

3.1.8 Cultural Resources

This section summarizes steps to identify archaeological, historic, and architectural resources within the designated Area of Potential Effect (APE) and to address potential impacts to these resources. The APE includes areas that may be directly or indirectly affected by construction of the project alternatives. An indirect impact occurs when the project could cause a change in character or use of historic properties, but would not directly encroach on the property. Only those properties situated within the APE are included in the discussion and impact analysis below. The APE extends for approximately 63 linear miles from SR-14 in Palmdale to SR-18 in Apple Valley. In Palmdale, the APE parallels Avenue P-8 for a distance of approximately 10 miles to 100th Street East. From 100th Street East, the APE curves south and continues east parallel to East Palmdale Boulevard. In San Bernardino County, the APE parallels Air Expressway Boulevard and then crosses the Mojave River and I-15 and enters Apple Valley. In Apple Valley, near Corwin Road, the APE turns south and terminates at SR-18. The vertical limits of the APE will vary depending on location along the right-of-way (ROW). In most areas of the APE, grading to prepare for fill and paving would be limited to 5 to 10 feet below the existing ground surface. At bridge abutments, construction could extend up to depths of 40 feet for bent and pile construction and 60 feet for cast-in drilled-hole (CIDH) piles. The APE study boundary for these studies was defined by setting up a 250-foot buffer that used the centerline of the proposed alternative alignments as the starting point for the buffer.

Regulatory Setting

The term “cultural resources,” as used in this document, refers to all “built environment” resources (e.g., structures, bridges, railroads, water conveyance systems), culturally important resources, and archaeological resources (both prehistoric and historic), regardless of significance. Laws and regulations dealing with cultural resources are explained below.

The National Historic Preservation Act of 1966 (NHPA), as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 *Code of Federal Regulations* [CFR] 800). On January 1, 2004, a Section 106 Programmatic Agreement (PA) between the ACHP, Federal Highway Administration (FHWA), California State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans projects, both state and local, with FHWA involvement. In January 2014, the First Amended Section 106 PA went into effect. The PA implements the ACHP’s regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans. FHWA responsibilities under the PA have been assigned to Caltrans through the National Environmental

Policy Act (NEPA) Assignment (23 U.S.C. 327) Memorandum of Agreement (MOA), which became effective October 1, 2012.

Historic properties may also be covered under Section 4(f) of the U.S. Department of Transportation Act, which regulates the “use” of land from historic properties. See Appendix B for specific information about Section 4(f).

Historical resources are considered under the California Environmental Quality Act (CEQA), as well as California Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources (CRHR). PRC Section 5024 requires State agencies to identify and protect State-owned resources that meet the NRHP listing criteria. It further specifically requires Caltrans to inventory State-owned structures in its ROWs. Sections 5024(f) and 5024.5 require State agencies to provide notice to and consult with the SHPO before altering, transferring, relocating, or demolishing State-owned historical resources that are listed on or are eligible for inclusion in the NRHP or are registered or eligible for registration as California Historical Landmarks.

Affected Environment

The following documents provide information on historic properties within the APE and serve as the basis for the analysis in this section:

- Historic Property Survey Report (HPSR), 07-LA-SBD, High Desert Corridor, Post Miles SR-14 to SR-18. August 2014
- Historical Resources Evaluation Report (HRER) for the Proposed High Desert Corridor Freeway/Expressway, Los Angeles & San Bernardino Counties, California. August 2014
- Archaeological Survey Report (ASR) for High Desert Corridor/SR-138 Widening Project, December 2013 with Supplemental ASR completed in August 2014
- Extended Phase I Testing Report (XPI) P-19-004366, P-36-000066 (CA-SBR-66), P-36-000182 (CA-SBR-182), and P-36-012609 (CA-SBR-12336) High Desert Corridor Project. July 2014
- Finding of Adverse Effect for the High Desert Corridor Project from SR-14 to SR-18, Los Angeles and San Bernardino Counties, California. Proposed completion September 2014

Record Searches

For the portion of the project alternatives lying within Los Angeles County, record searches performed at the South Central Coastal Information Center (SCCIC) in January 2009, September 2011 and April 2013 revealed 106 cultural resource surveys have been conducted within a 1-mile radius of the project APE. In total, 41 cultural resources were previously recorded within 1 mile of the APE, including three multicomponent sites, six prehistoric sites, eight archaeological historic sites, 18 built environment resources, two prehistoric isolates, and four historic archaeology isolates. No Points of Historical Interest, California Historical Landmarks, CRHR,

NRHP listed, or Historic Resources Inventory listings were identified within a 1-mile radius of the project APE portion located within Los Angeles County.

For that portion of the project area that lies within San Bernardino County, record searches performed at the San Bernardino Archaeological Information Center in September 2011 and October 2012 revealed that 174 cultural resource surveys have been conducted within a 1-mile radius of the project APE. In total, 213 resources were identified within a 1-mile radius of the project APE, with 37 within the APE. There are 9 NRHP-eligible properties and 3 California Historic Landmark listings located within a 1-mile radius of the project APE portion located within San Bernardino County.

The record searches conducted for San Bernardino County indicated the presence of five properties previously determined eligible for listing in the NRHP to be located within the project's APE:

- National Old Trails Highway (CA-SBR-2910H/P-36-002910)
- Atchison, Topeka and Santa Fe Railroad (ATSF) (CA-SBR-6793H/P-36-006793)
- Boulder Dam Transmission Line (BDTL) (CA-SBR-7694H/P-36-007694)
- Edison Company Boulder Dam–San Bernardino Transmission Line (CA-SBR-10315H/P-36-010315)
- SCE Kramer-Victorville Transmission Line and Towers (CA-SBR-10316H/P-36-012609)

Native American Consultation

The Native American Heritage Commission (NAHC) was first contacted regarding the project in February 2009, and again in November 2013 concerning their Sacred Lands File (SLF). The NAHC staff indicated on both occasions that no Native American traditional cultural places are located within the APE according to their search of the SLF. The NAHC provided a contact list of Native American groups and individuals who might have knowledge of Native American cultural resources in the HDC Project area. Those individuals identified by the NAHC were contacted by Caltrans, as was a second group of individuals who were identified as potentially interested but not on the NAHC's contact list. Based on ethnographic research conducted for the project, the study area was traditionally occupied by the Kawaiisu and Vanyume/Serrano peoples. Early in the cultural resources investigation, the most likely descendants of the Kawaiisu and Vanyume/Serrano, based on the list provided by the NAHC, were contacted to elicit general concerns regarding the proposed project and to identify specific sites that may hold special concerns for them. Letter contacts were made, and follow-up telephone calls were placed with messages left, where possible. In November and December 2013, Caltrans again solicited views regarding the identification of sensitive Native American cultural resources, such as Traditional Cultural Properties or other sensitive resources within the vicinity of the APE from 13 Native American groups/individuals of which several responded. On August 28, 2014, Caltrans sent a letter updating all Native American contacts in the status of the project, listing sites present and requesting any additional information on

cultural resources. The results of the Native American consultation are explored more fully in Section 1.4.2 and Attachment C of the HPSR, Native American Consultation. Consultation is on-going.

Archaeological Resources under All Build Alternatives

The project's APE for archaeological resources was delineated to include all areas that could potentially be directly or indirectly affected by the proposed undertaking, including all potential road or rail alignments, staging areas, temporary construction easements, and vertical areas of disturbance. Permanent right of way (ROW) acquisitions would be needed to accommodate the improvements. In most areas of the APE, the depth of work would be limited to about 5 to 10 feet. This depth would allow the project to cut, grade, and prepare the existing ground surface for fill and paving. At bridge abutments, construction could extend up to depths of 40 feet for bridge and pile construction.

Archaeological sensitivity varies along the corridor. Generally, most of the high and medium probability zones are located on Holocene alluvial fan surfaces where low energy alluvium regularly accumulates and accounts for over half of the APE. Buried archaeological sites have been found in similar settings outside of the APE area in the western Mojave. Most of the areas with low or very low to no potential for buried sites are located in mountainous areas of the Transverse Ranges where soil is not accumulating, or on Pleistocene landforms or older surfaces.

