

# CALIFORNIA HIGH-SPEED TRAIN

Technical Report

## Fresno to Bakersfield Section Historic Property Survey Report

October 2011



California High-Speed  
Rail Authority



U.S. Department of Transportation  
Federal Railroad Administration





# **Historic Property Survey Report**

*Prepared by:*

URS/HMM/Arup Joint Venture

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**Table of Contents**

	Page
<b>1.0 Description of the Undertaking.....</b>	<b>1-1</b>
1.1 Project Introduction .....	1-1
1.2 Project Alternatives .....	1-1
1.2.1 Alignment Alternatives.....	1-1
1.2.2 Station Alternatives .....	1-5
1.2.3 Heavy Maintenance Facility.....	1-12
1.3 Power .....	1-14
1.4 Project Construction.....	1-14
1.5 Definition of the Area of Potential Effects .....	1-16
1.5.1 Archaeological APE.....	1-16
1.5.2 Historic Architectural APE .....	1-17
<b>2.0 Summary of Findings .....</b>	<b>2-1</b>
2.1 Project Summary .....	2-1
2.2 Purpose of Historic Property Survey Report .....	2-1
2.3 Archaeological Resources .....	2-2
2.4 Historic Architectural Resources .....	2-3
<b>3.0 Consulting Parties, Public Participation.....</b>	<b>3-1</b>
3.1 Historic Architectural Resources: Interested Parties.....	3-2
3.2 Native American Consultation .....	3-2
<b>4.0 Summary of Identification Effort .....</b>	<b>4-1</b>
4.1 Archaeological Resources .....	4-1
4.1.1 Background Literature Review .....	4-1
4.1.2 Records Search.....	4-1
4.1.3 Survey Methods and Implementation .....	4-2
4.1.4 Framework for Identifying Archaeological Properties .....	4-3
4.1.5 Summary of Native American Communication .....	4-4
4.1.6 Traditional Cultural Properties.....	4-5
4.2 Historic Architectural Resources.....	4-6
4.2.1 Known Historic Properties and Previous Surveys .....	4-6
4.2.2 Field and Research Methods .....	4-7
<b>5.0 Historic Context .....</b>	<b>5-1</b>
5.1 Natural Setting .....	5-1
5.2 Prehistoric Setting.....	5-2
5.2.1 Early Holocene (12,000 to 7000 B.P.; 10,000 to 5000 B.C.) .....	5-6
5.2.2 Middle Holocene (7000 to 4000 B.P.; 5000 to 2000 B.C.).....	5-7
5.2.3 Late Holocene (4000 B.P. to 150 B.P.; 2000 B.C. to A.D. 1850) .....	5-7
5.2.4 Ethnographic Setting.....	5-8
5.3 Historic-Era Setting .....	5-9
5.3.1 The Spanish and Mexican Periods .....	5-9
5.3.2 Initial American Settlement and Travel in the Wake of the Gold Rush... 5-10	
5.3.3 The Advent and Growth of Irrigated Agriculture .....	5-11
5.3.4 The Arrival of the Railroads .....	5-19
5.3.5 Municipal Development .....	5-24
5.3.6 Events and Trends of the Twentieth Century .....	5-30
<b>6.0 Historic Properties Identified .....</b>	<b>6-1</b>
6.1 Archaeological Resources .....	6-1
6.2 Built Environment Resources .....	6-1
6.3 NRHP Listed or Eligible Archaeological Properties.....	6-3
6.4 NRHP Listed or Eligible Historic Architectural Properties.....	6-3
6.4.1 Railroad-Related Historic Properties.....	6-3

6.4.2	Historic Properties Related to Water Conveyance .....	6-4
6.4.3	Residential Historic Properties .....	6-6
6.4.4	Commercial Historic Properties.....	6-7
6.4.5	Institutional Historic Properties .....	6-9
6.4.6	Miscellaneous Historic Properties.....	6-11
6.5	Tables of Historic Properties Identified .....	6-12
6.6	Historical Resources for the Purposes of CEQA.....	6-20
6.6.1	Residential Historical Resources .....	6-23
6.6.2	Commercial/Industrial Resources .....	6-24
<b>7.0</b>	<b>Findings</b> .....	<b>7-1</b>
<b>8.0</b>	<b>References</b> .....	<b>8-1</b>
<b>9.0</b>	<b>Preparer Qualifications</b> .....	<b>9-1</b>

**Appendices**

- A Area of Potential Effects
- B Interested Parties Correspondence
- C Site Location and DPR 523 Forms
- D California Historical Resource Status Codes
- E Section 106 Programmatic Agreement for the HST Project

**Tables**

Table 1-1	Construction Schedule .....	1-15
Table 3.0-1	Responses Received from Letter Sent to Parties Potentially Interested in Historic Architectural Resources .....	3-1
Table 3.2-1	Native American Consultation Contacts.....	3-2
Table 6.5-1	Historic Properties (Historic Architectural Resources) Listed in the NRHP .....	6-13
Table 6.5-2	Historic Properties (Historic Architectural Resources) Previously Determined Eligible for the NRHP .....	6-13
Table 6.5-3	Historic Properties (Historic Architectural Resources) That Appear Eligible for the NRHP for Which SHPO Concurrence Is Requested.....	6-14
Table 6.5-4	Historic Architectural Resources Evaluated as Not Eligible for the NRHP for Which SHPO Concurrence Is Requested Early in the NEPA Process, as Required by the Section 106 PA, Attachment C.....	6-17
Table 6.6-1	Properties That Are Not Eligible for the NRHP But That Are Historical Resources for the Purposes of CEQA (Not Section 106 Properties) .....	6-20
Table 7-1	HPSR Survey Population Arranged North to South along the Fresno to Bakersfield Corridor.....	7-5

**Figures**

<b>Figure 1-1</b>	Fresno to Bakersfield HST alignments .....	1-2
<b>Figure 1-2</b>	Fresno Station–Mariposa Alternative .....	1-7
<b>Figure 1-3</b>	Fresno Station–Kern Alternative.....	1-9
<b>Figure 1-4</b>	Kings/Tulare Regional Station (potential).....	1-10
<b>Figure 1-5</b>	Bakersfield Station–North Alternative .....	1-11
<b>Figure 1-6</b>	Bakersfield Station–South Alternative.....	1-13
<b>Figure 5-1</b>	Historic natural vegetation and hydrology.....	5-3
<b>Figure 5-2</b>	San Joaquin Valley archaeological site distribution (after Hewes 1941; not to scale)	5-6
<b>Figure 5-3</b>	Land colonies in the vicinity of Fresno.....	5-14
<b>Figure 5-4</b>	Fresno Irrigation District and Consolidated Irrigation District in 1929 .....	5-17
<b>Figure 5-5</b>	San Joaquin Valley in 1873, showing irrigable lands and rivers .....	5-20
<b>Figure 5-6</b>	Major rail lines between Fresno and Bakersfield in 1900.....	5-23

**Figure 5-7** Fresno in 1901, bird's eye view facing east..... 5-25  
**Figure 5-8** Detail from bird's eye view of Bakersfield in 1901 ..... 5-31  
**Figure 5-9** Historic photo of Kern County Civic Administrative Center ..... 5-35  
**Figure 5-10** Kern County Civic Administrative Center, June 2009 ..... 5-35  
**Figure 6-1** Santa Fe Freight and Passenger Depot, 150–200 Central Valley Highway, Shafter.. 6-4  
**Figure 6-2** Washington Colony Canal, Fresno County ..... 6-5  
**Figure 6-3** Vartanian Home, 362 F Street, Fresno ..... 6-6  
**Figure 6-4** Hotel Fresno, 1257 Broadway, Fresno ..... 6-8  
**Figure 6-14** Azteca Theatre, 836-840 F Street, Fresno ..... 6-8  
**Figure 6-5** Harvey Auditorium, Bakersfield High School, 1241 G Street, Bakersfield ..... 6-10  
**Figure 6-6** 2208 South Van Ness Avenue, Fresno ..... 6-11  
**Figure 6-7** Allensworth Historic District, 4129 Grant Drive, Earlimart ..... 6-12  
**Figure 6-8** 1310–1312 Eye Street, Bakersfield..... 6-23  
**Figure 6-9** 1323 K Street, Bakersfield ..... 6-24  
**Figure 6-10** 1330 L Street, Bakersfield ..... 6-24  
**Figure 6-11** Liberty Laundry, 1830 Inyo Street, Fresno..... 6-25  
**Figure 6-12** Benham Ice Cream/Dale Bros. Coffee Building, 1420 H Street, Fresno ..... 6-25  
**Figure 6-13** Komoto's Department Store and Hotel, 1536-1542 Kern Street, Fresno..... 6-26  
**Figure 6-15** Dick's Shoes Building, 1522-1526 Kerns Street, Fresno ..... 6-26  
**Figure 6-16** Budd & Quinn, 1514-1518 H Street, Fresno..... 6-27  
**Figure 6-17** H.E. Jaynes & Son, 1452 H Street, Fresno..... 6-27

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### Acronyms and Abbreviations

APE	Area of Potential Effects
APN	assessor parcel number
ARRA	American Recovery and Reinvestment Act
ASR	Archaeological Survey Report
AT&SF	Atchison, Topeka and Santa Fe
Authority	California High-Speed Rail Authority
BNSF	BNSF Railway
B.P.	before the present
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act of 1969
CFR	Code of Federal Regulations
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
FID	Fresno Irrigation District
FRA	Federal Railroad Administration
GIS	Geographic Information System
GPS	Global Positioning System
HASR	Historic Architectural Survey Report
HMF	heavy maintenance facility
HPSR	Historic Property Survey Report
HST	high-speed train
JRP	JRP Historical Consulting, LLC
KCL	Kern County Land Company
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act of 1970

NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
project	Fresno to Bakersfield Section of the California High-Speed Train Project
PTE	permission to enter
QI	Qualified Investigator
ROD	Record of Decision
RTP	Regional Transportation Plan
Section 106 PA	Section 106 Programmatic Agreement for the HST Project
SF&SJV	San Francisco and San Joaquin Valley Railway
SHPO	State Historic Preservation Officer
Southern Pacific	Southern Pacific Railroad
SR	State Route
TCP	traditional cultural property
TPSS	traction power substation
UPRR	Union Pacific Railroad
URS	URS Corporation
USGS	U.S. Geological Survey
WPA	Works Progress Administration

# **Chapter 1**

## **Description of the Undertaking**



## 1.0 Description of the Undertaking

### 1.1 Project Introduction

The Fresno to Bakersfield Section of the California High-Speed Train (HST) Project would be approximately 114 miles long, varying in length by only a few miles based on the route alternatives selected. To comply with the California High-Speed Rail Authority's (Authority's) guidance to use existing transportation corridors when feasible, the Fresno to Bakersfield HST Section would be primarily located adjacent to the existing BNSF Railway right-of-way. Alternative alignments are being considered where engineering constraints require deviation from the existing railroad corridor, and to avoid environmental impacts.

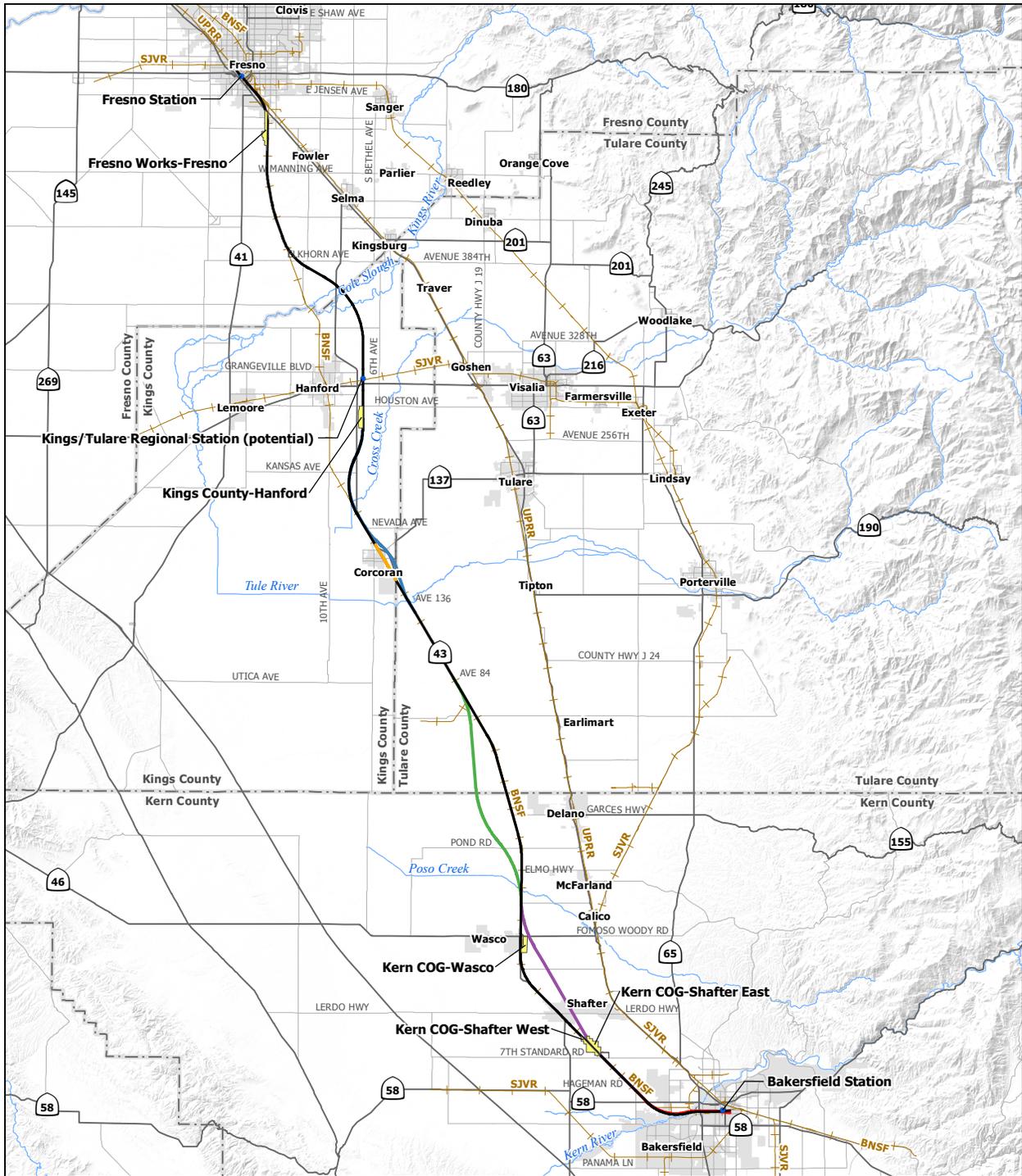
The Fresno to Bakersfield HST Section would cross both urban and rural lands and include a station in both Fresno and Bakersfield, a potential Kings/Tulare Regional Station in the vicinity of Hanford, a potential heavy maintenance facility (HMF), and power substations along the alignment. The HST alignment would be entirely grade-separated, meaning that crossings with roads, railroads, and other transport facilities would be located at different heights (overpasses or underpasses) so that the HST would not interrupt nor interface with other modes of transport. The HST right-of-way would also be fenced to prohibit public or automobile access. The project footprint would consist primarily of the train right-of-way, which would include both a northbound and southbound track in an area typically 100 feet wide. Additional right-of-way would be required to accommodate stations, multiple track at stations, maintenance facilities, and power substations.

