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Phase II Testing and Evaluation for the Cajalco and Seaton Warehouse and Park Project, Mead Valley, Riverside County, California

Plot Plan No. PPT 220050
Change of Zone No. CZ 220062
Tentative Parcel Map No. TPM 38601



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Management Summary

As part of the proposed Cajalco and Seaton Warehouse and Park Project (Project), T&B Planning retained Chronicle Heritage to conduct testing and evaluation of two prehistoric sites within the development footprint of the proposed Project. The Project involves the development of an industrial warehouse building and a public park within the Mead Valley community of unincorporated Riverside County. The Project is subject to compliance with the California Environmental Quality Act (CEQA). Riverside County (County) is the Lead Agency for the purposes of CEQA.

This report summarizes the methods and results of the testing and evaluation of the Project. The investigation included background research, Native American outreach, a brief pedestrian survey, and excavation of 35 shovel test probes (STPs) throughout the property. The purpose of the excavation was to assess the presence or absence of buried archaeological deposits and artifacts associated with the bedrock milling features, and to evaluate the sites to determine the potential for the Project to impact historical and archaeological resources under CEQA.

Phase I assessment of the property was conducted by Chronicle Heritage and resulted in the identification of eight previously recorded prehistoric bedrock milling sites, which were combined into two larger sites (CA-RIV-8681 and CA-RIV-8683/H) due to the close proximity of the features to one another. A report was prepared summarizing the Phase I survey findings (Knabb et al. 2023) and recommending the two prehistoric sites to be avoided through Project redesign. If avoidance was not feasible, it was recommended that Phase II testing be conducted to evaluate the archaeological significance of the two prehistoric sites. Archaeological testing has not been previously conducted at CA-RIV-8681 or CA-RIV-8683/H and, based on the review of the draft Phase I report, the County has requested a Phase II testing and evaluation program be conducted.

The purpose of the Phase II study is to determine if buried archaeological deposits or artifacts associated with the bedrock milling features are present, and to evaluate the sites for eligibility in the California Register Historical Resources (CRHR). Chronicle Heritage conducted Native American outreach to local tribal representatives. Lorrie Gregory, Tribal representative from the Cahuilla Band of Indians, visited the site the morning of Monday January 29, 2024, but declined to participate in further activities. Testing and evaluation of sites CA-RIV-8681 and CA-RIV-8683/H was performed by Chronicle Heritage archaeologists between January 29 and February 2, 2024, to determine if subsurface deposits are present in the previously and newly identified sites within the Project boundaries to further evaluate the sites' significance and eligibility for CRHR inclusion per Section 5024.1. The Phase II evaluation programs at both sites concluded that the sites yield no information of significant historical value, and therefore are recommended not eligible for listing in the CRHR.

Field notes documenting the Phase II activities are on file at Chronicle Heritage's San Diego office. A copy of this report will be filed with the Bureau of Indian Affairs/Pacific Regional Office, and the Eastern Information Center of the California Historical Resources Information System at the University of California, Riverside.

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Contents

1	INTRODUCTION.....	1
1.1	PROJECT LOCATION AND DESCRIPTION	1
1.1.1	CA-RIV-8681(P-33-016534).....	1
1.1.2	CA-RIV-8683/H(P-33-016536).....	5
1.2	PERSONNEL QUALIFICATIONS.....	5
1.3	REPORT ORGANIZATION	5
2	REGULATORY CONTEXT	6
2.1	CALIFORNIA ENVIRONMENTAL QUALITY ACT	6
2.2	CALIFORNIA ASSEMBLY BILL 52.....	6
2.3	SENATE BILL 18.....	7
2.4	COUNTY OF RIVERSIDE GENERAL PLAN	7
3	ENVIRONMENTAL SETTING	8
3.1	BEDROCK GEOLOGY OF THE PERRIS BLOCK	8
3.2	HYDROLOGY	8
3.3	CLIMATE.....	9
3.4	BIOTIC COMMUNITIES	9
4	PREHISTORIC CONTEXT.....	9
4.1	PALEOINDIAN PERIOD	10
4.2	ARCHAIC PERIOD	10
4.3	LATE PREHISTORIC PERIOD.....	11
4.4	ETHNOHISTORY.....	12
4.4.1	Luiseño.....	12
4.4.2	Cahuilla.....	13
5	HISTORICAL CONTEXT	14
5.1	SPANISH EXPLORATION AND MISSION PERIOD: 1771-1821	15
5.2	MEXICAN (RANCHO) PERIOD: 1821-1848.....	15
5.3	AMERICAN PERIOD: 1849-PRESENT.....	15
5.3.1	Perris Valley and the Town of Alessandro	15
5.3.2	March Air Force Base	16
6	RESEARCH DESIGN	17
6.1	PREHISTORIC PERIOD RESEARCH THEMES	18
6.1.1	Settlement Pattern Change.....	18
6.1.2	Subsistence Practices	19
7	METHODS.....	20
7.1	FIELD METHODS	20
7.1.1	Site and Isolated Occurrences Definitions	21
8	RESULTS	21
8.1	FIELD INVESTIGATIONS.....	21
8.2	ARCHAEOLOGICAL SITES	23
8.2.1	CA-RIV- 8681(P-33-016534).....	23
8.2.2	CA-RIV-8683/H(P-33-016536).....	27
9	SUMMARY AND MANAGEMENT RECOMMENDATIONS	29
10	REFERENCES CITED.....	31

Appendices

- Appendix A. Resumes of Key Personnel
- Appendix B. On-Site Reburial Location (Confidential)
- Appendix C. Result of Testing and Evaluation Map (Confidential)
- Appendix D. DPR Site Forms (Confidential)

Figures

Figure 1-1. Project vicinity map.....	2
Figure 1-2. Project location map.....	3
Figure 8-1. Overview of the Project site, facing north.....	22
Figure 8-2. Overview of surface disturbance throughout the Project site, facing north.....	22
Figure 8-3. Overview of wash with recent burn scars, facing west.....	23
Figure 8-4. Overview of site CA-RIV-8681, facing east.	24
Figure 8-5. Overview of CA-RIV-8683/H, facing east.....	28
Figure 8-6. Overview of STP 31 at final depth of 40 cm.	28

Tables

Table 1-1. CA-RIV-8681 Loci Correspondence.....	4
Table 8-1. CA-RIV-8681 STP List	24
Table 8-2. CA-RIV-8683/H STP List	27

1 Introduction

The proposed Cajalco and Seaton Warehouse Project (Project) involves the development of an industrial warehouse building and open space in the community of Mead Valley in Riverside County, California. Chronicle Heritage was contracted by T&B Planning to conduct a Phase II evaluation of two prehistoric sites within the development footprint of the proposed Project area in compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the Lead Agency for CEQA. This report summarizes the methods and results of the Phase I cultural resource investigation conducted for the proposed Project.

1.1 Project Location and Description

The proposed Project is west of the Interstate 215 (I-215) Freeway and south of Cajalco Road in the Mead Valley community in unincorporated Riverside County (Figure 1-1). More specifically, it is in Sections 11 and 12 of Township (T) 4, South (S), Range (R) 4 West (W) of the Steele Peak, California U.S. Geological Survey (USGS) topographic quadrangle map. The elevation of the Project area ranges from 1,520 to 1,600 feet (ft) above mean sea level (amsl). The Project area is approximately 100 acres in size.

The proposed Project involves the development of an industrial warehouse building and a public park. The industrial warehouse building will be at the southwest corner of Seaton Avenue and Cajalco Expressway, between Seaton Avenue and Decker Road (Figure 1-2). The public park would be south of the industrial warehouse building on Decker Road. The industrial warehouse building is proposed with 1,003,510 square ft of total building area on 44.74 net acres. The public park would occur on 13.35 net acres and is conceptually designed to include play fields, hard surface sport courts, a playground, walking paths, and other amenities. Associated roadway frontage improvements are also planned to occur to Cajalco Expressway, Seaton Avenue, and Decker Road.

Two archaeological sites in the Project area have been identified for Phase II study: CA-RIV-8681 and CA-RIV-8683/H. A description of these two resources is provided below.

1.1.1 CA-RIV-8681(P-33-016534)

CA-RIV-8681 which was originally documented by Applied Earthworks, Inc. (Æ) in 2006 as a prehistoric site composed of three bedrock granitic outcrops that contained four milling slicks and an artifact scatter consisting of seven quartz flakes, basalt debitage, and one bifacial granitic mano (Æ 2006b). In 2023, Chronicle Heritage surveyed and remapped the previously recorded features as part of Phase I for this Project. During the Phase I survey, Chronicle Heritage found that the site is within 30 meters (m) of four previously recorded bedrock milling sites and one newly recorded bedrock milling feature. Due to the proximity of these to one another, the six resources have been combined into CA-RIV-8681. The revised site boundary is 144 by 120 m. Each previously recorded bedrock milling site was reclassified as a locus, with the 2006 recordation of CA-RIV-8681 designated as Locus 1 (see Table 1-1). In total, CA-RIV-8681 is composed of 22 milling features in six loci, one artifact scatter, and one lithic scatter, as described in Table 1-1.

Phase II Testing and Evaluation for the Cajalco and Seaton Warehouse and Park Project,
 Mead Valley, Riverside County, California

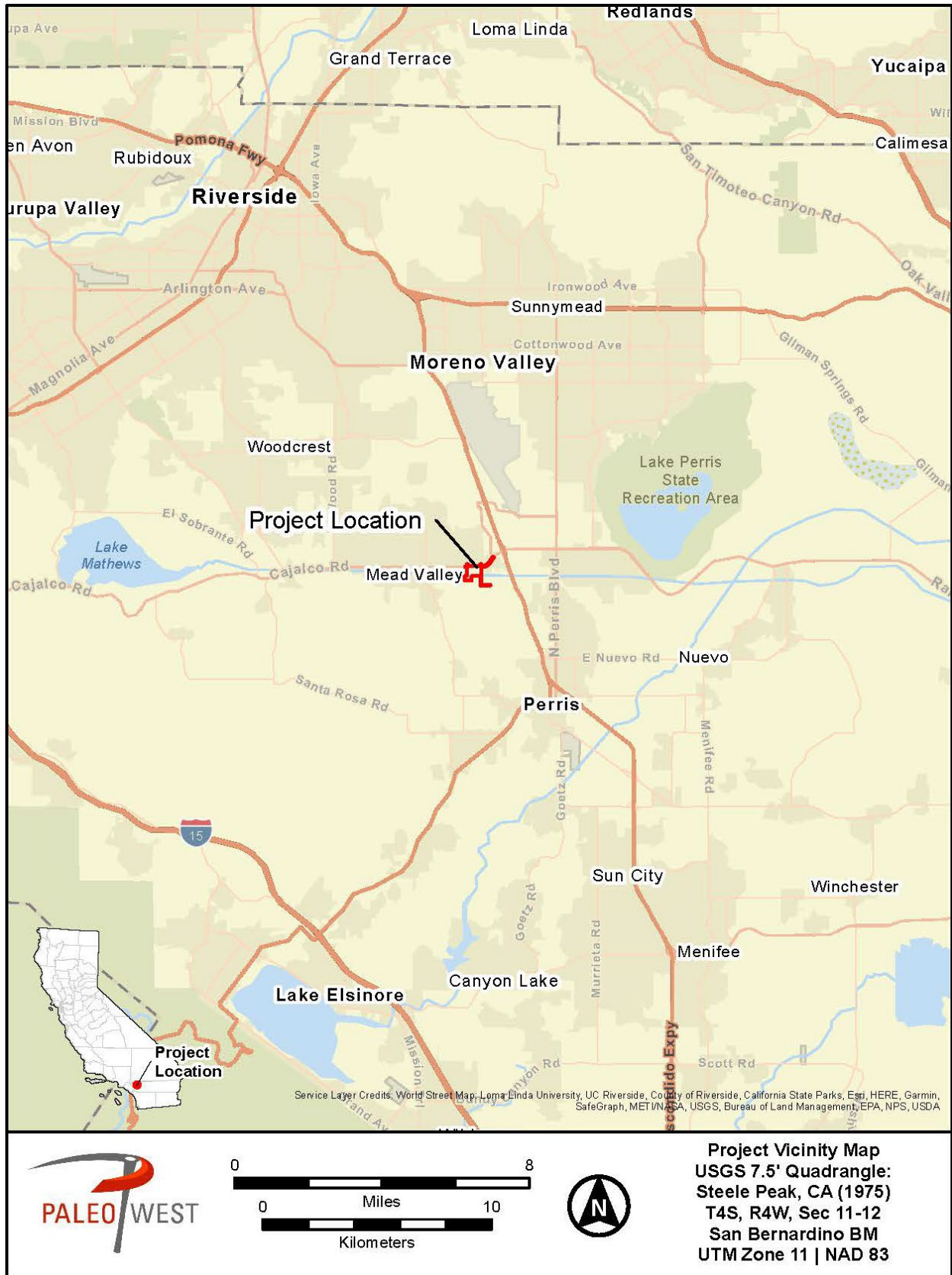


Figure 1-1. Project vicinity map.

