 (CA-MER-383) – UPRR/SR 99 and Hybrid Alternatives

The Wilson Site is a large prehistoric habitation site with Native American burials that may encroach, [REDACTED]. The site was recorded in a location [REDACTED] (Johnston 2001). Previous archaeological exploration of the site stopped at the [REDACTED] highway edge, amidst indications that the site deposit was tapering off however, it is possible that subsurface exploration would identify site elements extending [REDACTED]. In the late 1970s, an archaeological excavation at the site recovered multiple burials; although orchard development in the area may have removed much of the surface portion of the site, intact components were found to extend to at least 1.4 meters below surface. Work done for Caltrans in 2001 included the excavation of multiple trenches and test units in and around the Wilson Site, but again, the work focused [REDACTED]; the site record form acknowledged that the site boundaries are unknown (Johnston 2001). The site boundary indicated by SRI extends [REDACTED] (SRI 2001:5; Becker 2003b). Because of the presence of human remains and its data potential, site CA-MER-383 was recommended eligible for listing in the NRHP under Criterion D or the CRHR under Criterion 4. The site was evaluated during the Plainsburg/Arboleda Freeway Project Environmental Assessment (U.S. Department of Transportation et al. 2006), found eligible for listing in the NRHP under Criterion D, and received CASHPO concurrence with that finding (Mellon 2003).

6.4 Potentially Eligible Archaeological Resources

Eleven archaeological resources or archaeologically sensitive areas have been identified in the APE to date and are presumed to be eligible for NRHP listing under the guidance provided by the PA (see Table 6-1). These include three previously recorded archaeological sites, which because of issues regarding property access, have not been archaeologically tested and their NRHP eligibility evaluated. The total also includes three archaeological sites that have been newly recorded during the field survey conducted for



this project. The remaining five resources consist of two possible archaeological sites discovered in the course of the field reconnaissance, and three possible archaeological sites revealed to the QI through the Native American consultation process.

The three previously recorded archaeological resources that are potentially eligible for NRHP listing include the following:

6.4.1.1 P-24-001862 – [REDACTED] HMF – All of the Alternatives

This site, documented in 2007, consisted of out-of-context artifacts recovered from a plowed field, including a pestle, bowl mortars, and a battered cobble (Darcangelo 2007; Byrd and Waechter 2007). The artifacts appear to have been removed from their original context; they do not appear to be unique examples of their type and do not meet basic significance criteria for associations or data values. However, the site has not been formally evaluated for NRHP eligibility and cannot be evaluated at this time due to a lack of information. While archaeologists conducting field surveys in 2010 could not find any artifacts within the APE at these locations, there may be an as-yet unidentified subsurface component to the site. A program of subsurface testing is needed to identify any such deposits and assess their condition and register eligibility; the site is unevaluated and considered potentially eligible until subsurface testing proves otherwise.

6.4.1.2 P-20-002064 (CA-MAD-2064H) – Along UPRR/SR 99 Alternative

CA-MAD-2064H (P-20-002064) is located largely within the APE for the UPRR/SR 99 (with the Ave 24 Wye) Alternative and consists of the archaeological vestiges of the [REDACTED] depot on the [REDACTED] used from 1872 until the late 1950s (Van Bueren and Comeyne 1993). When documented in 1993, the site covered approximately 70 acres with six planted nonnative trees and nine archaeological features: five building foundations, two demolished structures, and two moderately dense concentrations of cultural material (amethyst glass; creamware ceramics; porcelain stoneware; buttons; marbles; slag; brick fragments; and clear, cobalt, aqua, and olive-green glass shards). The site was revisited during the current surveys, and the remnants of the station appear as they did in 1993. The 1993 site record mentions a testing program to determine eligibility pursuant to NRHP Criterion D; however, it is uncertain that this program was ever completed. Therefore, the NRHP eligibility of the site is currently treated as unevaluated.

6.4.1.3 P-20-002122 (CA-MAD-2121H) - UPRR/SR 99 Alternative

P-20-002122 (CA-MAD-2121H) is a highly disturbed artifact scatter associated with a Chinese railroad labor camp within the APE of the UPRR/SR 99 Alternative. The artifacts appear to have been displaced when improvements to the current railroad berm were undertaken. Soils were borrowed from each side of the original berm to increase the width and height of the new berm; labor camp deposits were included in the borrow material and were either incorporated into the new berm or scattered throughout the adjacent field. Based on temporal diagnostic material within the artifact scatter, the site dates to circa (ca.) the 1860s–1870s. Items recovered by Far Western in 1993 (Waechter et al. 1993) included bottle fragments of amethyst glass, Chinese porcelain bowl fragments (peach and fungus pattern), and numerous fragments of Min Gei brownware (soy vessels, tiger jars, and food containers). The NRHP eligibility of the site is currently unevaluated. The site was revisited during the current surveys, and disturbance was observed that was not noted when the site was originally recorded. It appears that a gas pipeline has been placed within the site area since the original survey resulting in the presence of small earth berms and other areas of surface disturbance. To date, no record of previous evaluation for significance of the site has been identified.

6.4.1.4 HST-H-JL-01– Ave 24 Wye

This site consists of the remains of an early 20th century homestead that contains four concentrations of domestic debris and features, including a concrete foundation and collapsed walls, fence posts and wiring, concrete pipes, piles of disarticulated lumber, household debris, and other miscellaneous items. [REDACTED] adjacent to a plowed agricultural field. No historical



association for these materials has, as yet, been made and the possibility for the presence of subsurface features such as privies and/or wells is unknown. Based on currently available information the site is unevaluated and under the terms of the PA is presumed NRHP eligible until it can be assessed.

6.4.1.5 HST-H-JL-02 – BNSF Alternative and Hybrid Alternative

The site consists of a very late 19th to mid-20th century trash scatter, situated in a recent mechanically cleared area, composed both of areas of bare ground and areas containing moderately dense vegetation. There are large eucalyptus trees present along the southwest quadrant of the site and local grasses throughout. The site is within the APE for the BNSF Alternative and is located just east of the Fresno River. Disturbances within the site consist of construction activities associated with the repair of the BNSF bridge over the Fresno River, which included the mechanical grading or clearing of the area as well as the stockpiling of large quantities of timbers and other elements of the old bridge structure that had been removed. [REDACTED]. Household appliances (e.g., a chair) were also present, but whether they represent elements of the potential domestic site or later dumping is currently unknown. Historic artifacts documented within the site consist of kitchen, household, building, and consumer items. These are composed of ceramic, glass, and concrete items. Ceramic items include electrical insulators and miscellaneous ceramic fragments, including ironstone and porcelain and common building brick fragments. Also observed within the site boundaries are colorless, amber, cobalt blue, and milk glass jar and bottle fragments that are complete and or fragmentary. The site also contains numerous concrete and asphalt fragments that are associated with structures of unknown purpose. No features were observed. The observed artifacts provide a general timeframe of very late 19th to mid-20th century; the sample is indicative of a domestic site. No historical association for these materials has, as yet, been made and the possibility for the presence of subsurface features such as privies and/or wells is unknown. The disturbed context in which these artifacts were observed makes it difficult to assess what they represent as well as their potential significance. The variety and quantity of artifacts found on the ground surface indicate a domestic site. Intact features or additional deposits may be located beneath the large pile of bridge timbers that dominate the property. Based on currently available information the site is unevaluated and under the terms of the PA is presumed NRHP eligible until it can be assessed

6.4.1.6 HST-H/P-TC-01 - [REDACTED] /HMF – All of the Alternatives

This site is located on land formerly a part of Castle Air Force Base, which was closed and transferred to private use, circa 1994. Site HST-H/P-TC-01 consists of a number of features and artifacts likely associated with base operations occurring more than 50 years ago, i.e., 1942 to 1961, during World War II and the early Cold War Period. One feature consists of a large, apparently buried, historic trash deposit or dump, indicated by 13 concentrations of historic refuse, including 32 identifiable artifacts associated with the 1950s (including a service identification "dog tag"). Elsewhere, several water conveyance features (drainage channels, with associated bridges and culverts), foundations, and ponds associated with a sewage treatment plant, an oval curb likely from an abandoned running track, and various other structural remains, some possibly 50 years old and others likely of more recent vintage, are also present. Also observed, in another area of the site were two pieces of prehistoric lithic (volcanic) debitage. It should be noted that the location of these prehistoric materials is in proximity to a previously recorded prehistoric archeological resource, P-24-001862, [REDACTED] (Darcangelo 2007; Byrd and Waechter 2007). While in some proximity, no definite association for these artifacts can be made to P-24-001862 and access to that site was denied for this project. It should also be noted that several pieces of prehistoric debitage were encountered in subsurface geoarchaeological investigations in an adjacent area of the Base to the north (outside the HST APE), during archaeological studies conducted to satisfy NHPA requirements under Section 106 for the disposal and reuse of the Base (Trnka et al. 1994:5-27). Based on currently available information the site is unevaluated and under the terms of the PA is presumed NRHP eligible until it can be assessed.