The Fresno to Bakersfield Section would include at-grade, below-grade, and elevated track segments. The at-grade track would be laid on an earthen rail bed topped with rock ballast approximately 6 feet off of the ground; fill and ballast for the rail bed would be obtained from permitted borrow sites and quarries. Below-grade track would be laid in an open or covered trench at a depth which would allow roadway and other grade-level uses above the track. Elevated track segments would span long sections of urban development or aerial roadway structures and consist of steel truss aerial structures with cast in place reinforced-concrete columns supporting the box girders and platforms. The height of elevated track sections would depend on the height of existing structures below, and would range from 40 to 80 feet. Columns would be spaced 60 feet to 120 feet apart.

### 1.2 Project Alternatives

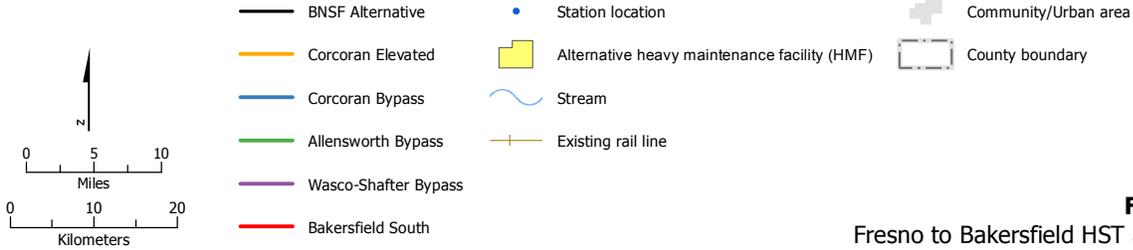
#### 1.2.1 Alignment Alternatives

This section describes the Fresno to Bakersfield HST Section project alternatives, including the No Project Alternative. The project EIR/EIS for the Fresno to Bakersfield HST Section examines alternative alignments, stations, and HMF sites within the general BNSF Railway corridor. Discussion of the HST project alternatives begins with a single continuous alignment (the BNSF Alternative) from Fresno to Bakersfield. This alternative most closely aligns with the preferred alignment identified in the Record of Decision (ROD) for the Statewide Program EIR/EIS. Descriptions of the additional five alternative alignments that deviate from the BNSF Alternative for portions of the route then follow. The alternative alignments that deviate from the BNSF Alternative were selected to avoid environmental, land use, or community issues identified for portions of the BNSF Alternative (Figure 1-1).



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED  
 Source: URS, 2011

July 27, 2011



**Figure 1-1**  
 Fresno to Bakersfield HST alignments

## A. NO PROJECT ALTERNATIVE

Under the No Project Alternative, the HST System would not be built. The No Project Alternative represents the condition of the Fresno to Bakersfield Section as it existed in 2009 (when the Notice of Preparation was issued), and as it would exist without the HST project at the planning horizon (2035). To assess future conditions, it was assumed that all currently known programmed and funded improvements to the intercity transportation system (highway, rail, and transit), and reasonably foreseeable local development projects (with funding sources identified), would be developed by 2035. The No Project Alternative is based on a review of Regional Transportation Plans (RTPs) for all modes of travel, the State of California Office of Planning and Research CEQAnet Database, the Federal Aviation Administration Air Carrier Activity Information System and Airport Improvement Plan grant data, the State Transportation Improvement Program, airport master plans and interviews with airport officials, intercity passenger rail plans, and city and county general plans and interviews with planning officials.

## B. BNSF ALTERNATIVE ALIGNMENT

The BNSF Alternative Alignment would extend approximately 114 miles from Fresno to Bakersfield and would lie adjacent to the BNSF Railway route to the extent feasible (Figure 1-1). Minor deviations from the BNSF Railway corridor would be necessary to accommodate engineering constraints, namely wider curves necessary to accommodate the HST (as compared with the existing lower-speed freight line track alignment). The largest of these deviations occurs between approximately Elk Avenue in Fresno County and Nevada Avenue in Kings County. This segment of the BNSF Alternative would depart from BNSF Railway corridor and instead curve to the east on the northern side of the Kings River and away from Hanford, and would rejoin the BNSF Railway corridor north of Corcoran.

Although the majority of the alignment would be at-grade, the BNSF Alternative would include aerial structures in all of the four counties through which it travels. In Fresno County, an aerial structure would carry the alignment over Golden State Boulevard and State Route (SR) 99 and a second would cross over the BNSF Railway tracks in the vicinity of East Conejo Avenue. The alignment would be at-grade with bridges where it crosses Cole Slough and the Kings River into Kings County.

In Kings County, the BNSF Alternative would be elevated east of Hanford where the alignment would pass over the San Joaquin Valley Railroad and SR 198. The alignment would also be elevated over Cross Creek, and again at the southern end of the city of Corcoran to avoid a BNSF Railway spur. In Tulare County, the BNSF Alternative would be elevated at the crossing of the Tule River and at the crossing of the Alpaugh railroad spur that runs west from the BNSF Railway mainline. In Kern County, the BNSF Alternative would be elevated over Poso Creek and through the cities of Wasco, Shafter, and Bakersfield. The BNSF Alternative would be at-grade through the rural areas between these cities.

The BNSF Alternative Alignment would provide wildlife crossing opportunities by means of a variety of engineered structures. Dedicated wildlife crossing structures would be provided from approximately Cross Creek (Kings County) south to Poso Creek (Kern County) in at-grade portions of the railroad embankment at approximately 0.3-mile intervals. In addition to those structures, wildlife crossing opportunities would be available at elevated portions of the alignment, bridges over riparian corridors, road overcrossings and undercrossings, and drainage facilities (i.e., large diameter [60 to 120 inches] culverts and paired 30-inch culverts). Where bridges, aerial structures, and road crossings coincide with proposed dedicated wildlife crossing structures, such features would serve the function of, and supersede the need for, dedicated wildlife crossing structures.

The preliminary wildlife crossing structure design consists of a modified culvert in the embankment that would support the HST tracks. The typical culvert would be 72 feet long from end to end (crossing structure distance), would span a width of approximately 8 feet (crossing structure width), and would provide 4 feet of vertical clearance (crossing structure height). Additional wildlife crossing structure designs could include circular or elliptical pipe culverts, and larger (longer) culverts with crossing structure distances of up to 100 feet. The design of the wildlife crossing structures may change depending on site-specific conditions and engineering considerations.

### **C. CORCORAN ELEVATED ALTERNATIVE ALIGNMENT**

The Corcoran Elevated Alternative Alignment would be the same as the corresponding section of the BNSF Alternative Alignment from approximately Idaho Avenue south of Hanford to Avenue 136, except that it would pass through the city of Corcoran on the eastern side of the BNSF Railway right-of-way on an aerial structure. The aerial structure begins at Niles Avenue and returns to grade at 4th Avenue. Dedicated wildlife crossing structures would be provided from approximately Cross Creek south to Avenue 136 in at-grade portions of the railroad embankment at intervals of approximately 0.3 mile. Dedicated wildlife crossing structures would also be placed between 100 and 500 feet to the north and south of both the Cross Creek and Tule River crossings.

This alternative alignment would cross SR 43 and pass over several local roads on an aerial structure. Santa Fe Avenue would be closed at the HST right-of-way.

### **D. CORCORAN BYPASS ALTERNATIVE ALIGNMENT**

The Corcoran Bypass Alternative Alignment would run parallel to the BNSF Alternative Alignment from approximately Idaho Avenue south of Hanford, to approximately Nevada Avenue north of Corcoran. The Corcoran Bypass Alternative would then diverge from the BNSF Alternative and swing east of Corcoran, rejoining the BNSF Railway route at Avenue 136. The total length of the Corcoran Bypass would be approximately 21 miles.

Similar to the corresponding section of the BNSF Alternative, most of the Corcoran Bypass Alternative would be at-grade. However, one elevated structure would carry the HST over Cross Creek, and another would travel over SR 43, the BNSF Railway, and the Tule River. Dedicated wildlife crossing structures would be provided from approximately Cross Creek south to Avenue 136 in at-grade portions of the railroad embankment at intervals of approximately 0.3 mile. Dedicated wildlife crossing structures would also be placed between 100 and 500 feet to the north and south of each of the Cross Creek and Tule River crossings.

This alternative alignment would cross SR 43, Whitley Avenue/SR 137, and several local roads. SR 43, Waukena Avenue, and Whitley Avenue would be grade-separated from the HST with an overcrossing/undercrossing; other roads would be closed at the HST right-of-way.

### **E. ALLENSWORTH BYPASS ALTERNATIVE ALIGNMENT**

The Allensworth Bypass Alternative Alignment would pass west of the BNSF Alternative, avoiding Allensworth Ecological Reserve and the Allensworth State Historic Park. This alignment was refined over the course of environmental studies to reduce impacts to wetlands and orchards. The total length of the Allensworth Bypass Alternative Alignment would be approximately 19 miles, beginning at Avenue 84 and rejoining the BNSF Alternative at Elmo Highway.

The Allensworth Bypass Alternative would be constructed on an elevated structure only where the alignment crosses the Alpaugh railroad spur and Deer Creek. The alignment would pass through Tulare County mostly at-grade. Dedicated wildlife crossing structures would be provided

from approximately Avenue 84 to Poso Creek at intervals of approximately 0.3 mile. Dedicated wildlife crossing structures would also be placed between 100 and 500 feet to the north and south of both the Deer Creek and Poso Creek crossings.

The Allensworth Bypass would cross County Road J22, Scofield Avenue, Garces Highway, Woollomes Avenue, Magnolia Avenue, Palm Avenue, Pond Road, Peterson Road, and Elmo Highway. Woollomes Avenue and Elmo Highway would be closed at the HST right-of-way, while the other roads would be realigned and/or grade-separated from the HST with overcrossings.

The Allensworth Bypass Alternative includes an option to relocate the existing BNSF Railway tracks to be adjacent to the HST right-of-way for the length of this alignment. The possibility of relocating the BNSF Railway tracks along this alignment has not yet been discussed with BNSF Railway; however, if this option is selected, it is assumed that the existing BNSF Railway right-of-way would be abandoned between Avenue 84 and Elmo Highway, and the relocated BNSF Railway right-of-way would be 100 feet wide and adjacent to the eastern side of the Allensworth Bypass Alternative right-of-way.

## **F. WASCO-SHAFTER BYPASS ALTERNATIVE ALIGNMENT**

The Wasco-Shafter Bypass Alternative Alignment would diverge from the BNSF Alternative between Sherwood Avenue and Fresno Avenue, crossing over to the eastern side of the BNSF Railway tracks and bypassing Wasco and Shafter to the east. The Wasco-Shafter Bypass Alternative would be at grade except where it travels over 7th Standard Road and the BNSF Railway to rejoin the BNSF Alternative. The total length of the alternative alignment would be approximately 24 miles.

The Wasco-Shafter Bypass was refined to avoid the Occidental Petroleum tank farm as well as a historic property potentially eligible for listing on the National Register of Historic Places. The Wasco-Shafter Bypass would cross SR 43, SR 46, East Lerdo Highway, and several local roads. SR 46, Kimberlina Road, Shafter Avenue, Beech Avenue, Cherry Avenue, and Kratzmeyer Road would be grade-separated from the HST with overcrossings/undercrossings; other roads would be closed at the HST right-of-way.

