

A CULTURAL RESOURCES STUDY FOR 1851 SPINDRIFT DRIVE

CITY OF SAN DIEGO

Project No. 693529

Prepared for:

**City of San Diego
Development Services Department
1222 First Avenue, MS 501
San Diego, California 92101**

And:

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1851 Spindrift Drive
La Jolla, California 92037**

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January 3, 2022

Archaeological Information Page

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Report Date: January 3, 2022

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USGS Quadrangle: Township 15 South, Range 4 West of the *La Jolla, California* Quadrangle

Study Area: 4,453 square feet; APN 346-451-10

Key Words: USGS *La Jolla* Quadrangle (7.5 minute); archaeological survey and subsurface investigation; disturbed and intact cultural deposits; direct impacts to SDI-39/W-1; Historical Resources Board-designated significant prehistoric site; possible human remains; data recovery and archaeological Mitigation Monitoring and Reporting Program recommended.

Table of Contents

<u>Section</u>	<u>Description</u>	<u>Page</u>
1.0	MANAGEMENT SUMMARY / ABSTRACT	1.0-1
2.0	UNDERTAKING INFORMATION/INTRODUCTION	2.0-1
3.0	SETTING	3.0-1
3.1	Natural Setting	3.0-1
	3.1.1 <i>Geology and Hydrology</i>	3.0-1
	3.1.2 <i>Soils</i>	3.0-1
	3.1.3 <i>Biology</i>	3.0-2
3.2	Cultural Setting	3.0-2
	3.2.1 <i>Paleoenvironment</i>	3.0-2
	3.2.2 <i>Prehistory</i>	3.0-3
	3.2.3 <i>History</i>	3.0-5
	3.2.4 <i>History of the La Jolla Area</i>	3.0-8
3.3	Research Results	3.0-12
3.4	Records Search Results	3.0-13
3.5	Regulatory Setting	3.0-15
	3.5.1 <i>California Environmental Quality Act</i>	3.0-16
	3.5.2 <i>City of San Diego Historical Resources Board Eligibility Criteria</i>	3.0-17
	3.5.3 <i>Development Regulations for Important Archaeological Sites (Section 143.0253)</i>	3.0-19
3.6	Native American Consultation	3.0-20
4.0	RESEARCH DESIGN	4.0-1
5.0	METHODOLOGY	5.0-1
5.1	Archaeological Methodology	5.0-1
	5.1.1 <i>Field Methodology</i>	5.0-1
	5.1.2 <i>Laboratory Methodology</i>	5.0-1
	5.1.3 <i>Curation</i>	5.0-2
	5.1.4 <i>Native American Consultation</i>	5.0-2
6.0	REPORT FINDINGS	6.0-1
6.1	Fieldwork Results	6.0-1
	6.1.1 <i>Field Reconnaissance</i>	6.0-1
	6.1.2 <i>Subsurface Investigation</i>	6.0-1
6.2	Flaked Lithic Artifacts	6.0-11
6.3	Ground Lithic Artifacts	6.0-14
6.4	Shell Artifact Analysis	6.0-16
6.5	Ceramic Analysis	6.0-16
6.6	Invertebrate Faunal Analysis	6.0-17

Table of Contents (continued)

<u>Section</u>	<u>Description</u>	<u>Page</u>
6.7	Vertebrate Faunal Remains.....	6.0–17
6.8	Human Remains.....	6.0–18
6.9	Summary and Discussion.....	6.0–18
7.0	DISCUSSION/IMPACT ANALYSIS.....	7.0–1
7.1	Cultural Resource Evaluation.....	7.0–3
	7.1.1 City of San Diego Historical Resources Board Evaluation.....	7.0–4
8.0	MANAGEMENT CONSIDERATIONS.....	8.0–1
8.1	Historical Resources Archaeological Data Recovery Program.....	8.0–1
8.2	Monitoring Program.....	8.0–3
9.0	CERTIFICATION.....	9.0–1
10.0	REFERENCES.....	10.0–1

Appendices

- Appendix A – Qualifications of Key Personnel
- Appendix B – Updated Site Record Form*
- Appendix C – Archaeological Records Search Results*
- Appendix D – NAHC Sacred Lands File Search Results*
- Appendix E – Table 6.1–4
- Appendix F – Artifact Catalog
- Appendix G – Confidential Maps*