Table 1-1. CA-RIV-8681 Loci Correspondence

Previous Site No.	New Locus Designation	Description
CA-RIV-8681; P-33-016534	Locus 1	Four milling slicks and artifact scatter
CA-RIV-8685; P-33-016538	Locus 2	One milling slick and lithic scatter
N/A	Locus 3	Six milling slicks
CA-RIV-8680; P-33-016533	Locus 4	Three cup mortars and four milling slicks
CA-RIV-8686; P-33-016539	Locus 5	Two milling slicks
CA-RIV-8688; P-33-016541	Locus 6	Six milling slicks

Locus 2 (previously CA-RIV-8685) was originally documented by Æ in 2006 as a prehistoric site containing a milling slick on a bedrock outcrop (Æ 2006b). Northeast of that feature, Æ observed two pieces of lithic debitage (one cryptocrystalline silicate and one of basalt). Locus 3 was recorded by Chronicle Heritage during the Phase I survey as a new bedrock milling feature about 25 m west of the previously recorded sites, near the southwest corner of the Project area. Locus 4 (previously CA-RIV-8680), was originally documented by Æ in 2006 as a prehistoric site consisting of three granitic outcrops that contained seven bedrock milling features, including three cup mortars and four individual milling slicks (Æ 2006c). No artifacts were found in association with the feature. Locus 5 (previously CA-RIV-8686) was originally documented by Æ in 2006 as a prehistoric site containing two granitic outcrops, each of which contained a milling slick (Æ 2006d). No artifacts were found in association with the feature. Locus 6 (previously CA-RIV-8688) was originally documented by Æ in 2006 as a prehistoric site containing three granitic outcrops with a total of six milling slicks (Æ 2006e). No artifacts were found in association with the feature.

During the Phase I survey, all of the bedrock outcrops within the mapped boundary of the site were examined. At Locus 1, two of the four milling slicks were identified, but the artifact scatter was not located. At Locus 2, the milling slick was identified, but the previously recorded lithic scatter was not located. At Locus 4, although one of the three previously recorded bedrock outcrops was identified, none of the milling features were located. At Locus 5, both of the previously recorded milling slicks were identified. At Locus 6, two of the six milling slicks were located.

The Phase I survey showed the overall condition of the site has deteriorated since it was last documented. Weathering of the bedrock surfaces has obscured or destroyed portions of the milling features. Evidence of livestock grazing (primarily sheep) was also noted on the parcel around the site, suggesting that trampling has also contributed to the deterioration of the bedrock surface. In addition, the site is overgrown with dense vegetation, including ruderal grasses and native chaparral, which has completely obscured the ground surface and much of the bedrock outcrops. Other disturbances observed at the site include plowing, erosion, extensive overgrowth of vegetation, nearby land development, vehicle activity on nearby roads, and refuse dumping.

1.1.2 CA-RIV-8683/H (P-33-016536)

CA-RIV-8683 was originally documented by Æ in 2006 as a prehistoric site consisting of a milling slick on a bedrock outcrop (Æ 2006f). Revisit during the Phase I survey found that the site is less than 30 m from CA-RIV-8684/H, a multicomponent site originally recorded by Æ in 2006 that consists of four bedrock milling slicks and two pieces of sun-colored amethyst glass (Æ 2006g). Because these resources are within 30 m of each other, they were combined into one site as CA-RIV-8683/H. Each resource was reclassified as a locus, with the site now consisting of two loci: Locus 1 (previously CA-RIV-8683), and Locus 2 (previously CA-RIV-8684/H). The revised site boundary is 66 by 21 m.

During the Phase I survey, Chronicle Heritage surveyed and remapped the previously recorded features described above. Locus 1 and Locus 2 were identified and found to be in similar condition as previously recorded, but the historic period glass from Locus 2 was not located.

Resurvey at each locus showed the overall condition of the site has deteriorated since it was last documented. Weathering of the bedrock surfaces has obscured or destroyed portions of the milling features. Surveyors noted livestock grazing (primarily sheep) on the parcel around the site, suggesting that trampling has also contributed to the deterioration of the bedrock surface. In addition, the site is overgrown with dense vegetation, including ruderal grasses and native chaparral, which has completely obscured the ground surface and much of the bedrock outcrops. Other disturbances noted at the site include plowing, erosion, extensive overgrowth of vegetation, nearby land development, vehicle activity on nearby roads, and refuse dumping.

1.2 Personnel Qualifications

Richard Guttenberg, M.A., Register of Professional Archaeologists (RPA), served as Principal Investigator and provided senior oversight and quality assurance. Marcos Ramos, M.A., RPA, served as Project Manager, directed all fieldwork, and co-authored portions of this report. Earl Morales, B.A., served as Field Director, led the excavations, was responsible for the documentation and evaluation of the archaeological resources, and co-authored portions of this report. Resumes of key personnel are provided in Appendix A.

1.3 Report Organization

This report documents the results of a cultural resource investigation conducted for the proposed Project. Chapter 1 has introduced the Project location and description. Chapter 2 states the regulatory context for the Project. Chapters 3–5 synthesize the natural and cultural setting of the Project area and surrounding region. Chapter 6 outlines the research design for the investigation. The methods employed for the cultural resource study are described in Chapter 7, and the results and eligibility determinations for listing in the California Register of Historical Resources (CRHR) are presented in Chapter 8. Management recommendations are provided in Chapter 9, followed by bibliographic references and appendices.

2 Regulatory Context

2.1 California Environmental Quality Act

The proposed Project is subject to compliance with CEQA, as amended. Compliance with CEQA statutes and guidelines requires both public and private projects with financing or approval from a public agency to assess the project's impact on cultural resources (Public Resources Code Section 21082, 21083.2 and 21084 and California Code of Regulations 10564.5). The first step in the process is to identify cultural resources that may be impacted by the project and then determine whether the resources are "historically significant."

CEQA defines historically significant resources as "resources listed or eligible for listing in the [CRHR]" (Public Resources Code Section 5024.1). A cultural resource may be considered historically significant if the resource is 45 years old or older, possesses integrity of location, design, setting, materials, workmanship, feeling, and association, and meets any of the following criteria for listing on the CRHR:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. 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,
4. Has yielded, or may be likely to yield, information important in prehistory or history (Public Resources Code Section 5024.1).

Cultural resources are buildings, sites, humanly modified landscapes, traditional cultural properties, structures, or objects that may have historical, architectural, cultural, or scientific importance. CEQA states that if a project will have a significant impact on important cultural resources deemed "historically significant," then project alternatives and mitigation measures must be considered.

2.2 California Assembly Bill 52

Signed into law in September 2014, California Assembly Bill 52 (AB 52) created a new class of resources—tribal cultural resources—for consideration under CEQA. Tribal cultural resources may include sites, features, places, cultural landscapes, sacred places, or objects with cultural value to a California Native American tribe that are listed or determined to be eligible for listing in the CRHR, included in a local register of historical resources, or a resource determined by the lead CEQA agency, in its discretion and supported by substantial evidence, to be significant and eligible for listing on the CRHR. AB 52 requires that the lead CEQA agency consult with California Native American tribes that have requested consultation for projects that may affect tribal cultural resources. The lead CEQA agency shall begin consultation with participating Native American tribes prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report. Under AB 52, a project that has potential to cause a substantial adverse change to a tribal cultural resource constitutes a significant effect on the environment unless mitigation reduces such effects to a less than significant level.

2.3 Senate Bill 18

Senate Bill 18 (Statutes of 2004, Chapter 905), which went into effect January 1, 2005, requires local governments (city and county) to consult with Native American tribes before making certain planning decisions and to provide notice to tribes at certain key points in the planning process. The intent is to “provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places” (Governor’s Office of Planning and Research 2005).

According to the Tribal Consultation Guidelines: Supplement to General Plan Guidelines (Governor’s Office of Planning and Research 2005), the following are the contact and notification responsibilities of local governments:

- Prior to the adoption or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the Native American Heritage Council [NAHC]) of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts to, cultural places located on land within the local government’s jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code Section 65352.3).
- Prior to the adoption or substantial amendment of a general plan or specific plan, a local government must refer the proposed action to those tribes that are on the NAHC contact list and have traditional lands located within the city or county’s jurisdiction. The referral must allow a 45-day comment period (Government Code Section 65352). Notice must be sent regardless of whether prior consultation has taken place. Such notice does not initiate a new consultation process. Local government must send a notice of a public hearing, at least 10 days prior to the hearing, to tribes who have filed a written request for such notice (Government Code Section 65092).

2.4 County of Riverside General Plan

The Multipurpose Open Space Element of the County of Riverside General Plan (2015) identifies the following five policies related to the preservation of historic properties:

OS 19.1 Cultural resources (both prehistoric and historic) are a valued part of the history of the County.

OS 19.2 The County shall establish a Cultural Resources Program in consultation with Tribes and the professional cultural resources consulting community that, at a minimum would address each of the following: application of the Cultural Resources Program to projects subject to environmental review; government-to-government consultation; application processing requirements; information database(s); confidentiality of site locations; content and review of technical studies; professional consultant qualifications and requirements; site monitoring; examples of preservation and mitigation techniques and methods; curation and the descendant community consultation requirements of local, state and federal law (AI 144).¹

OS 19.3 Review proposed development for the possibility of cultural resources and for compliance with the Cultural Resources Program.

¹ AI refers to an Action Item contained in the General Plan Implementation Program (County of Riverside 2015).

OS 19.4 To the extent feasible, designate as open space and allocate resources and/or tax credits to prioritize the protection of cultural resources preserved in place or left in an undisturbed state. (AI 145)

OS 19.5 Exercise sensitivity and respect for human remains from both prehistoric and historic time periods and comply with all applicable laws concerning such remains.

3 Environmental Setting

The Project area is in western Riverside County, on the northwestern margin of the Perris Valley. Perris Valley is a semi-arid inland alluvial valley that extends generally in a northwest-southeast direction. Perris Valley is within the tectonically stable Perris block at the southern margin of the greater San Jacinto. The Perris block is bounded by the San Jacinto fault in the northeast, the Elsinore-Chino fault zones in the southeast, the Murrieta Hot Springs fault and Wilson Creek in the south, and the Cucamonga fault in the north.