## **G. BAKERSFIELD SOUTH ALTERNATIVE ALIGNMENT**

From the Rosedale Highway (SR 58) in Bakersfield, the Bakersfield South Alternative Alignment would run parallel to the BNSF Alternative Alignment at varying distances to the north. At Chester Avenue, the Bakersfield South Alternative curves south, and runs parallel to California Avenue. As with the BNSF Alternative, the Bakersfield South Alternative would begin at grade and become elevated starting at Palm Avenue through Bakersfield to its terminus at the southern end of the Bakersfield station tracks. The elevated section would range in height from 50 to 70 feet. Dedicated wildlife crossing structures would be placed between 100 and 500 feet to the north and south of the Kern River.

The Bakersfield South Alternative would be approximately 9 miles long and would cross the same roads as the BNSF Alternative. This alternative includes the Bakersfield Station–South Alternative.

### **1.2.2 Station Alternatives**

The Fresno to Bakersfield HST Section would include a new station in Fresno and a new station in Bakersfield. An optional third station, the Kings/Tulare Regional Station, is under consideration.

Stations would be designed to address the purpose of the HST, particularly to allow for intercity travel and connection to local transit, airports, and highways. Stations would include the station platforms, a station building and associated access structure, as well as lengths of bypass tracks

to accommodate local and express service at the stations. All stations would contain the following elements:

- Passenger boarding and alighting platforms.
- Station head house with ticketing, waiting areas, passenger amenities, vertical circulation, administration and employee areas, and baggage and freight-handling service.
- Vehicle parking (short-term and long-term) and “kiss and ride”<sup>1</sup>.
- Motorcycle/scooter parking.
- Bicycle parking.
- Waiting areas and queuing space for taxis and shuttle buses.
- Pedestrian walkway connections.

#### **A. FRESNO STATION ALTERNATIVES**

Two alternative sites are under consideration for the Fresno Station.

##### **Fresno Station–Mariposa Alternative**

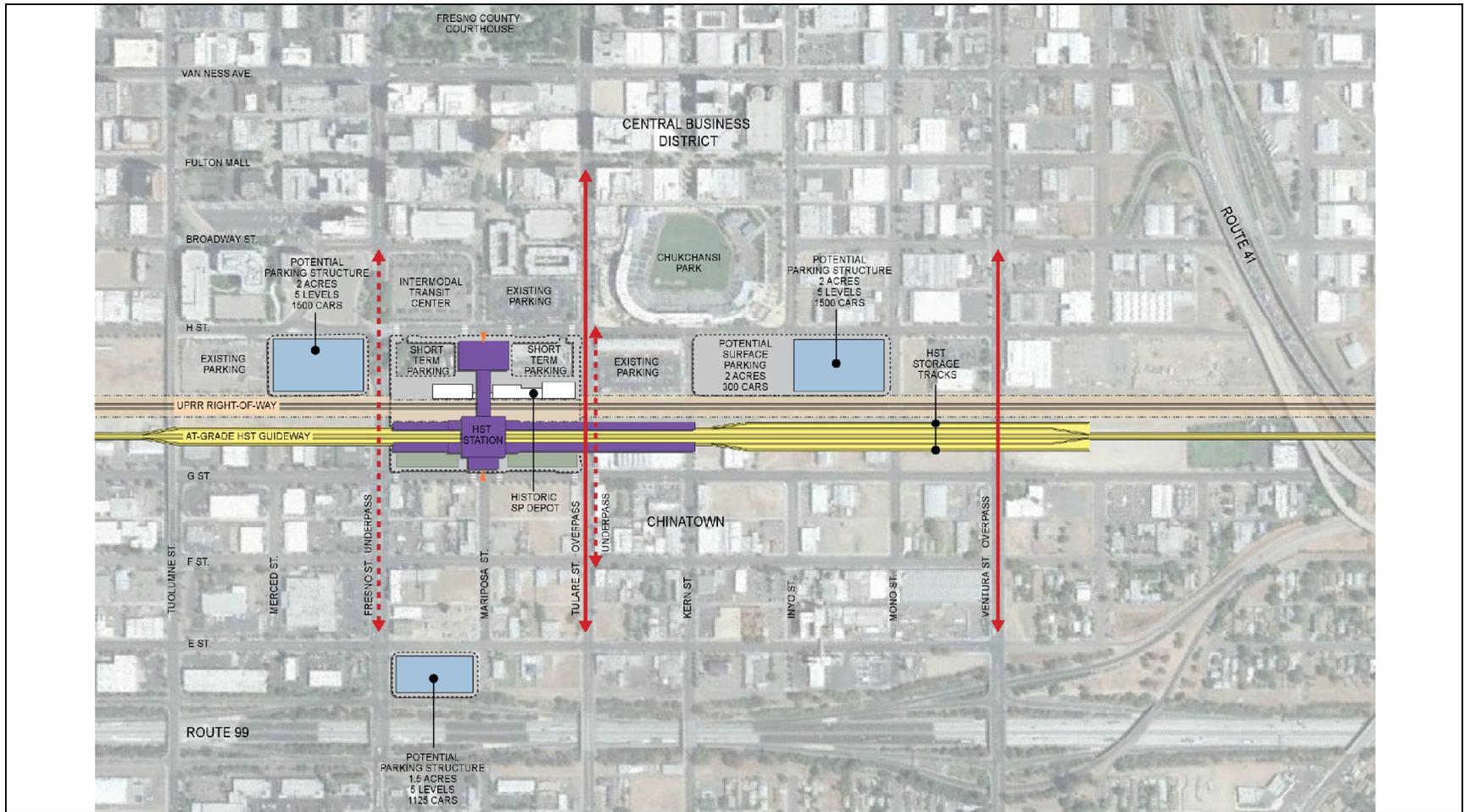
The Fresno Station–Mariposa Alternative would be in downtown Fresno, less than 0.5 mile east of SR 99 on the BNSF Alternative. The station would be centered on Mariposa Street and bordered by Fresno Street on the north, Tulare Street on the south, H Street on the east, and G Street on the west. The station building would be approximately 75,000 square feet, with a maximum height of approximately 64 feet.

The two-level station would be at-grade; with passenger access provided both east and west of the HST guideway and the Union Pacific Railroad (UPRR) tracks, which would run parallel with one another adjacent to the station. The first level would contain the public concourse, passenger service areas, and station and operation offices. The second level would include the mezzanine, a pedestrian overcrossing above the HST guideway and the UPRR tracks, and an additional public concourse area. Entrances would be located at both G and H streets. A conceptual site plan of the Fresno Station–Mariposa Alternative is provided in Figure 1-2.

The majority of station facilities would be east of the UPRR tracks. The station and associated facilities would occupy approximately 20.5 acres, including 13 acres dedicated to the station, short term parking, and kiss-and-ride accommodations. A new intermodal facility, not a part of this proposed undertaking, would be located 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 (designated “Intermodal Transit Center” in Figure 1-2). Among other uses, the intermodal facility would accommodate the Greyhound facilities and services that would be relocated from the northwestern corner of Tulare and H streets.

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<sup>1</sup> “Kiss and ride” refers to the station area where riders may be dropped off or picked up before or after riding the HST.



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED

July 27, 2011



NOT TO SCALE

- |   |                        |   |                         |
|---|------------------------|---|-------------------------|
|  | STATION ENTRANCE       |  | STATION CAMPUS BOUNDARY |
|  | KEY PEDESTRIAN LINKAGE |  | RIGHT-OF-WAY BOUNDARY   |
|  | OPEN SPACE             |  | ROADWAY MODIFICATION    |

**Figure 1-2**  
Fresno Station-Mariposa Alternative

The site proposal includes the potential for up to three parking structures occupying a total of approximately 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 be slightly smaller in footprint (1.5 acres), with five levels and a capacity of approximately 1,100 cars. An additional 2-acre surface parking lot would provide approximately 300 parking spaces.

Under this alternative, the historic Southern Pacific Railroad (Southern Pacific) depot and associated Pullman Sheds would remain intact. While these structures could be used for station-related purposes, they are not assumed to be functionally required for the HST project and are thus, not proposed to be physically altered as part of the project. The Mariposa station building footprint has been configured to preserve views of the historic railroad depot and associated sheds.

### **Fresno Station–Kern Alternative**

The Fresno Station–Kern Alternative would be similarly situated in downtown Fresno and would be located on the BNSF Alternative, centered on Kern Street between Tulare Street and Inyo Street (Figure 1-3). This station would include the same components as the Fresno Station–Mariposa Alternative, but under this alternative, 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.

The station building would be approximately 75,000 square feet, with a maximum height of approximately 64 feet. The station building would have two levels housing the same facilities as the Fresno Station–Mariposa Alternative (UPRR tracks, HST tracks, mezzanine, and station office). The approximately 18.5-acre site would include 13 acres dedicated to the station, bus transit center, short term parking, and kiss-and-ride accommodations.

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 be slightly smaller in footprint (1.5 acres) and have a capacity of approximately 1,100 cars. Surface parking lots would provide approximately 600 additional parking spaces. Like the Fresno Station–Mariposa Alternative, the majority of station facilities under the Kern Alternative would be sited east of the HST tracks.

## **B. KINGS/TULARE REGIONAL STATION**

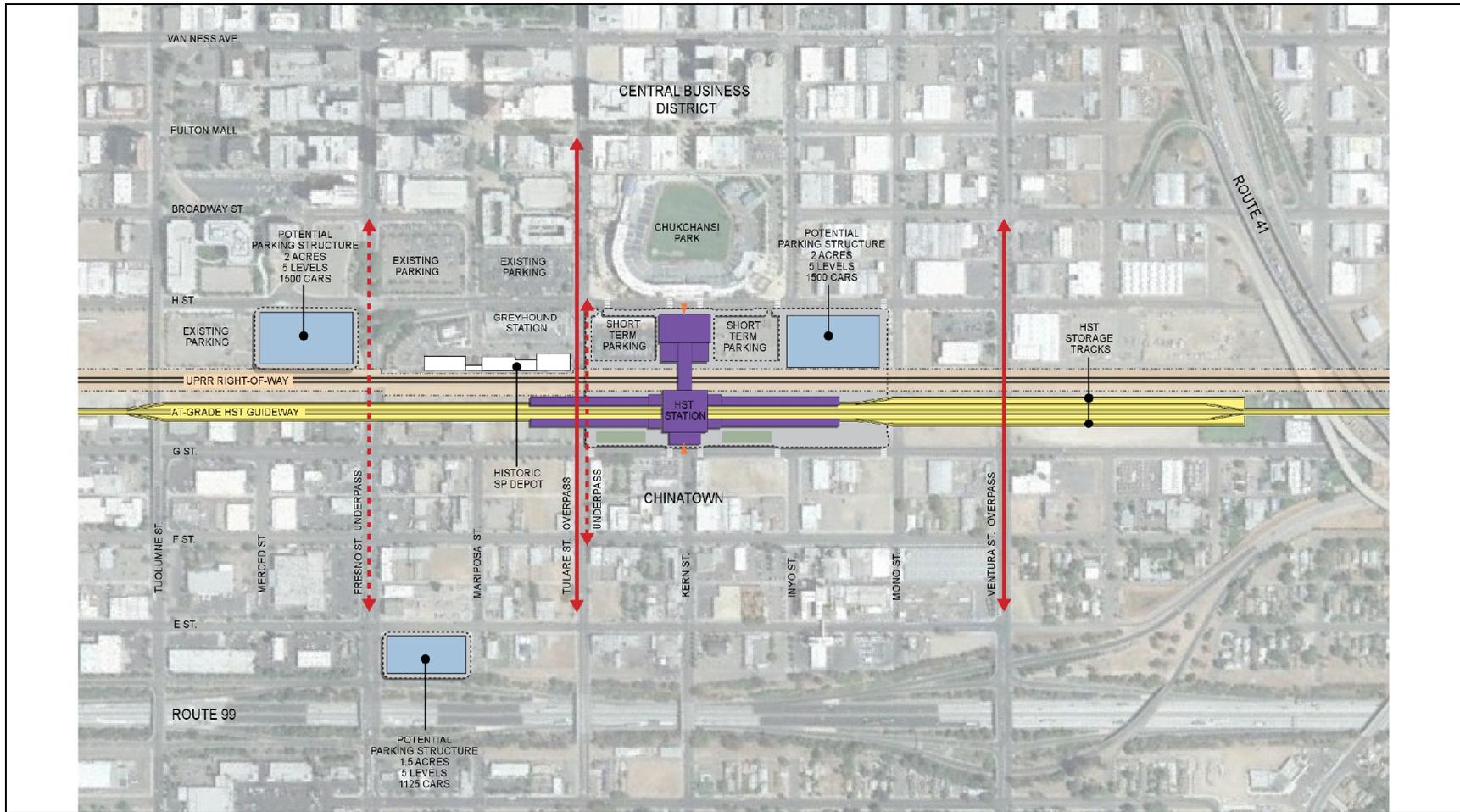
The potential Kings/Tulare Regional Station would be located east of SR 43 (Avenue 8) and north of the Cross Valley Rail Line (San Joaquin Valley Railroad) (Figure 1-4). The station building would be approximately 40,000 square feet with a maximum height of approximately 75 feet. The entire site would be approximately 27 acres, including 8 acres designated for the station, bus transit center, short-term parking, and kiss-and-ride. An additional approximately 19 acres would support a surface parking lot with approximately 1,600 spaces.