The archaeological field survey was conducted in the APE from September to November 2011 and from April 2012 to October 2013. As a result of the record searches and surveys, a total of 30 archaeological sites were documented as being located within the APE: seven prehistoric archaeological resources, four multicomponent sites with both historic and prehistoric components, and 19 historic archaeological resources. Of these 30 sites, three prehistoric archaeological resources were determined eligible for listing in the NRHP under Criterion D for values associated with prehistoric deposits. The sites, P-36-012609 (CA-SBR-12336), P-36-000182 (CA-SBR-182, and P-36-000066 (CA-SBR-66 make up one proposed archaeological district. One multicomponent resource was determined eligible for listing in the NRHP under Criterion A: P-36-003033 (CA-SBR-3033H). These resources are described below. The specific location of archaeological resources is considered confidential.

Twenty resources (two multicomponent resources, four prehistoric resources, and fourteen historic archaeological resources) are assumed eligible for listing in the NRHP by Caltrans for the purposes of this project in accordance with the Section 106 Programmatic Agreement (PA) Stipulation VIII.C.4. In accordance with Section 106 PA Stipulation XII.A Caltrans will phase the continued identification, evaluation and application of the Criteria of Adverse Effect for these resources as the project alternatives are refined.

Topipabit Archaeological District

Caltrans has determined that an archaeological district (Topipabit District) is eligible for listing on the NRHP under Criterion D and SHPO has concurred. The district encompasses three archaeological sites that are located within the APE and that may be associated with the ethnohistorically-attested Desert Serrano village of Topipabit. The three sites are P-36-012609 (CA -SBR-12336), P-36-000182 (CA-SBR-182), and P-36-000066 (CA-SBR-66) located west of the Mojave River near Ossam Wash and south of Turner Springs Road. The proposal for creation of the district is supported by preliminary ethnohistory research (see ASR, Appendix C). The following NRHP eligibility status is recommended for the three sites:

- P-36-012609 (CA -SBR-12336) and P-36-000182 (CA-SBR-182): Individually eligible as well as eligible as contributors to the district.
- P-36-000066 (CA-SBR-66): Eligible only as a contributor to the district.

P-36-012609 (CA-SBR-12336:)

CA-SBR-12336 is a large (19.5-acre) prehistoric habitation site containing four discrete, moderate to dense loci of cultural materials indicative of residential use. An abundance of diverse cultural material has been recovered from the surface of the site and from intact, buried deposits during two phases of subsurface testing. Cremated human remains were also recovered from the site surface at one location, suggesting cremation. Artifacts suggest the site was occupied from the Gypsum Period (approximately 4000–1500 B.P.) and into the Late Period (800–300 B.P.). As the site boundary is currently mapped, 7.8 acres in the southern portion of this 19.5-acre site are located within the APE. The entire area is anticipated to be subject to direct effects by the project. This portion of the site (approximately 40 percent) includes the entirety of Loci 1 and 2. Overall, the condition of the site remains good with human-caused disturbances and natural erosion processes occurring outside the central loci of residential activity. The main portion of the site retains intact, buried deposits and sufficient integrity likely to yield important information adding to the knowledge of the prehistory of this region. Caltrans has determined that CA-SBR-12336 is individually eligible for listing in the NRHP under Criterion D, and as part of an archaeological district. This site retains integrity and has yielded, and is likely to yield, additional information important to the knowledge and understanding of the prehistory of this region.

P-36-000182 (CA-SBR-182)

This prehistoric resource consists of a large complex residential site and may represent the ethnohistoric Vanyumé Serrano site of *Topipabit*. Originally recorded in 1941 and mapped incorrectly for years in the area where resource P-36-012609 is now located, P-36-000182 was updated and mapped in its current location in 2006 and recommended as eligible for listing in the NRHP under Criterion D and the CRHR based on the potential to yield information important to prehistory. The site consists of a large, intensively used prehistoric residential location containing four loci defined by moderate to dense concentrations of lithic artifacts, fire-altered rock, and burned faunal remains. Several hearth features, one possible house pit depression

and one large pit feature were also identified. Testing at P-36-000182 recovered cultural materials up to three feet below the surface. While no definitive human remains were observed, the original site record indicates more than 25 burial features were reported to have been excavated in the 1940s. During survey for the HDC project in 2012, all features and loci recorded were relocated in the accessible portions of the site. A new locus of artifacts was located on a slope above a wash. Artifacts observed included quartzite cobble, flaked stone, flakes, fire-affected rocks, and mammal bone. The condition of the site is good. A graded dirt road and power line running through the site are the only disturbances observed in the surveyed portion of the site. Caltrans has determined that CA-SBR-182 is individually eligible for listing in the NRHP under Criterion D, and as part of an archaeological district. This site retains integrity and has yielded, and is likely to yield, additional information important to our knowledge and understanding of the prehistory of this region.

P-36-000066 (CA-SBR-66)

This prehistoric resource consists of a small scattering of flaked stone material located immediately above the Mojave River floodplain along the edge of a gently sloping ridgeline. Originally recorded in 1949, artifacts noted included mano fragments, rubbing stones, side scrapers, blade rejects, metate fragments, abalone bead, and hammerstones. The resource record was updated in 1982 with the site identified as having a light density of chipped stone debitage, fire-altered rock, and groundstone. The resource was updated again in 2006 with a Phase II testing of the resource in support of the Southern California Logistics Airport Rail Service Project. The site was described as a very sparse scatter of lithic debitage, containing two loci. Artifacts noted during this update included debitage, a fire-altered ground stone fragment, and fire-altered rock. It was believed CA-SBR-66 represents an ephemerally used satellite activity area associated with the large, prehistoric residential base/village (i.e., CA-SBR-182) located approximately 0.25 mile to the west. The resource was updated once again in 2012 as a result of survey for the HDC project and described as a small low density lithic scatter with fire affected rocks. The boundary of the site was revised based on survey of the portion of the site within the APE only. The condition of the site is good. Caltrans has determined that CA-SBR-66 is eligible for listing in the NRHP under Criterion D as a contributor to an archaeological district.

P-36-003033 (CA-SBR-3033/H)

This multicomponent linear resource, the Mojave Trail, Mojave Road and Government Road, is located along the National Old Trails Highway from Interstate 15 to the Mojave River. The prehistoric Mojave Trail which followed the river was used by several tribes for trade. It became a route for trappers and Mexican trade caravans in the 1830s and 40s. It was developed into a wagon road for immigrants, mail, wagon freighting, and military travel in the 1850s. In 1913 it was officially opened as part of the National Old Trails Highway. In the 1930s, it was paved and became U.S. Hwy 66.

The Mojave Trail, Mojave Road and Government road is one of the earliest trails in the region, it is associated with both the Mojave Trail (prehistoric) and the National Old Trails Highway (historic). It retains a functional integrity and a consistent role in local, state, and national history under the themes of settlement, trade, framing/ranching, and commerce. Caltrans has determined that CA-SBR-3033H is eligible for listing in the NRHP under Criterion A and SHPO has concurred.

P-36-000158 (CA-SBR-158)

This prehistoric resource, located within the Rockview Nature Park, Victorville, consists of two small petroglyphs located at the mouth of a small cave in low granitic hills along the Mojave River. Soils consist of Colluvial sand and granite bedrock. Vegetation consists of sagebrush and mesquite. This resource was originally recorded in 1964 and described as having design elements consisting of a bisected circle and two diamonds joined vertically. P-36-000158 was relocated and updated in 2014 with a finding that only the bisected circle design element remains. An in-field determination by two archaeologists was that weathering and spalling had destroyed the two diamonds design element, as evidenced not only on the rock art panel but also the granitic rocks in the area. A search of the ground around the site for evidence of the two diamonds proved negative. The surrounding rock faces were also inspected for additional petroglyphs, but none were located. The site integrity is good except for weathering and spalling of rock faces. Caltrans is assuming NRHP-eligibility under Criterion D. An eligibility concurrence by the SHPO is pending.

P-36-006312 (CA-SBR-6312)

This prehistoric resource consists of a temporary camp located on a high terrace on the north side of the Mojave River. The site was originally recorded in 1989 and described as consisting of nine fire-cracked rocks, one bifacial mano fragment, one possible metate fragment, and one disturbed hearth. The resource was updated in 1991 when a Phase II evaluation was conducted. This investigation relocated all of the 1989 surface artifacts. The excavations unearthed beads, cores, debitage, ground stone fragments, hammerstones, manos, metate fragments, and pestle fragments. Two of the test units and the approximate northern third of one of the backhoe trenches included portions of the current APE. The site was re-designated as a food processing station with an enlarged boundary. No artifacts were identified as a result of the survey in the portion of the site within the HDC APE. In the 2013 site record update, the site boundary was altered to exclude the portion of the site within the APE. P-36-006312 was updated in 2014 with the sole purpose of restoring the original boundaries as the area is anticipated to be subject to direct effects by the proposed project. With further investigations, it is possible portions of this site not previously tested may contain intact, NRHP-eligible deposits or features. Caltrans is assuming NRHP-eligibility under Criterion D. An eligibility concurrence by the SHPO is pending.