3.1 Bedrock Geology of the Perris Block

The Project is near the northern end of the Peninsular Ranges that extend south from the Transverse Ranges into Baja California and east from the Pacific Ocean to the Colorado Desert (Jahns 1954). A number of isolated granitic mountains, such as the Lakeview Mountains and the Bernasconi Hills, separate Perris Valley from the nearby Moreno, San Jacinto, and Menifee Valleys. Perris Valley is a sub-basin of the San Jacinto watershed and is bounded by the San Jacinto Mountains to the northeast and the Santa Ana Mountains to the southwest. The Perris block, which includes the Project area, comprises mainly granitic rocks of the Cretaceous southern California batholith that have intruded into Jurassic metamorphic rocks.

The batholithic rocks found in the Perris block are composed of primarily granodiorite, but tonalite and gabbro are also present (Larsen 1948). Metamorphic rocks in the Perris block are comprised primarily of metasedimentary rocks of the Bedford Canyon and French Valley formations. However, metavolcanic rocks are also present (Schwarcz 1969). Phyllite, quartzite, schist, meta-conglomerate, meta-chert, gneiss, and amphibolite are also present within the Perris block (Rogers 1965).

Additionally, within the northeastern and southwestern margins of the Perris block, Pliocene and Pleistocene nonmarine sedimentary rocks are commonly observed and include interbedded sandstones and shales, claystone, and conglomerate (Dibblee 1982). The valley bottoms also consist of Quaternary alluvium from fan and landslide deposits at the margins of the adjacent mountains (Rogers 1965).

3.2 Hydrology

Prior to the construction of the Perris Reservoir in 1972, the Perris Valley area relied upon the water provided within the San Jacinto watershed, which is within the larger Santa Ana River watershed. The area was first irrigated in the late 1920s with the development of wells. This was followed by introduction of imported water from the Eastern Municipal Water District in the 1950s (Holmes 1912). Due to water rerouting activities, the natural watercourses within the valley have been heavily affected. Prior to irrigation activities for agricultural practices, runoff in the valley likely occurred in sheet washes and percolated into the ground water or eventually washed into the San Jacinto River.

3.3 Climate

The climate and environment of the region are typical of southern California's inland valleys, with temperatures in the region reaching over 100 degrees Fahrenheit in the summer and dipping to near freezing in the winter. The climate is considered Mediterranean, with hot, dry summers and cooler, wetter winters. The average annual precipitation is approximately 9 to 12 inches. Most precipitation occurs between November and March in the form of rain, with some variable snow in the higher elevations. Precipitation patterns in the region usually result in high surface water flows in the spring and early summer, followed by low surface water flows during the dry season (Schoenherr 1992).

3.4 Biotic Communities

The dominant plant community in the vicinity of the Project area is California sagebrush (*Artemisia californica*). California sagebrush communities are characterized by low-growing, drought-deciduous shrubs that have adapted to the semi-arid Mediterranean climate of southern California. Chamise chaparral gradually grades upward into manzanita chaparral and woodland communities between 3,500 and 5,000 ft amsl. Additional flora in the region includes white sage (*Salvia apiana*), California buckwheat (*Eriogonum fasciculatum*), and black sage (*Salvia mellifera*) (Schoenherr 1992).

Prehistorically, the vegetation in the region likely included representative species of three major plant communities: valley grassland, Riversidian sage scrub, and chamise chaparral. Additionally, restricted riparian communities would have existed near springs or in places where groundwater was close to the surface. Depending on the season and the elevation, various leaves, stems, seeds, fruits, roots, and tubers from many species would have formed an important subsistence base for the Native American communities of the region (Munz and Keck 1959).

4 Prehistoric Context

Archaeological research has established that humans have occupied the area that is now Riverside County for at least 11,000 years. Throughout the prehistoric period (ca. 10,000–200 years Before Present [B.P.]), this portion of Perris Valley was occupied by mobile groups that followed a generalized hunting and collecting subsistence strategy. The earliest evidence of human occupation in western Riverside County was discovered below the surface of an alluvial fan in the northern portion of the Lakeview Mountains, overlooking the San Jacinto Valley, with radiocarbon dates clustering around 9500 B.P. (Horne and McDougall 2008). Another site found near the shoreline of Lake Elsinore, close to the confluence of Temescal Wash and the San Jacinto River, yielded radiocarbon dates between 8000 and 9000 B.P. (Grenda 1997). The cultural prehistory of southern California has been summarized into numerous chronologies, including those developed by Chartkoff and Chartkoff (1984), Warren (1984), Moratto (1984), Heizer (1978), Schaefer (1994), and Horne and McDougall (2008). The cultural prehistory of Western Riverside County was recently summarized by Douglas and others (2022), with a focus on bedrock milling sites. The general framework of the prehistory of western Riverside County can be broken into three primary periods: Paleoindian, Archaic, and Late Prehistoric. These periods are discussed below.

4.1 Paleoindian Period

During the Paleoindian period, Native groups are believed to have been highly mobile nomadic hunters and gatherers organized into small bands. Sites from this period are thought to be very sparse across the landscape and may either yield only meager evidence of human activity, or be rich with flaked and ground stone tool kits, ecofacts, and possibly even structures; most are deeply buried, based on evidence of sites found outside of California dating to this time period (Bruhns 1994; Dillehay 1989, 1997; Lynch 1980; Meltzer et al. 1997; Moratto 1984; Roosevelt et al. 1996). These sites may be found in large, protected caves above floodplains, but near economically important resources in coastal, lake marsh, and valley/riparian environments. These sites may also be found at quarry locations, as well as stable landforms above high stands of pluvial lakes, along ridge systems and in mountain passes, and on stable, not encroached upon, old surfaces along the coast. It is believed that Native peoples of this period created fluted spearhead bases designed to be hafted to wooden shafts. The distinctive method of thinning bifaces and spearhead preforms by removing long, linear flakes, serves as diagnostic Paleoindian markers at tool-making sites. Other artifacts associated with the Paleoindian toolkit include choppers, cutting tools, retouched flakes, and perforators.

4.2 Archaic Period

The Archaic Period is the earliest defined period in the region. This period is also expressed as the "Lake Mojave Period" or the "Western Pluvial Lakes Tradition" and is presumed to have begun somewhat earlier than 9500 B.P. and lasted to perhaps 7000 B.P., specifically in the southwestern Great Basin (Basgall and Hall 1993; Warren 1980, 1984). Wallace (1978:27) noted that the Western Pluvial Lakes Tradition likely represents a portion of regional variants of an early hunting tradition that spread over a wide geographical area, including the coast. During this time, a long period of human adaptation to environmental changes occurred, and was brought on by the transition from the late Pleistocene to the early Holocene geologic period. As conditions became more arid and warmer, megafauna died off and human populations responded to these environmental changes by focusing their subsistence efforts on procuring a wider variety of food sources.

The early portion of the Archaic period was characterized by continued organization of Native groups as nomadic hunters and gatherers, but there is some evidence of semi-sedentary residential occupation. Early occupants of the region are thought to have been nomadic large-game hunters, but resulting from changing environmental factors over time, were forced to become more variable with their food sources. The presence of milling tools indicates the incorporation of vegetal food sources and seed preparation. An apparent decrease in population density during the second half of this period resulted in increased reliance on foraging for Native groups. Technological advances during this period resulted in increased use of milling tools for seed grinding. Archaic sites in the Project region are characterized by abundant lithic scatters of considerable size with many biface thinning flakes, manos and milling stones, bifacial preforms broken during manufacture, and well-made ground stone bowls and basin metates. As a consequence of making dart points, many biface thinning waste flakes were generated at individual production stations; this is an indicative feature of Archaic sites, but archaeological assemblages of this period can vary depending on the differences between subsistence processes at inland and coastal sites. Sites more toward the coast of southern California and outside of the Project area typically present fewer projectile points, as more focus was placed on fishing practices than hunting game.

Additionally, Archaic period sites in the region that present stratified cultural deposits indicate seasonal or longer-term occupation at some of these sites, which further indicates possible sedentary habitation or occupation patterns. It is thought that the general settlement-subsistence patterns in the vicinity of the Project area during the Archaic Period were characterized by a greater emphasis on seed gathering and shallow midden concentrations at sites, suggesting seasonal camping. Based on archaeological assemblages, distribution of sites, and midden depths (or lack thereof in some cases), it is believed that Native Americans in the area followed a central-based wandering pattern that shifted based on the need to exploit seasonal floral resources (cf. Binford 1980; Warren 1968). Specifically, this semisedentary pattern involved a base camp that was occupied during a portion of the year, while other more satellite camps were occupied by smaller groups of people to exploit seasonal resources, such as grass seeds, berries, tubers, and nuts. The exploitation of terrestrial faunal resources was also important, but the population and degree of sedentism at these camps was based on the availability and reliability of water resources. Because of this, it is thought that coastal groups during this period seem to display a higher degree of sedentism compared to the inhabitants of the desert/inland regions in southern California, due to the more reliable and abundant resource base near the ocean.

4.3 Late Prehistoric Period

The Late Prehistoric period is characterized by cooler temperatures and greater precipitation, which resulted in more easily accessible food and water sources. Because the more favorable climate during the period created more reliable food sources, sedentary villages formed and the subsistence base during this time broadened. Native American groups in the region began manufacturing ceramics, such as vessels, using the paddle-and-anvil technique. The technological advancement of the mortar and pestle may also indicate the utilization of acorns as a resource and the practice of storing food resources.

Trade and travel are also seen in the distribution of localized resources, such as obsidian from Obsidian Butte, wonderstone from the south end of the Santa Rosa Mountains and from Cerro Colorado in northern Baja California, soapstone presumed to have come from the mountains to the west, marine shell from both the Gulf of California and the Pacific coast, and ceramic types that were not locally manufactured. Sites from this period typically contain small lithic scatters from the manufacture of small projectile points; expedient ground stone tools, such as tabular metates and unshaped manos; wooden mortars with stone pestles; acorn or mesquite bean granaries; ceramic vessels; shell beads suggestive of extensive trading networks; and steatite implements, such as pipes and shaft straighteners. Other characteristics of this period include the appearance of bone and antler elements within the artifact assemblage and the use of asphaltum. This period also is marked by the appearance of the bow and arrow points and arrow shaft straighteners.

The cultural patterns of the Late Prehistoric period were similar to the previous period; however, the material culture at many coastal sites appears to have become more complex and elaborate. This may be indicative of an increase in sociopolitical complexity, an increased efficiency in subsistence strategies (e.g., the utilization of the bow and arrow), or progressive economic changes that included increased trade activities with other regions. Indicative of increased trade practices during this period between coastal and inland Native groups are the presence of both *Haliotis* and *Olivella* shells and beads, as well as ornaments and split-twig animal figurines at sites in the Project region.

The presence of sites post-dating 500 B.P., along with the high frequency of processing sites and the abundance of a variety of plant resources, faunal remains, and artifacts, suggests that the use

of the Perris valley intensified during the Late Prehistoric period. It has been suggested that this increase in use was the result of the influx of Native American peoples from the surrounding desert region, rather than indicative of an increase in resident population (O'Connell et al. 1974). This shift in population is also believed to coincide with the evaporation of freshwater Lake Cahuilla in the Salton Basin, which could have prompted people to move to a more hospitable environment. Terminal dates for occupation at these sites in the latter half of the Late Prehistoric period are set at approximately 200 years ago (Wilke 1974:24), and it is thought that, by historical times, the Native American occupation of the Perris Valley appears to have ceased.

4.4 Ethnohistory

At the time of European contact, the area that now occupies the Perris Valley was inhabited by the Luiseño and Cahuilla people. These groups followed the hunter-gatherer way of life and were composed of small, highly mobile groups that tracked the seasonal availability of animal and plant resources. The following sections not only describe each group, but it also includes the beliefs and customs of the Native Americans that once inhabited the Project area and its surroundings.