6.4.1.7 [REDACTED] – BNSF Alternative/HMF Site

This parcel, located on the BNSF Alternative alignment, is a candidate for the location of a HMF. [REDACTED]

[REDACTED] the property owner would not agree to any subsurface testing, including the excavation of shovel test pits. Because of the lack of information, it is currently impossible to determine whether there is a site within the HST APE or whether it possesses values that may make it eligible for listing in the NRHP or CRHR. A program of subsurface testing is needed to identify any such deposits and assess their condition and formal eligibility. In accordance with the PA, the site is presumed NRHP eligible until it can be assessed.

6.4.1.8 [REDACTED] – Along UPRR/SR 99 Alternative

A single prehistoric artifact was found within the UPRR route right-of-way, [REDACTED] in Madera adjacent to a recent fiber optic cable trench. Under the terms of the PA, isolated artifacts such as this one are not recorded as part of the HST project; however, the location of the tool on the surface near the Fresno River, and in the vicinity of the fiber optic trench, could indicate subsurface deposits in the area, containing much greater quantities of artifacts. Archaeological testing in this area will be conducted once permission has been granted by the landowner. A program of subsurface testing is needed to identify any such deposits and assess their condition and formal eligibility. In accordance with the PA, the site is presumed NRHP eligible until it can be assessed.

A potential burial ground and two potential villages were identified in the project vicinity during the course of Native American consultation. The UPRR/SR 99, BNSF, and Hybrid Alternatives are all on common alignments crossing these locations, and all would affect these resources equally.

6.4.1.9 Undocumented Human Burials – UPRR/SR 99, BNSF Alternative, Hybrid Alternative

According to oral accounts, human remains have been uncovered during past construction activities [REDACTED] and possibly within the HST APE. Although specific locations for burials could not be determined, finds of human remains have been reported by construction workers who built various facilities at a property known [REDACTED] over the years. According to Mr. Redmoon, some of those remains have been repatriated but, unfortunately, there is no clear record of where within [REDACTED] they were located. [REDACTED] fully paved, preventing investigation of the area. Therefore, while there is a distinct possibility that human remains will be encountered in the project APE at that location, confirmation is lacking. The area should be considered archaeologically sensitive and could be eligible for listing in the NRHP and CRHR.

6.4.1.10 Two Reported Villages (Possibly The Ethnographic Village of Kohou) – UPRR/99 Alternative, BNSF Alternative, and Hybrid Alternative

There are two possible locations for this archaeologically sensitive area, identified by the Cultural Resources Representative for the Dumna Wo-Wah Tribe as areas [REDACTED] where numerous early Native American materials have been uncovered in the past. Midden soils are reported to be found throughout this area and could represent important habitation sites possibly containing human remains. Although these archaeologically sensitive areas remain undocumented and the tentative locations appear to be [REDACTED].

The potential villages possibly located [REDACTED] may represent the ethnographic village of Kohou (Kroeber 1925:484). The only possible evidence of them, observed during 2011 surface surveys of the APE in the vicinity, was a single ground-stone artifact, a pestle/hammerstone/mano within the APE, [REDACTED]. [REDACTED]. Despite the occurrence of this single artifact, there remains no clear indication of where they are located. However, if the locations of one or both are verified during testing within the APE, they could be recommended as eligible for listing in the

NRHP and CRHR based on their data potential. In accordance with the PA, these two archaeologically sensitive areas are unevaluated and considered potentially eligible.

6.5 NRHP Listed or Eligible Built Environment Properties

The 11 NRHP-listed or eligible built environment properties within the APE relate to a number of themes of development in the study area. Railroad features represent some of the earliest history of the area, with the corridors of the UPRR and the BNSF providing crucial transportation linkages that spurred the development of the area's towns and agricultural regions. Similarly, irrigation features are indicative of the earliest and most fundamental advances allowed by the introduction of reliable water sources to the largely arid region. Residential development in the study area is reflective of both the population growth and social evolution of the region, with some of the earliest being farmsteads and homesteads and much of the later development being more urban in form. This evolution is indicative of the increasing development of towns and cities of the San Joaquin Valley, as cities such as Merced, Madera, and Fresno became major population centers. Similarly, the range of commercial and industrial construction reflects the increasing social and economic complexity of the area.

The built environment resources reflect a number of functional uses, including railroad facilities, hotels, retail, residential, commercial, industrial, and others. Designed in the late 19th century and throughout the 20th century in a range of styles, many of the properties have been altered over time, as continuous use and changing stylistic preferences and functions required new forms. The development of schools, government centers, and research facilities in the study area was a response to growing populations and new mandates for city, county, and state governance and educational and governmental complexes.

All of these property types convey the development of the Merced to Fresno Section from a largely undeveloped agricultural hinterland to an economically and socially diverse region of California. Each property type is discussed in more detail below. The location of each built environment resource is shown by APN on the APE maps in Appendices A1 and A2. For the full evaluation of each property, refer to the DPR 523 forms provided for this study in Appendix C.

6.5.1.1 Railroad-Related Historic Properties

Two historic properties identified in the study area relate to the development of the railroad, which had a profound influence on the region. The properties include two railroad depots: the 1926 Merced Southern Pacific Company Passenger Station in Merced, and the 1927 Madera Southern Pacific Railroad Station in Madera.

The Merced Southern Pacific Company Passenger Station (APN: 031-360-001 and 031-360-027) appears to be significant at the local level of significance under Criterion A for its representation of the pinnacle of the Southern Pacific Company's growth in the region as well as the Southern Pacific's early 20th century influence on Merced. The railroad depot also appears to meet Criterion C in the area of architecture as a fine example of an early 20th century Neo-Classical style passenger station. The period of significance is 1926-30 for Criterion A and 1926 for Criterion C.

Like the station in Merced, the Madera Southern Pacific Railroad Station (APN: 007-101-016) also appears to be significant under Criterion A for its association with the Southern Pacific Railroad and under Criterion C as an intact example of a Neo-classical railroad station that served as a prominent symbol in the City of Madera. The period of significance for this historic property is 1927-30 for Criterion A and 1927 for Criterion C.

6.5.1.2 Industrial Historic Properties

Two historic properties identified in the study area can be classified as industrial in nature: the PG&E Building in Merced and the Valley Feed & Fuel Co. in Madera.

The Pacific Gas and Electric (PG&E) Building (APN 031-231-005) is the former San Joaquin Light & Power Corporation building constructed ca. 1915. This property appears to meet NRHP Criterion C at the local level as a notable example of the Mission Revival style. The Mission Revival style gained prominence in the early 20th century and is characterized by smooth stucco walls, unadorned surfaces limited fenestration, and curved gables or end walls. The style was commonly found in residential and small commercial buildings and less frequently in industrial buildings such as the subject building. The period of significance encompasses the year it was constructed, 1915.