P-19-004361(CA-LAN-4361H)

This historic archaeological resource consists of the remnants of two building foundations. One foundation is composed of small cobble and concrete walls and a

concrete pad. A second foundation with a stone patio abuts the feature on the south side. A large pit is located immediately north. Only a hole-in-top can and a sun altered amethyst glass fragment is associated with the foundations, suggesting an early twentieth century deposition of artifacts. The site appears on aerial photographs dating to 1953, 1959, 1968 but does not appear on any topographic maps. The property was originally homesteaded by William E. Young in 1920. Caltrans is assuming NRHP-eligibility under Criterion D as an individual property. An eligibility concurrence by the SHPO is pending.

P-19-004367(CA-LAN-4367H)

This historic archaeological resource consists of a concrete building pad, and remnants of a wood structure/building and a barbed-wire fence. Also present throughout the site is a low-density refuse scatter. A concrete pad constructed of fine-grained aggregate is located in the northwest portion of the site. The milled wood remnants of a small structure/building are located in the southeast portion of the site, with nearby remnants of a barbed wire fence. The refuse scatter is dispersed throughout the site and consists of approximately 500 cans (church key-opened beverage, bi-metal beverage, paint, sanitary food [uncorrugated and corrugated], sardine), thousands of fragments of bottle glass (colorless, green, brown, milk, Ball jar and milled wood, rubber hoses, and shoes, among other refuse. The site is overall in poor condition due to modern ground disturbance including pothunting. Historical imagery depicts two buildings at the site, both constructed between 1959 and 1968. Caltrans is assuming NRHP-eligibility under Criterion D as an individual property. An eligibility concurrence by the SHPO is pending.

P-19-004362 (CA-LAN-4362H)

This historic archaeological resource consists of a historic homestead that includes six features: an earthen reservoir, two concrete foundations/pads, one well pad with well head a concrete well pump foundation, and a water tank, as well as two concrete hollow column irrigation pipes, and an associated refuse scatter. The artifacts associated with the site include concrete irrigation pipes, 3 ft in diameter, and a refuse scatter that consists of hole-in-top cans, glass fragments (green, brown and clear), miscellaneous metal fragments, and earthenware fragments, dating from the late 1950s to early 1960s. In 1919, Fielding P. Bowland and Fannie May Wells acquired 320 acres from the General Land Office and the site lies within that acreage. Caltrans is assuming NRHP-eligibility under Criterion D as an individual property. An eligibility concurrence by the SHPO is pending.

P-36-026769 (CA-SBR-16916H)

This historic archaeological resource consists of the remnants of a large homestead including eight foundations, two animal pens and multiple refuse scatters. The five refuse scatters of varying sizes, include approximately 500 cans, including sanitary, church-key opened beverage, oil, coffee, food, gasoline, and a few steel and aluminum beverage cans. Also present are terracotta pipe fragments, bottle glass fragments in green, colorless, brown, and sun-altered amethyst, ceramic fragments, porcelain fragments, ceramic pipe, porcelain bathroom fixtures, bricks, a bucket,

milled wood, and other artifacts. Together they suggest deposition between the 1920s and the early 1960s. The structures were labeled “Engelbrecht Place” on the 1942 USGS quadrangle map. A review of historic aerial photographs shows the structures there in 1953 and 1968. Caltrans is assuming NRHP-eligibility under Criterion D as an individual property. An eligibility concurrence by the SHPO is pending.

P-36-026772 (CA-SBR-16918H)

This historic archaeological resource consists of remnants of three foundations related to water irrigation. One foundation appears to be a concrete stand, a second foundation consists of the remains of a cistern, and a third foundation is the concrete and cobble remains of a pump mount. An associated refuse scatter includes fragments of glass, milled lumber, white earthenware, barb wire, cans, and miscellaneous metal. The scatter is sparse and suggests a 1900-1920s period of deposition. The site appears on topographic maps (1932 through 1956). A 1968 aerial photograph shows that the area was cleared and leveled, probably for agricultural purposes. Caltrans is assuming NRHP-eligibility under Criterion D as an individual property. An eligibility concurrence by the SHPO is pending.

P-36-026768 (CA-SBR-16915H)

This historic archaeological resource consists of the remnants of a foundation and an associated refuse scatter. Composed up of cobbles and concrete, one wall has been destroyed and fragments of the walls lay near the foundation. A large depression is located in the middle of what would have been the floor of the foundation. The refuse scatter includes crushed and shot up steel cans including hole-in-top and hole-in cap beverage cans. One piece of amethyst glass was found. Scattered around the area were pieces of milled lumber and white earthenware fragments. A review of historic aerial photographs indicates the house was gone by 1968. Caltrans is assuming NRHP-eligibility under Criterion D as an individual property. An eligibility concurrence by the SHPO is pending.

P-36-010392 (CA-SBR-10392/H)

This multi-component site consists of a prehistoric lithic scatter and a historic domestic refuse deposit located on a recently deposited low relief alluvial plain. Originally recorded in 2001, the site consists of a prehistoric lithic scatter including debitage flakes, a core fragment, a small stone anvil, as well as historic-era slag glass, ceramics, and metal cans. The site was tested (shovel test pits) in 2001 and lithic material collected. The results of the subsurface testing are not described in the site record. The site record update of 2011 reports one flake and a historic debris scatter near an adjacent access road, encompassing cans. No other material, historic or prehistoric was noted in the access road. Site conditions are fair. Caltrans is assuming NRHP-eligibility under Criterion D as an individual property. An eligibility concurrence by the SHPO is pending.

P-19-004187 (CA-LAN-4187H)

This historic resource has been heavily disturbed and no foundations remain. Four juniper trees stand on the site as well as a well-type feature; remnants of a fence line,

which includes T-bars and wood posts with chicken and barb wire; numerous irrigation pipes; fragments of wood, brick, and concrete; cobble piles; and a few pieces of cut mammal bone. There is a dispersed refuse deposit in the vicinity with opened all-steel beverage cans (church-key opened) and pull-top aluminum top varieties. Coffee and aerosol cans; fragments of glass jadeite ware; bottle and window glass; porcelain; and a ceramic insulator. Also noted were a hammer handle and a radio/television tube capacitor. The residential structure area appears to have been demolished and bulldozed at some point. This site may be evidence of what is called, a “jackrabbit” homestead that was established after the 1938 Small Tract Act (STA). The STA was designed to dispose of “useless” federal lands from the public domain. The STA authorized the lease of up to five acres of public land for recreational purpose or use as a home, cabin, camp, health, or business site. If the applicant made the necessary improvements to their claim by constructing a small dwelling within three years of the lease, the applicant could file for a patent after purchasing the parcel for the appraised price. Jackrabbit homesteading occurred sporadically in the 1940s but was more popular at the end of World War II when building materials became readily available and gas and tire rationing had ended. The site is subject to phased identification and evaluation. SHPO concurrence is pending.

P-19-004189 (CA-LAN-4189/H)

This historic resource consists of remnants of what appears to be a bulldozed concrete foundation, cobble piles, irrigation pipe remnants, a sewer pipe, and cut cottonwood trees. The size of the ornamental tree trunks suggests that the site is probably fairly old or was maintained for a long time. There is a fallen picket fence line along the east side of 51st Street. This site may be evidence of what is called, a “jackrabbit” homestead that was established after the 1938 Small Tract Act (STA). General Land Office records indicate that the quarter section encompassing this site was granted to an individual, William G. Mcauslan, as a timber patent, on December 17, 1898. The site location was owned by an individual, M. Penn Phillips, when it was acquired by the City of Los Angeles in 1970. No other ownership information had been found. The site is subject to phased identification and evaluation. SHPO concurrence is pending.