## **C. BAKERSFIELD STATION ALTERNATIVES**

Two options are under consideration for the Bakersfield Station.

### **Bakersfield Station–North Alternative**

The Bakersfield Station–North Alternative would be located at the corner of Truxtun and Union Avenue/SR 204 along the BNSF Alternative Alignment (Figure 1-5). The three-level station building would be 52,000 square feet, with a maximum height of approximately 95 feet. The first



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED

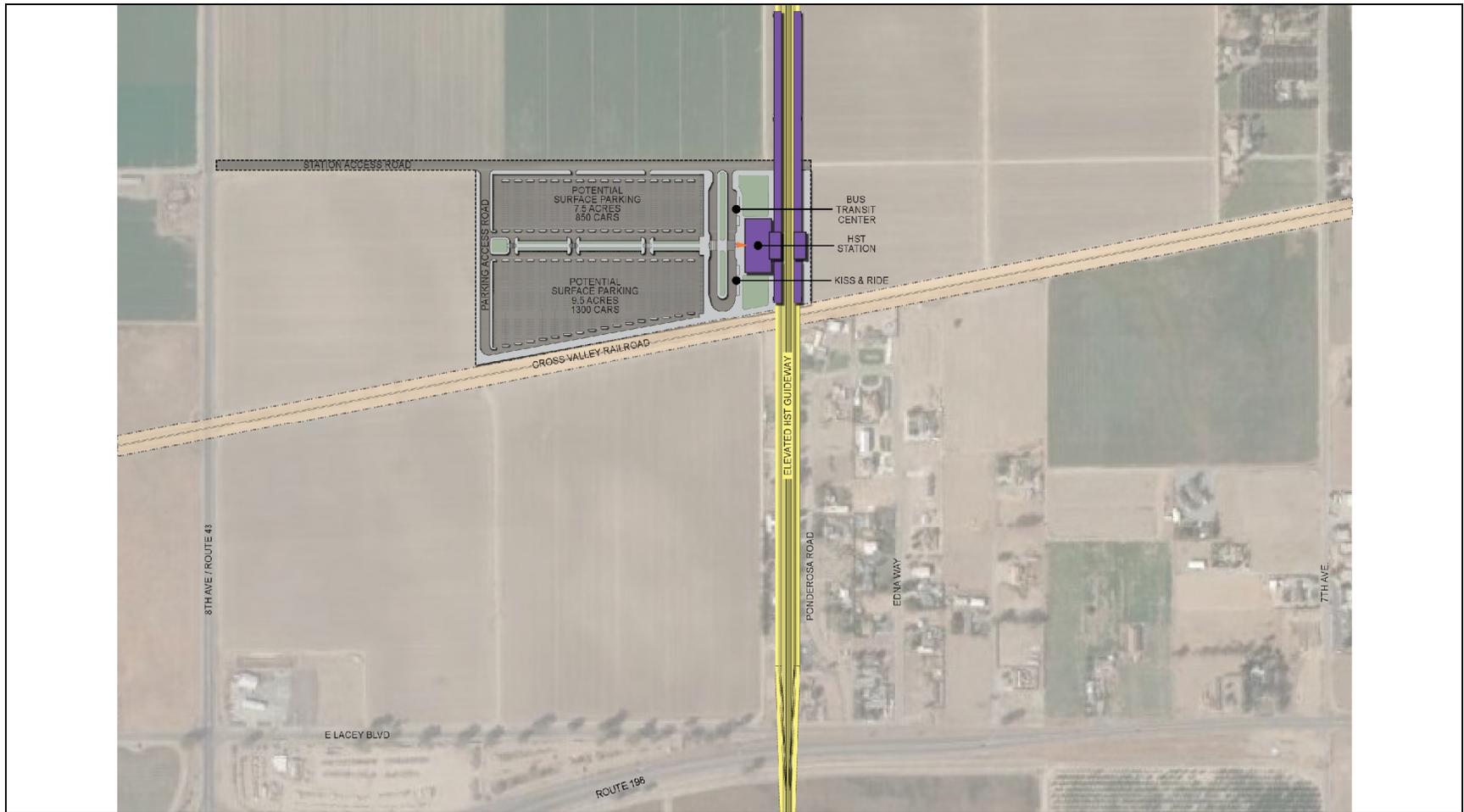
July 27, 2011

- |  |                        |  |                         |
|--|------------------------|--|-------------------------|
|  | STATION ENTRANCE       |  | STATION CAMPUS BOUNDARY |
|  | KEY PEDESTRIAN LINKAGE |  | RIGHT-OF-WAY BOUNDARY   |
|  | OPEN SPACE             |  | ROADWAY MODIFICATION    |



NOT TO SCALE

**Figure 1-3**  
Fresno Station-Kern Alternative



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED

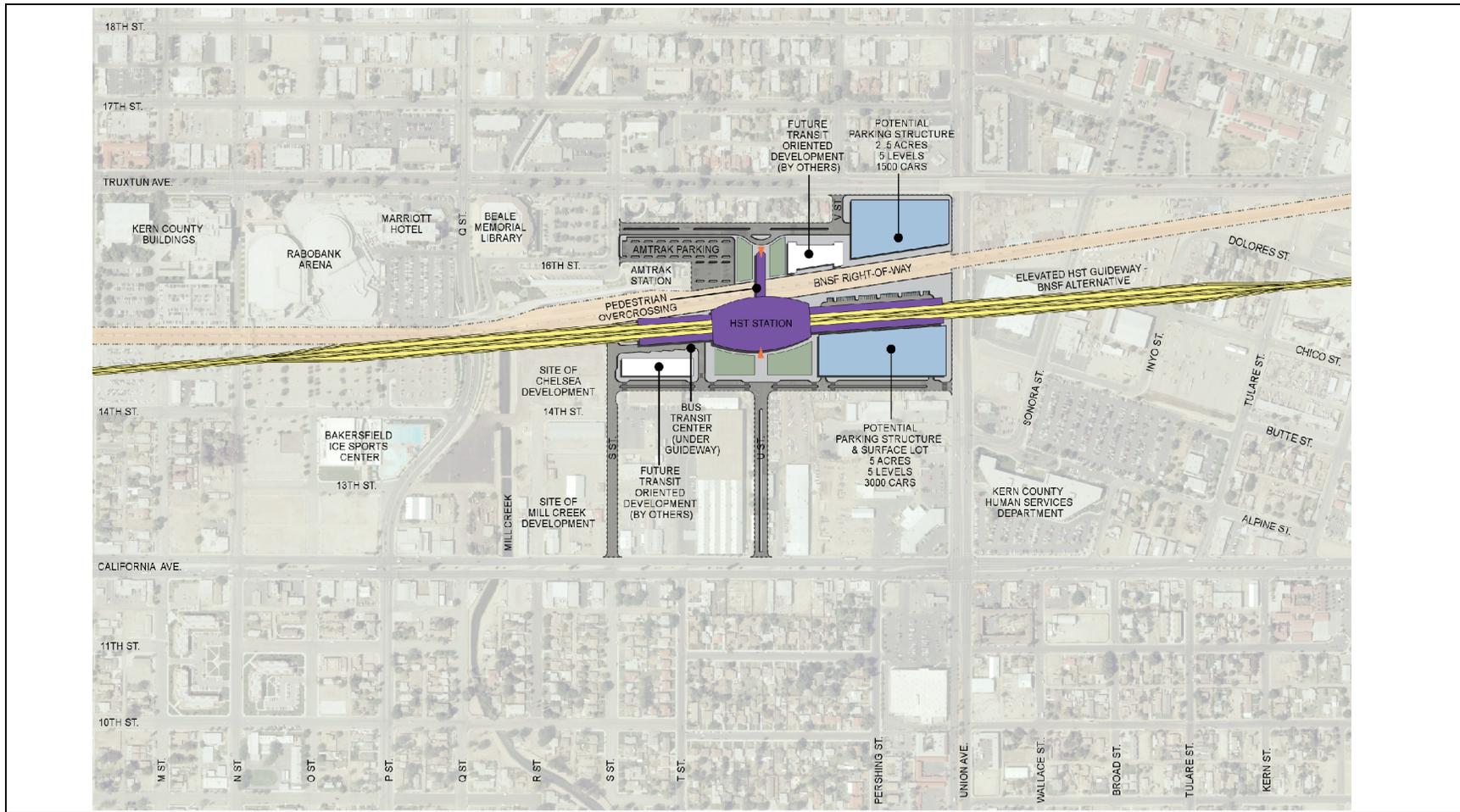
July 27, 2011



NOT TO SCALE

- |   |                        |   |                         |
|---|------------------------|---|-------------------------|
|  | STATION ENTRANCE       |  | STATION CAMPUS BOUNDARY |
|  | KEY PEDESTRIAN LINKAGE |  | RIGHT-OF-WAY BOUNDARY   |
|  | OPEN SPACE             |  | ROADWAY MODIFICATION    |

**Figure 1-4**  
Kings/Tulare Regional Station (potential)



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED

July 27, 2011



NOT TO SCALE

- |   |                        |   |                         |
|---|------------------------|---|-------------------------|
|  | STATION ENTRANCE       |  | STATION CAMPUS BOUNDARY |
|  | KEY PEDESTRIAN LINKAGE |  | RIGHT-OF-WAY BOUNDARY   |
|  | OPEN SPACE             |  | ROADWAY MODIFICATION    |

**Figure 1-5**  
Bakersfield Station-North Alternative

level would house station operation offices and would also accommodate trains running along the BNSF Railway line. The second level would include the mezzanine; the HST platforms and guideway would pass through the third level. Under this alternative, the station building would be located at the western end of the parcel footprint. Two new boulevards would be constructed to access the station and the supporting facilities.

The 19-acre site would designate 11.5 acres for the station, bus transit center, short-term parking, and kiss-and-ride. An additional 7.5 acres would house two parking structures that together would accommodate approximately 4,500 cars. The bus transit center and the smaller of the two parking structures (2.5 acres) would be located north of the HST tracks. The BNSF Railway line would run through the station at-grade, with the HST alignment running on an elevated guideway.

### **Bakersfield Station–South Alternative**

The Bakersfield Station–South Alternative would be similarly located in downtown Bakersfield, but situated on the Bakersfield South Alternative Alignment along Union and California avenues, just south of the BNSF Railway right-of-way (Figure 1-6). The two-level station building would be 51,000 square feet, with a maximum height of approximately 95 feet. The first floor would house the concourse, and the platforms and the guideway would be on the second floor. Access to the site would be from two new boulevards, one branching off from California Avenue and the other from Union Avenue.

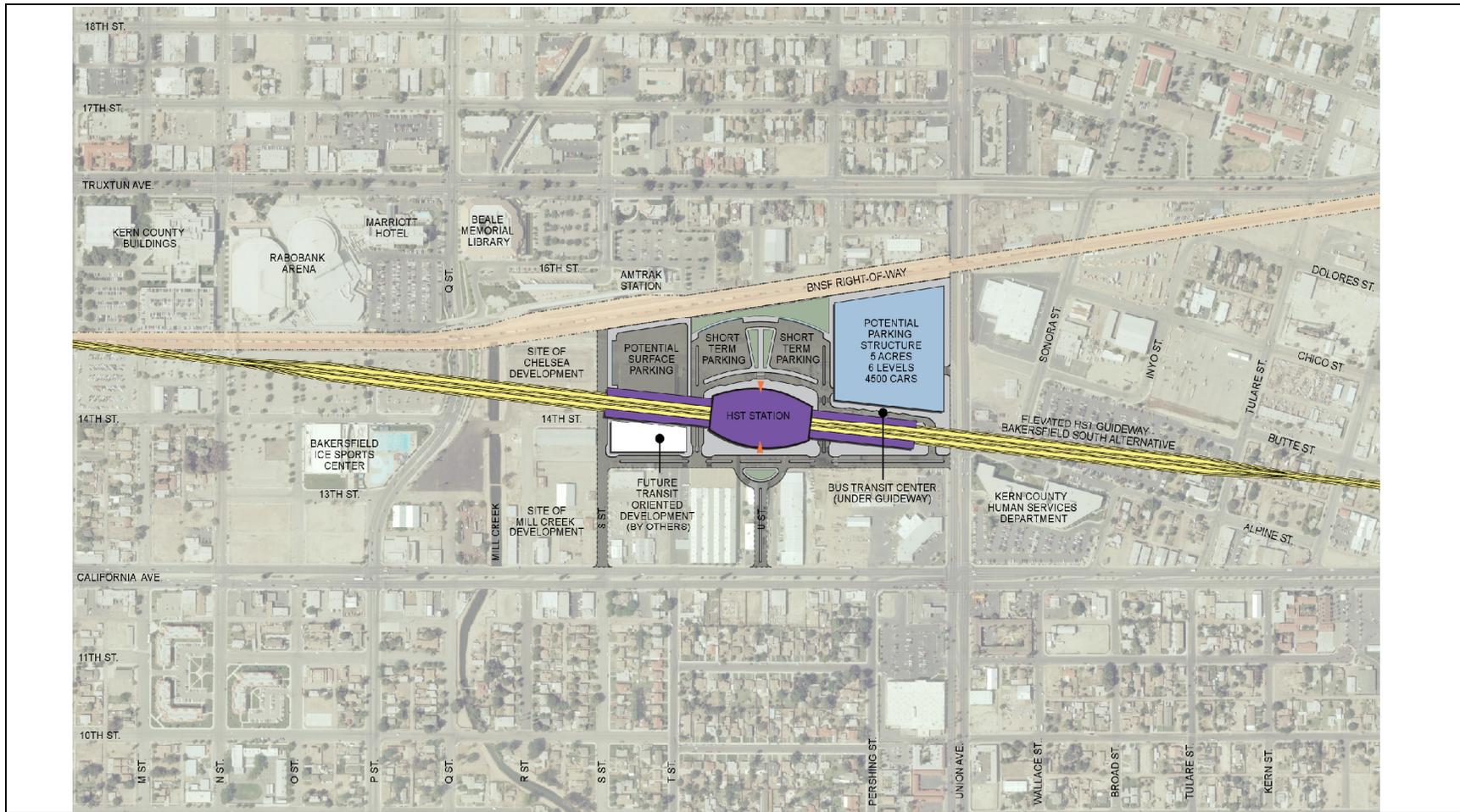
The entire site would be 20 acres, with 15 acres designated for the station, bus transit center, short-term parking, and kiss-and-ride. An additional 5 acres would support one six-level parking structure with a capacity of approximately 4,500 cars. Unlike the Bakersfield Station–North Alternative, this station site would be located entirely south of the BNSF Railway right-of-way.

