

**CULTURAL RESOURCES STUDY FOR
THE NEVADA STREET PROJECT**

**REDLANDS, SAN BERNARDINO
COUNTY, CALIFORNIA**

APNs 292-041-08, -38, and -44

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2022

Report Title: Cultural Resources Study for the Nevada Street Project,
Redlands, San Bernardino County, California

Type of Study: Phase I Cultural Resources Survey

USGS Quadrangle: Township 1 South, Range 3 West (projected) of the *Redlands*,
California (7.5-minute) USGS Quadrangle

Acreage: 17.75 acres

Key Words: Survey; no cultural resources identified; *Redlands* USGS
Quadrangle; archaeological monitoring of grading
recommended.

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MANAGEMENT SUMMARY/ABSTRACT

In response to a request from T&B Planning, Inc., a cultural resources study was conducted by Brian F. Smith and Associates, Inc. (BFSA) for the proposed Nevada Street Project. The project consists of a proposal to develop an industrial warehouse. The 17.75-acre study area for the project is identified as Assessor's Parcel Numbers (APNs) 292-041-08, -38, and -44 and is situated northeast of the intersection of Nevada Street and Palmetto Avenue, just outside the Redlands city limits in unincorporated San Bernardino County, California. The project lies within the unsectioned San Bernardino Land Grant (Township 1 South, Range 3 West [projected]) in the USGS *Redlands, California* Quadrangle. According to the aerial photographs, the property was used as an orchard from at least the late 1930s until 1980, when the entirety of the property was graded. The property is currently vacant.

The purpose of this investigation was to locate and record any cultural resources within the project and subsequently evaluate any resources as part of the County of San Bernardino environmental review process conducted in compliance with the California Environmental Quality Act (CEQA). The archaeological investigation of the project also includes the review of an archaeological records search performed at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton (CSU Fullerton) in order to assess previous archaeological studies and identify any previously recorded archaeological sites within the project or in the immediate vicinity. A Sacred Lands File (SLF) search was also requested from the Native American Heritage Commission (NAHC).

Survey conditions were generally good, but ground visibility was fair to poor throughout the survey due to dense, tall grass cover. The northwest corner of the property has been cleared of vegetation, fenced in, and covered in gravel. The Phase I survey of the Nevada Street Project did not result in the identification of any cultural resources within the project.

Based upon the results of the current study, mitigation monitoring is recommended for the project development. Although aerial photographs indicate that the property has been disturbed by past use, there is still a potential to encounter deposits associated with the prehistoric and historic uses of the property. Therefore, it is recommended that all earthwork required to develop the property be monitored by a qualified archaeologist and a Native American representative. The protocols to be followed for the mitigation monitoring of the property are presented in Section 5.0 of this report. A copy of this report will be permanently filed with the SCCIC at CSU Fullerton. All notes, photographs, and other materials related to this project will be curated at the archaeological laboratory of BFSA in Poway, California.

1.0 INTRODUCTION

1.1 Project Description

The archaeological survey program for the Nevada Street Project was conducted in order to comply with CEQA and County of San Bernardino environmental compliance procedures. The 17.75-acre project is located northeast of the intersection of Nevada Street and Palmetto Avenue just outside the Redlands city limits in unincorporated San Bernardino County, California (APNs 292-041-08, -38, and -44) (Figure 1.1–1). The project is situated within the unsectioned San Bernardino Land Grant (Township 1 South, Range 3 West [projected]) in the USGS *Redlands, California* Quadrangle (Figure 1.1–2). The project proposes the construction of an industrial warehouse (Figure 1.1–3). The decision to request this investigation was based upon cultural resource sensitivity of the locality as suggested by known site density and predictive modeling. Sensitivity for cultural resources in a given area is usually indicated by known settlement patterns, which in southwestern San Bernardino County were focused around freshwater resources and a food supply.

1.2 Environmental Setting

The Nevada Street Project is located in the Peninsular Ranges Geologic Province of southern California. The range, which lies in a northwest to southeast trend through the county, extends some 1,000 miles from the Raymond-Malibu Fault Zone in western Los Angeles County to the southern tip of Baja California. The subject property is located within the broad, fault-bounded alluvial valley of the Santa Ana Wash between the San Bernardino Mountains to the north and the San Timoteo Badlands to the south (Matti et al. 2003). The San Andreas Fault lies at the foot of the San Bernardino Mountains and the Banning Fault lies approximately two miles south-southwest of the project (Wirths 2022). The project is positioned within one quarter mile of the ephemeral Santa Ana Riverbed (Matti et al. 2003). Stratigraphically, the project overlies middle Holocene Young axial-valley deposits, which are characterized as fine- to coarse-grained sands and pebbly sands that coarsen eastward (Wirths 2022). Soils within the project consist of Hanford sandy loam, 0 to 2 percent slopes (NRCS 2019). Elevations within the project range from approximately 1,175 to 1,199 feet above mean sea level.

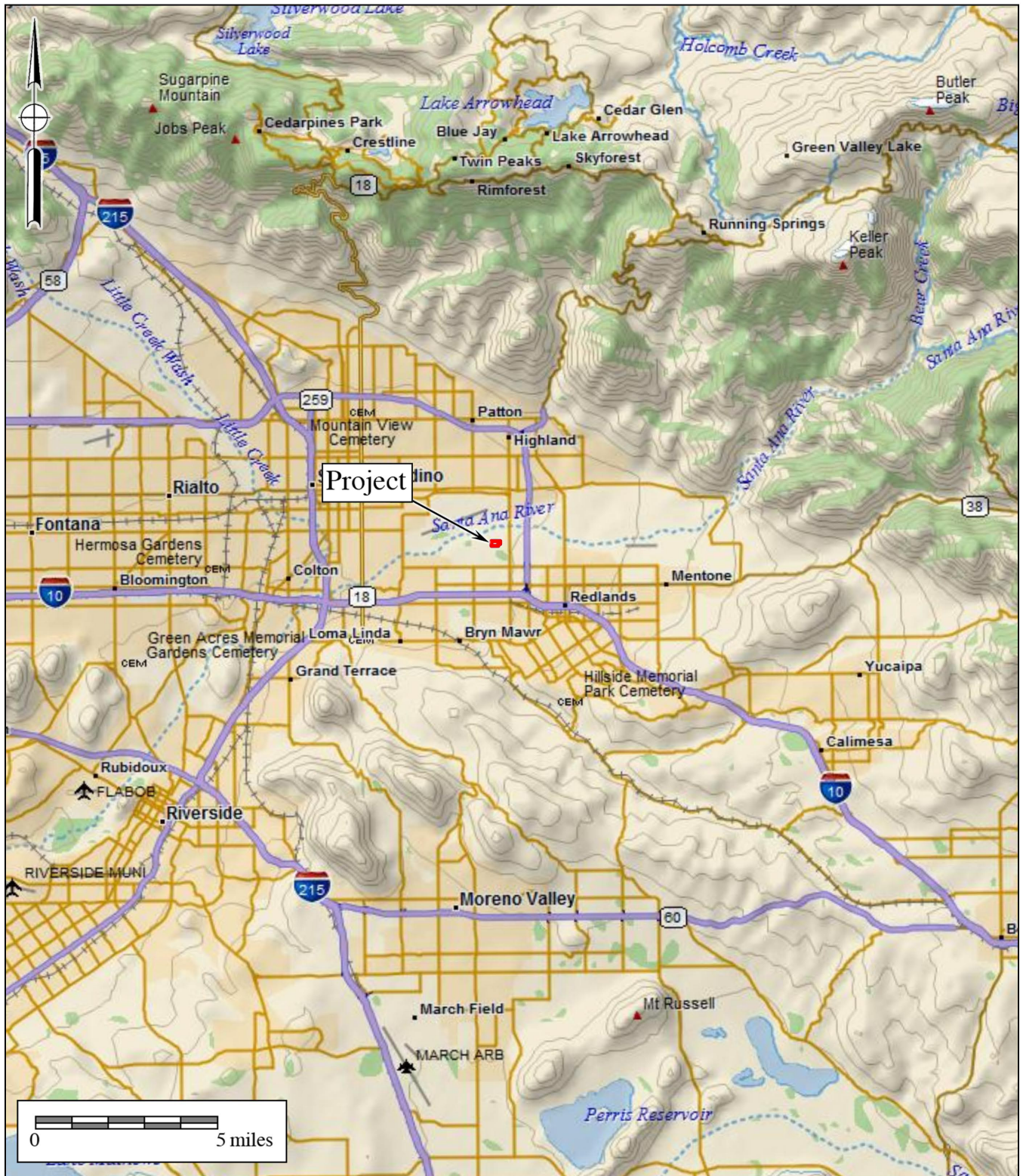


Figure 1.1-1
General Location Map
 The Nevada Street Project
 DeLorme (1:250,000)