P-19-004359 (CA-LAN-4359)

This prehistoric resource is a small lithic scatter located in open desert floor. The soils consist of sediments of light-brown sand, vegetation within the site environment consists of a Creosote scrub community. The site was newly identified during survey within the APE for this project in 2012, described as measuring 25 by 25 meters, and consisting of a lithic scatter containing approximately thirty-three (33) cryptocrystalline silicate (CCS) secondary flakes and one biface. The site is subject to phased identification and evaluation. SHPO concurrence is pending.

P-19-004364 (CA-LAN-4364/H)

This historic resource is an historic-period habitation complex with four (4) concrete building/structure pads, a concrete sidewalk, and an associated low-density refuse scatter. A low-density refuse scatter is present throughout the site. The scatter includes a metal barrel top, small fragments of bottle glass (brown, green, clear),

milled wood fragments, wire nails, and burned books. A pile of large concrete fragments is present at the northeast corner of the site. A high degree of ground disturbance is evident throughout the site. The site is in overall very poor condition and historical imagery and topographic maps show that at least one building had been constructed before 1953 and all buildings were demolished sometime between 1975 and 1981. The site is subject to phased identification and evaluation. SHPO concurrence is pending.

P-19-004365 (CA-LAN-4365H)

This historic resource is a homestead/habitation consisting of a low-density refuse scatter, a well, and an irrigation feature. The refuse scatter is dispersed throughout the site and consists of: a large number of late-1950s and 1960s bottle glass fragments (green, brown, clear); a large number of cans (sanitary food, paint, kerosene/gasoline); domestic ceramic fragments; milled wood fragments; and miscellaneous fragments of sheet metal. Located within the refuse scatter are a well and an irrigation feature. The well is situated at the center of the site's north boundary and consists of a 3-inch metal pipe extending vertically from the ground for approximately 24 inches. The irrigation feature is a semi-entered concrete pipe whose exposed portion is oriented north-south, running from the center of site's south boundary of the refuse scatter north towards apparent agricultural fields. Large portions of the site have been graded/bulldozed. The site is subject to phased identification and evaluation. SHPO concurrence is pending.

P-36-006317 (CA-SBR-6317/H)

This historic resource is a quarry site. The filing for the Mineral Entry Patent for Section 33 was originally issued in 1933 and reapplied for in 1958. The site indicates that large blocks of quartz monzonite bedrock were cut and hewn here. One bedrock outcrop shows quarried faces both above and below ground level. Several partially hewn blocks are present, along with piles of reduction debris and old timbers. The artifacts present include glass and wire fragments, cans (meat can, church key opened beverage can), sheet metal, and two buckets, dating from the 1930s to the 1950s. The site is subject to phased identification and evaluation. SHPO concurrence is pending.

P-36-010960 (CA-SBR-109601/H)

This historic resource is a possible historic homestead site. The site consists of remnants of a concrete and cobblestone building. Segments of three walls are present that envelope a concrete floor measuring. A window was present in the wall on the southern side of the building, two doors were present on the western side, and another door on the east. A single piece of sun colored amethyst glass was found in the northeast corner of the building along with modern metal cans. Modern refuse was also found along the southern border of the site. No other associated artifacts were present, possibly due to the fact that grading activities for flood control occurred in the area between 2006 and 2012. The site is subject to phased identification and evaluation. SHPO concurrence is pending.

P-36-021470 (CA-SBR-13782/H)

This multicomponent resource is a multicomponent prehistoric lithic scatter and historic domestic refuse deposit of 121 by 43 meters. Originally recorded in 2010 by CRM Tech, the prehistoric component observed consisted of two scrapers, two cores, one possible tool and 15 flakes. The record states the lithic materials are not a sub-component to the site that they are in fact associated with the historical component due to one chert flake showing evidence of being cut with a saw. This historic component is a large historic trash dump of approximately 500 cans along with glass and building materials. The cans consist of condensed milk cans, beverage cans, cone shaped beer cans, sanitary cans, sardine cans and coffee cans. Two Coke bottles were observed with the marked date of 1949. The dump appeared to have been pot-hunted because of pits observed within the trash scatter. The site is subject to phased identification and evaluation. SHPO concurrence is pending.

P-36-026764 (CA-SBR-16911)

This prehistoric resource is a small scattering of flaked stone material located on a flat land surface. The soils consist of sediments composed of sand. Vegetation within the site environment consists of a creosote scrub community. The site was newly identified in 2011 during survey within the APE for the current project and described as a lithic scatter within a 40 by 25 meter area. Artifacts noted during the initial recording include 30 chert flakes. The site is subject to phased identification and evaluation. SHPO concurrence is pending.

P-36-026773

This historic resource consists of a quarry with one bedrock outcrop that shows a quarried face and several partially hewn blocks. The outcrop and hewn blocks contain drill holes. The only associated artifact consists of a metal bucket. The age of the site is unknown; however the quarrying of granite blocks and limestone became a major industry in Victorville in the 1890s and 1900s and into the present. There are also two similar sites in the area, P-36-006317 and CA-SBR-12133H. The site is subject to phased identification and evaluation. SHPO concurrence is pending.

P-36-026832 (CA-SBR-16915H)

This historic resource consists of building remnants and an associated low-density refuse scatter. The building remnants are comprised of a milled wood (plank) floor, oriented north-south/east-west. The floor is in very poor condition, is partially entred, and surrounded by associated wood planks. No foundation was visible, though several large cobbles located in the vicinity of the floor may be displaced remnants of a foundation. The associated refuse scatter surrounds the wood floor remnants, and consists of two (2) hole-in-cap cans, one (1) large fragment of decorated terra cotta, a “Phoenix” metal button cover, 10 fragments of sun-affected amethyst bottle glass, and approximately 20 fragments of colorless bottle glass. Historical imagery and topographic maps dating as early as 1937 do not depict any buildings at the location of the site. As such, the site may or may not represent the location of a former homestead. The site is subject to phased identification and evaluation. SHPO concurrence is pending.

Historic and Architectural Built Environment Resources for All Build Alternatives

The Secretary of the Interior sets standards for evaluating historic resources for their potential eligibility to the NRHP. For this study, historic resources fewer than 50 years of age were evaluated to take into consideration their potential significance at the time construction begins, which may be several years beyond when the architectural history survey was conducted.

A survey of the area was conducted in the field to evaluate all buildings, structures, and objects found within the APE. The built environment fieldwork was conducted on September 6 and 8, 2011, October 17 and 23, November 20, and December 5, 2013. Additional surveys were completed in July and August 2014. In addition, building and alteration permits for each parcel within the APE were collected in December 2013 and used to prepare State of California DPR 523 forms, which were incorporated into the HRER.

The overarching themes that influenced the development and growth of the Antelope Valley and Victor Valley through which the HDC traverses are discussed in detail in the HRER, as is a brief history profile of the several smaller cities and towns located within the two valleys: Lancaster and Palmdale within the Antelope Valley, and Victorville, Apple Valley, and Adelanto within the Victor Valley. Some themes, such as that related to the emergence of aerospace and aviation industries, though reflecting major local and regional historical events that significantly influenced development of the area, do not, however, have a direct association with the extant property types identified in the APE and formally evaluated as part of the HRER. Mining, agriculture, and the presence of military base establishments all contributed to the growth of the desert areas.

The built environment within the APE reflects the historical evolution of the desert area of northern Los Angeles and San Bernardino counties. Postwar tract-style houses are the predominant building type identified within the project alternative study areas. A great percentage of the houses reflect one of three common and homogeneous architectural styles: Minimal Traditional, Ranch, and Contemporary. Commercial buildings are also a dominant building type within the APE. Several linear resources, including former roads and trails, transmission lines, and railroads are also located within the project area.

A total of 30 formal evaluations of built environment properties, including buildings, groups of buildings, structures, and other parcels with historic era cultural resources, were completed and are included as part of the HRER. Of the 30 properties located in the APE, none appear eligible for the NRHP and are not considered historical resources for the purposes of CEQA. Additionally, there are 5 linear properties that were previously determined eligible for the NRHP located in the APE. The remaining historic-era resources within the APE were found to have met the criteria of Attachment 4 of the Section 106 PA (Properties Exempt from Evaluation), which do not require preparation of DPR 523 forms. Five previously identified NRHP-eligible

built environment linear historic era properties within the Project's APE, all located in San Bernardino County, are described in the following subsections.