The Valley Feed & Fuel Co. (APN 007-101-020) consists of a granary facility, constructed ca. 1926. The property appears to be locally significant under Criterion A for its role as a center for agricultural trade contributing to Madera's overall development as a regional center of agricultural commerce. The facility also appears significant under Criterion C as a distinctive type of facility that is a diminishing type in California and across the United States. The complex's period of significance is the 1920s.

6.5.1.3 Residential Historic Properties

The study area contains one historic property that relates to the residential development of the City of Chowchilla.

The dwelling at 24302 Road 15 in Chowchilla (APN 026-233-011). Constructed ca. 1920, this building appears to be significant at the local level under Criterion C because it embodies elements of a Colonial Revival style. This particular example exhibits simple Colonial Revival detailing in its hipped roof, rectangular shaped, double-hung, paired windows, symmetrical façade, pediment above the entrance, and wood clapboard siding. This is an example of a two-story, simple Colonial Revival that is not well-represented in the rural area surrounding Chowchilla. The period of significance encompasses the year of its estimated construction, 1920.

6.5.1.4 Institutional Historic Properties

One property in the study area can be characterized as institutional in nature, the KAMB/California Highway Patrol Building.

The KAMB radio station building (APN 034-205-005) in Merced, formerly the California Highway Patrol (CHP) Building, was constructed in 1933. Under NRHP Criterion C, the building was designed in the Spanish Colonial Revival style, a style which gained prominence in the early 20th century. Spanish Colonial Revival architecture was influenced by the opening of the Panama Canal and the 1915 Panama California Exposition. Characterized by smooth stucco walls, low-pitched, clay-tile roofs, and stucco or terra-cotta ornamentation, the style was commonly used in residential and small commercial buildings and less frequently found in civic buildings. The period of significance is 1933.

6.5.1.5 Roadway-related Historic Properties

The study area contains two roadway-related historic properties: Weber Avenue Overcrossing (Bridge 42C0071) and the Belmont Avenue Subway and Traffic Circle (Bridge 42C0072).

The Weber Avenue Overcrossing is the first vehicle bridge in California and one of the earliest in the United States to use pre-stressed concrete as a construction technique. Constructed in 1953, the two-lane bridge has a 22-foot roadway, with a 6-foot sidewalk on the south side and concrete window railings. There are a total of 10 concrete T-beams, each 36 inches deep. The beams are 36 inches wide at the top and 16 inches wide at the bottom, with 6-inch thick vertical webs. The bridge was determined eligible at the state level of significance for listing on the NRHP through the 2006 Caltrans Bridge Survey under Criterion C in the area of engineering. The period of significance for the bridge is the year it was built, 1953.

The Belmont Avenue Subway and Traffic Circle consists of an underpass, railroad bridge, and traffic circle located southeast of Roeding Park in Fresno. The subway is a 1932 reinforced concrete and steel girder railroad bridge with a span of 42 feet. The subway and its associated 200-foot-radius traffic circle

roadway approach is the first configuration of this type in California to address a key railroad grade separation along former SR 99, and is one of the earliest examples of traffic circles in the West. The Belmont Avenue Subway and Traffic Circle meets NRHP Criteria C at the local level of significance for being one of the earliest examples of this type of traffic feature in the West and for its association with then City Engineer, Jean L. Vincenz. The period of significance encompasses the year that the historic property was constructed, 1932.

6.5.1.6 Recreational-related Historic Properties

Roeding Park (APN 450-02-008) is the only recreational-related historic property in the study area. The park, which dates to the early 20th century, was previously evaluated by Page and Turnball as part of the *Roeding Park and Fresno Chaffee Zoo Facility Master Plans Draft Environmental Impact Report SCH No. 2008031002* (City of Fresno 2011). Roeding Park appears to meet Criterion A in the area of community planning and development for its association with the pattern of events that made a significant contribution to the development of municipal parks in California in the early 20th century. The Roeding Park Historic District is also eligible for listing in the National Register under Criterion C (Design/Construction) as an excellent example of the early 20th century municipal park typology, which is defined by the evolution of parks from urban pleasure grounds to recreation-centered facilities in the early to mid-20th century. The period of significance for the district spans from 1903 to 1962, beginning the year construction began on the park, and ending in 1962, the year Rotary Storyland was constructed.

6.5.1.7 Miscellaneous Historic Properties

The study area contains two historic properties that do not fit into the categories listed above: Robertson Boulevard Tree Row and Forestiere Underground Gardens.

The Robertson Boulevard Tree Row consists of a tree row that includes Canary Island Palm and Mexican Fan Palms extending 11 miles south along SR 233 from Downtown Chowchilla. The shade trees were planted in 1912-1913 by Orlando Robertson. The resource was previously designated as a California Point of Historical Interest, but based on the evaluation completed for this project, it appears significant at the local level under Criterion A for its association with the community development of Chowchilla. The resource also appears significant under Criterion C as a distinctive and picturesque landscape feature in Chowchilla. The period of significance encompasses the years the trees were planted, 1912-1913.

Forestiere Underground Gardens (APN 510-23-303 and 510-23-304) was listed in the NRHP in 1977 (NPS #77000293) and was designated a California State Landmark (No. 916) in 1978. The gardens consist of a series of underground passages, rooms, ponds, and gardens that were excavated and constructed by Sicilian immigrant, Baldasare Forestiere between 1906 and 1946. Although not specifically stated in the NRHP nomination form or landmark file, the property is likely significant under Criterion C in the areas of environmental design and folk art as a unique complex of underground rooms, passages, ponds, and gardens that unite old and new world construction techniques. The property may also be eligible under Criterion D for the property's potential to yield information important to the fields of architecture and environmental design. The period of significance is from 1906 to 1946.

6.6 Built Environment Historic Properties Identified

Two historic properties in the APE are listed in or have been determined eligible for listing in the NRHP and are shown in Table 6-2. The nine historic properties in the APE that appear to be eligible for the NRHP, as evaluated by this study and for which CASHPO concurrence is requested, are listed in Table 6-3.

Table 6-2

Built Environment Resources Listed in or Determined Eligible for the National Register of Historic Places

APN	Resource Name	Address	City	County	Year Built	Previous Status Code ^a	Current Status Code ^a
510-23-303 510-23-304	Forestiere Underground Gardens	5021 W Shaw Avenue	Fresno	Fresno	1906-1946	1S/1CL	1S
No APN	Weber Avenue Overcrossing (Bridge 42C0071)	Weber and Belmont Avenues	Fresno	Fresno	1953	2S2/2S	2S2

^a Status Codes:
 Status Code 1S: Individual property listed in NR by the Keeper. Listed in the CR
 Status Code 1CL: Automatically listed in the California Register
 Status Code 2S: Individual properties determined eligible for NR by the Keeper. Listed in CR
 Status Code 2S2: Individual property determined eligible for NR by a consensus through Section 106 process. Listed in CR

Table 6-3

Built Environment Resources Recommended Eligible for the National Register of Historic Places

APN	Resource Name	Address	City	County	Year Built	Previous Status Code ^a	Current Status Code ^a
031-231-005	PG&E Building	560 W 15th St	Merced	Merced	ca. 1915	3S	3S
031-360-001 031-360-027	Merced Southern Pacific Company Passenger Station	692 W 16th St	Merced	Merced	1926	3S	3S
034-205-005	KAMB/ California Highway Patrol Building	90 E 16th St	Merced	Merced	1933	3S	3S
No APN	Robertson Boulevard Tree Row	Robertson Blvd	Chowchilla	Madera	1912-1913	7L	3S
007-101-016	Madera Southern Pacific Railroad Station	120 N E St	Madera	Madera	1927	N/A	3S
007-101-020	Valley Feed & Fuel Co.	121 Gateway Dr	Madera	Madera	ca. 1926	N/A	3S
026-233-011		24302 Road 15	Madera	Madera	ca. 1920	N/A	3S

APN	Resource Name	Address	City	County	Year Built	Previous Status Code ^a	Current Status Code ^a
450-02-008	Roeding Park	890 W Belmont Ave	Fresno	Fresno	1903	N/A	3D
No APN	Belmont Avenue Subway and Traffic Circle	W Belmont Ave	Fresno	Fresno	1932	N/A	3S

^a Status Codes:

Status Code 3S: Appears eligible for NR as an individual property through survey evaluation.