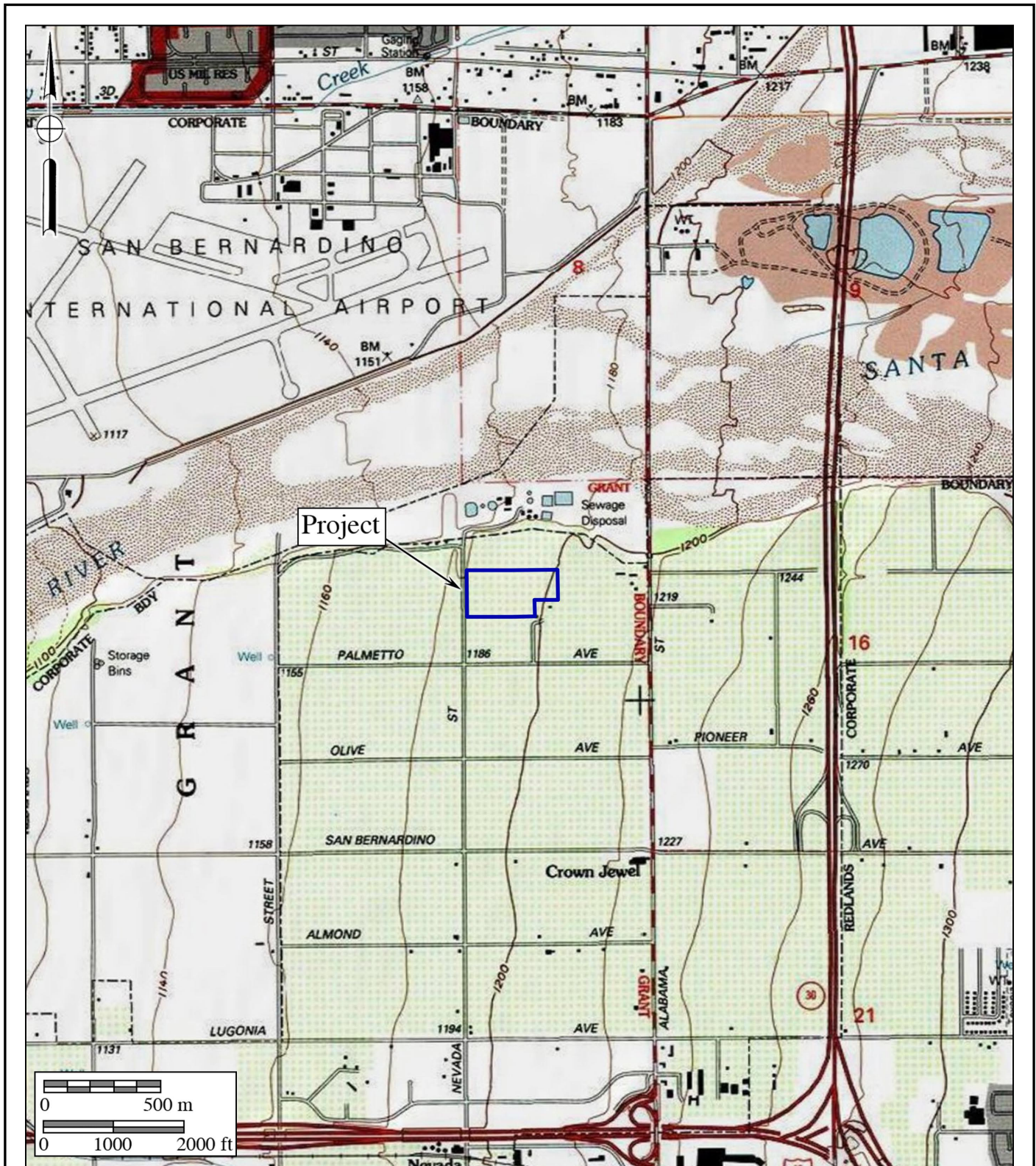


Figure 1.1-2
Project Location Map
 The Nevada Street Project

USGS Redlands Quadrangle (7.5-minute series)



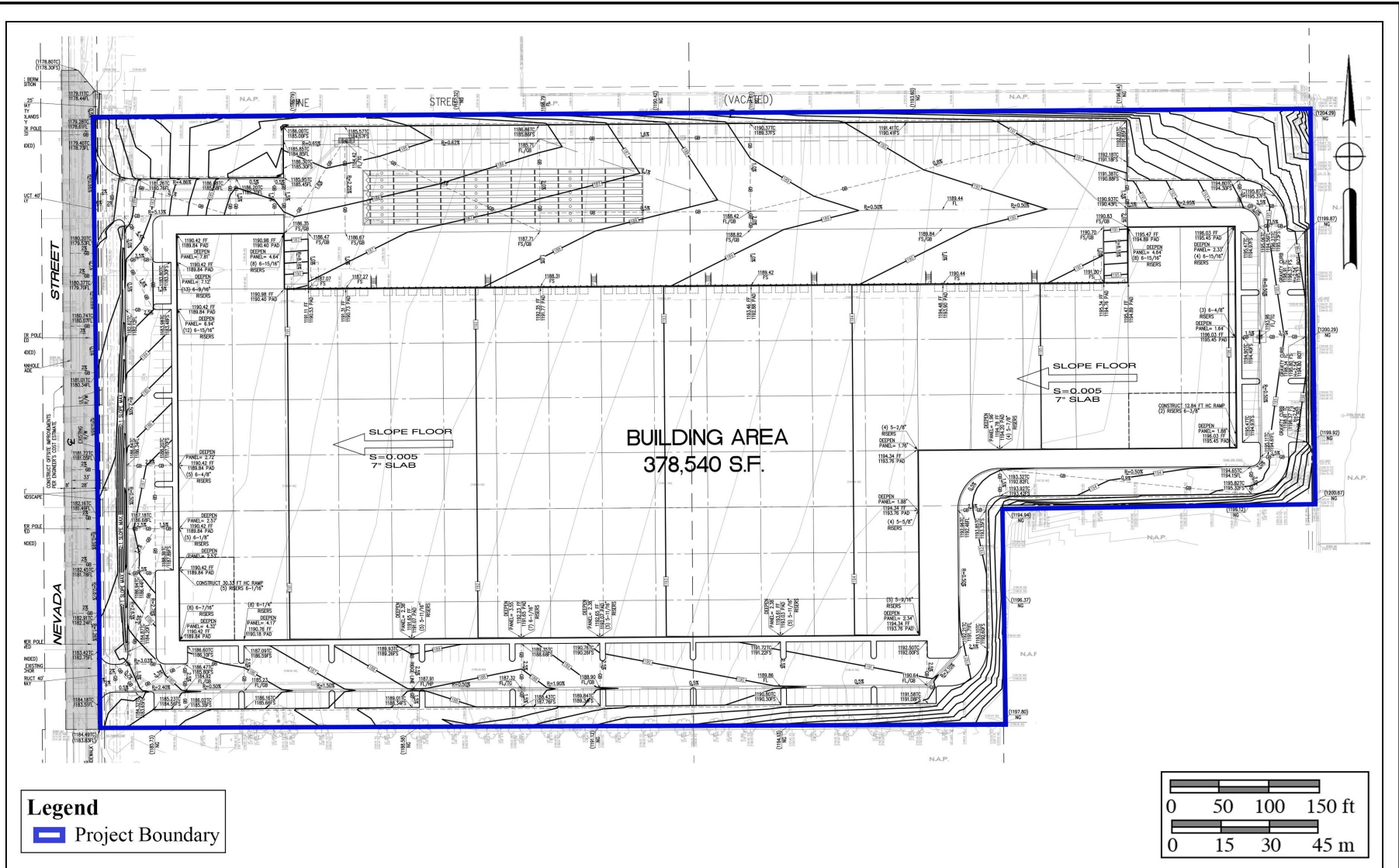


Figure 1.1-3
Conceptual Site Plan
The Nevada Street Project



1.3 Cultural Setting

1.3.1 Prehistoric Period

Paleo Indian, Archaic Period Milling Stone Horizon, and the Late Prehistoric Shoshonean groups are the three general cultural periods represented in San Bernardino County. The following discussion of the cultural history of San Bernardino County references the San Dieguito Complex, Encinitas Tradition, Milling Stone Horizon, La Jolla Complex, Pauma Complex, and San Luis Rey Complex, since these culture sequences have been used to describe archaeological manifestations in the region. The Late Prehistoric component in San Bernardino County was represented by the Cahuilla, Serrano, and potentially the Vanyume Indians.

Absolute chronological information, where possible, will be incorporated into this discussion to examine the effectiveness of continuing to use these terms interchangeably. Reference will be made to the geological framework that divides the culture chronology of the area into four segments: late Pleistocene (20,000 to 10,000 years before the present [YBP]), early Holocene (10,000 to 6,650 YBP), middle Holocene (6,650 to 3,350 YBP), and late Holocene (3,350 to 200 YBP).