National Old Trails Highway (CA-SBR-2910H: P-36-002910)

The National Old Trails Highway was determined eligible for listing in the NRHP in 1990 under Criteria A and C. The segment of the National Old Trails Highway within the APE is a portion of former U.S. Highway 66. The period of significance for U.S. Highway 66 in California is 1926-1974, beginning when the route was first designated as a U.S. Highway and extending to the time when the last portion of the route was bypassed by the interstate highway system in California. U.S. Highway 66 was originally cobbled together from a network of roads built in the early 1900s that ran from Chicago across the country to Santa Monica. When first designated, the highway consisted of graded dirt and gravel roads. The road was completely paved by 1938. In 1985, U.S. Route 66 was removed from the federal highway system, becoming SR 66. The specific segment of the National Old Trails Highway/Route 66 located in the APE (Figure 3.1.8-1) is not listed in the NRHP. The road is significant as a representative example of important state and local trends in 20th century transportation development and highway design and construction. U.S. Highway 66 had its origins in one of the earliest cross-country automobile routes (the National Old Trails Road) before being designated as one of 13 U.S. highways in California. Portions of the route continue to convey a strong sense of time and place harking to an earlier era of highway travel, prior to construction of the mid-20th century Interstate Highway System, and provide a vivid reminder of the challenges faced by motorists in crossing expanses of desert and high mountain passes on their way to Los Angeles.

The length of the segment of the linear resource that runs north/south within the APE measures approximately 965 feet, or one-sixth of a mile. The highway with paved and unpaved shoulders is a segment of the National Old Trails Highway. It is a contiguous segment of a longer, two- to four-lane, paved highway that stretches between the community of Oro Grande and Mojave River to the north and Turner Road, Air Expressway, and I-15 toward the south. At the point where the National Old Trails Highway intersects with the north boundary of the APE, the National Old Trails Highway is two lanes wide and measures approximately 36 feet wide with narrow shoulders on both sides. Approximately 150 feet from the point where the APE intersects with the National Old Trails Highway, the road widens to four lanes to a width of approximately 76 feet, and this width continues for the length of the road segment within the APE.

Figure 3.1.8-1 National Old Trails Highway/Route 66



View looking north at segment of National Old Trails Highway/Route 66 in the APE. Rockfield Nature Park is to the right (east side of the road).

A segment of the National Old Trails Highway located immediately south of the APE was recently widened and repaved to construct an undercrossing for the repurposed rail spur line from the ATSF line to the former George Air Force Base (GAFB). The new rail spur will service a new intermodal/multimodal facility planned by the City of Victorville. The section of the National Old Trails Highway that is in the current APE was substantially altered by this previous road widening project, which involved building new curbs and curb cuts leading to a bridge overcrossing. Approximately 85 percent of the segment of National Old Trails Highway within the APE was altered by widening the original two-lane roadway to a four-lane highway.

Atchison, Topeka and Santa Fe Railroad (CA-SBR-6793H; P-36-006793)

The ATSF rail line was determined eligible for listing in the NRHP in 1998 under Criterion A. The period of significance for the ATSF is considered to be from 1883 to 1910. The segment of the ATSF in the APE is a portion of the original Needles-Barstow-San Bernardino line constructed from 1883 to 1886. The ATSF was chartered in 1859 and became one of the largest railroad systems in the United States. The ATSF entered California at Needles in 1883 and quickly became a competitor to the Southern Pacific Railroad, which had up to that time provided the only freight and passenger service connections to the Midwest and East Coast. The ATSF had most of its trackage in the American southwest. The ATSF is also significant for its contribution to the citrus industry in southern California. In the early 1880s, the ATSF constructed new routes into those areas, especially Orange County, where the

Southern Pacific Railroad did not provide rail service. The ATSF provided refrigerated freight cars to transport the perishable citrus fruit to East Coast markets. The ATSF also brought countless new residents into southern California and, with its low passenger ticket prices, helped spur what has been long called the Great Boom of the Eighties.

The specific segment of the ATSF located in the APE (Figure 3.1.8-2) has not been formally evaluated and does not appear to be a contributing element of the historic property due to a loss of integrity through alterations that have occurred to the original rail line over the years. Beyond the replacement of the original iron rails, wood ties, and ballast due to continual maintenance of the line, it appears the rail bed itself has been relocated from its first location along the Mojave River following major rain/flood events in the area, especially 1938, and a parallel rail line as a double track also installed. While the overall linear resource of the ATSF in California has been determined eligible for listing in the NRHP, the specific segment of the railroad within the APE does not appear to be eligible due to changes in the property and its setting that have occurred over time from its original construction in 1883-1886.

Figure 3.1.8-2 Atchison, Topeka and Santa Fe Railroad



*The two sets of ATSF/BNSF tracks are situated
along the east bank of the Mojave River.
View looking east from National Old Trails Highway/Route 66.*

Within the APE, the ATSF runs along the east side of the Mojave River. The length of the segment of the ATSF rail lines that run north/south within the APE measure approximately 440 feet, and the width of the ATSF ROW measures approximately 50 feet. Two sets of steel rail with wood cross ties are situated parallel to one another

on a raised ballast bed of red stone, believed to be fairly contemporary and certainly well outside of the period of significance (1883-1910). It is a contiguous segment of the rail line that runs from Barstow through the Cajon Pass to San Bernardino.

Boulder Dam Transmission Lines 1, 2, and 3, and Towers (CA-SBR-7694H; P-36-007694)

The Boulder Dam Transmission Lines 1, 2, and 3, and Towers (BDTL) (Figure 3.1.8-3) were constructed from 1933 to 1936. The BDTL was determined eligible for listing in the NRHP in 1994 under Criteria A and C. The period of significance for the BDTL has been determined to be from 1936 to 1953. The property is significant under Criterion C as a prime example of a point-to-point long-distance high-voltage transmission system and represents a significant engineering achievement in California. In addition, the BDTL is significant under Criterion A because of its association with construction of Boulder (Hoover) Dam and its role in the development of metropolitan Los Angeles.

Figure 3.1.8-3 Boulder Dam Transmission Lines 1, 2, and 3, and Towers



*View looking east across building
on National Old Trails Highway/Route 66.*

The BDTL, a linear historic resource, is comprised of two sets of steel lattice towers that run between Hoover Dam and the city of Los Angeles. The BDTLs were constructed from 1933 to 1936 to augment the electric power being sent to southern California from Boulder (Hoover) Dam. The lines leaving from Hoover Dam are mounted on parallel rows of steel transmission towers. The towers are comprised of

four “legs” supporting a Y-frame tower. The towers on the BDTL are 109 feet in height and spaced approximately 400 feet apart with three conductors and two overhead ground wires attached to the frames. The transmission lines run from Hoover Dam to the switching station at Victorville. From Victorville, the BDTLs were run to Upland, where the power was then stepped down and run into Watts, Los Angeles. The segment of the BDTL that crosses the APE is comprised of the power lines from Nevada to the Victorville switching station supported by single-circuit bridge-type steel lattice towers, located outside of the APE. Only the overhead transmission lines of the BDTL are located within the boundaries of the APE for the proposed undertaking. The segment of the linear resource in the APE has not lost its original qualities of craftsmanship and retains a high level of integrity.

Edison Company Boulder Dam–San Bernardino 115-kV Transmission Line
(CA-SBR-10315H; P-36-010315)

The Edison Company Boulder Dam–San Bernardino 115-kV Transmission Line (BDSBL), also known today as the Eldorado-Baker-Coolwater-Dunn Siding-Mountain Pass 115-kV Transmission Line and the Southern California Edison (SCE) San Bernardino Transmission Line, was determined eligible for listing in the NRHP in 1993 under Criterion A due to its association with construction of Hoover Dam and the development of energy in the West. The property is also potentially eligible under Criterion C for its engineering achievements. The period of significance for this historic property is 1930 to 1937.

The historic property, a linear resource, consists of an electrical transmission line with associated towers. Seven towers of the BDSBL are located in the APE corridor, interspersed with four towers located immediately adjacent (but outside) the APE boundary east of the Mojave River and north of I-15. Constructed in 1930-1931 by the Southern Sierras Power Company, the original line carried electrical power from San Bernardino to Boulder City and the Boulder Dam project site for powering the activities associated with construction of the dam. With dam construction complete in 1937, the power was reversed, and the line transmitted power to San Bernardino and the city of Los Angeles.