### **1.2.3 Heavy Maintenance Facility**

One HST heavy vehicle maintenance and layover facility would be sited along either the Merced to Fresno or Fresno to Bakersfield HST section. Before the startup of initial operations, the HMF would support the assembly, testing, commissioning, and acceptance of high-speed rolling stock. During regular operations, the HMF would provide maintenance and repair functions, activation of new rolling stock, and train storage. The HMF concept plan indicates that the site would encompass approximately 150 acres to accommodate shops, tracks, parking, administration, roadways, power substation, and storage areas. The HMF would include tracks that allow trains to enter and leave under their own electric power or under tow. The HMF would also have management, administrative, and employee support facilities. Up to 1,500 employees could work at the HMF during any 24-hour period.

The Authority has determined that one HMF would be located between Merced and Bakersfield; however, the specific location has not yet been finalized. Five HMF sites are under consideration in the Fresno to Bakersfield Section (Figure 1-1):

- The Fresno Works–Fresno HMF site lies within the southern limits of the city of Fresno and county of Fresno next to the BNSF Railway right-of-way between SR 99 and Adams Avenue. Up to 590 acres are available for the facility at this site.
- The Kings County–Hanford HMF site lies southeast of the city of Hanford, adjacent to and east of SR 43, between Houston and Idaho Avenues. Up to 510 acres are available at the site.
- The Kern Council of Governments–Wasco HMF site lies directly east of Wasco between SR 46 and Filburn Street. Up to 420 acres are available for the facility at this site.



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED

July 27, 2011



NOT TO SCALE

- |   |                        |   |                         |
|---|------------------------|---|-------------------------|
|  | STATION ENTRANCE       |  | STATION CAMPUS BOUNDARY |
|  | KEY PEDESTRIAN LINKAGE |  | RIGHT-OF-WAY BOUNDARY   |
|  | OPEN SPACE             |  | ROADWAY MODIFICATION    |

**Figure 1-6**  
Bakersfield Station-South Alternative

- The Kern Council of Governments–Shafter East HMF site lies in the city of Shafter between Burbank Street and 7th Standard Road to the east of the BNSF Railway right-of-way. This site has up to 490 acres available for the facility.
- The Kern Council of Governments–Shafter West HMF site lies in the city of Shafter between Burbank Street and 7th Standard Road to the west of the BNSF Railway right-of-way. This site has up to 480 acres available for the facility.

### 1.3 Power

To provide power for the HST, high-voltage electricity at 115 kV and above would be drawn from the utility grid and transformed down to 25,000 volts. The voltage would then be distributed to the trains via an overhead catenary system. The project would not include the construction of a separate power source, although it would include the extension of power lines to a series of power substations positioned along the HST corridor. The transformation and distribution of electricity would occur in three types of stations:

- Traction power supply stations (TPSSs) transform high-voltage electricity supplied by public utilities to the train operating voltage. TPSSs would be sited adjacent to existing utility transmission lines and the HST right-of-way, and would be located approximately every 30 miles along the route. Each TPSS would be 200 feet by 160 feet.
- Switching stations connect and balance the electrical load between tracks, and switch power on or off to tracks in the event of a power outage or emergency. Switching stations would be located midway between, and approximately 15 miles from, the nearest TPSS. Each switching station would be 120 feet by 80 feet and located adjacent to the HST right-of-way.
- Paralleling stations, or autotransformer stations, provide voltage stabilization and equalize current flow. Paralleling stations would be located every 5 miles between the TPSSs and the switching stations. Each paralleling station would be 100 feet by 80 feet and located adjacent to the HST right-of-way.

### 1.4 Project Construction

The construction plan developed by the Authority and described below would maintain eligibility for eligibility for federal American Recovery and Reinvestment Act (ARRA) funding. For the Fresno to Bakersfield Section, specific construction elements would include at-grade, below-grade, and elevated track, track work, grade crossings, and installation of a positive train control system. At-grade track sections would be built using conventional railroad construction techniques. A typical sequence includes clearing, grubbing, grading, and compacting of the rail bed; application of crushed rock ballast; laying of track; and installation of 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 aerial structure. Although the precast segmental method is the favored technique for aerial structure construction, other methods may be used, including cast-in-place, box girder, or precast span-by-span techniques.

Pre-construction activities would be conducted during final design and include geotechnical investigations, identification of staging areas, initiation of site preparation and demolition, relocation of utilities, and implementation of temporary, long-term, and permanent road closures.

Additional studies and investigations to develop construction requirements and worksite traffic control plans would be conducted as needed.

Major construction activities for the Fresno to Bakersfield Section would include earthwork and excavation support systems construction, bridge and viaduct construction, railroad systems construction (including trackwork, traction electrification, signaling, and communications), and station construction. During peak construction periods, work is envisioned to be underway at several locations along the route, with overlapping construction of various project elements. Working hours and workers present at any time will vary depending on the activities being performed.

The Authority intends to build the project using sustainable methods that:

- Minimize the use of nonrenewable resources.
- Minimize the impacts on the natural environment.
- Protect environmental diversity.
- Emphasize the use of renewable resources in a sustainable manner.

The overall schedule for construction is provided in Table 1-1.

**Table 1-1**  
 Construction Schedule

Activity	Tasks	Duration
Mobilization	Safety devices and special construction equipment mobilization	March–October 2013
Site Preparation	Utilities relocation; clearing/grubbing right-of-way; establishment of detours and haul routes; preparation of construction equipment yards, stockpile materials, and precast concrete segment casting yard	April–August 2013
Earthmoving	Excavation and earth support structures	August 2013–August 2015
Construction of Road Crossings	Surface street modifications, grade separations	June 2013–December 2017
Construction of Elevated Structures	Viaduct and bridge foundations, substructure, and superstructure	June 2013–December 2017
Track Laying	Includes backfilling operations and drainage facilities	January 2014–August 2017
Systems	Train control systems, overhead contact system, communication system, signaling equipment	July 2016–November 2018
Demobilization	Includes site cleanup	August 2017–December 2019
HMF Phase 1 <sup>a</sup>	Test track assembly and storage	August–November 2017
Maintenance-of-Way Facility	Potentially co-located with HMF <sup>a</sup>	January–December 2018

**Table 1-1**  
 Construction Schedule

Activity	Tasks	Duration
HMF Phase 2 <sup>a</sup>	Test track light maintenance facility	June–December 2018
HMF Phase 3 <sup>a</sup>	Heavy Maintenance Facility	January–July 2021
HST Stations	Demolition, site preparation, foundations, structural frame, electrical and mechanical systems, finishes	Fresno: December 2014–October 2019 Kings/Tulare Regional: TBD <sup>b</sup> Bakersfield: January 2015–November 2019
Notes: <sup>a</sup> The HMF would be sited along either the Merced to Fresno or Fresno to Bakersfield section. <sup>b</sup> ROW would be acquired for the Kings/Tulare Regional Station; however, the station itself would not be part of initial construction. Acronym: TBD = to be determined		

## 1.5 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. Given the inherent differences in archaeological and historic architectural resources, distinct APEs were developed for each of these resource classes. Map sets that show the extent of these different APEs are provided in Appendix A. For the HST project, the APE for archaeological resources and historic architectural resources was established in consultation with the project engineer (Arup) and the Authority. The SHPO concurred with the approach regarding the delineation of the APE on June 28, 2010 (Stratton 2010), in accordance with the Section 106 PA.

### 1.5.1 Archaeological APE

The archaeological APE for this undertaking is defined as the project footprint, which is the area of horizontal and vertical ground disturbance expected during construction of the undertaking. Ground-disturbing activities include grading, cut-and-fill, easements, staging areas, utility relocations, borrow pits, and biological mitigation areas

The archaeological APE reported in this document reflects the most current configuration of the project alignments. However, the APE was modified because the project engineer issued changes to the project footprint between February and August 2010. The modifications to the APE were made in a manner consistent with the parameters for delineation discussed above.

In the current project description, the subsurface disturbance (i.e., the subsurface APE) expected for the majority of the project alignment would be less than 6 feet (1.8 meters). In urban settings where the train would be undergrounded to avoid traffic intersections, these depths are not expected to exceed 20 to 30 feet (6.1 to 9.1 meters) below ground surface. The aerial structures that will be constructed in many areas along the alignment will require piles that will be driven into the subsurface, in some cases 40 to 100 feet (12.2 to 30.5 meters) below grade.

In these instances, the extent of disturbance would be limited to the diameters of the piles, which are currently unknown. Other elements of the project are also likely to result in subsurface disturbance, such as utility corridors, access roads, and lay-down areas. The levels (i.e., depth) of disturbance associated with these elements are not presently known. As planning proceeds, these definitions of the subsurface APE will be added to the overall APE description.

### 1.5.2 Historic Architectural APE

The APE for historic architectural resources was established in consultation with the project engineer (Arup) and the Authority. The APE will be revised as planning proceeds to reflect refinements to the proposed rail alignment alternatives and as engineering revisions become available.

The APE for historic architectural resources was defined according to the parameters of Attachment B of the Section 106 PA (Appendix E). All parcels within the APE that contain buildings, structures, or objects more than 50 years of age at the time of the survey were subject to intensive-level study or were deemed to be *streamlined documentation properties*, as defined in the Section 106 PA. The historic architectural resources APE for the Fresno to Bakersfield Section includes all legal parcels intersected by the proposed right-of-way, construction of proposed ancillary features (such as grade separations or maintenance facilities), and construction staging areas. If historic architectural resources existed on a large rural parcel within 150 feet (46 meters) 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 historic architectural resources on a large rural parcel were more than 150 feet (46 meters) 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 150 feet (46 meters) from the right-of-way. In these cases, resources outside the APE on that parcel did not require further survey. This methodology for establishing the Historic Architectural APE follows both standard practices for the discipline and Attachment B of the Section 106 PA.

The historic architectural resources APE also includes parcels adjacent to those intersected by the proposed HST project if the historic architectural resources on those parcels may be indirectly affected. For the California High-Speed Train Project, a key phrase in the APE definition in the Section 106 regulations is "may cause alterations in the character or use of historic properties." Some sections of the undertaking may introduce 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 is drawn to include legal parcels or historic architectural resources properties that might be affected by changes to their setting and the introduction of visible or audible elements. Other potential effects that were considered when delineating the APE included, but were not limited to, physical damage or destruction of all or part of a property; physical alterations; moving or realigning a property; isolating a property from its setting; visual, audible, or atmospheric intrusions; shadow effects; damage from vibrations; and change in access or use.

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## **Chapter 2**

### **Summary of Findings**



## 2.0 Summary of Findings

This chapter summarizes the project, the purpose of the Historic Property Survey Report, the archaeological resources evaluated, and the historic architectural resources evaluated.

### 2.1 Project Summary

The Authority proposes to construct, operate, and maintain an electric-powered HST system in California. When completed, the nearly 800-mile (1,290-kilometer) 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 miles per hour, 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 Federal Railroad Administration (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 Historic Property Survey Report is for the Fresno to Bakersfield Section. The Fresno to Bakersfield Section begins at the proposed Fresno HST station in downtown Fresno and extends east past the proposed Bakersfield HST station in downtown Bakersfield for approximately 1 mile (1.6 kilometers) to Oswell Street. Information from this report is summarized in the project EIR/EIS for the Fresno to Bakersfield Section and will be part of the administrative record supporting the environmental review of the proposed project.

For the HST system, including the Fresno to Bakersfield 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). The U.S. Army Corps of Engineers is serving as a cooperating agency under NEPA for the Fresno to Bakersfield Section.