Paleo Indian Period (Late Pleistocene: 11,500 to circa 9,000 YBP)

The Paleo Indian Period is associated with the terminus of the late Pleistocene (12,000 to 10,000 YBP). The environment during the late Pleistocene was cool and moist, which allowed for glaciation in the mountains and the formation of deep, pluvial lakes in the deserts and basin lands (Moratto 1984). However, by the terminus of the late Pleistocene, the climate became warmer, which caused the glaciers to melt, sea levels to rise, greater coastal erosion, large lakes to recede and evaporate, extinction of Pleistocene megafauna, and major vegetation changes (Moratto 1984; Martin 1967, 1973; Fagan 1991). The coastal shoreline at 10,000 YBP, depending upon the particular area of the coast, was near the 30-meter isobath, or two to six kilometers further west than its present location (Masters 1983).

Paleo Indians were likely attracted to multiple habitat types, including mountains, marshlands, estuaries, and lakeshores. These people likely subsisted using a more generalized hunting, gathering, and collecting adaptation while utilizing a variety of resources including birds, mollusks, and both large and small mammals (Erlandson and Colten 1991; Moratto 1984; Moss and Erlandson 1995).

Archaic Period (Early and Middle Holocene: circa 9000 to 1300 YBP)

The Archaic Period of prehistory begins with the onset of the Holocene around 9,000 YBP. The transition from the Pleistocene to the Holocene was a period of major environmental change throughout North America (Antevs 1953; Van Devender and Spaulding 1979). The general warming trend caused sea levels to rise, lakes to evaporate, and drainage patterns to change. In southern California, the general climate at the beginning of the early Holocene was marked by cool/moist periods and an increase in warm/dry periods and sea levels. The coastal shoreline at

8,000 YBP, depending upon the particular area of the coast, was near the 20-meter isobath, or one to four kilometers further west than its present location (Masters 1983).

The rising sea level during the early Holocene created rocky shorelines and bays along the coast by flooding valley floors and eroding the coastline (Curry 1965; Inman 1983). Shorelines were primarily rocky with small littoral cells, as sediments were deposited at bay edges but rarely discharged into the ocean (Reddy 2000). These bays eventually evolved into lagoons and estuaries, which provided a rich habitat for mollusks and fish. The warming trend and rising sea levels generally continued until the late Holocene (4,000 to 3,500 YBP).

At the beginning of the late Holocene, sea levels stabilized, rocky shores declined, lagoons filled with sediment, and sandy beaches became established (Gallegos 1985; Inman 1983; Masters 1994; Miller 1966; Warren and Pavesic 1963). Many former lagoons became saltwater marshes surrounded by coastal sage scrub by the late Holocene (Gallegos 2002). The sedimentation of the lagoons was significant in that it had profound effects on the types of resources available to prehistoric peoples. Habitat was lost for certain large mollusks, namely *Chione* and *Argopecten*, but habitat was gained for other small mollusks, particularly *Donax* (Gallegos 1985; Reddy 2000). The changing lagoon habitats resulted in the decline of larger shellfish, loss of drinking water, and loss of Torrey Pine nuts, causing a major depopulation of the coast as people shifted inland to reliable freshwater sources and intensified their exploitation of terrestrial small game and plants, including acorns (originally proposed by Rogers 1929; Gallegos 2002).

The Archaic Period in southern California is associated with several different cultures, complexes, traditions, periods, and horizons, including San Dieguito, La Jolla, Encinitas, Milling Stone, Pauma, and Intermediate.

Late Prehistoric Period (Late Holocene: 1,300 YBP to 1790)

Around approximately 1,350 YBP, a Shoshonean-speaking group from the Great Basin region moved into San Bernardino County, marking the transition to the Late Prehistoric Period. This period has been characterized by higher population densities and elaborations in social, political, and technological systems. Economic systems diversified and intensified during this period, with the continued elaboration of trade networks, the use of shell-bead currency, and the appearance of more labor-intensive, yet effective, technological innovations. Technological developments during this period included the introduction of the bow and arrow between A.D. 400 and 600 and the introduction of ceramics. Atlatl darts were replaced by smaller arrow darts, including the Cottonwood series points. Other hallmarks of the Late Prehistoric Period include extensive trade networks as far reaching as the Colorado River Basin and cremation of the dead.

Protohistoric Period (Late Holocene: 1790 to Present)

Prior to the arrival of the Spanish missionaries, the San Bernardino area was inhabited by the Cahuilla, Serrano, and potentially the Vanyume Indians. The territory of the Vanyume was covered by small and relatively sparse populations focused primarily along the Mojave River,

north of the Serrano and southeast of the Kawaiisu. It is believed that the southwestern extent of their territory went as far as Cajon Pass and portions of Hesperia. Bean and Smith (1978) noted that it was uncertain if the Vanyume spoke a dialect of Serrano or a separate Takic-based language. However, King and Blackburn (1978) suggest that the Vanyume and other Kitanemuk speakers once occupied most of Antelope Valley. In contrast to the Serrano, the Vanyume maintained friendly social relations with the Mohave and Chemehuevi to the east and northeast (Kroeber 1976). As with the majority of California native populations, Vanyume populations were decimated around the 1820s by placement in Spanish missions and *asistencias*. It is believed that by 1900, the Vanyume had become extinct (Bean and Smith 1978). However, given the settlement patterns reported for the Vanyume, it is more probable that the population was dispersed rather than completely wiped out.

At the time of Spanish contact in the sixteenth century, the Cahuilla occupied territory that included the San Bernardino Mountains, Orocopia Mountain, and the Chocolate Mountains to the west, Salton Sea and Borrego Springs to the south, Palomar Mountain and Lake Mathews to the west, and the Santa Ana River to the north. The Cahuilla are a Takic-speaking people closely related to their Gabrielino and Luiseño neighbors, although relations with the Gabrielino were more intense than with the Luiseño. They differ from the Luiseño and Gabrielino in that their religion is more similar to the Mohave tribes of the eastern deserts than the Chingichngish cult of the Luiseño and Gabrielino. The following is a summary of ethnographic data regarding this group (Bean 1978; Kroeber 1976).

Cahuilla villages were typically permanent and located on low terraces within canyons in proximity to water sources. These locations proved to be rich in food resources and afforded protection from prevailing winds. Villages had areas that were publicly owned as well as areas that were privately owned by clans, families, or individuals. Each village was associated with a particular lineage and series of sacred sites that included unique petroglyphs and pictographs. Villages were occupied throughout the year; however, during a several-week period in the fall, most of the village members relocated to mountain oak groves to take part in acorn harvesting (Bean 1978; Kroeber 1976).

The Serrano and Vanyume, however, were primarily hunters and gatherers. Individual family dwellings were likely circular, domed structures. Vegetal staples varied with locality; acorns and piñon nuts were found in the foothills, and mesquite, yucca roots, cacti fruits, and piñon nuts were found in or near the desert regions. Diets were supplemented with other roots, bulbs, shoots, and seeds (Heizer 1978). Deer, mountain sheep, antelopes, rabbits, and other small rodents were among the principal food packages. Various game birds, especially quail, were also hunted. The bow and arrow were used for large game, while smaller game and birds were killed with curved throwing sticks, traps, and snares. Occasionally, game was hunted communally, often during mourning ceremonies (Benedict 1924; Drucker 1937; Heizer 1978). In general, manufactured goods included baskets, some pottery, rabbit-skin blankets, awls, arrow straighteners, sinew-backed bows, arrows, fire drills, stone pipes, musical instruments (rattles,

rasps, whistles, bull-roarers, and flutes), feathered costumes, mats, bags, storage pouches, and nets (Heizer 1978). Food acquisition and processing required the manufacture of additional items such as knives, stone or bone scrapers, pottery trays and bowls, bone or horn spoons, and stirrers. Mortars, made of either stone or wood, and metates were also manufactured (Strong 1971; Drucker 1937; Benedict 1924).

Much like the Vanyume, the Serrano suffered large population decreases during the early 1800s. While the missionaries are credited with developing the first stable water supply in the area by diverting water from Mill Creek into a zanja that terminated at the Asistencia de Mission San Gabriel on Barton Road, the task was completed through labor provided by the Serrano. The zanja, known as the Mill Creek Zanja, is located in Redlands, California. It has been listed on the National Register of Historic Places (NRHP) since 1976.

1.3.2 Historic Period

Traditionally, the history of the state of California has been divided into three general periods: the Spanish Period (1769 to 1821), the Mexican Period (1822 to 1846), and the American Period (1848 to present) (Caughey 1970). The American Period is often further subdivided into additional phases: the nineteenth century (1848 to 1900), the early twentieth century (1900 to 1950), and the Modern Period (1950 to present). From an archaeological standpoint, all of these phases can be referred to together as the Ethnohistoric Period. This provides a valuable tool for archaeologists, as ethnohistory is directly concerned with the study of indigenous or non-Western peoples from a combined historical/anthropological viewpoint, which employs written documents, oral narrative, material culture, and ethnographic data for analysis.