The transmission towers (Figure 3.1.8-4) are constructed of steel-lattice “legs” that were fabricated at a central construction site so that they could be quickly assembled in the field. Between the span legs are 34-foot steel angle cross arms. The continuous series of towers spanned 193 miles between San Bernardino to the Boulder Dam site, set at the interval of seven towers in a mile over the hostile desert and mountainous terrain. Research conducted as part of the current HDC cultural resources survey effort revealed that the original set of towers and lines associated with the BDSBL have been removed from outside Hoover Dam to the Nevada border. Construction of the Ivanpah Solar Electric Generating System Project required the removal/demolition of the towers situated in the approximately 28-mile corridor between the Eldorado Valley, south of Boulder City, Nevada, and the Ivanpah Valley in California in 2010.

**Figure 3.1.8-4 Edison Company Boulder Dam-San Bernardino
115-kV Transmission Line**



*View looking west from County Refuse Disposal Site Road
(off of Stoddard Wells Road).*

*SCE Kramer-Victorville Power Lines and Towers (CA-SBR-10316H;
P-36-010316)*

The SCE Kramer-Victorville Power Lines and Towers (Tower Line) linear historic property was determined eligible for listing in the NRHP in 1995 under NRHP Criteria A and C. The period of significance for the Tower Line is from 1913 to 1919. Originally constructed by the Southern Sierras Power Company in 1911-1913, the transmission line was acquired by SCE in 1964. The line measured 238 miles from Bishop to San Bernardino, with substations at Lone Pine, Inyokern, Randsberg, and Victorville. The line was the longest in the world when completed in 1913. The service road for the Tower Line was purchased by San Bernardino County in 1919, which later became US 395. The Tower Line is believed to have been determined eligible as part of a Section 106 regulatory action when SCE initiated a plan in the mid-1990s to rebuild the line and replace all of the existing towers. The original towers were replaced using the same footprint between 1995 and 2008. The segment of the Tower Line that crosses the APE has been modernized and updated with the installation of a double-circuit tubular steel pole to replace the original lattice steel towers (Figure 3.1.8-5). The segment of the historic linear property segment in the APE has lost its original qualities of craftsmanship, and its historic integrity has been compromised to a great extent.

**Figure 3.1.8-5 Southern California Edison Kramer-Victorville
Power Lines and Towers**



*View looking south from intersection
of Air Expressway Boulevard and US 395.*

Environmental Consequences

No Build Alternative

Cultural Resources

The No Build Alternative would not impact any cultural resources.

Archaeological Resources

The No Build Alternative would not impact any archaeological resources.

Historic and Architectural Built Environment Resources

The No Build Alternative would have no effect on historic or historic/architectural resources because no construction would occur. The No Build Alternative would not use a Section 4(f) historic property.

Build Alternatives

Cultural Resources

All of the HDC build alternatives will result in a finding of Adverse Effect in accordance with the Section 106 PA Stipulation X.C.2 and 36 CFR 800.5(d)(2). An undertaking is considered to have an adverse effect when *any* aspect of an undertaking meets one or more of the Criteria of Adverse Effect. An undertaking may have no effect on some properties, but an adverse effect on others. In this situation, the finding for the undertaking would be “Adverse Effect.” For the undertaking as a whole, there is one finding of effect.

Project effects to historic properties/historical resources are determined to assess if the proposed undertaking would adversely affect the qualities that make each eligible for the NRHP/CRHR. A historic property could either be not affected, not adversely affected, or adversely affected, depending on the resource type and the nature of project impacts to that resource. Not affecting a historic property means the project is avoiding the resource completely. Not adversely affecting means the project might be impacting the resource in some way, but that the impact is not so severe as to diminish the qualities that make the resource significant and no longer eligible for the NRHP. Adversely affecting a resource means the project is severely impacting all or some of the characteristics that make that resource significant, usually as a consequence of destruction, demolition, or relocation.

Historic properties convey their significance through their integrity. The aspects of integrity are location, design, setting, materials, workmanship, feeling, and association. Simply being visible from the historic property may not cause an adverse effect. It is necessary to evaluate the anticipated changes that the new project will introduce, physically and visually, to the historic property and its surrounding setting, features and, where applicable, open space.

Caltrans preliminary findings are that there are nine historic properties within the project APE that have either been previously determined eligible for listing in the NHRP, or now by Caltrans as part of the identification and evaluation efforts conducted on behalf of the HDC Project. As a result, an analysis of their potential to experience adverse effects due to the proposed undertaking is required. These nine properties include segments of six linear historic properties, five of which were previously determined eligible for listing in the NRHP, and three prehistoric archaeological sites that comprise a district.

Caltrans has determined that the HDC project will have an Adverse Effect on known historic properties pursuant to Section 106 PA Stipulation X.C and is consulting SHPO regarding the resolution of adverse effects, pursuant to Section 106 PA Stipulation XI and 36 CFR §800.6(a) and §800.6(b)(1). The effects of the Project on the nine known properties are summarized below in Table 3.1.8.1, with the analysis supporting those determinations following. In accordance with the Section 106 PA Stipulation XII.A Caltrans will phase the application of the Criteria of Adverse Effect for all cultural resources as the project alternatives are refined.

Table 3.1.8.1 Historic Properties within HDC/HSR APE and Effect Determination

Name or Identifier	Type	NRHP Status	Effect
National Old Trails Highway	Linear Property	Determined eligible for NRHP under Criteria A and C in 1990.	No Adverse Effect
Atchison, Topeka and Santa Fe Railroad	Linear Property	Determined eligible for NRHP under Criterion A in 1998	No Adverse Effect
Boulder Dam Transmission Line	Linear Property	Determined eligible for NRHP in 1994 under Criteria A and C in 1994	No Adverse Effect
Edison Company Boulder Dam–San Bernardino Transmission Line	Linear Property	Determined eligible for NRHP in 1993 under Criterion A in 1993	No Adverse Effect with Standard Conditions, with SOI Standards
SCE Kramer-Victorville Transmission Line and Towers	Linear Property	Determined eligible for NRHP under Criteria A and C in 1995	No Adverse Effect
Mojave Trail, Mojave Road and Government Road	Linear Property (Multicomponent)	Determined eligible for NRHP under Criteria A in 2014 by Caltrans	No Adverse Effect
P-36-012609 (CA-SBR-12336) Topipabait Archaeological District	Archaeological Site (Prehistoric)	Determined individually eligible for NHRP under Criteria D and as part of a district in 2014 by Caltrans	Adverse Effect
P-36-000182 (CA-SBR-182) Topipabait Archaeological District	Archaeological Site (Prehistoric)	Determined individually eligible for NHRP under Criteria D and as part of a district in 2014 by Caltrans	No Adverse Effect with Standard Conditions (ESA)
P-36-000066 (CA-SBR-66) Topipabait Archaeological District	Archaeological Site (Prehistoric)	Determined eligible for NHRP under Criteria D as a contributor in 2014 by Caltrans	No Adverse Effect with Standard Conditions (ESA)

Properties with Adverse Effect Determination under All Build Alternatives

An Adverse Effect finding as a result of the project alternatives is found for one historic property in the APE:

- CA-SBR-12336 (Prehistoric archaeological site)

Properties with No Adverse Effect Determinations with Standard Conditions – ESA Establishment

A finding of No Adverse Effect with Standard Conditions, with the establishment and enforcement of an Environmentally Sensitive Area (ESA), as a result of the Project is found for two prehistoric archaeological sites within the APE:

- CA-SBR-66 (Prehistoric archaeological site)
- CA-SBR-182 (Prehistoric archaeological site)

Properties with No Adverse Effect Determinations with Standard Conditions – SOI Standards

A finding of No Adverse Effect with Standard Conditions, with application of the Secretary of the Interior's (SOI) Standards for the Treatment of Historic Properties as a result of the Project is found for one linear historic property within the APE:

- Edison Company Boulder Dam–San Bernardino Transmission Line (BDSBL)

Properties with No Adverse Effect Determinations

A finding of No Adverse Effect is found for the segments of five linear historic properties within the APE:

- ATSF Railroad
- Boulder Dam Transmission Line (BDTL)
- National Old Trails Highway
- SCE Kramer-Victorville Power Lines and Towers
- Mojave Trail-Mojave Road - Old Government Road.