Status Code 7L: State Historical Landmarks 1-769 and Points of Historic Interest designated prior to January 1998 – Needs to be reevaluated using current standards

Status Code 3D: Appears eligible for NR as a contributor to a NR eligible district through survey evaluation.

6.7 Built Environment Historical Resources for the Purposes of CEQA

As discussed in the introduction to this section, seven of the built environment resources identified in the study area do not appear to meet the NRHP significance criteria or the integrity standards for listing in the NRHP. Although these historical resources are not historic properties under Section 106, they have been recognized or identified by local governments as having historical interest or recognition at the local level, and thus are considered historical resources for the purposes of CEQA. These resources represent two broad property types: residential, which are all in the City of Merced, and commercial/industrial, also in the City of Merced. Both property types are discussed in further detail below. Table 6-4 lists the seven surveyed resources that are considered historical resources for CEQA only. The DPR 523 forms for each are provided in Appendix C (for CEQA-only property status, please refer to the California Historical Resource Status [CHRS] codes provided in Appendix D of this HPSR).

Table 6-4

Built Environment Resources Recommended as Historical Resources for the Purposes of CEQA

APN	Resource Name	Address	City	County	Year Built	Previous Status Code ^a	Current Status Code ^a
031-154-011	Oy Kuong Laundry/Ranch Restaurant	245 W 16th St	Merced	Merced	1925	5S2	6Z/5S2
031-211-007		912 W 15th St	Merced	Merced	ca. 1890	5S2	6Z/5S2
031-213-015	Caswell T. Hunter Home	845 W 14th St	Merced	Merced	ca. 1895	5S2	6Z/5S2
031-213-016	Frank Bacigalupi Home	849 W 14th St	Merced	Merced	1910	5S2	6Z/5S2

APN	Resource Name	Address	City	County	Year Built	Previous Status Code ^a	Current Status Code ^a
031-213-017	Jacob Schafer Home	861 W 14th St	Merced	Merced	ca. 1915	5S2	6Z/5S2
031-243-004	Merced Beverage and Supply Company	210 W 15th St	Merced	Merced	1924	3S	6Z/3S
035-160-010	De Long Memorial Park/ Evergreen Memorial Park Home	1480 B St	Merced	Merced	1873/ 1929- 1939	5S2	6Z/5S2

^a Status Codes:
 Status Code 3S: Appears eligible for NR as an individual property through survey evaluation.
 Status Code 5S2: Individual property that is eligible for local listing or designation.
 Status Code 6Z: Found ineligible for NR, CR or local designation through survey evaluation.

6.7.1.1 Residential Historical Resources

Four historical resources relate to the residential development within the study area; all of these resources are identified in the *City of Merced Historic Building Survey* (City of Merced Redevelopment Agency 1985). These houses were built during the late 19th and early 20th century, a period of rapid residential development in Merced and were found eligible for local listing for their respective architectural design.

The dwelling at 912 West 15th Street (APN 031-211-007) and the Caswell T Hunter Home (APN 031-213-015) are both 1-story, wood-sided residences with open porches, constructed in 1890s. Both dwellings are good examples of domestic architectural types from Merced in the late 19th century. The Frank Bacigalupi Home (APN 031-213-016) and the Jacob Schafer Home (APN 031-213-017) are both one-story, wood-sided bungalows constructed during the second decade of the 20th century and indicative of residential development in Merced during that period.

6.7.1.2 Commercial Historical Resources

The study area contains two commercial properties that are historical resources for the purpose of CEQA. The residential properties discussed above, both of the commercial properties were also identified in the *City of Merced Historic Building Survey* (City of Merced Redevelopment Agency 1985).

The Oy Kuong Laundry/Ranch Restaurant (APN 031-154-011) is a one-story brick building with parapet roofline that was constructed in 1925. The building was recorded as a significant vestige of the early Chinese community in Merced, the “only surviving pre-1940 building associated with this ethnic group’s commercial endeavors in Merced” (City of Merced Redevelopment Agency 1985).

The Merced Beverage and Supply Company (APN 031-243-004) is a 1-story corrugated metal building with an arched roof that was constructed in 1924. From 1924 to at least 1928 it functioned as a beverage supply company and then later as an auto repair business.

6.7.1.3 Institutional Historical Resources

Only one institutional historical resource for the purposes of CEQA is located in the study area: the De Long Memorial Park/Evergreen Memorial Park Home (APN 035-160-010). This resource is a memorial park and cemetery established in the late 19th century and containing an early 20th century mausoleum that is one of the few examples of Neo-Classical architectural styling.

6.8 Built Environment Resources Identified as Not Eligible for the NRHP or the CRHR

None of the 133 properties listed in Table 6-5 appear to meet the criteria for listing on NRHP and/or the CRHR and do not qualify as historical resources for the purposes of CEQA. The properties are not exempt from evaluation as identified in Attachment D of the PA (Appendix E). Given their location within the alignment, these properties would likely be acquired, destroyed, demolished, or substantially altered as a result of the undertaking and, therefore, must be addressed in the HPSR, per Attachment C, Part A of the PA (Appendix E). Non-eligible resources that are 50 years old or older and fall within the APE, but will not be acquired, destroyed, demolished, or substantially altered as a result of the undertaking are addressed in a HASR (Attachment C, Part A and C of the PA).

Table 6-5
 Built Environment Resources Appearing Not Eligible for the NRHP

APN	Name	Address	City	County	Year Built	Previous Status Code*	Current Status Code*
005-070-025	T-535, Warehouse/Traffic Management Office	535 Station Ave	Atwater	Merced	ca. 1941	6Y	6Z
005-070-034	T-917, Pump House, Waste Treatment System	917 Station Road	Atwater	Merced	ca. 1942	6Y	6Z
005-070-034	T-372, Storehouse or T-524, Ammunition Storage	908 Station Rd	Atwater	Merced	ca. 1942	6Y	6Z
005-140-002		4045 Fox Road	Atwater	Merced	ca. 1957		6Z
051-010-010	T-561, Publications Building	561 North Industry Rd	Atwater	Merced	1942		6Z
067-010-021		1420 S Morely Ave	Le Grand	Merced	1915		6Z
067-050-016		2144 Plainsburg Rd	Le Grand	Merced	1933		6Z
067-060-008		10626 Mariposa Way	Le Grand	Merced	1949		6Z
067-060-053		Burchell Ave	Le Grand	Merced	1930		6Z
068-120-016		5351 S Santa Fe Ave	Le Grand	Merced	1906		6Z