European exploration along the California coast began in 1542 with the landing of Juan Rodriguez Cabrillo and his men at San Diego Bay. Sixty years after the Cabrillo expeditions, an expedition under Sebastian Viscaíno made an extensive and thorough exploration of the Pacific coast. Although the voyage did not extend beyond the northern limits of the Cabrillo track, Viscaíno had the most lasting effect upon the nomenclature of the coast. Many of his place names have survived, whereas practically every one of the names created by Cabrillo have faded from use. For instance, Cabrillo named the first (now) United States port he stopped at “San Miguel”; 60 years later, Viscaíno changed it to “San Diego” (Rolle 1969). The early European voyages observed Native Americans living in villages along the coast but did not make any substantial, long-lasting impact. At the time of contact, the Luiseño population was estimated to have ranged from 4,000 to as many as 10,000 individuals (Bean and Shipek 1978; Kroeber 1976).

The historic background of the project area began with the Spanish colonization of Alta California. The first Spanish colonizing expedition reached southern California in 1769 with the intention of converting and civilizing the indigenous populations, as well as expanding the knowledge of and access to new resources in the region (Brigandi 1998). As a result, by the late eighteenth century, a large portion of southern California was overseen by Mission San Luis Rey (San Diego County), Mission San Juan Capistrano (Orange County), and Mission San Gabriel

(Los Angeles County), who began colonizing the region and surrounding areas (Chapman 1921).

Native Californians may have first coalesced with Europeans around 1769 when the first Spanish mission was established in San Diego. In 1771, Friar Francisco Graces first searched the Californian desert for potential mission sites. Interactions between local tribes and Franciscan priests occurred by 1774 when Juan Bautista De Anza made an exploration of Alta California.

Serrano contact with the Europeans may have occurred as early as 1771 or 1772, but it was not until approximately 1819 that the Spanish directly influenced the culture. The Spanish established *asistencias* in San Bernardino, Pala, and Santa Ysabel. Between the founding of the *asistencia* and secularization in 1834, most of the Serranos in the San Bernardino Mountains were removed to the nearby missions (Beattie and Beattie 1951:366) while the Cahuilla maintained a high level of autonomy from Spain (Bean 1978).

Each mission gained power through the support of a large, subjugated Native American workforce. As the missions grew, livestock holdings increased and became increasingly vulnerable to theft. In order to protect their interests, the southern California missions began to expand inland to try and provide additional security (Beattie and Beattie 1939; Caughey 1970). In order to meet their needs, the Spaniards embarked upon a formal expedition in 1806 to find potential locations within what is now the San Bernardino Valley. As a result, by 1810, Father Francisco Dumetz of Mission San Gabriel had succeeded in establishing a religious site, or *capilla*, at a Cahuilla *rancheria* called Guachama (Beattie and Beattie 1939). San Bernardino Valley received its name from this site, which was dedicated to San Bernardino de Siena by Father Dumetz. The Guachama *rancheria* was located in present-day Bryn Mawr in San Bernardino County.

These early colonization efforts were followed by the establishment of *estancias* at Puente (circa 1816) and San Bernardino (circa 1819) near Guachama (Beattie and Beattie 1939). These efforts were soon mirrored by the Spaniards from Mission San Luis Rey, who in turn established a presence in what is now Lake Elsinore, Temecula, and Murrieta (Chapman 1921). The indigenous groups who occupied these lands were recruited by missionaries, converted, and put to work in the missions (Pourade 1961). Throughout this period, the Native American populations were decimated by introduced diseases, a drastic shift in diet resulting in poor nutrition, and social conflicts due to the introduction of an entirely new social order (Cook 1976).

Mexico achieved independence from Spain in 1822 and became a federal republic in 1824. As a result, both Baja and Alta California became classified as territories (Rolle 1969). Shortly thereafter, the Mexican Republic sought to grant large tracts of private land to its citizens to begin to encourage immigration to California and to establish its presence in the region. Part of the establishment of power and control included the desecularization of the missions circa 1832. These same missions were also located on some of the most fertile land in California and, as a result, were considered highly valuable. The resulting land grants, known as “*ranchos*,” covered expansive portions of California and by 1846, more than 600 land grants had been issued by the Mexican government. Rancho Jurupa was the first rancho to be established and was issued to Juan

Bandini in 1838. Although Bandini primarily resided in San Diego, Rancho Jurupa was located in what is now Riverside County (Pourade 1963). A review of Riverside County place names quickly illustrates that many of the ranchos in Riverside County lent their names to present-day locations, including Jurupa, El Rincon, La Sierra, El Sobrante de San Jacinto, La Laguna (Lake Elsinore), Santa Rosa, Temecula, Pauba, San Jacinto Nuevo y Potrero, and San Jacinto Viejo (Gunther 1984). As was typical of many ranchos, these were all located in the valley environments within western Riverside County.

The treatment of Native Americans grew worse during the Rancho Period. Most of the Native Americans were forced off of their land or put to work on the now privately-owned ranchos, most often as slave labor. In light of the brutal ranchos, the degree to which Native Americans had become dependent upon the mission system is evident when, in 1838, a group of Native Americans from Mission San Luis Rey petitioned government officials in San Diego to relieve suffering at the hands of the rancheros:

We have suffered incalculable losses, for some of which we are in part to be blamed for because many of us have abandoned the Mission ... We plead and beseech you ... to grant us a Rev. Father for this place. We have been accustomed to the Rev. Fathers and to their manner of managing the duties. We labored under their intelligent directions, and we were obedient to the Fathers according to the regulations, because we considered it as good for us. (Brigandi 1998:21)

Native American culture had been disrupted to the point where they could no longer rely upon prehistoric subsistence and social patterns. Not only does this illustrate how dependent the Native Americans had become upon the missionaries, but it also indicates a marked contrast in the way the Spanish treated the Native Americans as compared to the Mexican and United States ranchers. Spanish colonialism (missions) is based upon utilizing human resources while integrating them into their society. The ranchers, both Mexican and American, did not accept Native Americans into their social order and used them specifically for the extraction of labor, resources, and profit. Rather than being incorporated, they were either subjugated or exterminated (Cook 1976).

By 1846, tensions between the United States and Mexico had escalated to the point of war (Rolle 1969). In order to reach a peaceful agreement, the Treaty of Guadalupe Hidalgo was put into effect in 1848, which resulted in the annexation of California to the United States. Once California opened to the United States, waves of settlers moved in searching for gold mines, business opportunities, political opportunities, religious freedom, and adventure (Rolle 1969; Caughey 1970). By 1850, California had become a state and was eventually divided into 27 separate counties. While a much larger population was now settling in California, this was primarily in the central valley, San Francisco, and the Gold Rush region of the Sierra Nevada mountain range (Rolle 1969; Caughey 1970). During this time, southern California grew at a much

slower pace than northern California and was still dominated by the cattle industry that was established during the earlier rancho period.

Although the first orange trees were planted in Riverside County circa 1871, it was not until a few years later when a small number of Brazilian navel orange trees were established that the citrus industry truly began in the region (Patterson 1971). The Brazilian naval orange was well suited to the climate of Riverside County and thrived with assistance from several extensive irrigation projects. At the close of 1882, an estimated half a million citrus trees were present in California. It is estimated that nearly half of that population was in Riverside County. Population growth and 1880s tax revenue from the booming citrus industry prompted the official formation of Riverside County in 1893 out of portions of what was once San Bernardino County (Patterson 1971).

General History of the Redlands Area

The Redlands area was originally located within the 35,509 acres of land that comprised the Rancho San Bernardino Land Grant. This rancho was created by Mission San Gabriel in 1819 and, like most ranchos, it was used for agriculture and cattle raising through the nineteenth century. Since there was no reliable water source in the area, from 1819 to 1820, the missionaries developed the Mill Creek Zanja using Native American labor from the Guachama Rancheria. The Zanja extended from Mill Creek through Redlands and ended near Mission San Gabriel, which facilitated agricultural and cattle raising enterprises (Smallwood 2006 [SBR-8092/H site form]). After Spain relinquished control of Alto and Baja California in 1821, the missions became secularized, and by 1834, had been closed. The Mill Creek Zanja was nominated to and subsequently listed on the NRHP in 1976, and is still used for local drainage, spreading, and flood control (City of Redlands 2010).

Don Antonio Maria Lugo, a wealthy landowner in Los Angeles, requested the land grant in San Bernardino for his three sons and nephew: José del Cármen Lugo, Vincente Lugo, José Maria Lugo, and Diego Sepúlveda (San Bernardino History and Railroad Museum 2010). The land grant was granted by Governor Juan Bautista Alvarado, Don Lugo's grandnephew, on June 21, 1842. The three Lugos and their cousin built homes on the land and raised cattle, but they eventually sold it off to the Mormon Church in 1851 (Haenszel 1984). At that time, the exact boundaries had not been established, and many non-Mormons were living on portions of the land grant. When the boundaries were determined, the Mormons claimed land occupied by Jerome Benson, who refused to move and was joined by several others in the same predicament. In response, Benson's adobe barn was fortified with a cannon and dubbed "Fort Benson." Ultimately, however, the fort was never attacked nor was anyone forced off their land. The settlement that the Mormons created within the rancho was short-lived, as in 1857, Brigham Young recalled all Mormons in San Bernardino back to Utah. Approximately half returned to Utah, while the other half remained in San Bernardino, choosing "to forsake the church rather than leave their homes" (Lyman 1989).