4.4.1 Luiseño

Luiseño territory generally extended from present-day Riverside County south to Escondido, and to Oceanside in the west. Leading anthropological literature regarding the Luiseño culture and history includes Bean and Shipek (1978), Kroeber (1925), and Strong (1929).

Prior to the institution of the mission system, the Luiseño were likely divided between coastal groups and inland groups, or easterners and westerners. When Spanish settlers instituted the mission system in the 1770s, traditional social and political organization was disrupted. Luiseño villages were organized as autonomous neighboring groups loosely connected through a system of lineages and clans (Bean and Shipek 1978). Several clans or villages could be politically autonomous or allied under one chief. Luiseño chiefs were often aided by assistants and they, along with their family, were usually considered the elite and wealthy of their society.

The Luiseño were primarily hunters, gatherers, and harvesters. The landscape within the Luiseño traditional use area varied, and methods of subsistence largely depended on the region of settlement. Hunting and gathering places were owned by individuals, families, the chief, or by the collective community (Bean and Shipek 1978). Game animals included deer, cottontail rabbit, jackrabbit, woodrat, mice, ground squirrels, antelope, quail, doves, ducks, and other birds. Acorns, roots, leaves, seeds, and the fruits of many other plants were also common sources of food.

The material culture of the Luiseño included a wide variety of utilitarian items, including projectile points, woven and skin mats, baskets, pottery ollas, shell and bone fishhooks, cooking slabs, digging stick weights, manos, metates, and mortars (Bean and Shipek 1978). Most Luiseño houses were constructed of locally available material; typically, they were conical and partially subterranean, and often featured an adjacent brush-covered ramada for domestic chores. The shelters were made of locally available material such as reeds, brush, or bark. A door within the side of the shelter of a short tunnel was used to enter the structure. Other buildings found in most villages included earth-covered sweat houses, ceremonial houses with fenced areas, and granaries for food storage (Bean and Shipek 1978).

The Luiseño understand the universe in terms of power, and that this power is the cause for all phenomena. Therefore, natural phenomena are viewed as repositories or concentrations of power. Features such as mountain tops, springs, unusual rock formations, and rivers are revered and

viewed as especially sacred to the Luiseño. Many natural features in the region of the Project are considered sacred, and ceremonies were traditionally performed at them; some features were also incorporated into ceremonies. Additionally, many species of birds, especially eagles and birds of prey and their symbolic representations, are held as sacred beings of great power to the Luiseño. Birds were often ritually killed for ceremonies, and, for this reason, bird cremation sites are also held sacred.

Rituals and ceremonies were a constant practice of the Luiseño. Some were regularly scheduled (e.g., birth, death, and puberty), and others were more sporadic (e.g., bird dance, rain rituals, and enemy songs)(Bean and Vane 2001:VII.A-3-A-10).

It is estimated that when Spanish colonization of Alta California began in 1769, the Luiseño had approximately 50 active villages with an average population of 200 each, although other estimates place the total Luiseño population between 4,000 and 5,000 (Bean and Shipek 1978). Ultimately, Luiseño population declined rapidly after European contact. This was the result of diseases, such as smallpox, and harsh living conditions at the missions and, later, the ranchos where the Native American people often worked as seasonal ranch hands. By the 1840s, many of the Native American populations in what is now southern California had experienced years of extreme social stress and had become estranged from many of their traditional cultural practices and lands, lost political autonomy, and had even become enslaved and killed (Bean and Vane 2001:MS-8, IX:.D-21).

After the American annexation of California, the influx of American settlers further eroded the foundation of the traditional Luiseño society. During the latter half of the nineteenth century, almost all the remaining Luiseño villages were displaced, and their occupants eventually removed to the various reservations. Many of the displaced Native Americans at this time also joined the non-missionized Native Americans in the inland mountain and deserts of the region (Bean and Vane 2001:IX.C-10). Today, the nearest Native American groups of Luiseño heritage are associated with the Soboba, Pechanga, and Pala reservations.

4.4.2 Cahuilla

The Cahuilla are generally divided into three groups based on their geographic setting: the Pass Cahuilla of the Beaumont/Banning area; the Mountain Cahuilla of the San Jacinto and Santa Rosa Mountains; and the Desert Cahuilla from the Coachella Valley and as far south as the Salton Sea. Leading anthropological literature regarding the Cahuilla culture and history includes Bean (1978), Bean and Shipek (1978), Kroeber (1925), and Strong (1929).

Prior to European contact, population estimates for the Cahuilla range from 3,600 to 10,000. Villages were located near canyons that received substantial rain or were adjacent to streams and springs (Bean 1978). The Cahuilla were socially organized based on a system of lineages or clans composed of three to 10 lineages, all named, that were distinct, but claimed a common genitor or founding lineage (Bean 1978:580; Bean and Vane 2001:V.A-2). Clans would often own a large territory in which each lineage owned a village site or resource areas and would cooperate in large, communal subsistence activities and perform rituals together. Founding lineages often owned the role of ceremonial leader within their village, the ceremonial house, and a ceremonial bundle (Bean and Vane 2001:V.A-2-A-5).

Like the Luiseño, the Cahuilla were also hunters, gatherers, and harvesters. Common sources of food included acorns, screw beans, mesquite, pinyon, cactus fruits, seeds, wild berries, tubers, roots, and greens. Common game animals included deer, antelope, big horn sheep, rabbits, and wood rats (Bean 1978). The main difference between the subsistence patterns of the Cahuilla and Luiseño is that the Cahuilla did not have the access to the fishing and additional gathering sites

along the coast, as their traditional territories were limited to the inland desert foothills, mountain areas, ancient Lake Cahuilla, and the surrounding valleys.

The material culture of the Cahuilla included a wide variety of utilitarian items, including projectile points, manos and metates, mortars and pestles, hammerstones, fire drills, awls, shaft straighteners, and stone knives and scrapers. The Cahuilla also manufactured pottery for items such as ollas and cooking pots. House structures of the Cahuilla ranged from brush shelters, some wattled and plastered with adobe mud, or dome-shaped structures during the pre-contact period, to rectangular structures that were 15 to 20 ft (4.5 to 6 meters [m]) long in the post-contact period (Bean 1978). The entry into the shelters were often covered by hides or woven mats. The chief's house was usually the largest of the village and built next to the ceremonial house. Oftentimes, domestic activities took place outside of the shelters under shaded ramada structures. Cahuilla village sites also included a men's sweat house and several granaries (Bean 1978:578; Bean and Vane 2001:VI.D-1).

Like the Luiseño, the Cahuilla understand the universe in terms of power, and that this power is the cause for all phenomena. Therefore, natural phenomena are viewed as repositories or concentrations of power. Features such as mountain tops, springs, unusual rock formations, and rivers are revered and viewed as especially sacred to the Cahuilla. Many natural features in the region of the Project are considered sacred, and ceremonies were traditionally performed at them; some features were also incorporated into ceremonies. Additionally, many species of birds, especially eagles and birds of prey and their symbolic representations, are held as sacred beings of great power to the Cahuilla. Birds were often ritually killed for ceremonies, and, for this reason, bird cremation sites are also held sacred.

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As a result of European diseases, most notably smallpox, the Cahuilla population was decimated during the nineteenth century. The Cahuilla experienced similar conditions to the Luiseño and were also displaced from their traditional cultural practices and lands, enslaved, killed, and forced into the mission system. After the establishment of ranchos and property grants, many Cahuilla also became ranch hands after being forced to leave the mission. Many individuals were left to fend for themselves and often joined non-missionized Native American in the region, or were sent to nearby reservations. Today, Native Americans with Cahuilla affiliation are associated with the Agua Caliente Band of Cahuilla Indians, Augustine Band of Cahuilla Indians, Cabazon Band of Mission Indians, Cahuilla Band of Mission Indians, Los Coyotes Band of Cahuilla and Cupeño Indians, Morongo Band of Mission Indians, Ramona Band of Cahuilla Indians, Santa Rosa Band of Cahuilla Indians, and Torres-Martinez Desert Cahuilla Indians.

5 Historical Context

Settlement by Euro-Americans began in the mid-to-late nineteenth century with the establishment of ranching operations, which were soon followed by the arrival of homesteaders drawn to the area. By the end of the nineteenth century, the California Southern Railway was constructed through the region, triggering the development of several towns along the railroad corridor. Development in the Perris Valley continued steadily through the first decades of the nineteenth century. With the arrival of World War I (WWI), the United States rushed to build its military forces in anticipation of participating in the contingency. The establishment of Camp Haan

and, successively, March Air Force Base brought a boom in construction and development to the northern portion of Perris Valley. The following sections consider, in detail, these cultural developments.

5.1 Spanish Exploration and Mission Period: 1771–1821

Spanish settlement of Alta California began in 1769, with the establishment of a presidio and mission near San Diego. In 1770, a second presidio and mission were founded in Monterey. These two settlements were used as bases from which to colonize the rest of California. The Spanish also laid out pueblos, or towns, along the coast. Providing supplies, animals, and colonists to the Spanish missions and presidios by way of ship was difficult, time-consuming, expensive, and dangerous. Thus, an overland route was necessary to initiate a strong colonizing effort in Alta California. In 1774, Captain Juan Bautista de Anza crossed the San Jacinto plains with a small party of soldiers to establish an overland route through Alta California.

Within the mission system, the Riverside County area was considered part of the lands administered by the San Diego presidio and Mission San Luis Rey. Mission San Luis Rey was founded in 1798 by Padre Fermín Lasuén. At its prime, San Luis Rey was one of the most prolific missions in California. The mission controlled approximately 950,400 acres of land and contained over 3,000 converted Native people that helped tend the land and care for approximately 50,000 heads of livestock (Gunther 1984).

5.2 Mexican (Rancho) Period: 1821–1848

The prosperity of the mission system was cut short when Mexico gained its independence from Spain in 1821. Soon after, the Mexican government enacted the Secularization Act of 1833, which dissolved the mission system. Former mission lands were fragmented and redistributed to new owners (Gunther 1984). In 1842, Don Jose Antonio Estudillo was granted the Rancho San Jacinto Viejo, a 35,000-acre parcel, by Mexican Governor Juan B. Alvarado. The rancho, which included an area encompassing the present areas of Hemet, San Jacinto, Valle Vista, and Winchester, was used to graze cattle. The upper portions of the Perris and San Jacinto valleys were granted to Miguel de Pedorena by Governor Pio Pico on January 14, 1846; the rancho covered 48,861 acres and was known as Rancho San Jacinto Nuevo y Potrero. Later that year, Pico granted 48,847 acres in the western half of Perris to Maria del Rosario Estudillo de Aguirre; the Rancho El Sobrante de San Jacinto included portions of western Perris Valley, the Canyon Lake area, and the Lake Mathews region (Holmes 1912). The Project area is between the two rancho territories. Cattle and agriculture were the economic engine that drove the rancho way of life, which continued until the second half of the nineteenth century with the arrival of American and other new settlers into California.

5.3 American Period: 1849–Present

5.3.1 Perris Valley and the Town of Alessandro

In 1848, the Mexican American War came to an end with the signing of the Treaty of Guadalupe Hidalgo. California became a United States territory and, in 1850, was granted statehood. Before the California Southern Railroad built a route connecting San Diego to San Bernardino, by way of Temescal Canyon, the area where the future town of Perris would be founded was known as the San Jacinto Plains. With the success of the agricultural activities in the newly established city of Riverside to the west, farmers headed east to the San Jacinto plains in the 1880s to pursue

ranching and dry farming (Holmes 1912). American settlement in the region was slow and sporadic, but settlement in the Perris Valley received a major boost when the California Southern Railroad was constructed through the Perris Valley in 1882–1883. The route, which was eventually connected to the Atchison, Topeka, and Santa Fe Railway, resulted in the establishment of several towns within the Perris Valley along the railroad corridor.