### 2.2 Purpose of Historic Property Survey Report

URS Corporation (URS) and its subconsultant, JRP Historical Consulting, LLC (JRP), prepared this Historic Property Survey Report (HPSR) as part of the Fresno to Bakersfield Section of the California High-Speed Train Project (project). The HPSR has been prepared to assist the project proponent, the Authority, and the lead federal agency, the FRA, to comply with Section 106 of the National Historic Preservation Act (NHPA) and the implementing regulations of the Advisory Council on Historic Preservation, as these pertain to federally funded undertakings and their impacts on historic properties. The HPSR follows the procedures set forth in the "Draft Programmatic Agreement among the Federal Railroad Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California High-Speed Rail Authority regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the California High-Speed Train Project" (Section 106 PA) (Authority and FRA 2011b) (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 this HPSR is (1) to present the APE for archaeology and historic architectural 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. A separate document called the Historic Architectural Survey Report (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 National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), but that must be evaluated to fulfill Section 106 and CEQA obligations. Similarly, a separate document called the Archaeological Survey Report (ASR) has been prepared to document archaeological inventory efforts and archaeological properties that do not appear to be eligible for the NRHP.

This HPSR (as well as the HASR and ASR) will be submitted to the California State Historic Preservation Officer (SHPO) for review. The SHPO will review and evaluate the adequacy of the APEs 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 historic architectural resources. Upon SHPO 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 in a Findings of Effect 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 Fresno to Bakersfield Section of the HST system.

## 2.3 Archaeological Resources

Background research and an archaeological survey were conducted to identify archaeological resources that may be affected by the proposed Fresno to Bakersfield Section of the California HST Project. This specific section of the project is in the counties of Fresno, Kings, Tulare, and Kern. The background research included the identification of cultural resources formally recorded with the California Historical Resources Information System (CHRIS) housed at the Southern San Joaquin Valley Information Center, California State University, Bakersfield, and the Sacred Lands File of the Native American Heritage Commission (NAHC). In addition, historical maps were reviewed for evidence of previously unrecorded historic-era archaeological resources. 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 (Appendix A-1).

The records search revealed 21 previously recorded archaeological resources within a 0.25-mile (0.4-kilometer) buffer of the APE for the project. Three of these resources are within the archaeological APE, but neither of these resources is considered a historic property or a historic resource. No archaeological resources listed in or previously determined to be eligible for the NRHP are within the archaeological APE. No sites listed in the NAHC's Sacred Lands file are within the archaeological APE.

Pedestrian surveys of portions of the archaeological APE, for which permission to enter had been obtained, were conducted by a team of URS archaeologists between February 15 and April 8, 2010. A subsequent survey was conducted August 16 to 18, 2010, that incorporated several changes to the proposed route of the Fresno to Bakersfield Section. The APE was defined as the limits of direct impact of the proposed project; the APE includes the existing BNSF Railway (BNSF) right-of-way and the proposed construction easements. For the current project design, this APE constitutes an area of 7,891 acres. Permission to enter (PTE) was obtained for approximately 49%, or 3,855 acres, of this area. Besides restrictions on entry, portions of the APE could not be surveyed because of crop cover, vegetation, or urbanization. As a result, 65%, or 2,521-acres, of the PTE area was surveyed. This acreage represents 32% of the total area of

the APE. However, 386 acres of the BNSF right-of-way (which were not included in the PTE acreage described above) were surveyed within the footprint APE. Therefore, a total of 2,907 acres (37% of the APE) was subject to pedestrian surveys. The field surveys completed to date have identified a total of three archaeological sites within the archaeological APE. These sites have been evaluated for listing in the National Register of Historic Places; the results of these evaluations are recorded on California Department of Parks and Recreation (DPR) 523 forms. All three sites were found to lack sufficient integrity to be eligible for the National Register (see *Fresno to Bakersfield Section: Archaeological Survey Report (ASR)* [Authority and FRA 2011e]).

## 2.4 Historic Architectural Resources

The APE for historic architectural resources is described in Section 1.5.2 and shown in Appendix A-2; the tables in Chapters 6 and 7 indicate the map identification numbers for the historic architectural resources inventoried and evaluated in this study. The tables in Sections 6 and 7 also cross-reference the map identification numbers to assessor parcel numbers (APNs). The evaluations are presented on DPR 523 forms, DPR 523 Update forms for resources determined eligible more than 5 years ago, and other recordation forms prepared for previous studies (Appendix C). The remainder of this summary outlines the conclusions of the inventory and evaluation of historic architectural resources in the APE for the project.

The APE for historic architectural resources for this project contains a survey population of 52 properties: buildings, structures, objects, and a district that are either known historic properties (identified by previous studies) or that required inventory and evaluation because they had not been previously evaluated. The survey population resources are in Fresno, Kings, Tulare, and Kern counties and were constructed in or before 1960. This HPSR assists in achieving project compliance with Section 106 by soliciting SHPO concurrence with the findings of the inventory and evaluation of these resources.

Of the 52 historic architectural resources addressed in this survey, 5 were previously listed in or determined to be eligible for listing in the NRHP and the CRHR. This HPSR evaluates the other 47 properties under NRHP and CRHR criteria. A summary of the findings for the historic architectural resources addressed in this HPSR is as follows (definitions of the status codes are provided in Appendix D):

- Four (4) properties are listed in the NRHP (Status Code 1) and CRHR.
- One (1) property was previously determined eligible for listing in the NRHP (Status Code 2).
- Eight (8) properties appeared to be eligible for listing in the NRHP and CRHR as identified in previous studies (Status Code 3).
- Twelve (12) properties appear to be eligible for listing in the NRHP and CRHR (Status Code 3) as part of the current survey.
- Twenty-seven (27) properties were previously identified and/or listed in a local register (Status Code 5 or 3C) and although they retain their local status, after evaluation for this project they do not appear to be eligible for listing in the NRHP (Status Code 6).

Therefore, of the 52 historic architectural resources surveyed in the APE, 25 historic properties were listed in, have been determined eligible for listing in, or appear to meet the criteria for listing in the NRHP.

All historic architectural 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. All of the 52 historic architectural resources surveyed are historical resources for the purposes of CEQA, and 27 are historical resources for CEQA only (i.e., are not eligible for the NRHP) because they are resources that are listed in the CRHR, eligible for listing in the CRHR, or meet other standards as historical resources, as per Section 15064.5(a)(4) of the CEQA Guidelines.

The historic architectural resources that met the Section 106 PA definition of *streamlined documentation properties* and those that required evaluation but were not likely to be found eligible for listing in the NRHP or CRHR were surveyed and presented as part of the HASR submittal for this project.

## **Chapter 3**

### **Consulting Parties, Public Participation**



### 3.0 Consulting Parties, Public Participation

The Section 106 PA sets forth the procedures for public participation and involvement in the Section 106 process for the project. 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 Section 106 PA, Section V). Consulting parties, who may include other federal, state, regional, or local agencies that may have responsibilities for historic properties and may want to review reports and findings for an undertaking within their jurisdiction, shall be invited to participate in undertakings covered by the Section 106 PA (Section V, Part B).

A letter regarding this project was sent to parties potentially interested in historic architectural resources. The recipients, listed in Section 3.1, include such interested parties as area planning agencies; local government planning departments; and/or historic preservation programs, historical societies, and museums, in compliance with the consultation requirements of NHPA and its implementing regulations (36 CFR 800).

Copies of the letter, the responses received, and any other correspondence related to historic architectural resources are provided in Appendix B. All future correspondence submitted and received will be included in any future revision of this HPSR. Five responses have been received to date; these responses are summarized in Table 3.0-1. Moreover, future consultation with these entities and local government agencies regarding historic properties will be included herein.

**Table 3.0-1**  
 Responses Received from Letter Sent to Parties Potentially Interested in Historic Architectural Resources

Summary of Response Received	Related Action Reported In This HPSR
Kern County Historical Society opposes the proposed construction of the project through the campus of Bakersfield High School. The society presented its opinion regarding the historic significance of the campus and some of its individual buildings.	The campus of Bakersfield High School is within the APE for the Fresno to Bakersfield Section and was subject to intensive-level survey and evaluation by project Qualified Investigators (QIs). See DPR 523 form, Reference #00405201 (Appendix C).
Fresno County Historic Landmarks and Records Commission indicates that the HST route passes through Fresno's "warehouse district." The commission also responded that the mapping provided with the letter did not include enough detail to determine the proximity of historic properties to the project or its proposed facilities.	Possible contributors to the warehouse district in Fresno were subject to intensive-level survey and evaluation by project QIs. See Appendix C for multiple DPR 523 forms, such as Reference #46619507 or #46619604.
Bakersfield Economic and Community Development Department responded that it could not determine which specific historic resources were in the project study boundaries, but offered surveyors access to the City of Bakersfield cultural resources surveys.	Project QIs reviewed the Bakersfield city records, including the cultural resources surveys, as part of the intensive-level survey conducted for this project.

**Table 3.0-1**

Responses Received from Letter Sent to Parties Potentially Interested in Historic Architectural Resources

Summary of Response Received	Related Action Reported In This HPSR
The Fresno Development and Resource Management Department Historic Preservation Project Manager requested to review the Fresno portion of the HST historic architectural resources survey. Respondent noted that five known Fresno historic landmarks and as-yet-unidentified historic properties may be in the project APE. Also noted a potential resource and general area known as Fresno’s Chinatown that may be intersected by the project. Ground-disturbing activities for the project will require archaeological study.	All local landmarks, possible contributors to the potential Chinatown district, and any other historic architectural resources within the APE that were 50 years old or older, including those mentioned in this response letter, were subject to intensive-level survey by project QIs. See Appendix C for multiple DPR 523 forms, such as Reference #46707101 or #46707102.
Shafter Historical Society, Inc., identified the National Register-listed Shafter Depot and another potential historic architectural resource east of the existing BNSF line as historic properties in the project study area.	All historic architectural resources within the APE that were 50 years old or older, including the Shafter Depot property (Appendix C, Reference #02703008), were subject to intensive-level survey by project QIs.

### 3.1 Historic Architectural Resources: Interested Parties

**Fresno County:**

Fresno City & County Historical Society  
 7160 West Kearney Boulevard  
 Fresno, CA 93706

City of Fresno Historic Preservation Program  
 2600 Fresno Street, Third Floor  
 Fresno, CA 93721

Fresno County Landmarks and Records  
 Advisory Commission  
 Fresno County Library  
 2420 Mariposa  
 Fresno, CA 93721

Clovis-Big Dry Creek Historical Society,  
 Clovis Museum  
 401 Pollasky Avenue  
 Clovis, CA 93612

Meux Home Museum  
 P.O. Box 70  
 Fresno, CA 93707

Reedley Historical Society & Museum  
 P.O. Box 877  
 Reedley, CA 93654

Society for California Archaeology  
 Department of Anthropology, California  
 State University, Fresno  
 5245 N. Backer Avenue M/S  
 Fresno, CA 93740

**Kings County:**

Kings County Board of Supervisors  
 Catherine Venturella, Clerk  
 1400 W. Lacey Boulevard  
 Hanford, CA 93230

Hilary Straus, Deputy City  
 Manager/Community Development Director  
 City of Hanford Planning Commission  
 319 North Douty  
 Hanford, CA 93230

Susan Atkins, Community Development  
 Director  
 City of Corcoran Planning Department  
 832 Whitley Avenue  
 Corcoran, CA 93212

Kings County Library  
 Local History Section  
 401 N. Douty St.  
 Hanford, CA 93230

**Tulare County:**

Tulare County Resource Management  
Agency  
Fred Brusuelas, Chief Planner  
Government Plaza (RMA Headquarters)  
5961 South Mooney Boulevard  
Visalia, California 93277

Colonel Allensworth State Historic Park  
Star Route 1, Box 148  
Earlimart, CA 93219

Tulare County Historical Society  
P.O. Box 295  
Visalia, CA 93279

Tulare County Museum  
27000 S. Mooney Boulevard  
Visalia, CA 93279

Tulare Public Library  
Local History Section  
113 North F St  
Tulare, CA 93274

Alta District Historical Society  
P.O. Box 254  
Dinuba, CA 93618

**Kern County:**

Nancy Talbot, Chair  
Historic Preservation Commission  
City of Bakersfield Economic & Community  
Development  
1600 Truxtun Avenue, Suite 300  
Bakersfield, CA 93301

Carola Enriquez, Museum Director  
Kern County Museum  
3801 Chester Avenue  
Bakersfield, CA 93301

Lori Wear, President  
Kern County Historical Society  
P.O. Box 141  
Bakersfield, CA 93302

Beale Memorial Library  
Kern County Library  
Attn: Local History  
701 Truxtun Ave  
Bakersfield, CA 93301

Ted James, Director  
County of Kern, Planning Department  
Public Services Building  
2700 "M" Street, Suite 100  
Bakersfield, CA 93301-2370

Southern San Joaquin Valley Information  
Center, California State University,  
Bakersfield  
Department of Sociology/Anthropology  
9001 Stockdale Highway  
Bakersfield, CA 93311

Delano Historical Society and Heritage Park  
330 S. Lexington Street  
Delano, CA 93215

Dust Bowl Historical Foundation  
P.O. Box 31  
Lamont, CA 93241

Minter Field Air Museum  
P.O. Box 445  
Shafter, CA 93263

City of Shafter Planning Department  
Wayne Clausen, Planning Director  
336 Pacific Avenue  
Shafter, CA 93263

Shafter Depot Museum / Shafter Historical  
Society  
P.O. Box 1088  
Shafter, CA 93263

City of Wasco Community Development  
Sara Allinder, Director  
764 E Street  
Wasco, CA 93280

Wasco Museum  
P.O. Box 186  
Wasco, CA 93280

### 3.2 Native American Consultation

In addition to the contacts listed above, URS sent a letter regarding this project to Native American representatives affiliated with both federally recognized and non-recognized tribes. Copies of the letter, the responses received, and other correspondence related to Native American consultation are provided in Appendix B.