As with much of the inland portion of southern California, irrigation systems played a crucial role in the development and settlement of the San Bernardino region by supporting the spread of agriculture. The Mill Creek Zanja was the first ditch constructed in the region; however, the construction of several irrigation ditches diverting water from the Santa Ana River and its tributaries in the 1870s and 1880s facilitated agriculture and population growth within the region and created a demand for railway transportation. Many of the ditches created during the nineteenth century, including the Zanja, were built by local Native Americans. Agriculture, particularly citriculture, flourished in the region, leading to increased population and economic growth thorough the late nineteenth and early twentieth centuries (Architectural Resources Group 2017).

The portion of Rancho San Bernardino where Mission San Gabriel is now located was purchased by several wealthy ranchers circa 1859 (County of San Bernardino 2017). This area became known as the Mission District. Among the new residents were Dr. Benjamin Barton, Anson Van Leuven, and J.W. Curtis. Another townsite, the Redlands Colony, was formed just east of the Mission District in 1881 by Frank Brown and Edward Judson. Judson and Brown laid out the townsite parallel to the slope of a canal they had built, known as the Judson and Brown Ditch. The Judson and Brown Ditch extended from Santa Ana Canyon to Reservoir Canyon, located along the path of present-day Interstate 10. The canal was designed to bring water to the area for citrus groves. Judson and Brown named the town Redlands after the dry, red, adobe soil (City of Redlands 2010). The town continued to grow over the next four years with the Bear Valley Dam and Reservoir, a consistent water supply, and the extension of two transcontinental rail lines through San Bernardino; however, the first population growth spurt began in 1887 (City of Redlands 2010).

In what is now the northeastern portion of Redlands is an area that was first known as Sunnyside, and later Lugonia. In 1870, George A. Craw settled in the Sunnyside area, followed by James B. Glover and A.A. Carter in 1873, and Colonel William R. Tolles, a Civil War veteran in, 1874 (*Redlands Daily Facts* 2009). To reduce confusion due to San Bernardino County referring to two communities as Sunnyside, it was renamed Lugonia in 1880 in honor of the Lugo family (Burgess 2008). As described in 1883, Lugonia is located “between Old San Bernardino (to the west) and Crafton (to the east), and having Santa Ana River for its northern boundary, while on the south it is bounded by the foot-hills north of San Timoteo Canyon” (Lawton 1883). As with the Judson and Brown Ditch that fed Redlands, the Sunnyside Ditch extended from the Santa Ana River through Lugonia (1888 Detail Irrigation Map, San Bernardino and Crafton Sheets).

As stated previously, the formation of canals and ditches diverting water from the Santa Ana River was paramount to the success of the region. In 1873, the South Fork Ditch was formed, which merged with the Sunnyside Ditch in 1877. These water ditches were the foundation of the Lugonia Park Water Company, which was formally organized in 1883. Two years prior, the Redlands Water Company was organized, forming the first incorporated water company in the area (Ingersoll 1904).

A small rivalry existed between Lugonia and Redlands, as the two communities experienced relatively steady population growth, access to water, and good agricultural land. However, in 1888, after the collapse of the land boom in California, Redlands, Lugonia, the Brookside area, and a portion of Crafton voted to collectively incorporate as Redlands, joining the north-to-south Lugonia grid and the slope-oriented Redlands grid along the southern edge of San Bernardino Valley (City of Redlands 2010).

In the 1890s, due to the downturn in the economic development of the area, only sporadic development of residential lots interspersed with large agricultural fields occurred within Lugonia. Residential development in Redlands at the time was mostly limited to the southern area, south of Redlands Boulevard (Hinckley 1956; Mermilliod 2002). During this period, streets were paved and commercial and industrial properties constructed. Due to the philanthropy of prominent Redlands residents such as Albert K. and Alfred K. Smiley, many citywide beautification projects were funded, including the construction of the A.K. Smiley Public Library.

During the early twentieth century, Redlands again experienced steady population growth. More than two dozen packinghouses and over 15,000 acres of citrus groves earned Redlands, along with much of the Inland Empire, the reputation as the navel orange capital of the world. However, everything changed in early January 1913, when a three-day-long cold spell referred to simply as “the Freeze” devastated most of the area’s citrus groves. Almost the season’s entire orange crop was ruined, except for fruit from the very few groves with oil-fueled heaters known as smudge pots (about 7.00 percent). The loss of the crop led to a decline in business, property values, residential growth, and tourism, which impacted the Redlands population and economy.

By the 1920s, Redlands had reestablished its dominance in the citrus industry. New groves were planted and more packinghouses and industrial properties were developed. The citrus industry continued to thrive until after World War II, when land values began to make it more worthwhile to develop properties into residential subdivisions (Burgess and Gonzales 2004). Since the mid-twentieth century, the older citrus groves have steadily given way to residential and commercial development. However, the city of Redlands has continued to steadily grow while maintaining a connection to its historic agricultural roots. Currently, the City of Redlands owns 16 citrus groves throughout the city totaling 164 acres. They include Valencia oranges, navel oranges, Star Ruby grapefruit, and Rio Red grapefruit (City of Redlands 2017).

1.4 Results of the Archaeological Records Search

An archaeological records search for a one-half-mile radius around the project was requested by BFSA from the SCCIC at CSU Fullerton. The SCCIC records search results indicate five cultural resources are located within a one-half-mile radius of the project (Table 1.4–1). No cultural resources have ever been identified on the subject property. The records search results also indicate that 10 cultural resource studies have been conducted within one-half mile of the project, two of which (McKenna 2004; Tang et al. 2005) overlap the project. The CRM Tech study, which covered APNs 292-041-08 and -09, did not formally record any resources but did

identify “a barn dating at least to the 1930 ... but was determined not to meet the definition of a ‘historical resource,’ as provided in CEQA” (Tang et al. 2005). The complete records search results can be found in Appendix B.

Table 1.4-1
Cultural Resources Within One-Half Mile of the Project

Site Number	Site Type
SBR-9990H	Historic well head and concrete structural pad
SBR-9991H	Rural historic landscape (rows of Mexican fan palms)
SBR-32,488H and SBR-32,489H	Historic water conveyance system
Temp-1 <i>(recorded by BFSA in December 2019 and as of the date of this report, no number has been assigned by the SCCIC)</i>	Historic farm complex

In addition, BFSA reviewed the following historic sources:

- The NRHP Index
- The Office of Historic Preservation, Archaeological Determinations of Eligibility
- The Office of Historic Preservation, Built Environment Resources Directory
- Historic USGS maps
- Historic aerial photographs (1938, 1959, 1966, 1968, 1980, 1994, 2002, 2005, 2009, and 2010)

These sources did not indicate the presence of any additional archaeological resources within the project. According to the aerial photographs, the property was used as an orchard from at least the late 1930s until 1980, when the entirety of the property was graded. However, the absence of positive results does not necessarily indicate the absence of historic resources.

BFSA also requested a SLF search from the NAHC, which was positive for the presence of recorded Native American sacred sites or locations of religious or ceremonial importance within one mile of the project. The NAHC recommended contacting the San Manuel Band of Mission Indians for further information. All correspondence is provided in Appendix C.

1.5 Applicable Regulations

Resource importance is assigned to districts, sites, buildings, structures, and objects that possess exceptional value or quality illustrating or interpreting the heritage of San Bernardino County in history, architecture, archaeology, engineering, and culture. A number of criteria are used in demonstrating resource importance. Specifically, the criteria outlined in CEQA, provide

the guidance for making such a determination. The following sections detail the criteria that a resource must meet in order to be determined important.

1.5.1 California Environmental Quality Act

According to CEQA (§15064.5a), the term “historical resource” includes the following:

- 1) A resource listed in or determined to be eligible by the State Historical Resources Commission for listing in the CRHR (Public Resources Code SS5024.1, Title 14 CCR, Section 4850 et seq.).
- 2) A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- 3) Any object, building, structure, site, area, place, record, or manuscript, which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the CRHR (Public Resources Code SS5024.1, Title 14, Section 4852) including the following:
 - a) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
 - b) Is associated with the lives of persons important in our past;
 - c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
 - d) Has yielded, or may be likely to yield, information important in prehistory or history.
- 4) The fact that a resource is not listed in, or determined eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to Section 5020.1[k] of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Section 5020.1(j) or 5024.1.

According to CEQA (§15064.5b), a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. CEQA defines a substantial adverse change as:

- 1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
- 2) The significance of an historical resource is materially impaired when a project:
 - a) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in the CRHR; or
 - b) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or,
 - c) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA.

Section 15064.5(c) of CEQA applies to effects on archaeological sites and contains the following additional provisions regarding archaeological sites:

- 1) When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subsection (a).
- 2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, Section 15126.4 of the guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.
- 3) If an archaeological site does not meet the criteria defined in subsection (a), but does meet the definition of a unique archaeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of Section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c-f) do not apply to surveys and site evaluation activities intended to

determine whether the project location contains unique archaeological resources.