Perris is named in honor of Frank T. Perris, who was the chief engineer of the California Southern Railroad that was established in Perris in the 1880s. The Perris station came online in 1886, which spurred commercial and residential development. Perris incorporated in 1911. In its early days, Perris was largely an agricultural community reliant on dry farming. When it came time in the early 1900s to consider how to provide the growing cities of southern California with water, surveyors proposed a path that went from the Colorado River, near Blythe, and headed west through the Coachella Valley and Riverside. The Department of Interior set aside land starting in 1902 for the above ground and underground alignments of a conduit to connect a series of reservoirs between Riverside and Los Angeles. Between 1933 and 1939, the Metropolitan Water District (MWD) constructed the 242-mile-long Colorado River Aqueduct, which consists of open canals, covered conduits, siphons, tunnels, and pumping plants that carry water to the coastal regions of southern California. The aqueduct is subterranean at this location and traverses below the Project area. The U.S. Government purchased land in Section 12 and held it until the completion of the Val Verde Tunnel of the MWD's Colorado River Project in 1941. March Air Field is northeast of the Project area and was constructed in 1917 in response to WWI. March Air Field attracted residents to the area, as it provided jobs. Today, Perris is known as a popular spot for parachuting and is largely a bedroom community for residents commuting to Riverside and Temecula for work (Burgess 2021; Daly 2021; Gruen 1998).

5.3.2 March Air Force Base

The deployment of the U.S. Army on Alessandro Aviation Field in 1918 started a long history of military presence in the area. After the arrival of the U.S. Army, Alessandro Field was quickly renamed March Field on March 20, 1918, in honor of Second Lieutenant Peyton C. March, Jr., son of the Army Chief of Staff, who had been killed in a flying accident in Texas the previous month. Construction was fast, and in a record 60 days, the desolate agricultural landscape surrounding the air field was transformed into a fully functional military training base that included 12 hangers, six barracks equipped for 150 men each, mess halls, a machine shop, a post exchange, a hospital, a supply depot, an aero repair building, bachelor officer's quarters, and a residence for the commanding officer (March Field Air Museum [MFAM] n.d.; Mueller 1982). Although the end of WWI did not stop the activities at March Field, by 1923 the base had closed its doors and military activity remained silent for a few short years.

In 1926, the creation of the Army Air Corps and commissioning of the Army's five-year plan by Congress prompted an expansion in pilot training and the activation of tactical units (MFAM n.d.; Mueller 1982). The establishment of more military training installations across the nation allowed March Field to transition from a military training installation to an operational base in 1931. Before the end of the year, March Field became home of the Air Corp's heaviest aircraft, as well as an assortment of fighters.

In the decade before World War II (WWII), March Field took on much of its current appearance. Training activities resumed at March Field after the attack on Pearl Harbor in December of 1941. During this period, the base doubled in size, and at the climax of the war effort supported approximately 75,000 troops. In that same year, the government purchased a similar-sized tract of land west of the Perris highway and established Camp Haan as an anti-aircraft artillery training

facility. During WWII, the camp supported as many as 85,000 troops at its height of activity. Soon after the war, Camp Haan was decommissioned, and in 1946 its grounds became part of March's real estate holding (Butler 2009; MFAM n.d.).

After the war, March Field reverted to its operational role and became a Tactical Air Command base; on January 13, 1948, was renamed March Air Force Base (MAFB). In 1949, MAFB became part of the Strategic Air Command during the postwar reorganization of the Army Air Force. Soon thereafter, the Fifteenth Air Force Headquarters, along with the 33d Communications Squadron and the 22d Bombardment Wing, made MAFB their home. These three units remained as dominant features of base activities for years to come. From 1949 to 1953, the B-29 Superfortresses dominated the hangars at MAFB. During the Korean War, the 22nd Bombardment Wing converted from the huge propeller-driven B-29s to the sleek B-47 jet bombers and their supporting tankers, the KC-97s. The new planes represented a huge leap in technology, and planes, along with crews, began breaking altitude and distance records. The new refueling planes also allowed for a significant increase in operational range (MFAM n.d.).

In 1960, the first Reserve unit was assigned to MAFB, flying C-119s. Throughout the 1960s, the base saw the replacement of the B-47 bombers and KC-97 tankers with the B-52B giant bombers and the new KC-135 jet "Stratotankers." For the next 20 years, these planes dominated the skies over southern California. In the 1980s, MAFB saw major restructuring of its units. These changes included the retirement of the wing's last B-52 bomber, the reassignment of the 22d Bombardment Wing as an air refueling wing with the new KC-10 tanker, and the arrival of the California Air National Guard with their F-4Cs (MFAM n.d.). In 1993, MAFB was selected for realignment. Between 1993 and 1994, the 445th Airlift Wing was transferred to MAFB from Norton Air Force Base, California, the 22d Air Refueling Wing was transferred to McConnell Air Force Base, Kansas, and the 722d Air Refueling Wing stood up at March Air Reserve Base. Additionally, the MAFB's two Reserve units, the 445th Airlift Wing and the 452d Air Refueling Wing were deactivated and their personnel and equipment joined under the 452d Air Mobility Wing. On April 1, 1996, MAFB officially became March Air Reserve Base (MFAM n.d.).

6 Research Design

A research design is an explicit statement of the theoretical and methodological approaches to be followed in a cultural resources study (California Office of Historic Preservation [OHP] 1990). Inventory studies, such as this one, rely on data from archaeological and historical resources visible on or above the ground surface, with supplemental information provided by archival research and literature review (OHP 1991). In such studies, the focus of the research design is to ensure the adequacy of the identification effort. Should any identified resources within the Project area have sufficient age and integrity to warrant consideration for CRHR eligibility, then relevant research questions and data requirements may be posed to evaluate the significance of the resource and make recommendations regarding determinations of eligibility. For prehistoric period resources, the following research themes draw from the Archaeological Research Design for Western Riverside County (Douglas et al. 2022).

6.1 Prehistoric Period Research Themes

6.1.1 Settlement Pattern Change

Settlement patterns are spatially ordered systems of land use, influenced by the subsistence base of a given group, their relations with neighbors, local environmental variables, and other factors. A robust understanding of ancient landscapes is a necessary condition for understanding how and why groups positioned and organized themselves on an annual basis. Geomorphic processes have profoundly altered both the local and regional landscapes, and these processes were driven by environmental conditions that differed greatly from today.

Settlement Pattern Changes Research Questions

The following research questions are proposed pertaining to changes in land use patterns:

- How did precontact societies adapt to changing landscapes?
- What were the determining factors of site location?
- What types of sites are represented throughout the prehistoric era?
- What was the function of each site during each period?
- What resources were locally available at any point in time? Were sites placed to target seasonally available resources, or near types of resources that could be easily collected in daily foraging events?
- What were the prevailing environmental conditions during site occupation? Was the site located to take advantage of critical economic resources that were available during the period of occupation, but are no longer extant due to changing environmental conditions?
- Due to local geomorphic processes, does the site have the potential to contain deeply buried cultural deposits?
- Are there statistical changes in the proportion of site elements (milling slicks, occupation loci, etc.) from various temporal periods?

Data Requirements

Chronological placement of the various sites is the first priority, using temporally diagnostic artifacts and chronometric data. Analysis of artifacts and features will be used to infer site function. Specific artifacts required to assess site function may include artifacts associated with hunting (e.g., projectile points) and resource processing (e.g., ground stone), as well as faunal remains and macrobotanical remains. The analysis of pollen samples from discrete cultural contexts may provide data on the local environmental conditions during the period(s) of site occupation, and how those conditions may have changed over time. Protein residue analyses may provide information on the types of animals or flora that were processed or consumed at the site. Once the site's occupation period and function have been determined, geoarchaeological information on the landforms on which the sites are located is needed. These data can be used to assess settlement patterns associated with different time periods, changing environmental conditions, and site types.

6.1.2 Subsistence Practices

Studies of precontact subsistence are integral to understanding human relationships with the natural environment. It is through exploitation of natural resources that humans are able to procure the basic means for survival. How people interacted with these resources can lead to understanding of basic dietary needs, land-use strategies, settlement systems, and seasonality. Both direct (floral and faunal materials) and indirect (artifacts such as milling stones, projectile points, fire-altered rock, etc.) data allow researchers to construct models to answer questions about precontact subsistence practices. Subsistence data can provide important information that can be used to investigate the ways in which people organize themselves in relation to their surroundings. Subsistence studies can explore the ways in which people acquired their food and other necessities, and how they organized themselves to meet their basic daily needs. When combined with settlement pattern data, subsistence studies can also answer broader questions about cultural change and adaptation within a region or study area. As such, sites containing subsistence data may be eligible for listing in the CRHR due to their potential to contribute important information in prehistory.

Subsistence Practices Research Questions

The following research questions are proposed pertaining to subsistence practices:

- What are the relative proportions of different floral and faunal elements in the diet?
- What plant and animal species constituted the diet?
- Do pollens or other paleoclimatic indicators from within the region denote changing environmental conditions or significant shifts in plant community location or composition that would have necessitated adaptive adjustments?
- Can specific plant gathering and processing technologies be linked to the exploitation of various principal floral taxa (e.g., manos and metates with hard seeds; scraper planes with agave/yucca)?
- Do the types and species of floral and faunal resources reflect seasonality of site use or other paleoenvironmental trends?
- Can the site's components or constituents provide information on the intensity of duration of occupation, and what can that inform us on the type of site and why it was occupied?

Data Requirements

The types of data needed to address these questions will include faunal and floral remains from excavated, dated contexts. Other potential data sources include analyses of bedrock milling features, artifacts composed of stone, wood, and bone that functioned in the procurement or processing of foodstuffs, and archaeological features such as roasting pits, fire hearths, and storage pits. Finally, subsistence data may also be obtained from specialized studies that include the lipid analysis of ceramic sherds, protein residue analysis of flaked and ground stone tools, and the examination of recovered fish otoliths.

7 Methods

Background research and Native American consultation were both conducted by Chronicle Heritage during Phase I of this project. See Knabb and others (2023) for details on those activities. Phase II fieldwork consisted of an intensive concentrated survey, and excavation of 35 shovel test probes (STPs) in a predetermined distribution throughout the sites CA-RIV-8681 and CA-RIV-8683. This section details these methods.

7.1 Field Methods

The primary purpose of the Phase II investigations is to determine the presence or absence of buried prehistoric archaeological deposits or artifacts associated with the bedrock milling features, and to evaluate the sites for eligibility in the CRHR. To achieve this, Chronicle Heritage excavated a series of STPs within portions of the development footprint adjacent to bedrock milling features. Prior to the start of subsurface excavations, limited brush clearing by hand occurred in the vicinity of the eight features and artifacts that were covered by dense vegetation at the time of the Phase I survey. Following the removal of vegetation, Chronicle Heritage archaeologists carefully inspected the cleared areas in an attempt to locate the features and artifacts recorded by \mathcal{A} that could not be re-identified during the Phase I survey.

The STPs were excavated systematically in a grid-like pattern spaced 15 m across the site boundaries and around each locus when allowed by terrain and vegetation. Excavation crews navigated the grid in ESRI Field Maps on tablets and handheld global position system (GPS) units. Field iPads included all Project maps and relevant site forms. All resources were recorded with a GEODE GNS3S data collector GPS unit with sub-meter accuracy that was compatible with iPad-based ESRI Field Maps for ArcGIS web application via Bluetooth. No artifacts were collected during the fieldwork effort. Twenty-nine STPs were proposed within CA-RIV-8681 among the 22 milling features, and the artifact and lithic scatters; 6 STPs were planned within CA-RIV-8683 among the five milling features. Each STP was 30 centimeters (cm) in diameter and was excavated in 20 cm levels to a maximum depth of 100 cm, until two consecutive sterile levels were met, or bedrock was encountered.