APN	Name	Address	City	County	Year Built	Previous Status Code*	Current Status Code*
068-230-017		3234 S Cunningham Road	Le Grand	Merced	1959		6Z
068-230-025		3290 Fresno Road	Le Grand	Merced	1937		6Z
318-101-024		3756 Santa Fe Ave	Le Grand	Merced	ca. 1950		6Z
318-101-025	ATSF Le Grand Railroad Station	3756 South Santa Fe Avenue	Le Grand	Merced	ca. 1896		6Z
318-136-006		13371 Le Grand Rd	Le Grand	Merced	1940		6Z
318-140-003	Le Grand Community Services District	4051 Santa Fe Ave	Le Grand	Merced	ca. 1945		6Z
068-110-022		4906 Clausen Road	Le Grand	Merced	1945		6Z
005-140-002		3950 Santa Fe Drive	Merced	Merced	ca. 1957		6Z
031-173-013		933 W 15th St	Merced	Merced	ca. 1958		6Z
031-173-014		933 W 15th St	Merced	Merced	ca. 1958		6Z
031-173-015		933 W 15th St	Merced	Merced	ca. 1958		6Z
031-251-032		52-56 W 15th St	Merced	Merced	ca. 1940		6Z
035-010-065	Farm Dealership Warehouse	35 E 15th St	Merced	Merced	ca. 1955		6Z
035-130-007	California Pottery Company	1512 Brantley St	Merced	Merced	ca. 1929		6Z
035-130-045		Brantley St	Merced	Merced	ca. 1937		6Z
035-160-001		1510 B St	Merced	Merced	ca. 1920		6Z
035-160-007		756 Crist Ave	Merced	Merced	ca. 1932		6Z
066-050-003		1383-1385 Yale Ave	Merced	Merced	ca. 1935	6Y	6Z
066-050-010		3330 Harvard Rd	Merced	Merced	1940		6Z
066-130-005		4697 Lingard Rd	Merced	Merced	1904		6Z
066-272-003		3607 East Vassar Avenue	Merced	Merced	1940		6Z
067-040-002		6980 Mariposa Way	Merced	Merced	1925		6Z
067-050-014		Plainsburg Rd	Merced	Merced	ca. 1945		6Z

APN	Name	Address	City	County	Year Built	Previous Status Code*	Current Status Code*
075-120-012		Avenue 26 (northeast corner of Avenue 26 and Road 11)	Merced	Merced	1952		6Z
259-170-001		1695 E Gerard Ave	Merced	Merced	ca. 1950s		6Z
259-170-003		1830 E Gerard Ave	Merced	Merced	ca. 1940s		6Z
259-180-002		1911 E Gerard Ave	Merced	Merced	ca. 1929		6Z
057-590-016		2657 Dan Ward Rd		Merced	ca. 1958		6Z
021-060-010		21112 Road 10	Chowchilla	Madera	1930	6Z	6Z
024-060-014		10289 Avenue 21	Chowchilla	Madera	1945		6Z
024-070-012		21198 Robertson Blvd	Chowchilla	Madera	ca. 1918		6Z
024-120-008		21382 Road 14	Chowchilla	Madera	ca. 1920		6Z
024-120-009		13261 Avenue 21	Chowchilla	Madera	ca. 1925		6Z
024-130-016		21324 Road 16	Chowchilla	Madera	ca. 1960		6Z
024-130-021		15627 Avenue 21	Chowchilla	Madera	ca. 1930		6Z
025-070-006		25842 Road 12	Chowchilla	Madera	ca. 1950		6Z
025-080-001		12694 Avenue 26	Chowchilla	Madera	ca. 1940		6Z
025-120-002		10592 Avenue 25	Chowchilla	Madera	ca. 1960		6Z
025-150-022		24232 Road 14	Chowchilla	Madera	ca. 1940		6Z
025-180-019		10654 Avenue 24	Chowchilla	Madera	ca. 1930		6Z
025-210-034		23880 Road 14	Chowchilla	Madera	1940		6Z
026-232-024		24180, 24162, and 24154 Robertson Blvd	Chowchilla	Madera	ca. 1920		6Z
026-232-025		24148 Robertson Blvd	Chowchilla	Madera	ca. 1920		6Z
026-271-038		23831 Robertson Blvd	Chowchilla	Madera	ca. 1915		6Z
026-280-001		15308 Avenue 24	Chowchilla	Madera	ca. 1940		6Z
026-310-003		23706 Robertson Blvd	Chowchilla	Madera	ca. 1920		6Z
027-071-005		19695 Avenue 23½	Chowchilla	Madera	ca. 1930		6Z

APN	Name	Address	City	County	Year Built	Previous Status Code*	Current Status Code*
027-071-007		19797 Avenue 23½	Chowchilla	Madera	ca. 1950		6Z
027-091-009		22110 Road 18½	Chowchilla	Madera	ca. 1950		6Z
027-091-038		18357 Avenue 22	Chowchilla	Madera	ca. 1960		6Z
027-201-009		21322 Road 20	Chowchilla	Madera	ca. 1918		6Z
003-010-001		118 W South St	Madera	Madera	ca. 1940s-1950s		6Z
003-010-002		112 W South St	Madera	Madera	1950-1970		6Z
003-061-001	Madera Drive In	201 W Lincoln Ave	Madera	Madera	ca. 1954		6Z
007-042-001		610 N E St	Madera	Madera	ca. 1950		6Z
007-052-001		500 N E St	Madera	Madera	ca. 1955		6Z
007-052-003		500 N E St	Madera	Madera	ca. 1955		6Z
007-052-004		500 N E St	Madera	Madera	ca. 1955		6Z
007-073-001		314 N E St	Madera	Madera	ca. 1948		6Z
007-074-001	Fresno Madera Ice Co.	218 N E St	Madera	Madera	ca. 1929		6Z
007-074-003	Farmers' warehouse, Saunders Warehouse Company, James Grain Company Warehouse	200, 204, and 216 N E St	Madera	Madera	ca. 1912		6Z
007-074-005	Ochoa Auto	128 N E St	Madera	Madera	ca. 1950		6Z
007-074-006	Farmers' warehouse, Saunders Warehouse Company, James Grain Company Warehouse	200, 204, and 216 N E St	Madera	Madera	ca. 1912		6Z
007-074-007	Farmers' warehouse, Saunders Warehouse Company, James Grain Company Warehouse	200, 204, and 216 N E St	Madera	Madera	ca. 1912		6Z

APN	Name	Address	City	County	Year Built	Previous Status Code*	Current Status Code*
007-075-010	Heartland Opportunity Center	317 N E St	Madera	Madera	ca. 1947		6Z
007-076-010	T.S. Woo Distributing	225 N E St	Madera	Madera	ca. 1929		6Z
007-101-012		117 N E St	Madera	Madera	ca. 1950		6Z
007-152-007		96 E 6th St	Madera	Madera	ca. 1948		6Z
007-182-001	Gutierrez Auto Repair	224 S E St	Madera	Madera	ca. 1948		6Z
007-182-003	Evans Feed and Livestock Supply	316 S E St	Madera	Madera	ca. 1950		6Z
011-042-004	Western Grain & Milling	500 S E St	Madera	Madera	ca. 1948		6Z
011-300-001	Standard Oil/J.W. Meyers, Inc (Chevron)	546 E Olive Ave	Madera	Madera	ca. 1918		6Z
011-300-002	Standard Oil/J.W. Meyers, Inc (Chevron)	546 E Olive Ave	Madera	Madera	ca. 1918		6Z
011-330-009		796 S Knox St	Madera	Madera	1951		6Z
024-060-011		10403 Avenue 21	Madera	Madera	1926		6Z
027-091-047		22280 Avenue 18½	Madera	Madera	ca. 1950		6Z
029-110-005		19851 Berenda Blvd	Madera	Madera	ca. 1925		6Z
029-110-008		19807 Berenda Blvd	Madera	Madera	ca. 1925		6Z
029-110-009		19840 Berenda Blvd	Madera	Madera	ca. 1920s		6Z
035-092-001		15885 Watson St	Madera	Madera	ca. 1900		6Z
035-110-010		15552 Road 29	Madera	Madera	ca. 1950		6Z
035-171-003		29190 Avenue 15½	Madera	Madera	ca. 1940		6Z
035-171-005		29342 Avenue 15½	Madera	Madera	ca. 1940		6Z
035-171-013		29256 Avenue 15½	Madera	Madera	ca. 1940		6Z
038-121-002		Sharon Blvd	Madera	Madera	1959		6Z
038-122-016		Clark St	Madera	Madera	ca. 1950		6Z