- 4) If an archaeological resource is neither a unique archaeological nor historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or Environmental Impact Report, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

Section 15064.5(d) and (e) contain additional provisions regarding human remains. Regarding Native American human remains, paragraph (d) states:

- (d) When an Initial Study identifies the existence of, or the probable likelihood of, Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the NAHC as provided in Public Resources Code SS5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the NAHC. Action implementing such an agreement is exempt from:
 - 1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).
 - 2) The requirements of CEQA and the Coastal Act.

2.0 RESEARCH DESIGN

The primary goal of the research design is to attempt to understand the way in which humans have used the land and resources within the project through time, as well as to aid in the determination of resource significance. For the current project, the study area under investigation is southwestern San Bernardino County. The scope of work for the cultural resources study conducted for the Nevada Street Project included the survey of a 17.75-acre study area. Given the area involved and the presence of nearby archaeological sites, the research design for this project was focused upon realistic study options. Since the main objective of the investigation was to identify the presence of and potential impacts to cultural resources, the goal here is not necessarily to answer wide-reaching theories regarding the development of early southern California, but to investigate the role and importance of identified resources. Nevertheless, the assessment of the significance of a resource must take into consideration a variety of factors, as well as the ability of a resource to address regional research topics and issues.

Although elementary resource evaluation programs are limited in terms of the amount of information available, several specific research questions were developed that could be used to guide the initial investigations of any observed cultural resources. The following research questions consider the small size and location of the project discussed above.

Research Questions:

- Can located cultural resources be associated with a specific time period, population, or individual?
- Do the types of any located cultural resources allow a site activity/function to be determined from a preliminary investigation? What are the site activities? What is the site function? What resources were exploited?
- How do located sites compare to others reported from different surveys conducted in the area?
- How do located sites fit existing models of settlement and subsistence for mountainous environments of the region?

Data Needs

At the survey level, the principal research objective is a generalized investigation of changing settlement patterns in both the prehistoric and historic periods within the study area. The overall goal is to understand settlement and resource procurement patterns of the project occupants. Therefore, adequate information on site function, context, and chronology from an archaeological perspective is essential for the investigation. The fieldwork and archival research were undertaken with the following primary research goals in mind:

- 1) To identify cultural resources occurring within the project;

- 2) To determine, if possible, site type and function, context of the resource(s), and chronological placement of each cultural resource identified;
- 3) To place each cultural resource identified within a regional perspective; and
- 4) To provide recommendations for the treatment of each cultural resources identified.

3.0 ANALYSIS OF PROJECT EFFECTS

The cultural resources study of the project site consisted of an institutional records search, archival research, an intensive cultural resource survey of the entire 17.75-acre study area, and the preparation of this technical report. This study was conducted in conformance with Section 21083.2 of the California Public Resources Code, and CEQA. Statutory requirements of CEQA (Section 15064.5) were followed for the identification and evaluation of resources. Specific definitions for archaeological resource type(s) used in this report are those established by the State Historic Preservation Office (SHPO 1995).

3.1 Survey Methods

The survey methodology employed during the current investigation followed standard archaeological field procedures and was sufficient to accomplish a thorough assessment of the project. The field methodology employed for the project included walking evenly spaced survey transects set approximately 10 meters apart while visually inspecting the ground surface. All potentially sensitive areas where cultural resources might be located were closely inspected. Photographs documenting survey areas and overall survey conditions were taken frequently.

3.2 Results of the Field Survey

Staff archaeologist Mary Chitjian conducted the archaeological survey for the Nevada Street Project on January 5, 2022. The archaeological survey was an intensive reconnaissance consisting of a series of survey transects across the project. The entire project was accessible and visibility was only hindered by dense, tall grasses (Plates 3.2–1 and 3.2–2). The northwest corner of the property has been cleared of vegetation, fenced in, and covered in gravel, with modern trash was noted throughout (Plates 3.2–3 and 3.2–4). According to the aerial photographs, the property was used as an orchard from at least the late 1930s until 1980, when the entirety of the property was graded. The survey did not result in the identification of any historic or prehistoric cultural resources within the project.



Plate 3.2-1: Overview of the project, facing northeast.



Plate 3.2-2: Overview of the project, facing southwest.



Plate 3.2-3: Overview of the fenced-in area, facing west.



Plate 3.2-4: Overview of the fenced-in area, facing east.

4.0 MANAGEMENT CONSIDERATIONS – MITIGATION MEASURES AND DESIGN CONSIDERATIONS

The Phase I archaeological assessment for the Nevada Street Project was negative for the presence of cultural resources. As stated previously, the subject property has been impacted and graded in the past as early as 1980. When land is cleared, disked, or otherwise disturbed, evidence of surface artifact scatters is typically lost. Whether or not cultural resources have ever existed on the Nevada Street Project parcel is unclear. The current status of the property appears to have affected the potential to discover any surface scatters of artifacts, and cultural materials that may have been on-site could have been masked by both disking and prior grading across the property. Given that the prior development within the project area might mask archaeological deposits, and based upon the limited visibility during the survey, there is a potential that buried archaeological deposits are present within the project boundaries. Therefore, it is recommended that the project be allowed to proceed with the implementation of a cultural resources monitoring program conducted by an archaeologist and Native American representative during grading of the property. The cultural resources Mitigation Monitoring and Reporting Program (MMRP) recommended as a condition of approval for this property is presented in Section 4.1.

4.1 Cultural Resources Monitoring Program

The proposed development of the Nevada Street Project may encounter unrecorded cultural deposits or features. To mitigate for potential impacts to resources that have not been detected, a cultural resources monitoring program is recommended as a condition of approval. The scope of the cultural resources monitoring program is provided below:

General Procedures and Protocols to Be Implemented During Construction Monitoring During Grading

- A. Monitor(s) Shall Be Present During Grading/Excavation/Trenching
 1. The archaeological monitor shall be present for the initial clearing of the property and then periodically as determined by the project archaeologist.
 2. The principal investigator (PI) may submit a detailed letter to the County of San Bernardino during earthwork to inform the County of a modification to the monitoring program when field conditions require a change in monitoring status, including suspension of monitoring if it is determined that no further monitoring is needed.

- B. Discovery Notification Process
 1. In the event of an archaeological discovery, either historic or prehistoric, the archaeological monitor shall direct the contractor to temporarily divert all soil-disturbing activities, including but not limited to, digging, trenching, excavating, or

grading activities in the area of discovery and in the area reasonably suspected to overlay adjacent resources. If the discovered resource is associated with the prehistoric Native American occupation of this area, a Native American representative from a local tribe should be contacted to review and participate in the evolution of the discovered resource.

2. The monitor shall immediately notify the PI (unless monitor is the PI) of the discovery, and subsequently the property owner shall be notified of the discovery.

C. Determination of Significance

1. The PI shall evaluate the significance of the resource. If human remains are involved, follow protocol in Section D, below.
 - a. The PI shall immediately notify the lead agency to discuss significance determination and shall also submit a letter indicating whether additional mitigation is required.
 - b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) to the lead agency to review and approve. Impacts to significant resources must be mitigated by the implementation of the ADRP before ground-disturbing activities in the area of discovery will be allowed to resume.
 - c. If the resource is not significant, the PI shall submit a letter to the County of San Bernardino indicating that artifacts will be collected, curated, and documented in the final monitoring report. The letter shall also indicate that no further work is required.

D. Discovery of Human Remains

If human remains are discovered, work shall halt in that area until a determination can be made regarding the provenance of the human remains, and the following procedures as set forth in CEQA Section 15064.5(e), the California Public Resources Code (Sec. 5097.98), and the State Health and Safety Code (Sec. 7050.5) shall be undertaken:

I. Notification

1. The archaeological monitor shall notify the PI, if the monitor is not qualified as a PI.
2. The PI shall notify the medical examiner after consultation with the lead agency, either in person or via telephone.

II. Isolate discovery site

1. Work shall be directed away from the location of the discovery and any

nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the medical examiner in consultation with the PI concerning the provenance of the remains.

2. The medical examiner, in consultation with the PI, will determine the need for a field examination to determine the provenance.
3. If a field examination is not warranted, the medical examiner will determine, with input from the PI, if the remains are or are most likely to be of Native American origin.