Archaeologists recorded the color, compaction, texture and composition of all soils and sediments encountered. Munsell soil color charts were used to identify soil color. Sediment removed from STPs was sifted through 1/8-inch hardware mesh. A Universal Transverse Mercator (UTM) coordinate was recorded at the approximate center of each unit. Horizontal provenience for any and all cultural material was controlled by readings taken with a GPS receiver, providing satellite-based positioning information to sub-meter accuracy. Vertical provenience was controlled with measurements along the depth of each STP. Digital photographs were taken of each STP. Each STP was backfilled with the excavated soil.

In the case of the recovery of artifacts or cultural material, the remains would be carefully examined to determine if they are associated with substantial subsurface archaeological deposits. As defined for this Phase II study, substantial archaeological deposits include features, midden sediments, or artifact concentrations containing three or more artifacts within a 5 by 5 m area. If a substantial archaeological deposit were to be encountered within an STP, then a test excavation unit (TEU) would be excavated in the vicinity to obtain additional information on the nature and extent of these deposits.

If any artifacts were to be encountered that are not classified as human remains or grave goods, they were to be collected and temporarily stored in a secured room at Chronicle Heritage's laboratory in San Diego, California. The applicant has proposed an on-site reburial location within an area that will be developed for landscaping and will not be disturbed in the future (Appendix B). The reburial will take place following testing and ground disturbing activities, but prior to the completion of construction. The final disposition of the artifacts and a means to protect them from future disturbance shall be determined through consultation between the landowner, the County, and Native American tribes.

The current conditions of the Project area were documented with digital photographs that included general views of the topography, vegetation density, and other images. A photograph log was maintained to include photograph number, date, orientation, photograph description, and comments. The excavators carefully inspected soils likely to contain or exhibit sensitive cultural materials to ensure discovery and documentation of visible, potentially significant cultural resources within the Project area. In particular, the excavation crew carefully inspected any subsurface exposures, including rodent burrows and cut banks. Data regarding soil typology and subsurface findings were collected and subsequently logged by level on an STP form.

7.1.1 Site and Isolated Occurrences Definitions

The OHP's Instructions for Recording Historical Resources (OHP 1995) defines a site as the location of a prehistoric or historic-era occupation or activity. A district is defined as possessing a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. The term "structure" is used to distinguish from buildings, or those functional constructions usually made for purposes other than creating human shelter.

For the purpose of this study, a "site" was defined as a location that has material evidence of past life, activities, and culture. The California standard is to record any cultural resources over 45 years of age, despite the NRHP threshold of 50 years of age. In general, an archaeological site should exhibit at least one of the following:

- One or more features
- Five or more artifacts in clear association within a 25 square m (5 × 5 m) area
- Fewer than five artifacts that have data potential or are "diagnostic" (i.e., fluted points)

Resources separated by more than 30 m or located on different landforms were recorded as distinct sites or as isolates unless other indicators suggested a close association. Isolates were defined as fewer than five artifacts that are greater than 45 years old.

8 Results

8.1 Field Investigations

Phase II investigation of the two sites, CA-RIV-8683/H and CA-RIV-8681, was performed by Chronicle Heritage archaeologists Earl Morales, Marit Van Cant, Shakira Habib, and Camille Hakeem, from January 29 through February 2, 2024. Visibility across the Project area varied from 0 to 100 percent; portions of the ground surface were covered completely by hardscape roadway, dense grasses, and native and invasive vegetation, and recent plowing has completely exposed the ground surface in others (Figure 8-1 and Figure 8-2). The ground surface within the Project area is

relatively level, with a gradual downward slope to the southeast, and an eastward-flowing ravine/wash in the southern extent. Exposed sediments consisted of a brown, silty sand throughout, and partially exposed grayish bedrock in the east. Recent burn scars along the southeast corner of the property allowed for better visibility, but likely indicates more surface damage to existing bedrock milling features (Figure 8-3).

A total of 35 manually excavated STPs were conducted across the Project area in a grid pattern. Some of the STP locations were offset slightly, as they were initially plotted on top of granite boulder outcrops, but these were moved by no more than 2 m. Appendix B includes a map showing the locations of the STPs. The results of the Phase II testing follow.



Figure 8-1. Overview of the Project site, facing north.



Figure 8-2. Overview of surface disturbance throughout the Project site, facing north.



Figure 8-3. Overview of wash with recent burn scars, facing west.

8.2 Archaeological Sites

8.2.1 CA-RIV- 8681 (P-33-016534)

A short intensive survey was conducted prior to site testing in an attempt to locate the artifacts described in Locus 1 and Locus 2 from previous studies. Recent rains in the area have caused severe vegetation overgrowth and moderately damp soils. Overgrown vegetation was cleared within the immediate area of their recorded locations and the surface was carefully searched for the artifacts. After an exhaustive search was conducted within both loci, the cultural constituents could not be located. Site testing then continued with a total of 29 STPs placed within the boundary of the site, including two at the base of the newly recorded Locus 3, (STP 10 and 11). Three STPs were discontinued due to subsurface blockages; STP 7 was terminated at 35 cm, and both STPs 25 and 26 were terminated at 30 cm. All the STPs provided sterile results for prehistoric cultural materials, and little to no visible subsurface disturbances, to include flora and fauna. A total of 29 STPs were excavated in CA-RV-8681. Appendix C includes an updated Department of Parks and Recreation (DPR) 523 series site record form.



Figure 8-4. Overview of site CA-RIV-8681, facing east.

With the exception of STPs 12 and 27, the topsoil layer of CA-RIV-8681 extended unilaterally to approximately 25 cm deep throughout the site (see Table 8-1). Soils exhibit a consistent Munsell typology of 10YR 3/4 to 10YR 4/4 brown sandy loam with slightly loose, but friable medium/coarse grain in the middle and northern half of the site. STPs in the southern half of the site mostly displayed a Munsell color of 7.5 YR 3/4, and remained similar in consistency with the overall site of friable medium coarse sandy loam, although it becomes a finer grain with increased depth across the site. Topsoil encountered in STP 27 was shallow and transitioned to the decomposing granite bedrock layer, displaying a color of 10YR 4/2 Dark grayish brown in a large, coarse blocky grains through to the termination at approximately 10 cm deep. The topsoil layer remained similar in color and consistency, becoming finer in grain with depth in excavation; a discrete soil change was encountered in only one location, STP 12. The topsoil at this location encountered a slight change in color and consistency at a depth of 10 cm from 7.5 YR 3/4 Dark Brown Coarse grained granular friable loamy sand, to 10YR 3/3 Dark Brown Coarse grained granular friable loamy sand, with a higher concentration of mica below a layer of modern soil erosion mesh.

Table 8-1. CA-RIV-8681 STP List

STP No.	Unit Diameter	Unit Depth	Results	Munsell Type	Color	Sediment Description
5	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
6	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
7	30 cm	35 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica

Phase II Testing and Evaluation for the Cajalco and Seaton Warehouse and Park Project,
Mead Valley, Riverside County, California

8	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
9	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
10	30 cm	40 cm	Negative	7.5 YR 3/4	Dark Brown	Coarse grained granular friable loamy sand
11	30 cm	40 cm	Negative	7.5 YR 3/4	Dark Brown	Coarse grained granular friable loamy sand
12	30 cm	0-20 cm	Negative	7.5 YR 3/4	Dark Brown	Coarse grained granular friable loamy sand, color change at 10 cm to 10 YR 3/3, soil retains consistency, slight concentration of mica
12	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
13	30 cm	40 cm	Negative	7.5 YR 3/4	Dark Brown	Coarse grained granular friable loamy sand
14	30 cm	40 cm	Negative	7.5 YR 3/4	Dark Brown	Coarse grained granular friable loamy sand
15	30 cm	40 cm	Negative	10YR 3/4	Dark yellowish brown	Coarse grained granular friable loamy sand, low concentration of mica
16	30 cm	40 cm	Negative	7.5 YR 3/4	Dark Brown	Coarse grained granular friable loamy sand
17	30 cm	40 cm	Negative	7.5 YR 3/4	Dark Brown	Coarse grained granular friable loamy sand
18	30 cm	40 cm	Negative	7.5 YR 3/4	Dark Brown	Coarse grained granular friable loamy sand
19	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
20	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
21	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
22	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica

Phase II Testing and Evaluation for the Cajalco and Seaton Warehouse and Park Project,
Mead Valley, Riverside County, California

23	30 cm	40 cm	Negative	7.5 YR 3/4	Dark Brown	Coarse grained granular friable loamy sand
24	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
25	30 cm	30 cm	40 cm negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
26	30 cm	30 cm	Negative	10YR 4/2	Dark grayish brown	Coarse grained granular friable loamy sand extending to the bedrock
27	30 cm	0-10	Negative	10YR 4/2	Dark grayish brown	Little to no sediment, decomposing bedrock
28	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
29	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica and a layer of imported gravel at 10 cm
33	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
34	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
36	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
37	30 cm	40 cm	Negative	10YR 4/2	Dark grayish brown	Coarse grained granular friable loamy sand

CRHR Evaluation

Site CA-RIV-8681 does not appear to have been previously evaluated for listing in the CRHR. Chronicle Heritage evaluated the site as part of the Phase II study. Although bedrock outcrop milling sites are broadly associated with subsistence and settlement strategies of the local Native American occupation of the Riverside region during the prehistoric period, the results of the testing indicate that the site is not associated or connected with significant events, nor does it contain any attributes that convey specific association with an important person of significance. As such, the resource is not eligible for listing in the CRHR under Criteria 1 or 2. The site also does not embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or possess artistic value; therefore, the resource is not eligible for

listing in the CRHR under Criterion 3. The results of the testing and the general surface condition of the site indicate that the site lacks subsurface deposits, or subsurface components altogether. Combined with the exhaustive recording of the surface artifacts and bedrock milling features, the site is not likely to yield additional information important to the further understanding of the history of Riverside County. The potential of the site appears to have been exhausted by recordation; therefore CA-RIV-8681 also does not appear to be eligible for listing in the CRHR under Criterion 4. Site CA-RIV-8681 is recommended not eligible for listing in the CRHR under any criteria.

8.2.2 CA-RIV-8683/H (P-33-016536)

As described above, CA-RIV-8683 was originally documented by Æ in 2006 as a prehistoric site consisting of a milling slick on a bedrock outcrop. Revisit during the Phase I survey found that the site was less than 30 m from CA-RIV-8684/H, a multicomponent site also recorded by Æ in 2006 (Figure 8-5). Due to their proximity to one another, the two sites were combined into one site under the designation CA-RIV-8683/H. Each previously recorded site was reclassified as a locus, with the site now consisting of two loci, and a revised site boundary of 66 by 21 m. STP placement was distributed throughout the perimeter following the site boundary, and near bedrock milling feature OC-2. These areas were identified as most likely to have potential cultural materials. A total of six STPs were excavated in CA-RIV-8383/H. See Appendix C for the updated DPR 523 series site record form.

Soils within the six STPs excavated at site CA-RIV-8683/H, along the north end of the Project area, were richer in silt, having a blockier, compactable solid matrix and a Munsell color of 10YR 3/3, dark brown coarse grained granular friable loamy sand with a higher concentration of clay and mica (Figure 8-6, Table 8-2). All STPs were excavated to a depth of 40 cm, with the exception of STP 30 which was terminated at less than 10 cm deep due to reaching bedrock blockage. Multiple test probes were attempted within 3 m of the STP in all cardinal directions, all of which reached bedrock within 10 cm as well. All STPs within the site returned negative results, having no cultural constituents, and little to no visible subsurface disturbances, to include flora and fauna.