**Deleted for public review and bound separately in the Confidential Appendix*

List of Figures

<u>Figure</u>	<u>Page</u>
Figure 2.0–1	General Location Map.....2.0–2
Figure 2.0–2	Project Location Map (USGS).....2.0–3
Figure 2.0–3	Project Location Map Shown on 1" to 800' Scale.....2.0–4
Figure 2.0–4	Project Development Map.....2.0–5
Figure 6.1–1	Excavation Location Map, Site SDI-39*.....6.0–3
Figure 7.0–1	Impact Location Map*.....7.0–2

**Deleted for public review and bound separately in the Confidential Appendix*

List of Plates

<u>Plate</u>		<u>Page</u>
Plate 1.0-1	Aerial view of 1851 Spindrift Drive	1.0-1
Plate 2.0-1	View of the existing residence at 1851 Spindrift Drive, facing east	2.0-6
Plate 2.0-2	View of the backyard at 1851 Spindrift Drive, facing northwest	2.0-6
Plate 3.2-1	La Jolla Cove in 1894	3.0-9
Plate 3.2-2	The Spindrift Inn prior to completion in 1916.....	3.0-10
Plate 3.2-3	La Jolla Beach and Yacht Club in 1927.....	3.0-10
Plate 3.2-3	The Marine Room during a storm in 1944.....	3.0-11
Plate 6.1-1	Overview of STP 1, facing southeast.....	6.0-11
Plate 6.1-2	Overview of GTP 1	6.0-11
Plate 6.1-3	Overview of STP 3, facing east	6.0-12
Plate 6.1-4	Overview of GTP 4.....	6.0-12

List of Tables

<u>Table</u>		<u>Page</u>
Table 3.4-1	Cultural Resources Located Within a Quarter-Mile Radius of 1851 Spindrift Drive	3.0-13
Table 6.1-1	Excavation Summary, Site SDI-39 at 1851 Spindrift Drive.....	6.0-4
Table 6.1-2	Excavation Soils Description and Disturbances, Site SDI-39 at 1851 Spindrift Drive	6.0-5
Table 6.1-3	Shovel Test Excavation Summary by Depth, Site SDI-39 at 1851 Spindrift Drive	6.0-8
Table 6.9-1	Excavation Data Summary, Site SDI-39 at 1851 Spindrift Drive	6.0-18

1.0 MANAGEMENT SUMMARY/ABSTRACT

This report describes an archaeological assessment conducted by Brian F. Smith and Associates, Inc. (BFSA) for cultural resources located at 1851 Spindrift Drive in the city of San Diego, California (Plate 1.0–1). The project applicant is requesting a permit from the City of San



Plate 1.0–1: Aerial view of 1851 Spindrift Drive.

Diego to construct additions to an existing single-family residence. As the project is located within a culturally sensitive area within the Spindrift neighborhood of the La Jolla community, the City of San Diego required a cultural resource investigation to determine the status of any cultural resources within the project.

As part of a previously proposed development plan, BFSA conducted subsurface test excavations at this property on April 19, 2017 through the excavation of three archaeological shovel test pits (STPs) in order to assess the potential to encounter archaeological deposits associated with the prehistoric village complex of SDI-39/W-1. However, the previous owners chose not to move forward with that development project.

On April 26, 2021, BFSA returned to the property on behalf of the current owners to monitor the excavations of four geotechnical test pit borings (GTPs) and on October 21, 2021, BFSA conducted further subsurface investigations through the excavation of an additional seven STPs in order to address the new development plan within the property. All investigations followed the protocol listed in the Archaeological Test Plans (ATPs) that BFSA submitted to the City of San Diego in 2017 and updated in 2021 (Smith 2017, 2021) which included a survey of the property and the excavation of the STPs.

Native American representatives from Red Tail Environmental (Red Tail) were present with the BFSA archaeological team during the 2017 STP and the 2021 GTP excavations. Although Red Tail was informed of the STP excavations in 2021, no Native American representatives were available at that time.