Per the Section 106 PA (Authority and FRA 2011b), the FRA and the Authority initiated consultation with the Native American Heritage Commission to conduct a search of the sacred lands file to obtain a list of Native American contacts. The list of Native American consultation contacts is provided in Table 3.2-1. The FRA and the Authority initiated consultation with these contacts in a letter that provided information about the proposed project alternatives and requested information about any traditional cultural properties that could be affected by the project. The FRA and the Authority are expected to continue consultation through the completion of the Section 106 process. An initial Native American consultation meeting was held on July 22, 2010; additional meetings will be held in the future.

**Table 3.2-1**  
 Native American Consultation Contacts

<b>Name (Last, First)</b>	<b>Title (Tribal/Council Title)</b>	<b>Address Street, City, Zip</b>
Alec, Stan	Kings River Choinumi Farm Tribe	2258 Vartikian Clovis, CA93611
Arrendondo, Frank		P.O. Box 161 Santa Barbara, CA93102
Atwell, Clarence	Chairperson/Santa Rosa Rancheria	P. O. Box 8 Lemoore, CA93245
Begay, Donna	Tribal Chairwoman/Tubatulabals of Kern Valley	P. O. Box 226 Lake Isabella, CA93240
Bill, Carol	Tribal Administrator/Cold Springs Rancheria of Mono Indians	P. O. Box 229 Tollhouse, CA93667
Bill, Lawrence	Interim Chairperson, Sierra Nevada Native American Coalition	P. O. Box 125 Dunlap, CA93621
Bratland, Patricia Ann		600 Coldstream Drive El Cajon, CA92020
Brochini, Anthony	Chairperson/Southern Sierra Miwok Nation	P. O. Box 1200 Mariposa, CA94330
Brown, Jerry	Chowchilla Tribe of Yokuts	10553 N. Rice Road Fresno, CA93720

**Table 3.2-1**  
 Native American Consultation Contacts

<b>Name (Last, First)</b>	<b>Title (Tribal/Council Title)</b>	<b>Address Street, City, Zip</b>
Charley Sr., Benjamin	Chairperson/Dunlap Band of Mono Indians	P. O. Box 45 Dunlap, CA93621
Coleman, Travis	Chairperson/Cold Springs Rancheria of Mono Indians	P. O. Box 209 Tollhouse, CA93667
Davis, John	Chairperson/Kings River Choinumni Farm Tribe	1064 Oxford Avenue Clovis, CA93612
Demers, Michel	Tribal Administrator/North Fork Rancheria	P. O. Box 929 North Fork, CA93643
Dick, Florence	Tribal Secretary/Dunlap Band of Mono Indians	P. O. Box 344 Dunlap, CA93621
Dominguez, Delia	Kitanemuk & Yowlumne Tejon Indians	981 N. Virginia Covina, CA91722
Elizando, Samuel	Environmental Director/Picayune Rancheria of Chuckchansi	46575 Road 417 Coarsegold, CA93614
Fink, Elaine	Chairperson/North Fork Rancheria	P. O. Box 929 North Fork, CA93643
Franco, Lalo	Director - Cultural Department/Santa Rosa Rancheria	P. O. Box 8 Lemoore, CA93245
Garcia, Arianne	Chairperson/Chumash Council of Bakersfield	P. O. Box 902 Bakersfield, CA93302
Garcia, Ernie	Tejon Indian Tribe	23437 Via Gayo Valencia, CA91344
Garfield, Ryan	Chairperson/Tule River Indian Tribe	P. O. Box 589 Porterville, CA93258
Gomez, Jr., Robert		2619 Driller Avenue Bakersfield, CA93306
Goode, Ron	Chairperson/North Fork Mono Tribe	13996 Tollhouse Road Clovis, CA93619
Graham, Durta	Chairperson/Picayune Rancheria of Chuckchansi	46575 Road 417 Coarsegold, CA93614

**Table 3.2-1**  
 Native American Consultation Contacts

Name (Last, First)	Title (Tribal/Council Title)	Address Street, City, Zip
Grant, Lee Ann Walker	Chairperson/Table Mountain Rancheria	P. O. Box 410 Friant, CA93626
Hammond, Emmaline	Chuckchansi Tribe	P. O. Box 852 Oakhurst, CA93644
Historical Preservation Society	Dunlap Band of Mono Indians	1885 M Fine, Ste. 102 Dunlap, CA93624
James, Les	Spiritual Leader/Southern Sierra Miwok Nation	P. O. Box 1200 Mariposa, CA95338
Johnson, Jay	Spiritual Leader/Southern Sierra Miwok Nation	535 Allred Road Mariposa, CA95338
Khus, Puilulaw		2001 San Bernardo Creek Morrow Bay, CA93442
Kipp, Liz Hutchins	Chairperson/Big Sandy Rancheria of Mono Indians	P. O. Box 337/3702 Auberry, CA93602
Kirkendal, Karin Wilson	Chairperson/Dumma Tribal Government	1003 S. 9th Street Fresno, CA93702
Marine, Mandy	Board Chairperson/Dunlap Band of Mono Indians	P. O. Box 44 Dunlap, CA93621
Matola, Mary	Cultural Specialist, Picayune Rancheria of Chuckchansi	46576 Road 417 Coarsegold, CA93614
Morgan, Kathy	Chairperson/Tejon Indian Tribe	2234 4th Street Wasco, CA93280
Osborne, Angie	Traditional Choinumni Tribe	2787 N. Piedra Road Sanger, CA93657
Pennell, Bob	Cultural Resource Director/Table Mountain Rancheria	P. O. Box 410 Friant, CA93626
Perez, Katherine Erolinda	North Valley Yokuts Tribe	P. O. Box 717 Linden, CA95236
Planas, Lorrie	Choinumni Tribe, Choinumni/Mono	2736 Palo Alto Clovis, CA93611

**Table 3.2-1**  
 Native American Consultation Contacts

<b>Name (Last, First)</b>	<b>Title (Tribal/Council Title)</b>	<b>Address Street, City, Zip</b>
Redmoon, Jim	Cultural Resource Representative/Dumma Tribal Government	1305 E. Sussez Way Fresno, CA93706
Robinson, David Laughing Horse	Kawaiisu Tribe	P. O. Box 20849 Bakersfield, CA93390
Robinson, Robert	Historical Preservation Officer/Kern Valley Indian Council	P. O. Box 401 Weldon, CA93283
Russell, Michael	Tribal Administrator/Table Mountain Rancheria	P. O. Box 410 Friant, CA93626
Sartuche, John	Wukchumni Tribe	929 N. Lovers Lane Visalia, CA93292
Smith, Rosemary	Chairperson, The Choinumni Tribe of Yokuts	1505 Barstow Clovis, CA96311
Tex, Jeneen	CEO/Dunlap Band of Mono Indians	P. O. Box 44 Dunlap, CA93621
Turner, Keith	Tribal Contact/Dumna Wo-Wah Tribal Government	P. O. Box 306 Auberry, CA93602
Van Meter, Kathy	Cultural Resource Team Leader/Tejon Indian Tribe	14035 Rosedale Hwy #112 Bakersfield, CA93390
Weese, Susan	Wuckchumni Tribe	1540 S. Bollinger Court Visalia, CA93277
Wermuth, Ron		P. O. Box 168 Kernville, CA93238
Williams, Harold	Chairperson/Kern Valley Indian Council	15775 Setimo Creek Road Caliente, CA93518
Williams, Tina	Environmental Coordinator/Cold Springs Rancheria of Mono Indians	P. O. Box 209 Tollhouse, CA93667
Woodrow, Kenneth	Chairperson/Eshom Valley Band of Indians	1179 Rock Haven Court Salinas, CA93906

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## **Chapter 4**

### **Summary of Identification Effort**



## 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 *Fresno-Bakersfield Archaeological Identification and Evaluation Plan* and the *Fresno-Bakersfield Historic Architecture Identification and Evaluation Plan* (Authority and FRA 2011c, 2011d), which were submitted to and approved by the Project Management Team and the Authority. Relevant aspects of the Section 106 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 background literature review, the records search, the survey methods and implementation, the framework for identifying archaeological properties, and Native American communications.

#### 4.1.1 Background Literature Review

A review of relevant literature and sources on San Joaquin Valley prehistory, ethnography, and history was undertaken to develop a broad context of the cultural evolution and archaeological record for this area of California. Literature related to the natural and physiographic setting was also reviewed as relevant to the prehistoric archaeological record. This research involved library database searches, reviews of texts that encompass the entire state, such as *California Archaeology* (Moratto 1984) and *California Prehistory* (Rondeau et al. 2007), archaeological reports more directly relevant to the southern San Joaquin Valley, and readings on landscape ecology and paleoecology. The results of the literature review are summarized in Section 5 (Historic Context) and used as the basis for the context within which to evaluate potential historic properties.

#### 4.1.2 Records Search

In fall 2009, URS performed a digital scan of the Southern San Joaquin Valley Information Center Resource and Reports U.S. Geological Survey (USGS) 7.5-minute quadrangles that intersect with the current Fresno to Bakersfield California HST alignment. Each quad was geo-referenced to real-world coordinates and placed in a Geographic Information System (GIS) environment to allow for accurate digitization of the individual resources and reports recorded on the maps. All resources and surveys on each USGS quadrangle housed at the Southern San Joaquin Valley Information Center that intersects within a 1.25-mile (2-kilometer) buffer of the APE have been digitized. This buffer area is also considered the study area for the purposes of future discussion. In March 2011, each quadrangle used in the original records search was updated to ascertain whether any newly identified resources have been submitted to the SSJVIC since September 2009, when the quadrangles were originally scanned. The results of this update are incorporated into the results below.

The following sources were also reviewed with reference to archaeological resources:

- National Register of Historic Places – Listed Properties and Determined Eligible Properties
- Directory of Properties in the Historic Property Data File for Kern, Kings, Tulare, and Madera Counties (OHP 2009).
- California Inventory of Historic Resources (OHP 1976).
- California Points of Historical Interest (OHP 1992).
- California Historical Landmarks (OHP [1990] 1995).
- Handbook of North American Indians, Volume 8, California (Spier 1978).

- Sanborn Maps in urban areas.
- Historic USGS quadrangles.
- Local General Plan Documents for Fresno, Kings, Tulare, and Kern counties.

As a result of record searches and background research [REDACTED]

Of these, three sites [REDACTED]

[REDACTED] (Ptomey and Wear 1989). This recordation in 1989 indicates that the site is completely destroyed. The site was only identified through written accounts from the 1890s and ethnographic interviews conducted in the early twentieth century. Ethnographic informants described the site as the Yowlumne village site of Woilu (Latta 1949:46–47). Subsequent research determined that no subsurface components exist for this site within its reported location (Chase 1994). CA-KER-3072 was identified as a [REDACTED] (Everson 1991). This deposit consisted of a “few” lithic flakes over a 2,500-square-meter area; in addition, the area was described as highly disturbed by agriculture and that the flakes were likely out of context, which would indicate that the deposit is of low scientific value. [REDACTED]

[REDACTED]. Levees have been constructed around the perimeter of the site, and it is periodically utilized as a water retention basin by the Alpaugh Irrigation District.

No previously recorded archaeological properties listed in or determined to be eligible for listing in the NRHP and within the archaeological APE were identified as a result of the background research.

#### 4.1.3 Survey Methods and Implementation

Phase I of the identification plan entailed pedestrian surveys of the project alignment APEs. Archaeologists meeting the professional qualifications of the Secretary of the Interior’s Standards for Archaeologists and meeting the definition of Qualified Investigator (QI), as per the Section 106 PA, conducted the identification and evaluation of archaeological resources for the Fresno to Bakersfield Section of the HST. The principal constraint on the pedestrian surveys was obtaining entry to private parcels of land that intersect with the archaeological APE. Before the surveys, a third-party right-of-way consultant, Bender Rosenthal, Inc., conducted a project-wide effort to secure permission to enter privately held land. The Bender Rosenthal team provided lists of parcels for which permission to enter had been obtained and any special conditions to the access. URS integrated these lists into both field mapping and Global Positioning System (GPS) units to provide field staff spatial information regarding where the pedestrian surveys were authorized. In many cases, access was not granted. The parcel owners who granted access for the surveys represented approximately 49% of the project footprint acreage (i.e., the APE). The remaining parcel owners either did not respond or did not grant access to their land.

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. The paramount objective was to perform the field surveys efficiently, while maximizing the opportunity for observation of archaeological manifestations. However, in every instance the actual field circumstances dictated the most appropriate survey technique that balanced efficiency and the potential for detecting archaeological phenomena (Banning et al. 2006). All efforts were made to survey 100% of the accessible parts of the APE; however, exceptions were taken in the field in areas that were deemed unsafe or where the visibility of the surface was minimal or nonexistent and precluded the discovery of cultural resources. These areas included dense underbrush, stands of poison oak, areas of heavy agricultural cover, areas recently dusted

with pesticides, areas of concentrated feeding operations, and areas that were paved or under water.