APN	Name	Address	City	County	Year Built	Previous Status Code*	Current Status Code*
047-050-045		28579 Avenue 12½	Madera	Madera	ca. 1950		6Z
047-050-055		28569 Avenue 12½	Madera	Madera	ca. 1920		6Z
047-110-013		29573 Avenue 11	Madera	Madera	ca. 1950		6Z
047-220-004		29256 Avenue 11	Madera	Madera	ca. 1950		6Z
442-08-126	Hacienda Motel	2690 W Clinton Ave	Fresno	Fresno	1954		6Z
444-24-124		1646 N West Ave	Fresno	Fresno	ca. 1947		6Z
449-16-102	Fresno Motor Lodge Motel	1587 N Motel Drive	Fresno	Fresno	ca. 1948		6Z
449-16-108	Storyland Motel	1557 N Motel Drive	Fresno	Fresno	ca. 1948		6Z
449-16-201		1415 W McKinley Ave	Fresno	Fresno	ca. 1955		6Z
449-16-204		1335 W McKinley Ave	Fresno	Fresno	ca. 1952		6Z
449-16-205		1327 W McKinely Ave	Fresno	Fresno	ca. 1949		6Z
449-16-208		1557 N West Ave	Fresno	Fresno	ca. 1942		6Z
449-16-209		1545 N West Ave	Fresno	Fresno	ca. 1941		6Z
449-16-210		1533 N West Ave	Fresno	Fresno	ca. 1941		6Z
449-16-216		1578 N Weber Ave	Fresno	Fresno	ca. 1957		6Z
449-18-008	Flamingo Inn Motel	1487 N Motel Drive	Fresno	Fresno	ca. 1955		6Z
449-18-009	Paradise Inn Motel	1485 N Motel Drive	Fresno	Fresno	ca. 1955		6Z
449-18-010	Annie's Hollywood Inn	1473 N Motel Drive	Fresno	Fresno	ca. 1950		6Z
450-15-408		710 W Olive Ave	Fresno	Fresno	ca. 1954		6Z
450-15-512		522, 524, and 526 W Olive Ave	Fresno	Fresno	ca. 1957		6Z
450-27-111		517 N Farris Ave	Fresno	Fresno	ca. 1925		6Z
450-27-213		85 E Belmont Ave	Fresno	Fresno	ca. 1919		6Z
450-27-214		69 E Belmont Ave	Fresno	Fresno	ca. 1919		6Z
450-27-312	Central California Electronics	139 W Belmont Avenue	Fresno	Fresno	ca. 1949		6Z

APN	Name	Address	City	County	Year Built	Previous Status Code*	Current Status Code*
450-27-313	Central California Electronics	139 W Belmont Avenue	Fresno	Fresno	ca. 1949		6Z
450-28-001	Relax Inn	1425 N Motel Drive	Fresno	Fresno	ca. 1955		6Z
450-28-002	Holiday Motel	1407 N Motel Drive	Fresno	Fresno	ca. 1955		6Z
450-28-003	Town House Motel	1383 N Motel Drive	Fresno	Fresno	ca. 1955		6Z
450-28-012	Fresno Motel	1325 N Motel Drive	Fresno	Fresno	ca. 1955		6Z
458-24-030	Calaveras Cement Company	410 N Thorne	Fresno	Fresno	ca. 1950		6Z
459-02-351	Producer's Dairy Foods, Inc.	144 E Belmont	Fresno	Fresno	ca. 1949		6Z
508-10-118		5425 N Golden State Blvd	Fresno	Fresno	1949		6Z
508-11-012		5055 N Cornelia Ave	Fresno	Fresno	ca. 1950		6Z
508-11-013		5035 N Cornelia Ave	Fresno	Fresno	ca. 1950		6Z
508-11-045		5252 N State St	Fresno	Fresno	ca. 1950		6Z
510-06-033		4626 N Golden State Blvd	Fresno	Fresno	ca. 1950		6Z
510-07-053		4565 N Golden State Blvd	Fresno	Fresno	ca. 1960		6Z

* Status Code 6Z: Found ineligible for listing in the NRHP, CR, or local designation through survey evaluation.
 Status Code 6Y: Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or Local Listing

6.8.1 Ineligible Built Environment Resources

Residential properties make up the vast majority of built environment resources located within the APE. In Merced, the residential properties included Craftsman bungalows (APN 035-160-001, built in 1920; APN 066-050-010, built ca. 1940), and Folk styles (APN 035-160-007, built in 1932). Residences within the APE in Madera included Ranch styles (an example of which is APN 038-121-002, constructed in 1959) and Minimal Traditional styles (an example of which is APN 011-330-009, built in 1951). Residences in Fresno consisted primarily of frame, single-family dwellings dating to the mid-20th century. A large majority of residential properties documented within the APE for the project date to the 20th century, between 1925 and 1960. The residences are typically plain in design, with little architectural style, and most have been altered. These properties are indicative of the general growth and development of Merced, Le Grand, Chowchilla, Madera, and Fresno during the 20th century.

In addition to single family homes, there were also a large number of motels in the vicinity of Fresno. A large collection of motels were located along North Parkway Drive and along North Motel Drive, and included the Hacienda Motel (APN 442-08-126), Fresno Motor Lodge Motel (APN 449-16-102), Storyland Motel (449-16-108), Flamingo Inn Motel (APN 449-18-008), Paradise Inn Motel (APN 449-18-009) and Annie's Hollywood Inn (APN 449-18-010). The majority of these property types were constructed in the early to mid-1950s, or later, and were erected along the SR 99 corridor to support the growth in visitors to the Fresno area after World War II. Their architectural styles vary from Spanish Revival, to Ranch, Minimal Traditional, and Mediterranean.

Industrial and large commercial buildings were also present within the APE for the project, primarily located in the urbanized areas of Merced, Madera, and Fresno lining the active railroad corridors. In Fresno, large industrial complexes include a ca. 1950 materials storage yard (APN 458-24-030); a cement mixing facility in Madera (APN 011-042-004) dating to ca. 1955; JW Meyers Inca. (APN 011-300-001, 002), a petroleum gas retail operation, also in Madera and dating to 1945; Mendez Auto Repair (APN 007-042-001), built ca. 1955 in Madera; the Fresno Madera Ice Company Building (APN 007-074-001), built in 1929; the Saunders Warehouse Company and James Grain Company Warehouse (APN 007-074-003, 006, 007), built ca. 1912 along the railroad in Madera; the Central Valley Concrete – South Plant (APN 035-130-007) built ca. 1930 in Merced; and a number of other mid-20th century commercial buildings in Merced. These 20th century industrial and commercial buildings are constructed of a wide range of materials, from concrete block to brick to frame, and most are utilitarian in design with few decorative elements. They represent the early to mid-20th century industrial and commercial growth of the cities along the active rail lines.

There are a number of rural agricultural resources within the APE for the project, primarily in the rural areas of Madera. The agricultural complexes usually contain a residence, support buildings, and farmland, orchards, or pastures. Ranches and farmsteads are commonly found throughout the Chowchilla area, within the APE. One example is 2112 Road 10 (APN 021-060-010), located in Chowchilla, and constructed around 1960. This complex includes a residence, frame barn, sheds, and rural land surrounding the buildings. The property at 13261 Avenue 21 (APN 024-120-009) includes a single family residence, a shed, barns, silos, and orchards (built ca. 1925). Another example in Chowchilla is 10654 Avenue 24 (APN 025-180-019), which consists of a dairy and farm complex of about 20 buildings built ca. 1940. Another rural farm complex was documented in Le Grand at 1420 S. Morley Avenue (APN 067-010-021). This property was built around 1915 and consists of a frame house, utility sheds, barns, and orchards. Ranch complexes were also documented in Merced, including 4697 Lingard Road (APN 066-130-005), built ca. 1904. This property includes a wood frame residence, wood frame barn, and numerous other support structures within the rural setting. 6980 E. Mariposa Way (APN 067-040-002) is another rural property in Merced (built ca. 1925) that includes a dwelling, sheds, and rural farmland. These rural complexes represent the agricultural development of the San Joaquin Valley during the early 20th century.