Table 8-2. CA-RIV-8683/H STP List

STP No.	Unit Diameter	Unit Depth	Results	Munsell Type	Color	Sediment Description
1	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
2	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
3	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
4	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica

Phase II Testing and Evaluation for the Cajalco and Seaton Warehouse and Park Project,
Mead Valley, Riverside County, California

30	30 cm	3 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica
31	30 cm	40 cm	Negative	10YR 3/3	Dark Brown	Coarse grained granular friable loamy sand, high concentration of mica



Figure 8-5. Overview of CA-RIV-8683/H, facing east.



Figure 8-6. Overview of STP 31 at final depth of 40 cm.

CRHR Evaluation

Site CA-RIV-8683/H does not appear to have been previously evaluated for listing in the CRHR. Chronicle Heritage evaluated the site as part of the Phase II study. Although bedrock outcrop milling sites are broadly associated with subsistence and settlement strategies of the local Native American occupation of the Riverside region during the prehistoric period, the results of the testing indicate that the site is not associated or connected with significant events, nor does it contain any attributes that convey specific association with an important person of significance. As such, the resource is not eligible for listing in the CRHR under Criteria 1 or 2. The site also does not embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or possess artistic value; therefore, the resource is not eligible for listing in the CRHR under Criterion 3. The results of the testing and the general surface condition of the site indicate that the site lacks subsurface deposits, or subsurface components altogether. Combined with the exhaustive recording of the surface artifacts and bedrock milling features, the site is not likely to yield additional information important to the further understanding of the history of Riverside County. The potential of the site appears to have been exhausted by recordation; therefore CA-RIV-8683/H also does not appear to be eligible for listing in the CRHR under Criterion 4. Site CA-RIV-8683/H is recommended not eligible for listing in the CRHR under any criteria.

9 Summary and Management Recommendations

T&B Planning retained Chronicle Heritage to conduct a cultural resource assessment of the Project area in compliance with CEQA. The Phase II testing and evaluation findings at the sites in question (CA-RIV-8681 and CA-RIV-8683/H) yielded negative results across all excavated STPs. Archaeologists were also unable to locate the previously recorded cultural constituents within the sites. The bedrock milling features within the sites and surrounding area fit into a larger theme of prehistoric archaeological sites that have been heavily impacted by historical and modern processes combined with natural environmental factors, both of which have further deteriorated the integrity of these sites. The testing indicated that there are no subsurface deposits or subsurface components at either site. Combined with the poor surface condition, the sites do not maintain the potential of providing greater insights into patterns of subsistence and settlement within the sites or within the region. It is the professional opinion of Chronicle Heritage that both sites are recommended as not eligible for listing in the CRHR. No further cultural resources management is recommended within the Project area.

CERTIFICATION: I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this archaeological and built-environment resources report, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

DATE: 22 February 2024

SIGNED: 

PRINTED NAME: Name: Richard Guttenberg
Title: Office Principal

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- 2006d P-33-016537 site record on file at the Eastern Information Center, University of California, Riverside
- 2006e P-33-016538 site record on file at the Eastern Information Center, University of California, Riverside
- 2006f P-33-016539 site record on file at the Eastern Information Center, University of California, Riverside
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Appendix A. Resumes of Key Personnel



RICHARD GUTTENBERG, M.A., RPA

Office Principal, Principal Investigator, Cultural Resources

EDUCATION

M.A., Anthropology, Certificate in Geographic Information Systems (GIS), California State University, Los Angeles, 2014

B.A., Anthropology, California State University, Long Beach, 1997

YEARS OF PROFESSIONAL EXPERIENCE

26

REGISTRATIONS / CERTIFICATIONS

OSHA HAZWOPER, 2008 - present

PROFESSIONAL AFFILIATIONS

Register of Professional Archaeologists
Society for California Archaeology
Society for American Archaeology
Pacific Coast Archaeological Society

Richard is an archaeologist and cultural resource manager with over 25 years of professional field and laboratory experience in archaeological and paleontological resources mitigation, monitoring, and management throughout California. Richard has planned and managed numerous projects in compliance with CEQA, NEPA, and NHPA. He has participated in a wide variety of projects involving survey, identification, testing, and data recovery. He has worked extensively as an archaeological, paleontological, and biological monitor, field and lab director, project manager, and Principal Investigator. Richard specializes in southern California coastal archaeology, historic archaeology, and GIS analysis. He has worked extensively on the southern Channel Islands, and his current research interests involve prehistoric chronologies of Northern Baja and documenting evidence of coastal erosion and impact to archaeological sites in the Upper Gulf of California. His training and experience exceed the Secretary of Interior Guidelines for a professional archaeologist.

SELECT PROJECT EXPERIENCE

Jacobs Engineering Group for National Aeronautics and Space Administration (NASA), Santa Susana Field Laboratory (SSFL), Canoga Park, CA. *Principal Investigator.* Richard served as Principal Investigator for a post-Woolsey fire supplemental survey of NASA administered Area II at the SSFL. He previously designed, managed, and implemented a cultural resources Phase I survey of Area II. Richard assisted in coordinating Native American Stakeholder consultations, co-authored project documentation, constructed GIS maps and figures, and managed archaeological site documentation.

FivePoint Newhall Ranch – Mission Village, Valencia, CA. *Program Manager (2017- 2023).* Richard served as Program Manager for archaeological and paleontological resources for the Newhall Ranch Mission Village project, as well as the Mayo and Potrero Advance Mitigation Grading projects, per the Newhall Ranch General Plan. He managed and coordinated field survey, monitoring, Phase II testing, and Phase III data recovery efforts for the Mission Village project. Richard provided client and agency coordination, as well as coordination with Native American Stakeholders.

Republic Services – Sunshine Canyon Landfill, Sylmar, CA. *Project Manager & Principal Archaeologist (2005- 2023).* Richard has served as Project Manager at Sunshine Canyon since 2005, and Principal Archaeologist since 2011. Current duties include assessment, coordination and implementation of archaeological and paleontological investigations for the City Landfill extension. Richard was also responsible for daily groundwater quality sampling and weekly reporting of collected samples, and currently coordinates migratory nesting bird surveys, client and agency coordination, and provides annual reporting.

Cultural Chronology and Human Ecology of the Upper Sea of Cortez, Survey and Dating, Baja California, Mexico. *Archaeologist/GIS Specialist (2017-present)* Richard is part of the small research



team for the Upper Gulf project. He assisted in the design and implementation of the initial 2017 pedestrian survey and mapping of approximately 15 km of coastline along the Upper Gulf of California. In 2018 the team sampled three of the documented sites. Richard conducted GPS/GNSS data collection, GIS analysis, and provided logistical and administrative support during the planning and field phases of the project. This project is a long-term binational research program, with two American institutions (California State University, Los Angeles, and the University of Oregon) collaborating with Antonio Porcayo-Michelini, an INAH (El Instituto Nacional de Antropología e Historia) archaeologist with extensive experience in the Upper Gulf region.

Boeing Company, Santa Susana Field Laboratory (SSFL), Canoga Park, CA. *Project Manager (2010-2014).* Richard designed, managed, and implemented a cultural resources Phase I survey of the Boeing administered areas at the SSFL. He assisted in coordinating Native American Stakeholder consultations, co-authored project documentation, constructed GIS maps and figures, and assisted with archaeological site recordation. Richard managed and coordinated a large crew of archaeological monitors for soil sampling and remediation activities at SSFL.

HydroGeologic, Inc. for U.S. Environmental Protection Agency, Santa Susana Field Laboratory, Canoga Park, CA. *Project Manager (2010-2013)* Mr. Guttenberg designed, managed, and implemented a cultural resource monitoring and protection plan for a radiological sampling investigation conducted by the Environmental Protection Agency and the United States Department of Energy. He assisted in coordinating Section 106 and Native American Stakeholder consultations, co-authored project documentation and constructed GIS maps and figures. Richard managed and coordinated a large crew of archaeological monitors and assisted with archaeological site documentation.

NRG Energy, Inc. - El Segundo Power Plant Reconstruction Project, El Segundo, CA. *Project Manager and Field Monitor.* Richard served as Project Manager and Field Monitor for the El Segundo Power Plant Project. He coordinated archaeological and paleontological resource assessments and surveys, as well as the preparation of Cultural and Paleontological Resource Monitoring and Mitigation Plans and the preparation and implementation of an extensive Worker Environmental Awareness Program.

Parkside Estates, City of North Tustin, CA. *Principal Investigator.* Richard served as Principal Investigator and provided archaeological and paleontological mitigation and monitoring services during trenching and grading for a 4.47-acre residential development.

Liberty Canyon Office Building Expansion Project, City of Agoura Hills, CA. *Principal Investigator.* Richard served as Principal Investigator and provided archaeological mitigation and monitoring services during trenching and grading for a commercial development.

Mission San Juan Capistrano Trabuco Aqueduct, San Juan Capistrano, CA. *Project Manager and Field Director.* Richard served as Project Manager and Field Director for this mission era project. His duties included assisting the Principal Investigator in the excavation and documentation of the ruins of the early 19th century aqueduct that served The Mission San Juan Capistrano. Archaeological monitoring of grading activities uncovered Mission-era features and led to identification of the aqueduct. Richard directed a large field crew during excavation and data recovery.



Marcos Ramos, M.A., RPA

PROJECT MANAGER / ARCHAEOLOGIST

EDUCATION

M.A., San Diego State University,
2018

B.A., San Diego State University,
2009

A.A. Southwestern Community
College, 2007

YEARS OF PROFESSIONAL EXPERIENCE

13

REGISTRATIONS / CERTIFICATIONS

Safety Trained Supervisor – Board
of Safety Professionals (2016)

Register of Professional
Archaeologists (2018)

Marcos Ramos has more than 13 years of experience in the fields of anthropology and archaeology. He has served as Field Director, Crew Chief, Lead Monitor and Coordinator, Site Safety and Health Officer, Archaeologist, and Laboratory Technician in San Diego during those years. He has worked on multiple archaeological sites in San Diego County. The scopes of these projects included Phase I record searches, small- and large-scale surveys, site evaluations, and full data recovery investigations in a wide range of regulatory and geographic settings.

Mr. Ramos has been working in San Diego County on various long-term, multi-phased cultural resources projects, and has also been a guest lecturer on multiple occasions at San Diego State University Department of Anthropology and The San Diego Archaeological Society. Mr. Ramos skills include directing archaeological surveys, testing, data recovery and monitoring programs, stone tool assemblage and shellfish analysis, and the implementation of CEQA/NEPA regulations.

SELECT PROJECT EXPERIENCE

Site Stabilization, Protection Measures, and Maintenance for CA-SDI-4538, MCB Camp Pendleton, San Diego County, California. *Project Manager (2022).* Provided cultural resources support for the archaeological monitoring during site stabilization measures. Mr. Ramos responsibilities included, but were not limited to pre-field research, stabilization measure design and implementation, archaeological and Native American monitoring coordination, and report writing. Client: NAVFAC Southwest.

Naval Base Point Loma Woodward Road Widening San Diego, California. *Project Manager (2022).* Provided cultural resources support for the archaeological monitoring in support of the Naval Base Point Loma (NBPL) Woodward Road Widening and IR Site 7 Geotechnical Drilling Project. Mr. Ramos responsibilities included, but were not limited to pre-field research, archaeological and Native American monitoring coordination, writing report. Client: Olsson, Inc.