The urbanized segments of the Fresno to Bakersfield Section were surveyed using a combination of techniques that depended on the nature of the field condition. In some instances, areas of exposed ground within an otherwise heavily urbanized area were closely inspected. However, by and large, the urbanized areas provided little visibility with respect to surface manifestations of archaeological deposits and were treated as such.

To address the possibility of buried historic-era cultural deposits in urbanized settings, URS obtained a set of historic-era fire insurance maps called Sanborn maps for the historically urbanized areas that intersect with the California HST project alignment. The map set, which has been fully georeferenced, serves as a digital map tool (EDR 2010). The map set was reviewed to determine the sensitivity/potential for buried historic-era deposits within the project footprint. This effort is described in further detail in the ASR (Authority and FRA 2011e). No archaeological historic properties were identified as a result of this effort.

In areas under active cultivation, the survey transects followed, if feasible, the direction of the rows. In areas where rows were planted obliquely to the direction of the APE, a zigzagging approach was employed. In general, planted and fallow agricultural fields were surveyed at 10- to 15-meter (33- to 49-foot) transect intervals. As discussed above, this method was sometimes not feasible due to adverse conditions or variability in ground surface visibility. In these cases, the survey method that maximized ground surface inspection was employed.

In areas within the BNSF right-of-way (which is considered 50 feet [15 meters] on either side of the centerline of the tracks) and other rail rights-of-way, the degree of disturbance within portions of the right-of-way precluded an examination of the native surface and hence was not surveyed as intensely as was areas of open land. These heavily disturbed portions of the existing rail rights-of-way included the rail prism and ballast, where the potential for archaeological deposits is assumed to be low enough not to warrant unnecessarily narrow transects. The entire BNSF right-of-way, excluding those portions that were surveyed during the initial survey of adjacent and overlapping private parcels, was surveyed in late March to early April 2010, after receipt of a permit to enter from BNSF. Approximately 386 acres of land that had not been previously surveyed during the private parcel survey were surveyed within BNSF right-of-way.

#### 4.1.4 Framework for Identifying Archaeological Properties

The field procedures that guided the identification of archaeological sites encountered relied on the *Fresno-Bakersfield Archaeological Identification and Evaluation Plan* (Authority and FRA 2011c), the Section 106 PA (Authority and FRA 2011b), and the standards of professional practice of archaeology. The framework described here served as the overarching approach to identifying the resources encountered in the field for the project; this framework also served as the guidance for establishing historical property exemptions, the criteria for what constitutes an "isolate" and a "site," and the process for the initial evaluation of a given resource. The following properties are exempt from evaluation, as specified in Attachment D of the Section 106 PA and based on the professional judgment of the QIs in the area of archaeology:

- Isolated prehistoric finds consisting of fewer than three items per 100 square meters (1,076 square feet).
- Isolated historic finds consisting of fewer than three artifacts per 100 square meters (1,076 square feet) (e.g., several fragments from a single glass bottle are one artifact).
- Refuse scatters less than 50 years old (scatters containing no material that can be dated with certainty as older than 50 years).

- Features less than 50 years old (those known to be less than 50 years old through map research, inscribed dates, etc.).
- Isolated refuse dumps and scatters over 50 years old that lack specific associations.
- Isolated mining prospect pits.
- Placer mining features with no associated structural remains or archaeological deposits.
- Foundations and mapped locations of buildings or structures that are more than 50 years old with few or no associated artifacts or eco-facts, and with no potential for subsurface archaeological deposits.
- Building and structural ruins and foundations less than 50 years old.

This exemption process does not include archaeological sites, traditional cultural properties, or other cultural remains or features that may qualify as contributing elements of districts or landscapes. The lead archaeological surveyor was authorized to exempt the above-listed archaeological property types and features. The sites or deposits that were exempted were documented in field notes but not reported in any of the technical documents.

In all other cases, the survey crews sought to identify cultural resources that exist in the archaeological APE in accordance with 36 CFR 800.4(a)(2-4) and 36 CFR 800.4(b). This process also followed the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 Federal Register 44716) and was consistent with the directions in the Section 106 PA.

#### 4.1.5 Summary of Native American Communication

##### A. INITIAL CORRESPONDENCE

On April 21, 2009, Mr. Dean Martorana of URS prepared a letter that incorporated the required land descriptions that define the project APE and requested that the NAHC conduct a search of its sacred land file (Martorana 2009).

On May 5, 2009, Ms. Debbie Pilas-Treadway of the NAHC reported that a "search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area" (Pilas-Treadway 2009). The NAHC did provide a list of Native American individuals and/or organizations that might have information pertinent to this project or concerns regarding the proposed project activities. The NAHC's letter suggested contact with each individual and/or group as a means to enable communication with each tribe or group regarding the project.

On October 18, 2009, Mr. Vance Benté of URS sent a letter and a map set to each of the contacts listed by the NAHC (Benté 2009). The letter was intended to inform the individuals and organizations about the project and to solicit comments to identify any concerns or issues pertinent to the project. A project map (in the form of a three-sheet map set, each sheet of which was 32 inches by 19 inches [81 centimeters by 48 centimeters]) was included with each letter. Each of the letters—together with the accompanying map set—was posted by certified mail with a proof of delivery requested. Of the 53 mailings, 4 were returned as undeliverable.

During the period November 16, 2009, to December 1, 2009, an attempt was made to contact each individual and/or group by telephone to ensure receipt of the letter and the map set. A listing of the individuals that were sent the letter and the map set, and the results of the effort to

reach each of them by phone are listed in Table B-1 (Appendix B). A summary of the correspondence received and the results of the telephone conversations are provided below.

Because of route changes and the resulting changes to the APE, URS made a second request to the NAHC to search the sacred land file and identify interested individuals. On January 25, 2010, Dave Singleton of the NAHC, having reviewed the revised route commented that the search of the sacred land file had "...indicated the presence of Native American cultural resources within a 0.5-mile radius of the project sites (APEs) in the Corcoran and Rio Bravo USGS quadrangle areas." The NAHC letter included a revised list of the "names of the nearest tribes and interest Native American individuals that the NAHC recommends as 'consulting parties'...." (See Appendix B for this communication.) The FRA and the Authority used the list of individuals and organizations that accompanied the January 25, 2010, NAHC correspondence to prepare and send out a mailing that was designed to elicit information about issues or concerns in the Native American Community about the project.

## B. RESULTS

Written communications in response to the mailings were received from Ms. Mary Matola of the Picayune Rancheria of the Chukchansi Indians (Matola 2009) and from Mr. David Laughing Horse Robinson, Chair of the Kawaiisu Tribe of the Tejon Reservation (Robinson 2009). Recognizing the inherent sensitivity of the project area, Ms. Matola commented that "...other tribal entities...would have a greater expertise concerning the cultural resources," but wished to be informed regarding "...potential cultural disturbances, inadvertent discoveries...and the progress of the project." Mr. Robinson, representing the Kawaiisu Tribe, voiced his appreciation for being kept apprised of project progress and requested additional information.

Written comments were also received from Jim Redmoon, the Cultural Resources Manager of the Dumna Tribal Council. Mr. Redmoon's comments, which described the Dumna Wo-Wah as wishing to participate in the Section 106 process by way of a "consultation meeting," were made in response to the letter that the Authority sent in May 2010 describing the Preliminary Alternatives Analysis (Redmoon 2010).

Mr. Lalo Franco, Director of the Cultural Department Santa Rosa Rancheria, offered additional comments (Franco 2009). Mr. Franco voiced concerns regarding the cultural resources in the project APE and expressed a desire to meet with the Authority concerning future monitoring of project activities and the formulation of an agreement to address burials.

### 4.1.6 Traditional Cultural Properties

Traditional cultural properties (TCPs) are places associated with the cultural practices or beliefs of a living community that are rooted in that community's history and are important in maintaining the continuing cultural identity of the community (Parker and King 1990:1). Examples include "a location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world" and "a location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice" (Parker and King 1990). The communities and organizations contacted for this project are listed in Section 3 (Consulting Parties, Public Participation).

The Native American Heritage Commission did not identify any traditional cultural properties that could be affected by the project in the region. Currently, Native Americans contacted by letter have not notified the Authority of any traditional cultural properties or other cultural resources that could be affected by the project in the region. No historical societies or other interested parties, as listed in Section 3 (Consulting Parties, Public Participation), have responded with

concerns that may indicate knowledge of traditional cultural properties within the project. Additional consultation with these groups may result in identification of TCPs and if so, this report will be amended accordingly.

## 4.2 Historic Architectural Resources

Historic architectural 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, these resources can include engineering features (e.g., dams, canals, railroads) and objects, such as a statue, gatepost, or fountain. When historic architectural 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 historic architectural resources that are listed, determined eligible for, or that appear to be eligible for listing in the NRHP, and the term *historical resources* will be used for those eligible for or listed in the CRHR only. The term *historic architectural resources* will apply generically to these resources regardless of historic status.

### 4.2.1 Known Historic Properties 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 QI, as per the Section 106 PA, conducted the identification and evaluation of historic architectural resources for the Fresno to Bakersfield Section of the HST.

As discussed in Section 4.1.2, URS Corporation conducted records searches for this project at the Southern San Joaquin Valley Information Center; URS shared the relevant results regarding historic architectural resources with JRP. All previously recorded resources and previous surveys within a 1.25-mile (2.01-kilometer) radius of the HST alternative alignments were digitized.

The following references were also reviewed for built environment resources:

- National Register of Historic Places – Listed Properties and Determined Eligible Properties
- Directory of Properties in the Historic Property Data Files for Kern, Kings, Tulare, and Madera Counties (OHP 2009).
- California Inventory of Historic Resources (OHP 1976).
- California Points of Historical Interest (OHP 1992).
- California Historical Landmarks (OHP [1990] 1995).
- Sanborn Maps in urban areas.
- Historic USGS quadrangles.

The Information Center did not have many historic architectural resources in its files that are located within the record search area. In total, the records search identified only 11 historic architectural resources in the search area, which was a 500-foot (152-meter) radius around the centerline of the current alignment. Of these 11 resources, only 1 was listed in the NRHP: the Shafter Railroad Depot, in Kern County. The other historic properties identified in the records search were three canals found locally eligible and a State Historic Landmark marker. The six other resources identified in the search results had been found to be not eligible for listing in the NRHP, had been destroyed, or had not been fully evaluated. Those not fully evaluated were added to the HPSR survey population.

Due to the scope and magnitude of the proposed project, the historical context of the project corridor vicinity, and the limited results of the information center records search, extensive field

survey and background research was undertaken to thoroughly identify historic architectural resources within the APE. The project QIs noted any additional potential historic architectural resources during fieldwork, reviewed local registers and lists of historic properties while conducting research in local repositories, and consulted with local government planning staff to thoroughly account for previously identified historic properties and include them in the HPSR survey population.

#### 4.2.2 Field and Research Methods

Project QIs conducted all intensive-level field survey and field research for preparation of this draft HPSR during the period from March to May 2010 and from March through July 2011. Consistent with the Section 106 PA and the *Fresno-Bakersfield Historic Architecture Identification and Evaluation Plan* (Authority and FRA 2011d), JRP conducted an intensive-level survey of 51 known historic properties and historic architectural resources that were 50 years of age or older at the time of the survey within the APE. All field surveys and inventories were 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 was arranged in the manner specified in the project protocol for such contact, and the inventory was completed.

Once the historic architectural resources APE was defined (see Section 1.5.2), JRP staff began fieldwork with a reconnaissance-level survey of the area to account for all buildings, structures, and objects found within the APE. This reconnaissance-level survey took into account known resources (see above) and identified any additional resources that would require survey for the HPSR, including previously identified historic architectural resources that did not appear in the Southern San Joaquin Valley Information Center search results or properties that appeared to be potentially eligible for listing in the NRHP or CRHR. These known resources and potentially eligible properties became the survey population for this HPSR and were then subject to intensive-level surveys. (Properties that met the Section 106 PA criteria for streamlined documentation properties and those that required evaluation but were not likely to be eligible for listing in the NRHP or CRHR are addressed in the HASR submittal for this project.)

JRP conducted field research in conjunction with the reconnaissance-level survey and refined and redirected research efforts in accordance with the results of that survey. JRP then continued property-specific research once identification of the intensive-level survey population was complete. To confirm specific construction dates and to narrow estimated dates of construction, background research was done through First American Real Estate Solutions commercial database and through review of historic plat maps and current USGS topographic maps, county assessor records, historic aerial photographs, and other documents. This field reconnaissance and preliminary research helped to determine which resources were built in or before 1960.

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 JRP 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, the Kern County Museum (Bakersfield); the Beale Memorial Library (Bakersfield); the Fresno Historic Preservation Program, Fresno Planning Office; California State University, Fresno, Special Collections; Fresno County Historical Society; Kings County Assessor; Tulare County Assessor; Kern County Assessor and Recorder; California Geological Survey Library; California State Archives and Library; Bancroft Library (University of California, Berkeley); Shields Library (University of California, Davis); Burris Park Museum Archive (Hanford); maps and plans obtained from California Department of Transportation (Caltrans) District 6 (Fresno); and the Caltrans Transportation Library and History Center (Sacramento). JRP also reviewed CHRIS, California Historical Landmarks and Points of Historical Interest publications and updates, the National