Properties with Potential Adverse Effect Determinations under All Build Alternatives

Caltrans preliminary findings assumed NRHP-eligibility for the following properties in accordance with Section 106 PA VIII.C. 4. In accordance with Section 106 PA Stipulation XII.A, Caltrans will phase the application of Criteria of Adverse Effect for these resources as the project alternatives are refined:

- CA-SBR-158 (Prehistoric archaeological site)
- CA-SBR-6312 (Prehistoric archaeological site)
- CA-LAN-4361H (Historic archaeological site)
- CA-LAN-4367H (Historic archaeological site)
- CA-LAN-4362H (Historic archaeological site)

- CA-SBR-16916H (Historic archaeological site)
- CA-SBR-16918H (Historic archaeological site)
- CA-SBR-16915H (Historic archaeological site)
- CA-SBR-10392/H (Prehistoric/historic archaeological site)
- CA-LAN-4187H (Historic archaeological site)
- CA-LAN-4189H (Historic archaeological site)
- CA-LAN-4359 (Prehistoric archaeological site)
- CA-LAN-4364H (Historic archaeological site)
- CA-LAN-4365H (Historic archaeological site)
- CA-SBR-6317H (Historic archaeological site)
- CA-SBR-0109601H (Historic archaeological site)
- CA-SBR-13782H (Historic archaeological site)
- CA-SBR-16911 (Prehistoric archaeological site)
- P-36-026773 (Historic archaeological site)
- CA-SBR-16915H (Historic archaeological site)

Caltrans initiated consultation with the SHPO on these effect determinations in October 2014. Concurrence is pending. The Section 106 process is ongoing, and further consultation with the SHPO will be concluded prior to completion of the Final EIR/EIS. A Memorandum of Agreement (MOA), which will include measures to mitigate the adverse effects to any historic properties, is in preparation that would complete the Section 106 process and be signed prior to the Final EIR/EIS. The MOA would define the roles and responsibilities of the agencies involved in the undertaking, and provide opportunities for concurring parties to be signatories to the document. The MOA would outline how adverse effects and potential adverse effects to historic properties would be addressed prior to completion of project construction.

Section 4(f) of the Department of Transportation Act of 1966, states that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.” A brief discussion of Section 4(f) as it relates to the historic properties under the build alternatives is included below. See Appendix B for an evaluation of Section 4(f) properties.

Archaeological Resources

Caltrans finds there are four archaeological properties within the APE that are eligible for the NRHP. The three eligible prehistoric sites are: P-36-012609 (CA-SBR-12336); P-36-000182 (CA-SBR-182); and P-36-000066 (CA-SBR-66). P-36-003033 (CA-SBR-3033/H is a multicomponent prehistoric and historic archaeological site. None of these historic properties are considered to be Section 4(f) properties because

they are important chiefly for what can be learned by data recovery and have minimal value for preservation in place.

None of the four NHRP eligible archaeological sites are considered Section 4(f) resources because they have been deemed eligible only for their potential to yield information important in prehistory or history. It also assumes that through retrieval of the information from the affected site areas, i.e., data recovery, and then analyzing, documenting, and curating the archaeological materials, impacts to the resource would be mitigated. It also assumes that nothing would be found in the affected site areas that would require preservation in place.

Caltrans has determined that the Project would have an **Adverse Effect** on one of these NRHP-eligible archaeological sites because it would be physically destroyed by the proposed construction of an HDC/HSR multimodal transportation corridor within the APE. Additionally, there is potential for an adverse effect to twenty NRHP-eligible archaeological sites. In accordance with Section 106 PA Stipulation X.B.1.a, the Section 106 finding for two archaeological sites would be No Adverse Effect, with the use of a standard condition that enables Caltrans to set up an ESA (Environmentally Sensitive Area) to protect the sites from direct or indirect project-related impacts. Since the sites were determined early on to be avoidable from all construction-related impacts, they were not tested to determine their formal NRHP/CRHR eligibility. Caltrans could make a determination of eligibility without testing in accordance with Section 106 PA Stipulation VIII.C.3. Concurrence by SHPO is pending.

Prehistoric Archaeological Site P-36-012609 (CA-SBR-12336)

The presence of intact buried cultural deposits and the lack of substantial disturbance by natural or human processes indicate this habitation site on the desert landscape has not been significantly altered since the cultural material was originally deposited during the prehistoric period. The alteration to this NRHP eligible archaeological site by the proposed project activities would constitute an adverse effect to this archaeological site.

The HDC/HSR multimodal transportation corridor build alternatives would affect the physical environment and the topographic features, including the locus of occupation along the ridgeline within the APE, and lead to a potential physical loss of approximately 40 percent of the horizontal and vertical distribution of the site components (7.8 of 19.5 acres).

Caltrans has determined that the undertaking would have an **Adverse Effect** on the NRHP-eligible prehistoric archaeological site. Concurrence by SHPO is pending.

P-36-000182 (CA-SBR-182)

The Finding of Adverse Effect Report, pending concurrence by SHPO, determined that a finding of **No Adverse Effect with Standard Conditions-ESA** is applicable for anticipated effects to prehistoric resource P-36-000182 (CA-SBR-182).

P-36-000066 (CA-SBR-66)

The Finding of Adverse Effect Report, pending concurrence by SHPO, determined that a finding of **No Adverse Effect with Standard Conditions-ESA** is applicable for anticipated effects to prehistoric resource P-36-000066 (CA-SBR-66).

Historic and Architectural Built Environment Resources

All of the HDC build alternatives have the following 6 historic properties (linear resources) within their immediate or adjacent footprint, and the impacts would be similar for all, except as noted.

Edison Company Boulder Dam-San Bernardino 115-kV Transmission Line (BDSBL) (CA-SBR-10315H; P-36-010315)

The APE traverses the BDSBL after the proposed new highway and rail alignments separate near I-15. The width of the APE beneath the historic transmission lines varies, depending on the specific alternative alignment. Along the HDC alignment, the width of the APE is 805 feet. The width of the APE along the HSR alignments varies between 420 and 1,830 feet. Seven transmission line towers are located within the APE. One tower that would need to be removed is located within the HDC alignment, and six towers that would need to be removed are located within the HSR alignment. Four other transmission towers are located nearby but outside the HDC APE and would not be directly affected by any of the alternatives being proposed.

The Finding of Adverse Effect Report, pending concurrence by SHPO, determined that a finding of No Adverse Effect with Standard Conditions-Secretary of the Interior's Standards for the Treatment of Historic Properties (SOIS) is applicable for anticipated effects to the BDSBL historic property.

National Old Trails Highway (CA-SBR-2910H; P-36-002910)

The APE traverses the National Old Trails Highway in an east-west orientation. The width of the APE crossing the historic route is approximately 965 feet. A grade separation is planned with the HDC/HSR crossing under the historic roadway. The linear alignment or elevation of the existing historic roadway would not be modified, although the roadway in essence would become a bridge. The bridge abutments supporting the roadway are anticipated to be concrete. On- and off-ramps from the new freeway/expressway are planned for northbound and southbound access to the historic roadway. The length of the excavation for the trench under the roadway may reach up to 1,000 feet. It is anticipated the ultimate central multimodal six-lane alignment would have an estimated undercrossing dimension of 500 feet in length and a width of 295 feet.

The Finding of Adverse Effect Report, pending concurrence by SHPO, determined that as a result of the previous loss of integrity experienced by the segment of the historic National Old Trails Highway within the APE, due to being substantially altered over the years with various road improvement projects (discussed earlier under Affected Environment), combined together with the conversion of a section of the roadbed into a bridge deck over a new railroad corridor immediately south of the APE, that a finding of **No Adverse Effect** should be made for project effects under any of the HDC Project build alternatives.

Atchison, Topeka and Santa Fe (ATSF) Railroad (CA-SBR-6793H; P-36-006793)

The APE traverses the ATSF rail line, a linear historic-era property, in an east-west orientation. The width of the HDC APE crossing the railroad is approximately 350 to 440 feet. Plans are to construct a viaduct/bridge overhead (OH) as part of the HDC Project over the railroad tracks. The linear configuration of the rail line would not be modified and would not cause physical alterations to the railroad tracks within the APE. The OH structure would likely be constructed of concrete and would incorporate a context sensitive earthen color palette scheme to better harmonize with desert hues. The dimensions of the new OH structure are anticipated to be approximately 500 feet long and 305 feet wide to accommodate the central multimodal six-lane alignment. Vertical clearance from the tracks and bridge soffit would be approximately 28 feet.