III. If human remains **ARE** determined to be Native American

1. The medical examiner will notify the NAHC within 24 hours. By law, **ONLY** the medical examiner can make this call.
2. The NAHC will immediately identify the person or persons determined to be the Most Likely Descendent (MLD) and provide contact information.
3. The MLD will contact the PI within 24 hours or sooner after the medical examiner has completed coordination to begin the consultation process in accordance with CEQA Section 15064.5(e), the California Public Resources, and the State Health and Safety Code.
4. The MLD will have 48 hours to make recommendations to the property owner or representative for the treatment or disposition with proper dignity of the human remains and associated grave goods.
5. Disposition of Native American human remains will be determined between the MLD and the PI, and, if:
 - a. The NAHC is unable to identify the MLD, OR the MLD failed to make a recommendation within 48 hours after being notified by the NAHC; OR
 - b. The landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with Public Resources Code 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner; THEN
 - c. Upon the discovery of multiple Native American human remains during a ground-disturbing land development activity, the landowner may agree that additional conferral with descendants is necessary to consider culturally appropriate treatment of multiple Native American human remains. Culturally appropriate treatment of such a discovery may be ascertained from review of the site utilizing cultural and archaeological standards. Where the parties are unable to agree upon the appropriate treatment measures, the human remains and grave goods buried with the

Native American human remains shall be reinterred with appropriate dignity.

IV. If human remains are **NOT** Native American

1. The PI shall contact the medical examiner and notify them of the historic-era context of the burial.
2. The medical examiner will determine the appropriate course of action with the PI and lead agency staff (Public Resources Code 5097.98).
3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the lead agency. The decision for internment of the human remains shall be made in consultation with the lead agency, the applicant/landowner, and any known descendant group.

Post-Construction

A. Preparation and Submittal of Draft Monitoring Report

1. The PI shall submit to the County a draft monitoring report (even if negative) prepared in accordance with the agency guidelines, which describes the results, analysis, and conclusions of all phases of the archaeological monitoring program (with appropriate graphics).
 - a. For significant archaeological resources encountered during monitoring, the ADRP shall be included in the draft monitoring report.
 - b. Recording sites with the State of California Department of Parks and Recreation (DPR) shall be the responsibility of the PI, including recording (on the appropriate forms-DPR 523 A/B) any significant or potentially significant resources encountered during the archaeological monitoring program.
2. The PI shall submit a revised draft monitoring report to the County for approval, including any changes or clarifications requested by the County.

B. Handling of Artifacts

1. The PI shall be responsible for ensuring that all cultural remains collected are cleaned and cataloged.
2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.
3. The cost for curation is the responsibility of the property owner.

C. Curation of Artifacts

1. Any artifacts recovered from the project shall be curated in an approved facility, such as the Western Science Center. Native American artifacts may be repatriated to a local tribal representative.

D. Final Monitoring Report(s)

1. The PI shall submit the approved final monitoring report to the County and any interested parties.

5.0 LIST OF PREPARERS AND ORGANIZATIONS CONTACTED

The archaeological survey program for the Nevada Street Project was directed by Principal Investigator Brian F. Smith. The archaeological fieldwork was conducted by staff archaeologist Mary Chitjian. The report text was prepared by Elena Goralogia and Brian Smith. Report graphics were provided by Jillian Conroy. Technical editing and report production were conducted by Courtney McNair. The archaeological records search was conducted at the SCCIC at CSU Fullerton.

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APPENDIX A

Resumes of Key Personnel

Brian F. Smith, MA

Owner, Principal Investigator

Brian F. Smith and Associates, Inc.
14010 Poway Road • Suite A •
Phone: (858) 679-8218 • Fax: (858) 679-9896 • E-Mail: bsmith@bfsa-ca.com



Education

Master of Arts, History, University of San Diego, California 1982

Bachelor of Arts, History, and Anthropology, University of San Diego, California 1975

Professional Memberships

Society for California Archaeology

Experience

Principal Investigator
Brian F. Smith and Associates, Inc.

1977–Present
Poway, California

Brian F. Smith is the owner and principal historical and archaeological consultant for Brian F. Smith and Associates. Over the past 32 years, he has conducted over 2,500 cultural resource studies in California, Arizona, Nevada, Montana, and Texas. These studies include every possible aspect of archaeology from literature searches and large-scale surveys to intensive data recovery excavations. Reports prepared by Mr. Smith have been submitted to all facets of local, state, and federal review agencies, including the US Army Corps of Engineers, the Bureau of Land Management, the Bureau of Reclamation, the Department of Defense, and the Department of Homeland Security. In addition, Mr. Smith has conducted studies for utility companies (Sempra Energy) and state highway departments (CalTrans).

Professional Accomplishments

These selected major professional accomplishments represent research efforts that have added significantly to the body of knowledge concerning the prehistoric life ways of cultures once present in the Southern California area and historic settlement since the late 18th century. Mr. Smith has been principal investigator on the following select projects, except where noted.

Downtown San Diego Mitigation and Monitoring Reporting Programs: Large numbers of downtown San Diego mitigation and monitoring projects, some of which included Broadway Block (2019), 915 Grape Street (2019), 1919 Pacific Highway (2018), Moxy Hotel (2018), Makers Quarter Block D (2017), Ballpark Village (2017), 460 16th Street (2017), Kettner and Ash (2017), Bayside Fire Station (2017), Pinnacle on the Park (2017), IDEA1 (2016), Blue Sky San Diego (2016), Pacific Gate (2016), Pendry Hotel (2015), Cisterra Sempra Office Tower (2014), 15th and Island (2014), Park and G (2014), Comm 22 (2014), 7th and F Street Parking (2013), Ariel Suites (2013), 13th and Marker (2012), Strata (2008), Hotel Indigo (2008), Lofts at 707 10th Avenue Project (2007), Breeza (2007), Bayside at the Embarcadero (2007), Aria (2007), Icon (2007), Vantage Pointe (2007), Aperture (2007), Sapphire Tower (2007), Lofts at 655 Sixth Avenue (2007), Metrowork (2007), The Legend (2006), The Mark (2006), Smart Corner (2006), Lofts at 677 7th Avenue (2005), Aloft on Cortez Hill (2005), Front and Beech Apartments (2003), Bella Via Condominiums (2003), Acqua Vista Residential Tower (2003), Northblock Lofts (2003), Westin Park Place Hotel (2001), Parkloff

Apartment Complex (2001), Renaissance Park (2001), and Laurel Bay Apartments (2001).

1900 and 1912 Spindrift Drive: An extensive data recovery and mitigation monitoring program at the Spindrift Site, an important prehistoric archaeological habitation site stretching across the La Jolla area. The project resulted in the discovery of over 20,000 artifacts and nearly 100,000 grams of bulk faunal remains and marine shell, indicating a substantial occupation area (2013-2014).

San Diego Airport Development Project: An extensive historic assessment of multiple buildings at the San Diego International Airport and included the preparation of Historic American Buildings Survey documentation to preserve significant elements of the airport prior to demolition (2017-2018).

Citracado Parkway Extension: A still-ongoing project in the city of Escondido to mitigate impacts to an important archaeological occupation site. Various archaeological studies have been conducted by BFSA resulting in the identification of a significant cultural deposit within the project area.

Westin Hotel and Timeshare (Grand Pacific Resorts): Data recovery and mitigation monitoring program in the city of Carlsbad consisted of the excavation of 176 one-square-meter archaeological data recovery units which produced thousands of prehistoric artifacts and ecofacts, and resulted in the preservation of a significant prehistoric habitation site. The artifacts recovered from the site presented important new data about the prehistory of the region and Native American occupation in the area (2017).

The Everly Subdivision Project: Data recovery and mitigation monitoring program in the city of El Cajon resulted in the identification of a significant prehistoric occupation site from both the Late Prehistoric and Archaic Periods, as well as producing historic artifacts that correspond to the use of the property since 1886. The project produced an unprecedented quantity of artifacts in comparison to the area encompassed by the site, but lacked characteristics that typically reflect intense occupation, indicating that the site was used intensively for food processing (2014-2015).

Ballpark Village: A mitigation and monitoring program within three city blocks in the East Village area of San Diego resulting in the discovery of a significant historic deposit. Nearly 5,000 historic artifacts and over 500,000 grams of bulk historic building fragments, food waste, and other materials representing an occupation period between 1880 and 1917 were recovered (2015-2017).

Archaeology at the Padres Ballpark: Involved the analysis of historic resources within a seven-block area of the "East Village" area of San Diego, where occupation spanned a period from the 1870s to the 1940s. Over a period of two years, BFSA recovered over 200,000 artifacts and hundreds of pounds of metal, construction debris, unidentified broken glass, and wood. Collectively, the Ballpark Project and the other downtown mitigation and monitoring projects represent the largest historical archaeological program anywhere in the country in the past decade (2000-2007).

4S Ranch Archaeological and Historical Cultural Resources Study: Data recovery program consisted of the excavation of over 2,000 square meters of archaeological deposits that produced over one million artifacts, containing primarily prehistoric materials. The archaeological program at 4S Ranch is the largest archaeological study ever undertaken in the San Diego County area and has produced data that has exceeded expectations regarding the resolution of long-standing research questions and regional prehistoric settlement patterns.

Charles H. Brown Site: Attracted international attention to the discovery of evidence of the antiquity of man in North America. Site located in Mission Valley, in the city of San Diego.

Del Mar Man Site: Study of the now famous Early Man Site in Del Mar, California, for the San Diego Science Foundation and the San Diego Museum of Man, under the direction of Dr. Spencer Rogers and Dr. James R. Moriarty.