A records search provided by the South Coastal Information Center (SCIC) at San Diego State University (SDSU) indicates that 1851 Spindrift Drive is situated within the boundaries of recorded prehistoric Site SDI-39/W-1. The archaeological survey and research indicate that the property was previously disturbed as a result of the residential development of this neighborhood between the 1920s and the 1950s. Based upon the data from the field investigations, the portion of SDI-39 within the 1851 Spindrift Drive property is evaluated as significant under California Environmental Quality Act (CEQA) and City of San Diego Historical Resources Guidelines.

The cultural resource study was adequate to evaluate the status of archaeological resources within the property and the potential impacts represented by the proposed project. The additions to the existing single-family residence will represent an encroachment of 367 square feet into the area of SDI-39 outside of the footprint of the current residence. The data from the field investigations indicates that construction excavations will encounter disturbed and intact subsurface deposits associated with the prehistoric occupation of Site SDI-39. As part of the cultural resources study, BFSA calculated the level of encroachment into the recorded boundaries of SDI-39 within the 1851 Spindrift Drive property. This analysis is required under San Diego Municipal Code (SDMC) Section 143.0253 because encroachment into a significant cultural resource cannot exceed 25.00 percent of the resource outside of the existing residence footprint. Based upon the data collected, the encroachment into SDI-39 within this parcel for the proposed additions will not exceed 13.17 percent. This value is within the acceptable encroachment percentage described in SDMC Section 143.0253.

The construction of the additions will represent a source of direct impacts to SDI-39, which will be mitigated through the implementation of a Mitigation Monitoring and Reporting Program (MMRP). The MMRP will include an Archaeological Data Recovery Program (ADRP) consisting of archaeologically excavated test units and bulk screening of midden soil for the recovery and repatriation of any human remains encountered. Archaeological and Native American monitoring shall be included as a mitigation monitoring requirement in order to identify, evaluate, and recover any cultural materials that might be revealed during earthwork.

A copy of this report will be permanently curated at the SCIC at SDSU. All notes, photographs, and business materials related to this project will be curated at the offices of BFSA in Poway, California.

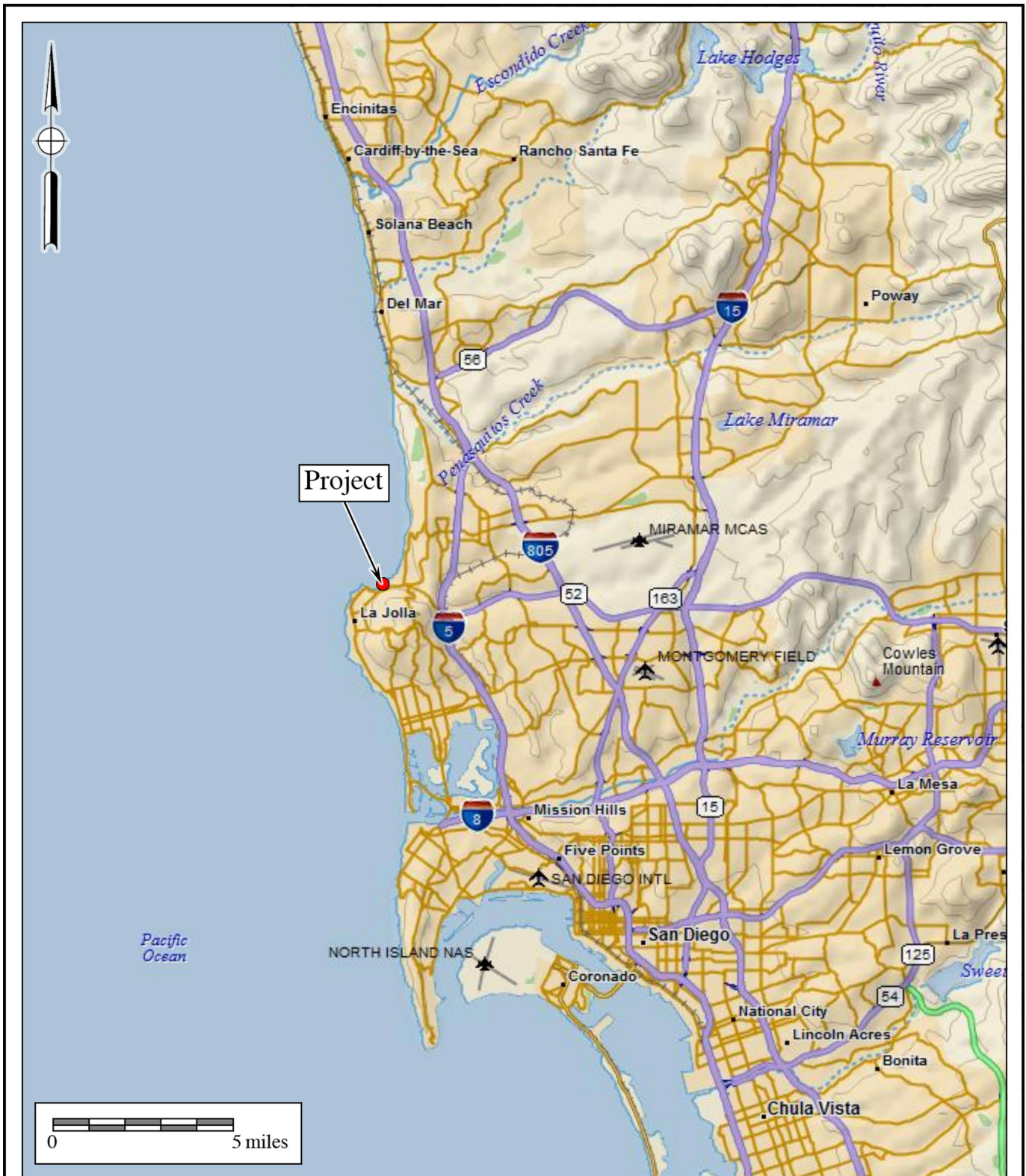
2.0 UNDERTAKING INFORMATION/INTRODUCTION