Pacific Gas and Electric (PG&E) Vegetation Management Project, Northern and Central CA. *Field Director (2021).* Provide cultural resources support to PG&E for the environmental management of the 120 million trees that display a potential to grow or fall into PG&E's overhead power lines. The Project spans multiple geographic regions extending from the North Coast regions in Humboldt and Sonoma Counties south to Santa Barbara and San Luis Obispo in the Central Coast region. Cultural resources support provided to PG&E include archaeological monitoring on state and federal lands during tree felling activities. Client: PG&E

Consultant Support for San Diego County's Planning and Development Services, San Diego, California. *Cultural Resources Specialist (2018-2019).* Provided in-house cultural resources support to Staff Archaeologist and Environmental Planners at the San Diego County's Planning and Development Services Department. Mr. Ramos responsibilities included, but were not limited to pre-field research, surveys, writing reports, conducting Native American contacts programs, assisting in



AB-52 consultations, review of consultant prepared technical reports and environmental documents, and the application of CEQA laws to client permit requests. Client: County of San Diego

San Diego Gas & Electric As-Needed Environmental Compliance. *Cultural Resources Specialist* (2015-2019) Field Director for large on-call service agreement with multiple tasks. Projects are located throughout San Diego County and tasks vary in size and complexity. Work includes managing Native American monitoring services, writing technical reports, and leading archaeological surveys and excavations. Client: San Diego Gas and Electric

County of San Diego Department of General Services As-Needed Environmental Services. *Cultural Resources Specialist* (2015-2019) Conducted archaeological surveys and tribal consultation, in addition to preparing tribal resources and portions of environmental studies for the redevelopment of County of San Diego owned properties in compliance with CEQA/NEPA. Client: County of San Diego

SDGE On-Call, eTS 33099 Streamview Infill Substation Project: Archaeological Survey and Historical Evaluation of the Streamview Substation, San Diego, California. *Archaeologist* (2019) Archaeologist, and report author for cultural resources survey and Evaluation of the Streamview Substation. Client: San Diego Gas and Electric

SDGE On-Call, eTS 43540 Critical Pole Replacement P212725, Fallbrook, California. *Archaeologist* (2019) Archaeologist, and report author for cultural resources monitoring during the replacement of electrical utilities. Client: San Diego Gas and Electric

SDGE On-Call, eTS 35679.01 Gas Meter Installation Service, Naval Base Coronado, Imperial Beach, California. *Archaeologist* (2018) Archaeologist, and report author for cultural resources monitoring during the installation of electrical utilities. Client: San Diego Gas and Electric

SDGE On-Call, eTS 35885.01 Install Aerial Marker Balls on TI23022/23023, Lakeside, California. *Archaeologist* (2018) Archaeologist, and report author for cultural resources monitoring during the installation of electrical utilities. Client: San Diego Gas and Electric

San Luis Rey HMA Habitat Restoration Project, San Diego County, California. *Field Director* (2018). The San Luis Rey HMA Habitat Restoration Project is located on an agricultural parcel south of highway 76 in north San Diego County. Mr. Ramos served as Field Director during the pedestrian survey. Project Client: San Diego County Water Authority.

Basewide Water Infrastructure Project (P-1044 and P-1045 Conveyance Lines), MCB Camp Pendleton, San Diego County, California. *Field Director* (2014-2018). The Basewide Water Infrastructure Project (P-1044 and P-1045 Conveyance Lines) is located throughout MCB Camp Pendleton, Oceanside, California. Mr. Ramos served as cultural Resources specialist, field supervisor, Native American monitor coordinator, Field Director, Range Safety Officer and Site Safety Officer for testing, data recovery and monitoring activities. Client: NAVFAC Southwest.

TO 66 Assessment and Treatment Plan for Significant Sites CA-SDI-5145 and CA-SDI-6051, MCB Camp Pendleton, San Diego County, California. *Crew Chief* (2018). The TO 66 Assessment and Treatment Plan for Significant Sites CA-SDI-5145 and CA-SDI-6051 is a project located on the northeast section of MCB Camp Pendleton, Oceanside, California. Mr Ramos served as Crew Chief and Range Safety Officer during the condition's assessment of archaeological sites CA-SDI-15254 and CA-SDI-15610. Client: NAVFAC Southwest.

Live Oak Canyon Road / Trabuco Canyon Road Safety Improvements Project, Orange County California. *Crew Chief* (2016). The Live Oak Canyon Road / Trabuco Canyon Road Project is located along Trabuco Canyon Road in Orange County, California. Mr. Ramos served as Crew Chief during survey efforts for road improvements along Santiago Canyon Road. Client: County of Orange.



EARL MORALES, B.A.

Field Director

EDUCATION

B.A., Anthropology, San Diego State University, 2011

A.A., Behavioral Science, San Diego City College, 2008

YEARS OF PROFESSIONAL EXPERIENCE

12

Mr. Morales is an experienced Archaeological Crew Chief with over 12 years of background in Archaeological excavation and Cultural Resource Management for several energy and infrastructure projects, as well as environmental conservation and restoration projects throughout Southern and Central California.

Mr. Morales has extensive experience with construction compliance monitoring and reporting in accordance with CEQA Standards and Section 106 and 110 guidelines of the NHPA. In the process of amassing his archaeological experience, he has developed an exceptional set of skills, including: knowledge about many aspects of job site operations, including field survey and excavation, environmental compliance monitoring, project management, and environmental impact reporting; as well as an ability to communicate and coordinate all facets of job details with contractors, Tribal representatives, municipalities, and inspecting agencies in order to achieve project goals. Mr. Morales maintains current security clearance for work on military installations, and has recent training in environmental compliance, State and Federal D.O.T. safety, and FRA compliance regulations.

SELECT PROJECT EXPERIENCE

Desert Quartzite Solar Project, Blythe, CA. Field Director (2022-Present). In charge of oversing and coordinating archaeological monitoring and site treatment for the construction of a solar photovoltaic project on 2815 acres of Federal lands in Blythe Mesa near Blythe, CA. Client: EDF Renewables, Inc..

Evaluation of 27 Sites at MCAGCC for NAVFAC, Twentynine Palms, San Bernardino County, CA. *Field Director (2022-present).* The project consists of the evaluation for the NRHP of 27 sites aboard MCAGCC, Twentynine Palms, San Bernardino County. Duties included conducting site recording and excavation, soil processing, specimen & artifact collection and processing for the evaluation of 27 archaeological site. Client: NAVFAC

Naval Base Point Loma Woodward Road Widening Project, San Diego County CA. *Field Supervisor / Lead Monitor.* (2022). The project consists of archaeological monitoring for activities associated with improvements to Woodward Road on Naval Base Point Loma, San Diego, CA. Mr. Morales was tasked with coordinating monitor onsite for construction activities associated with the widening of Woodward Road. Client: Olsson Inc.

Palen Solar/Maverick 7 Solar Plant construction, Desert Center, Riverside County, CA. *Field Technician (2020-2021).* Tasked with monitoring onsite construction activities associated with the development of the Maverick 7 Solar plant in Desert Center, CA. Duties included visual inspection of all excavated soils and soil disturbing activities, taking detailed notes, pictures and maintaining daily monitoring reports. Client: EDF Renewables, Inc.

Maverick 8 Solar Project, Desert Center, CA. Crew Chief (2020). Crew Chief for Phase 1 cultural resources survey for the construction of a 43-megawatt solar photovoltaic project on 450 acres of private lands in the Chuckwalla Valley near Desert Center, CA. Client: EDF Renewables, Inc.

SDG&E 12kV Underground Utility Conversion (multiple projects), San Diego, CA. *Lead monitor (2015-2019).* Tasked with monitoring excavation activities associated with the underground installation of distribution lines to commercial zones and private residences in multiple neighborhoods of San Diego for any potentially undiscovered sites/resources. Duties included visual inspection of all excavated soils and trenching,



taking detailed notes and pictures, writing daily SDG&E monitoring reports and California PUC compliance forms. Client: SDG&E.

SDG&E Electrical Grid Upgrades (multiple projects), San Diego, CA. *Lead monitor(2015-2019).* Mr. Morales supervised and coordinated archaeological monitors for excavation activities associated with various expansion, construction, and upgrade activities at the San Luis Rey, Los Coches, and Sweetwater substations, and the Encina power plant. Duties included visually inspecting all excavated soils and trenching, taking detailed notes and pictures of activities, artifact identification and collection in instances where they were encountered, and writing daily SDG&E daily monitoring reports. Client: SDG&E.

The 29 Palms Environmental Assessment for a New Water Treatment Plant, second survey, MCB Twenty-nine Palms, San Bernardino County, CA. *Crew Chief(2018).* The Environmental Assessment for a new water treatment plant located within Marines Corps Base Twentynine Palms, California. Mr. Morales served as Field Director during the pedestrian survey for the EA. Client: NAVFAC Southwest

County of San Diego Dept. of Parks and Recreation (multiple projects), San Diego, CA. *Field Technician (2015-2018).* Conducted Monitoring for several Park improvement task orders including tree replacement, public access improvements, and facilities construction at various County maintained parks and campgrounds. Duties included inspection of excavated soils, detailed note and picture taking, and report writing in accordance with Department of Parks and Recreation standards. Client: County of San Diego

Basewide Water Infrastructure Project (P-1044 and P-1045 Conveyance Lines), MCB Camp Pendleton, San Diego County, California. *Crew Chief(2014-2018).* The Basewide Water Infrastructure Project (P-1044 and P-1045 Conveyance Lines) is located throughout MCB Camp Pendleton, Oceanside, California. Mr. Morales served as crew chief for testing, data recovery and monitoring activities. Client: NAVFAC Southwest.

Department of the Navy BUI Upgrade Project, Camp Pendleton, San Diego County, CA. *Lead monitor / Field Supervisor (2014-2016).* The Basewide Utilities Infrastructure Project (P-1043) is located throughout MCB Camp Pendleton, Oceanside, California. Mr. Morales served as Crew Chief for testing, and monitoring activities. Client: NAVFAC Southwest

SDG&E Gas Line Updates (multiple projects), San Diego, CA. *Field Technician(2016-2018).* Monitored the excavation activities for replacement of outdated gas services to private residences and businesses in various neighborhoods located within archaeologically sensitive areas throughout San Diego County. Duties included initial site testing, monitoring of excavation and trenching during construction activities, close visual inspection of excavated soils, artifact identification, writing detailed SDG&E monitoring log. Main duties during projects involving excavation included dry and wet screening soil samples, sorting screened archaeological samples, artifact identification, and laboratory processing / cataloguing of recovered materials according to California DPR standards. Client: SDG&E.

SDG&E FIRM (multiple projects), San Diego County, CA. *Field Technician (2015-2018).* Involved in surveying various sections of transmission lines throughout North & East San Diego County for installation of upgraded steel utility poles, and monitoring of the subsequent excavations.

Duties included extensive field survey, site and artifact location/recording, detailed note taking, visual inspection of excavated soils, artifact identification, taking pictures, writing daily SDG&E monitoring reports, and site report and updates in accordance with Department of Parks and Recreation standards. Client: SDG&E

Beacon Solar Power Plant Project, Mojave, San Bernardino County, CA. *Field Technician (2016).* Monitored excavation and construction activities associated with the installation of a solar power plant commissioned by Los Angeles Department of Water and Power. Duties included visual inspection of all excavated soils and trenching, artifact identification, field survey, maintaining communication with Contractor and Reviewing Agencies, and daily report writing of construction activities.

Blythe Solar Power Plant Project, Blythe, Riverside County, CA. *Field Technician (2015).* Monitored excavation and construction activities associated with the installation of a solar power plant commissioned by So Cal Edison. Duties included visual inspection of all excavated soils, taking detailed notes and pictures, artifact identification, effectively communicating with Contractor and Reviewing Agencies, and daily reports of construction activities.

**Appendix B.
On-Site Reburial Location
(Confidential)**

Appendix C.
Result of Testing and Evaluation Map
(Confidential)

**Appendix D.
DPR Site Forms (Confidential)**



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