Old Town State Park Projects: Consulting Historical Archaeologist. Projects completed in the Old Town State Park involved development of individual lots for commercial enterprises. The projects completed in Old Town include Archaeological and Historical Site Assessment for the Great Wall Cafe (1992), Archaeological Study for the Old Town Commercial Project (1991), and Cultural Resources Site Survey at the Old San Diego Inn (1988).

Site W-20, Del Mar, California: A two-year-long investigation of a major prehistoric site in the Del Mar area of the city of San Diego. This research effort documented the earliest practice of religious/ceremonial activities in San Diego County (circa 6,000 years ago), facilitated the projection of major non-material aspects of the La Jolla Complex, and revealed the pattern of civilization at this site over a continuous period of 5,000 years. The report for the investigation included over 600 pages, with nearly 500,000 words of text, illustrations, maps, and photographs documenting this major study.

City of San Diego Reclaimed Water Distribution System: A cultural resource study of nearly 400 miles of pipeline in the city and county of San Diego.

Master Environmental Assessment Project, City of Poway: Conducted for the City of Poway to produce a complete inventory of all recorded historic and prehistoric properties within the city. The information was used in conjunction with the City's General Plan Update to produce a map matrix of the city showing areas of high, moderate, and low potential for the presence of cultural resources. The effort also included the development of the City's Cultural Resource Guidelines, which were adopted as City policy.

Draft of the City of Carlsbad Historical and Archaeological Guidelines: Contracted by the City of Carlsbad to produce the draft of the City's historical and archaeological guidelines for use by the Planning Department of the City.

The Mid-Bayfront Project for the City of Chula Vista: Involved a large expanse of undeveloped agricultural land situated between the railroad and San Diego Bay in the northwestern portion of the city. The study included the analysis of some potentially historic features and numerous prehistoric

Cultural Resources Survey and Test of Sites Within the Proposed Development of the Audie Murphy Ranch, Riverside County, California: Project manager/director of the investigation of 1,113.4 acres and 43 sites, both prehistoric and historic—including project coordination; direction of field crews; evaluation of sites for significance based on County of Riverside and CEQA guidelines; assessment of cupule, pictograph, and rock shelter sites, co-authoring of cultural resources project report. February- September 2002.

Cultural Resources Evaluation of Sites Within the Proposed Development of the Otay Ranch Village 13 Project, San Diego County, California: Project manager/director of the investigation of 1,947 acres and 76 sites, both prehistoric and historic—including project coordination and budgeting; direction of field crews; assessment of sites for significance based on County of San Diego and CEQA guidelines; co-authoring of cultural resources project report. May-November 2002.

Cultural Resources Survey for the Remote Video Surveillance Project, El Centro Sector, Imperial County: Project manager/director for a survey of 29 individual sites near the U.S./Mexico Border for proposed video surveillance camera locations associated with the San Diego Border barrier Project—project coordination and budgeting; direction of field crews; site identification and recordation; assessment of potential impacts to cultural resources; meeting and coordinating with U.S. Army Corps of Engineers, U.S. Border Patrol, and other government agencies involved; co-authoring of cultural resources project report. January, February, and July 2002.

Cultural Resources Survey and Test of Sites Within the Proposed Development of the Menifee West GPA, Riverside County, California: Project manager/director of the investigation of nine sites, both prehistoric and historic—including project coordination and budgeting; direction of field crews; assessment of sites

for significance based on County of Riverside and CEQA guidelines; historic research; co-authoring of cultural resources project report. January-March 2002.

Cultural Resources Survey and Test of Sites Within the Proposed French Valley Specific Plan/EIR, Riverside County, California: Project manager/director of the investigation of two prehistoric and three historic sites—included project coordination and budgeting; survey of project area; Native American consultation; direction of field crews; assessment of sites for significance based on CEQA guidelines; cultural resources project report in prep. July-August 2000.

Cultural Resources Survey and Test of Sites Within the Proposed Development of the Menifee Ranch, Riverside County, California: Project manager/director of the investigation of one prehistoric and five historic sites—included project coordination and budgeting; direction of field crews; feature recordation; historic structure assessments; assessment of sites for significance based on CEQA guidelines; historic research; co-authoring of cultural resources project report. February-June 2000.

Salvage Mitigation of a Portion of the San Diego Presidio Identified During Water Pipe Construction for the City of San Diego, California: Project archaeologist/director—included direction of field crews; development and completion of data recovery program; management of artifact collections cataloging and curation; data synthesis and authoring of cultural resources project report in prep. April 2000.

Enhanced Cultural Resource Survey and Evaluation for the Tyrian 3 Project, La Jolla, California: Project manager/director of the investigation of a single-dwelling parcel—included project coordination; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. April 2000.

Enhanced Cultural Resource Survey and Evaluation for the Lamont 5 Project, Pacific Beach, California: Project manager/director of the investigation of a single-dwelling parcel—included project coordination; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. April 2000.

Enhanced Cultural Resource Survey and Evaluation for the Reiss Residence Project, La Jolla, California: Project manager/director of the investigation of a single-dwelling parcel—included project coordination; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. March-April 2000.

Salvage Mitigation of a Portion of Site SDM-W-95 (CA-SDI-211) for the Poinsettia Shores Santalina Development Project and Caltrans, Carlsbad, California: Project archaeologist/ director—included direction of field crews; development and completion of data recovery program; management of artifact collections cataloging and curation; data synthesis and authoring of cultural resources project report in prep. December 1999-January 2000.

Survey and Testing of Two Prehistoric Cultural Resources for the Airway Truck Parking Project, Otay Mesa, California: Project archaeologist/director—included direction of field crews; development and completion of testing recovery program; assessment of site for significance based on CEQA guidelines; authoring of cultural resources project report, in prep. December 1999-January 2000.

Cultural Resources Phase I and II Investigations for the Tin Can Hill Segment of the Immigration and Naturalization Services Triple Fence Project Along the International Border, San Diego County, California: Project manager/director for a survey and testing of a prehistoric quarry site along the border—NRHP eligibility assessment; project coordination and budgeting; direction of field crews; feature recordation; meeting and coordinating with U.S. Army Corps of Engineers; co-authoring of cultural resources project report. December 1999-January 2000.

Mitigation of a Prehistoric Cultural Resource for the Westview High School Project for the City of San Diego, California: Project archaeologist/ director—included direction of field crews; development and completion of data recovery program including collection of material for specialized faunal and botanical analyses; assessment of sites for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; co-authoring of cultural resources project report, in prep. October 1999-January 2000.

Mitigation of a Prehistoric Cultural Resource for the Otoy Ranch SPA-One West Project for the City of Chula Vista, California: Project archaeologist/director—included direction of field crews; development of data recovery program; management of artifact collections cataloging and curation; assessment of site for significance based on CEQA guidelines; data synthesis; authoring of cultural resources project report, in prep. September 1999-January 2000.

Monitoring of Grading for the Herschel Place Project, La Jolla, California: Project archaeologist/ monitor— included monitoring of grading activities associated with the development of a single- dwelling parcel. September 1999.

Survey and Testing of a Historic Resource for the Osterkamp Development Project, Valley Center, California: Project archaeologist/ director—included direction of field crews; development and completion of data recovery program; budget development; assessment of site for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; authoring of cultural resources project report. July-August 1999.

Survey and Testing of a Prehistoric Cultural Resource for the Proposed College Boulevard Alignment Project, Carlsbad, California: Project manager/director —included direction of field crews; development and completion of testing recovery program; assessment of site for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; authoring of cultural resources project report, in prep. July-August 1999.

Survey and Evaluation of Cultural Resources for the Palomar Christian Conference Center Project, Palomar Mountain, California: Project archaeologist—included direction of field crews; assessment of sites for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; authoring of cultural resources project report. July-August 1999.

Survey and Evaluation of Cultural Resources at the Village 2 High School Site, Otoy Ranch, City of Chula Vista, California: Project manager/director —management of artifact collections cataloging and curation; assessment of site for significance based on CEQA guidelines; data synthesis; authoring of cultural resources project report. July 1999.

Cultural Resources Phase I, II, and III Investigations for the Immigration and Naturalization Services Triple Fence Project Along the International Border, San Diego County, California: Project manager/director for the survey, testing, and mitigation of sites along border—supervision of multiple field crews, NRHP eligibility assessments, Native American consultation, contribution to Environmental Assessment document, lithic and marine shell analysis, authoring of cultural resources project report. August 1997- January 2000.

Phase I, II, and III Investigations for the Scripps Poway Parkway East Project, Poway California: Project archaeologist/project director—included recordation and assessment of multicomponent prehistoric and historic sites; direction of Phase II and III investigations; direction of laboratory analyses including prehistoric and historic collections; curation of collections; data synthesis; coauthorship of final cultural resources report. February 1994; March-September 1994; September-December 1995.

APPENDIX B

Archaeological Records Search Results

(Deleted for Public Review; Bound Separately)

APPENDIX C

NAHC Sacred Lands File Search Results

(Deleted for Public Review; Bound Separately)