The project is located at 1851 Spindrift Drive in the Spindrift neighborhood of La Jolla, generally situated between La Jolla Shores and La Jolla Cove, as shown on the *La Jolla, California* USGS 7.5-minute topographic quadrangle (Township 15 South, Range 4 West of the San Bernardino Base and Meridian) (Figures 2.0–1 and 2.0–2). The location of the project is depicted on a portion of the 800-foot-scale City Engineering Map in Figure 2.0–3. The proposed project will include the construction of additions to an existing single-family residence (Figure 2.0–4). Current views of the property are provided in Plates 2.0–1 and 2.0–2.

The archaeological assessment and impact evaluation for the development permit were conducted in conformance with CEQA, Section 15064.5, and City of San Diego Historical Resources Guidelines (amended September 7, 2001). The records search for this project indicates that previously recorded archaeological Site SDI-39 encompasses the general area of the Spindrift neighborhood, including 1851 Spindrift Drive. Archaeological studies for several properties in this neighborhood, such as those on Viking Way, St. Louis Terrace, Roseland Drive, and Princess Street, have encountered parts of SDI-39, including the discovery of human remains.

BFSA monitored geotechnical test excavations on April 26, 2021 and conducted the survey and testing program on April 19, 2017 and October 21, 2021. The significance testing included the excavation of a total of 10 STPs and four GTPs. Shuluuk Linton, a Kumeyaay Native American monitor from Red Tail, was present for the GTP investigations. Although Red Tail was notified of the cultural resources study, no Native American monitor was available for the STP excavations in 2021. Previous grading and construction activities have disturbed the majority of the property when the neighborhood was graded between the 1920s and the 1950s. It appears that soil was graded from the back (east) side of the lot to the front (west) side of the lot as part of the cut and fill process for the original lot. Ground visibility within the property was obscured due to the existing residential structure, hardscape, and landscaping. The limited subsurface investigation of the property was completed through the excavation of 10 STPs, which identified subsurface cultural deposits in areas that coincide with planned construction activities. The STPs located in the front yard of the residence identified intact cultural soils and the STPs located in the backyard of the residence identified disturbed and mixed cultural fill soil, including the presence of construction debris.

The field survey and test data identified the areas of the property that contain both disturbed and intact elements of SDI-39. As a result, impacts to California Register of Historical Resources (CRHR)-eligible elements of SDI-39 are anticipated, and therefore, this project will require a MMRP. Monitoring protocol is provided in Section 8.2.