7.0 Findings

7.1 Archaeological Resources

Of the total 13 archaeological resources in or presumed within the APE, two sites have previously been determined eligible for inclusion in the NRHP. These include CA-MER-381/H with both prehistoric and historic components, which not only contain archaeological materials [REDACTED], but prehistoric component with the potential to extend 3.7 meters below ground surface. The other NRHP-eligible resource, CA-MER-383, is a large prehistoric habitation site with Native American burials.

Potentially eligible archaeological resources documented in this HPSR include three newly-reported sites and five archaeologically sensitive areas. Two of the archaeological sites reported as part of this survey are historic and probably domestic or residential sites (HST-H-JL-01 and HST-H-JL-02) and the third contains both historic (trash deposit) and prehistoric (artifact scatter) components. The remaining, potentially eligible resources represent prehistoric, ethnohistoric and 19th century timeframes. With the selection of a preferred alternative and resolution of access issues, a subsurface testing plan will be developed and implemented to fully document the horizontal and vertical dimensions of any archaeological deposits present at these locations and assess their potential to provide new and significant information on the region's history and/or prehistory.

7.2 Built Environment Resources

The 151 built environment resources inventoried and evaluated in this HPSR reflect the major historical events discussed in the historical context for the study corridor that stretches from Atwater in Merced County, through the Downtown Merced, through Chowchilla to Downtown Madera, and terminates in Downtown Fresno. Although the survey area covers a region that includes portions of three counties, the majority of the resources surveyed herein are located in, or in the immediate vicinity of, the cities of Merced and Fresno. Fewer properties are in the rural areas of Merced, Madera, and Fresno counties.

The historic status of each of the 151 built environment resources surveyed is shown in Tables 6-2 to 6-5 and on the DPR 523 form for each resource in Appendix C. Table 6-5 illustrates that the majority of the 151 buildings, structures, or objects are previously unidentified. The majority of the resources that were previously surveyed were either conducted in the 1980s, before the development of current evaluation guidelines and standards, consisted of previous incomplete recordation forms, or OHP staff had identified them as requiring re-evaluation. The re-evaluations were necessary because of the passage of time and the need to address eligibility under NRHP and/or CRHR criteria for some resources that had not been fully evaluated previously. The project QIs conducted field checks, prepared updates to previous evaluations, and evaluated the previously unevaluated properties. Built environment resources that met the PA definition of "streamlined" properties and those that required evaluation but were not likely to be found eligible for listing in the NRHP or CRHR are scheduled for the second phase of intensive survey and are presented as part of the HASR submittal for this project.

Two of the 151 built environment resources addressed in this HPSR were previously listed on or determined eligible for listing in the NRHP and CRHR:

- Forestiere Underground Gardens – APN 510-23-303 and 510-23-304 (5021 W Shaw Avenue, Fresno, Fresno County)
- Weber Avenue Overcrossing (Bridge 42C0071) (Fresno, Fresno County)

Four of the 151 built environment resources appeared eligible for listing in the NRHP and CRHR in previous studies and are recommended eligible as part of this study. These properties are noted below:

- Merced Southern Pacific Company Passenger Station - APN 031-360-001 and 031-360-027 (692 West 16th Street, Merced, Merced County)
- PG&E Building – APN 031-231-005 (560 West 15th Street, Merced, Merced County)
- KAMB/California Highway Patrol Building – APN 034-205-005 (90 East 16th Street, Merced, Merced County)
- Roeding Park – APN 450-02-008 (890 W Belmont Street, Fresno, Fresno County)

Five of the 151 built environment properties are recommended eligible for listing in the NRHP and CRHR as part of this study (Table 6-3):

- Madera Southern Pacific Railroad Station – 007-101-016 (120 North E Street, Madera, Madera County)
- Valley Feed & Fuel Co. – APN 007-101-020 (121 S Gateway Drive, Madera, Madera County)
- 24302 Road 15 – APN 026-233-011 (24302 Road 15, Chowchilla, Madera County)
- Robertson Boulevard Tree Row (Madera County)
- Belmont Avenue Subway and Traffic Circle (Fresno, Fresno County)

Of the built environment resources that do not appear eligible for listing in the NRHP, seven have some level of local significance and/or designation and are considered to be historical resources for the purposes of CEQA (Table 6-4).

- Oy Kuong Laundry/Ranch Restaurant – APN 031-154-011 (245 W 16th Street, Merced, Merced County)
- 912 West 15th Street, Merced – APN 031-211-007 (Merced, Merced County)
- Merced Beverage and Supply Company – APN 031-243-004 (210 W 15th Street, Merced, Merced County)
- De Long Memorial Park/Evergreen Memorial Park – APN 035-160-010 (1480 B Street, Merced, Merced County)
- Caswell T. Hunter Home – APN 031-213-015 (845 W 14th Street, Merced, Merced County)
- Frank Bacigalupi Home – APN 031-213-016 (849 W 14th Street, Merced, Merced County)
- Jacob Schafer Home – APN 031-213-017 (861 W 14th Street, Merced, Merced County)

The project QIs prepared this HPSR as part of project compliance with applicable sections of the NHPA and its implementing regulations of the ACHP as these pertain to federally funded undertakings and their effects on historic properties. All 13 archaeological sites require further testing to formally determine NRHP eligibility. Pending completion of these investigations, these 13 sites are presumed to be historic properties and eligible for the NRHP. No built environment resources require further studies to resolve the question of their eligibility. A total of 151 historic-era built environment resources were evaluated to determine their eligibility for the NRHP for this investigation, in compliance with the PA. Of the 151 built environment resources surveyed in the APE, 11 historic properties were listed in, have been determined eligible for listing in, or appear to meet the criteria for listing in the NRHP.

All built environment resources were also evaluated in accordance with Section 15064.5(a)(2)–(3) of the CEQA Guidelines using criteria outlined in Section 5024.1 of the California Public Resources Code. Of the 151 built environment resources surveyed, seven are historical resources for the purposes of CEQA. CEQA

historical resources are those listed in the CRHR, eligible for listing in the CRHR, or that meet other local government standards as historical resources, as per Section 15064.5(a)(4) of the CEQA Guidelines.

8.0 References

This section includes references cited in the main HPSR text only. References used in preparation of the DPR 523 forms appear on each individual form that are attached in to the report in Appendix C.

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9.0 Preparer Qualifications

This study was conducted by or under the supervision of persons who qualify as archaeologists, historians, and/or architectural historians under the Professional Qualification Standards of the U.S. Secretary of the Interior (as defined in 36 CFR Part 61). The following staff meets the standards for "Qualified Investigator" as defined in the PA (see Appendix E).

Mark Bowen, M.A. (Public History, California State University-Sacramento, 2003) is an Architectural Historian with 15 years experience in the fields of cultural resources management. He is a Cultural Resources Specialist and Project Manager on a wide variety of infrastructure, government facilities, and development projects. He has experience preparing cultural resources technical studies in compliance with Caltrans, FHWA, and FRA requirements for bridge replacement, road widening, highway projects, and rail improvement projects, and he has prepared studies for review by Caltrans staff in districts 1, 2, 3, 4, 5, 6, 9, and 10. Mr. Bowen has provided research, conducted cultural resources surveys, authored technical reports, and written sections of CEQA/NEPA documents pertaining to cultural resources. He assists clients in compliance with Section 106 of the National Historic Preservation Act, consults regularly with the OHP, and develops mitigation for effects to historic resources.