The segment of the ATSF linear feature within the APE has lost its original rural setting and the earliest physical components that would have otherwise contributed to the segment's ability to convey its historic significance as a railroad in its period of significance, the 1883 to 1910 time period. While the overall design and function of the historic property still remain with steel rails attached to cross ties, and set on a long linear path, individual components of the railroad tracks in the APE have been replaced and improved over time. The general setting of the historic property segment in the APE has also been compromised with the later introduction of buildings, structures, and roads.

There would be no physical right-of-way acquisition or physical effects to any portion of the rail line associated with any of the build alternatives. Nor would the project alternatives physically affect any of the character-defining features of the historic linear property in a manner that would diminish its integrity. Construction of the new OH bridge structure would not alter the rail line in any way, and therefore would not have an adverse effect. The project would, however, have an indirect effect on the historic property by the introduction of visual, audible, and atmospheric elements. Consistency with the Secretary of the Interior's Standards for the Treatment of Historic Properties to design sympathetic architectural elements for the bridge that would carry the HDC/HSR multimodal alignment over the ATSF line and for the corridor that would pass under the BDTL transmission lines would ensure adverse effects would be avoided. Even with construction of an OH bridge over the path of the railroad and the HDC/HSR alignment under the BDTL transmission lines, the undertaking would not adversely affect the integrity of either linear resource as a whole or diminish the ability of the individual resource's features to convey its

historic use and connection with the ATSF as the continuity of the lineal resource would be maintained. The Project would not diminish the integrity of the property's significant historic attributes and would not alter the characteristics that qualify it for inclusion in the NRHP under Criterion A. Therefore, Caltrans has determined in its Finding of Adverse Effect Report that a finding of **No Adverse Effect** would be made under any of the project build alternatives for this historic property. Concurrence by SHPO is pending.

Boulder Dam Transmission Lines (BDTL) 1, 2, and 3, and Towers (CA-SBR-7694H; P-36-007694)

The BDTL traverses the APE diagonally on a northeast-southwest bearing. The width of the APE crossing the historic property is approximately 628 feet. None of the transmission line towers of this resource are located within the APE for the HDC alignment. So no towers would need to be relocated for construction of the proposed project. As a result, there would be no direct effects to the linear historic property. One transmission line tower is located southwest of, and approximately 50 feet outside the APE at its closest point.

Only the overhead transmission lines of the BDTL are located within the boundaries of the APE for the proposed undertaking. None of the proposed project activities under any of the build alternatives require the destruction of, or damage to, the overhead transmission lines of the BDTL in the APE. The towers supporting the transmission lines are located outside of the APE and would not be physically impacted by project activities. The segment of the BDTL within the APE is an important component of the historic linear resource and continues to strongly convey a sense of time and place. While individual components of the towers and power lines have been replaced and improved over time, the overall design of the BDTL still remains largely intact with the towers and transmission lines all arranged on a long linear path that crosses the APE. The continuity of the lineal resource will be maintained.

Construction of a multimodal transportation corridor to pass under the segment of the BDTL within the APE would introduce visual, audible, and atmospheric elements that were not previously experienced at that site. The visual, audible and atmospheric elements introduced by construction of the HDC/HSR alignment, which will be located below the transmission lines of the BDTL, however, do not diminish the integrity of the property's significant historic attributes as a whole and would not alter the characteristics that qualify the linear resource for inclusion in the NRHP under Criteria A and C. Therefore, Caltrans has determined in its Finding of Adverse Effect Report that a finding of **No Adverse Effect** could be made under any of the project build alternatives for this historic linear resource property. Concurrence by SHPO is pending.

SCE Kramer-Victorville Power Lines and Towers (CA-SBR-10316H; P-36-010316)

The APE traverses the SCE Kramer-Victorville Power Lines and Towers, which align in a north-south orientation west of US 395. The width of the APE beneath the

overhead historic transmission lines extends to 1,456 feet, which would accommodate the proposed six-lane multimodal alignment and would include construction of cloverleaf on- and off-ramps for accessing US 395. Two transmission line towers, which would be considered character-defining features, are located within the APE but would not require displacement or relocation as part of the project. The continuity of the lineal resource will be maintained. None of the qualities that qualify the historic property for NRHP eligibility under Criterion A and C would be diminished under any of the build alternatives. Therefore, Caltrans has determined that a finding of **No Adverse Effect** is applicable to the SCE Kramer-Victorville Power Lines and Towers historic property for anticipated effects under any of the HDC alternatives under consideration. Concurrence by SHPO is pending.

Mojave Trail, Mojave Road and Government Road P-36-003033 (CA-SBR-3033/H)

Approximately 0.34 miles of this multi-component linear resource is within the HDC APE. It is intersected by the HDC Alignment, the HDC + HSR Alignment, and the HDC + HSR Footprint Variation E.

None of the qualities that qualify the overall property for NRHP eligibility under Criterion A would be diminished; alterations of this segment of the road would not modify or change the characteristics of the resource that make it eligible for the NRHP. The continuity of the lineal resource will be maintained. Caltrans has determined that a finding of **No Adverse Effect** is applicable to the Mojave Trail, Mojave Road and Government Road historic property for anticipated effects under any of the HDC alternatives under consideration. Concurrence by SHPO is pending.

The potential of encountering buried cultural material varies along the corridor and can be broken down by relative sensitivity i.e. low, medium, and high. While most of the corridor has moderate potential to contain buried deposits, the Mojave River area, due to its high site density and resident soil type (Holocene soils), possesses high potential to contain subsurface cultural resources. If these buried resources are encountered during excavation (after construction has commenced), they will be treated under the standard stipulation for post review discovery.

In conclusion, Caltrans has determined that because there are no adverse effects to any of the six historic properties that qualify as protected under Section 4(f), i.e., those properties which are eligible for the NRHP for other than Criterion D, there would be no use of Section 4(f) properties. Therefore, the Section 4(f) use of the historic property under any of the build alternatives is proposed as de minimis because they would not result in an adverse effect or diminish the qualities or character defining features that qualify these resources for the NRHP/CRHR. The SHPO was notified in a letter in September 2014 that a de minimis finding is being proposed.

Avoidance, Minimization, and/or Mitigation Measures

Mitigation Measure

CUL-1: Caltrans will develop an MOA in consultation with the SHPO and the ACHP to identify mitigation measures for purposes of reducing potential impacts to NRHP-eligible archaeological sites. Caltrans will prepare a Phase III treatment plan and conduct data recovery on the affected archaeological sites in accordance with the SHPO's guidelines and requirements and Caltrans processes and procedures as identified in the Section 106 PA and Volume 2 of the Caltrans Standard Environmental Reference. To the extent possible, continuous efforts will be made to avoid or minimize impacts to the sites as engineering details advance by utilizing all practical design techniques. Construction methods will also be used to try to avoid as much of the sites as practical, thereby minimizing potential adverse effects to the sites.

The MOA will also specify that the construction contract will contain language related to unanticipated discoveries should they be made during construction, including diverting activities away from such finds until an archaeologist could assess their nature and significance. If unanticipated discoveries occur, Section 106 consultation with the SHPO will be reopened, if appropriate. If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

CUL-2: If Caltrans determines during construction, or after construction has commenced, that either the implementation of the Treatment Plan or the Undertaking will affect a previously unidentified property that may be eligible for the NRHP, or affect a known historic property in an unanticipated manner, Caltrans will address the discovery or unanticipated effect in accordance with 36 CFR 800.13(b)(3). Caltrans at its discretion may hereunder assume any discovered property to be eligible for inclusion in the NRHP in accordance with 36 CFR 800.13(c). In the event that additional discoveries or unanticipated effects are encountered during construction, Caltrans will ensure that proper notification is given to the State Historic Preservation Officer (SHPO) at the Office of Historic Preservation and to the Cultural Studies Office (CSO) at Caltrans State Headquarters.

Standard Conditions

SC-CUL-1: Caltrans will incorporate standard conditions to prehistoric archaeological sites (P-36-000066, P-36-000182) by protection through the use of ESAs (Environmentally Sensitive Areas).

SC-CUL-2: In addition, Caltrans will incorporate standard conditions to one historic property (P-36-10315) Boulder Dam-San Bernardino Transmission Line, in accordance with the Secretary of Interior's Standards for the Treatment of Historic Properties (36 CFR Part 68).

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