Madeline Bowen, M.A. (History, California State University-San Francisco, 1992) has more than 14 years experience conducting cultural resources inventory and evaluation studies throughout California and has worked with a wide range of clients, including state, local, and federal agencies. She currently serves as author and co-author of cultural resources technical reports, including historic resources and historic architectural inventories/evaluations. She has evaluated hundreds of resources for significance for the California Register of Historical Resources and National Register of Historic Places, prepared Historic American Building Survey (HABS) and Historic American Engineering Record (HAER) documentation, developed integrated cultural resource management plans, developed mitigation measures, and prepared reports for cultural resource and environmental compliance. Ms. Bowen has conducted research at various sources of primary and secondary documentation repositories throughout California. She meets the Secretary of the Interior's standards for work in history and architectural history.

Patricia E. Ambacher, M.A. (History, California State University-Sacramento, 2003) is a qualified historian and architectural historian under the United States Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61). In her 8 years experience she has served as the lead historian responsible for cultural resources investigations in compliance with Section 106 of the NHPA for various agencies. Ms. Ambacher prepares a variety of technical reports including HPSR/HRERs, HABS, HALS, FOEs, HPTPs, Initial Studies, and EIRs. She is well-versed in CEQA and has surveyed and evaluated properties in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines for a variety of public agencies. She also conducts archival and historic research to establish appropriate historic contexts for the evaluations of a multitude of property types. Prior to working in the private sector Ms. Ambacher worked as a historian for the California Office of Historic Preservation and served as staff to the State Historical Resources Commission. She has given training sessions to California State Parks' cultural staff and presented at workshops and conferences concerning multiple property submissions and how to evaluate resources for the National Register and the California Register. Ms. Ambacher is also a contributor to the national Veteran's History Project of the American Folklife Center at the Library of Congress.

Susan Lassell, M.A. (Historic Preservation Planning, Cornell University, 1994) provides historic preservation and environmental compliance expertise to clients throughout the western United States. With over 17 years experience, Ms. Lassell has been recognized for her ability to smoothly navigate projects through compliance with state and federal environmental laws, including NEPA, Section 106, Section 4(f) and CEQA. Ms. Lassell has conducted a wide variety of historic preservation projects, including built environment survey and evaluation reports, cultural resources management plans, HABS/HAER documentation, master plans for historic sites, and environmental education. Through a combination of experience and her master's degree in historic preservation planning, Ms. Lassell meets the Secretary of the Interior's professional qualification standards for architectural history and history.

Nancy Sikes, Ph.D., RPA (Anthropology, University of Illinois at Urbana, 1995) is a cultural resources Principal Investigator and a Registered Professional Archaeologist with PARUS with over 20 years experience in a wide range of world areas and research settings. She is also certified by the Counties of Orange and Riverside (California), has been approved on a project-by-project basis as a Cultural Resources Specialist by the California Energy Commission (CEC), and is permitted by the Bureau of Land Management (BLM) in five western states (California, Nevada, Utah, Washington, and Wyoming). Dr. Sikes has attended workshops on federal (NHPA, NEPA) and state (CEQA, S.B. 18) laws, as well as on archaeological prospection (remote sensing). In addition, she holds Research Associate status with the National Museum of Natural History, Smithsonian Institution, with which she had a 6-year association as a visiting scientist after receiving her Ph.D.

Dr. Sikes has completed hundreds of projects and technical reports in compliance with federal, state, and local regulations and agencies throughout California—with additional experience in the Great Basin (Nevada and Utah), Washington, Wyoming, and East Africa. She has also completed dozens of cultural resources sections for Environmental Impact Reports, Environmental Impact Statements, Environmental Assessments, Initial Studies, and developed treatment plans, research designs, and significance evaluations under CEQA and Section 106 guidelines.

Alan Tabachnick, M.S. (Historic Preservation Planning, Columbia University, 1986) is a Senior Architectural Historian and has over 25 years of significant national environmental and cultural resource expertise, working on projects across the United States. He has acted as Cultural Resources Task Manager on a variety of transportation and infrastructure projects, including transit, roadways, aviation, and ports. He has authored numerous Section 106 documents, including APES, Determination of Eligibility Reports, Determination of Effect Reports, as well as agreement documents. He is familiar with the project development and permitting processes associated with NEPA and has written numerous Section 4(f) documents.

Vanessa Zeoli, M.H.P. (Historic Preservation, University of Kentucky, 2007). Ms. Zeoli has 9 years experience in historic preservation and 7 years of experience in cultural resources management throughout the eastern United States. She joined AECOM in July 2010, but previously served as Senior Architectural Historian and Principal Investigator for several firms in the Mid-Atlantic region. As Principal Investigator, she has acted as cultural resource liaison between various clients and local, state, and federal review agencies. Over the past 9 years, Ms. Zeoli has completed various documentation and regulatory compliance projects including Historic Architectural Surveys, HABS Documentation, National Register nominations, Section 106 studies, Historic Tax Credit Applications, and existing condition surveys. She exceeds the qualifications set forth in the Secretary of Interior's Standards for Architectural Historian (36 CFR Part 61).

John W. Lawrence, M.A. (Anthropology, University of Pennsylvania, 1989). Mr. Lawrence has over 25 years experience in archaeology and 15 years of significant experience in cultural resources management throughout the eastern United States. In his capacity as Principal Investigator, he has frequently acted as the senior cultural resources liaison between the consulting firm, local, state, and federal project owners, and state and federal review agencies. During the past 15 years, Mr. Lawrence has successfully completed a wide variety of projects, many of which have included the evaluation of both above-ground and below-ground cultural resources. He has conducted Section 106 of the National Historic Preservation Act historic preservation planning studies for a wide variety of resources, from historic urban properties and historic farmsteads to prehistoric archaeological resources.

M.K. Meiser, M.A. (Historic Preservation Planning, Cornell University) Ms. Meiser is a historic preservation planner and a Secretary of Interior-qualified (36 CFR Part 61) architectural historian and historian with 9 years of experience in surveying, documenting, evaluating, and planning for historic structures, districts, sites, and cultural resources. She has consulted on a variety of CEQA and NEPA projects with clients, architects, engineers, and agency representatives for regulatory review, including Section 106 consultation. She has completed a multitude of cultural resource technical reports and archival documents, including California Department of Transportation Historic Property Survey Report (HPSR) and Historical Resources Evaluation Report (HRER) studies, National Register of Historic Places

nominations, Historic Structure Reports, and HABS/HAER. Her experience in historic preservation planning provides a strong understanding of federal, state, and local historic preservation laws. She has a thorough knowledge of the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and their functions in historic preservation planning. Ms. Meiser maintains a solid knowledge of architectural history and building materials conservation and has led seminars on architectural styles, workshops in materials conservation, and preservation design charrettes.

Anne Jennings, M.S. (Historic Preservation, University of Vermont, 2002) Ms. Jennings is an architectural historian with 9 years experience in providing cultural resource management and historic architectural expertise on a variety of projects throughout the United States. She has conducted fieldwork and historic research for historic architectural resources surveys, National Register nominations, preservation plans, and historic structures reports. She has also participated in the preparation of numerous cultural resource documents in compliance with federal, state, and local preservation legislation, including Section 106 of the National Historic Preservation Act (NHPA) reviews, National Environmental Policy Act (NEPA) reports, memoranda of agreement (MOA), Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) and state-level documentation reports, historic building reuse studies, environmental assessments and impact statements.

Emma Waterloo, M.A. (Historic Preservation Planning, Cornell University, 2010) Ms. Waterloo is a recent graduate of Cornell University's historic preservation planning Masters program. She has prepared numerous cultural resource documents in compliance with federal, state, and local preservation regulations, including Sections 106 and 110 of the National Historic Preservation Act (NHPA). She has assisted with the preparation of cultural resources surveys, Historic American Buildings Survey (HABS) documentation reports, and state-level documentation reports. She has also assisted with the preparation of environmental impact statements (EISs) in compliance with National Environmental Policy Act (NEPA) and other state and local environmental regulations.