Project

Figure 2.0-1

General Location Map

The 1851 Spindrift Drive Project

DeLorme (1:250,000)



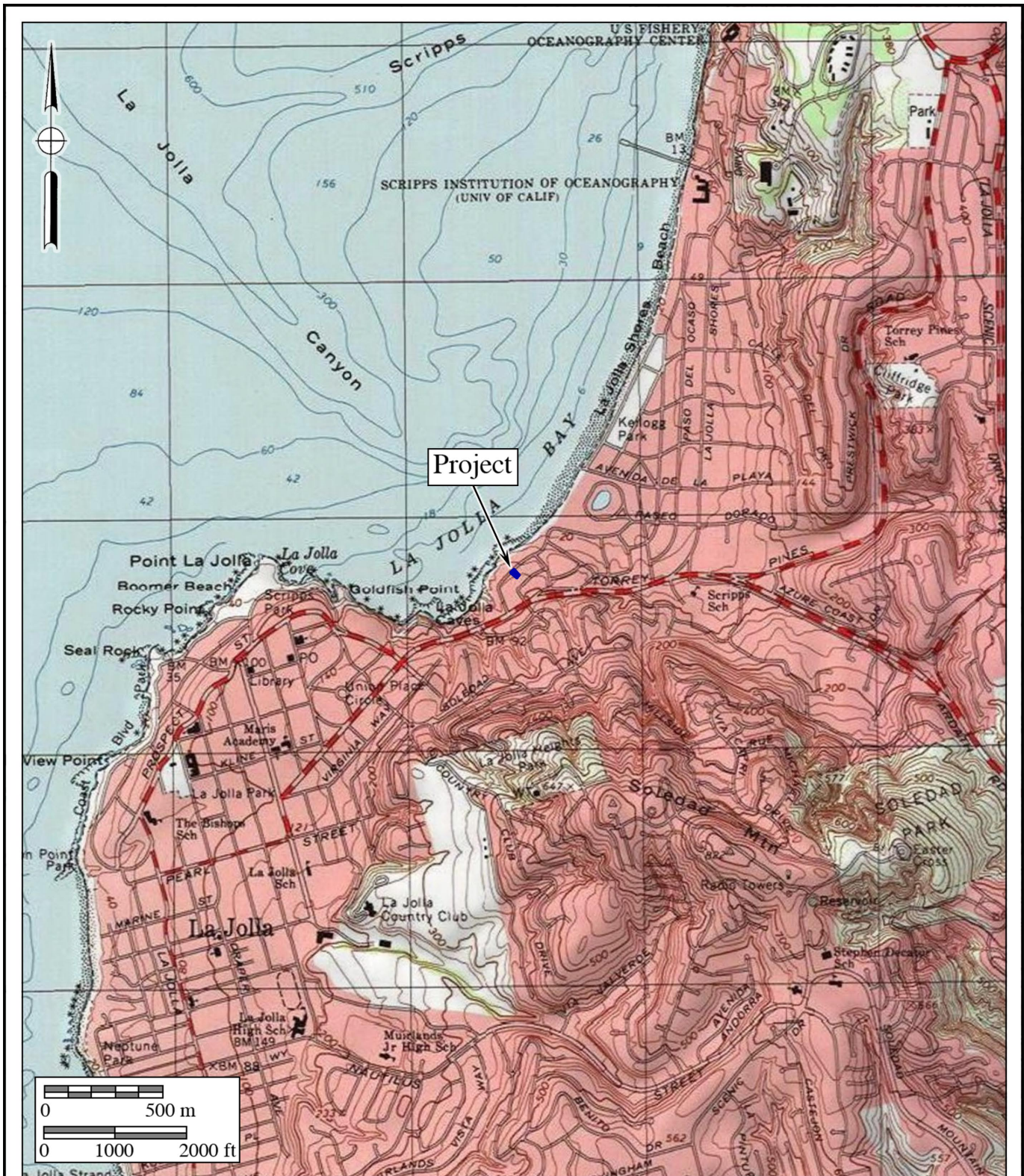


Figure 2.0–2
Project Location Map
 The 1851 Spindrift Drive Project

USGS La Jolla OE West and La Jolla, California Quadrangles (7.5-minute series)



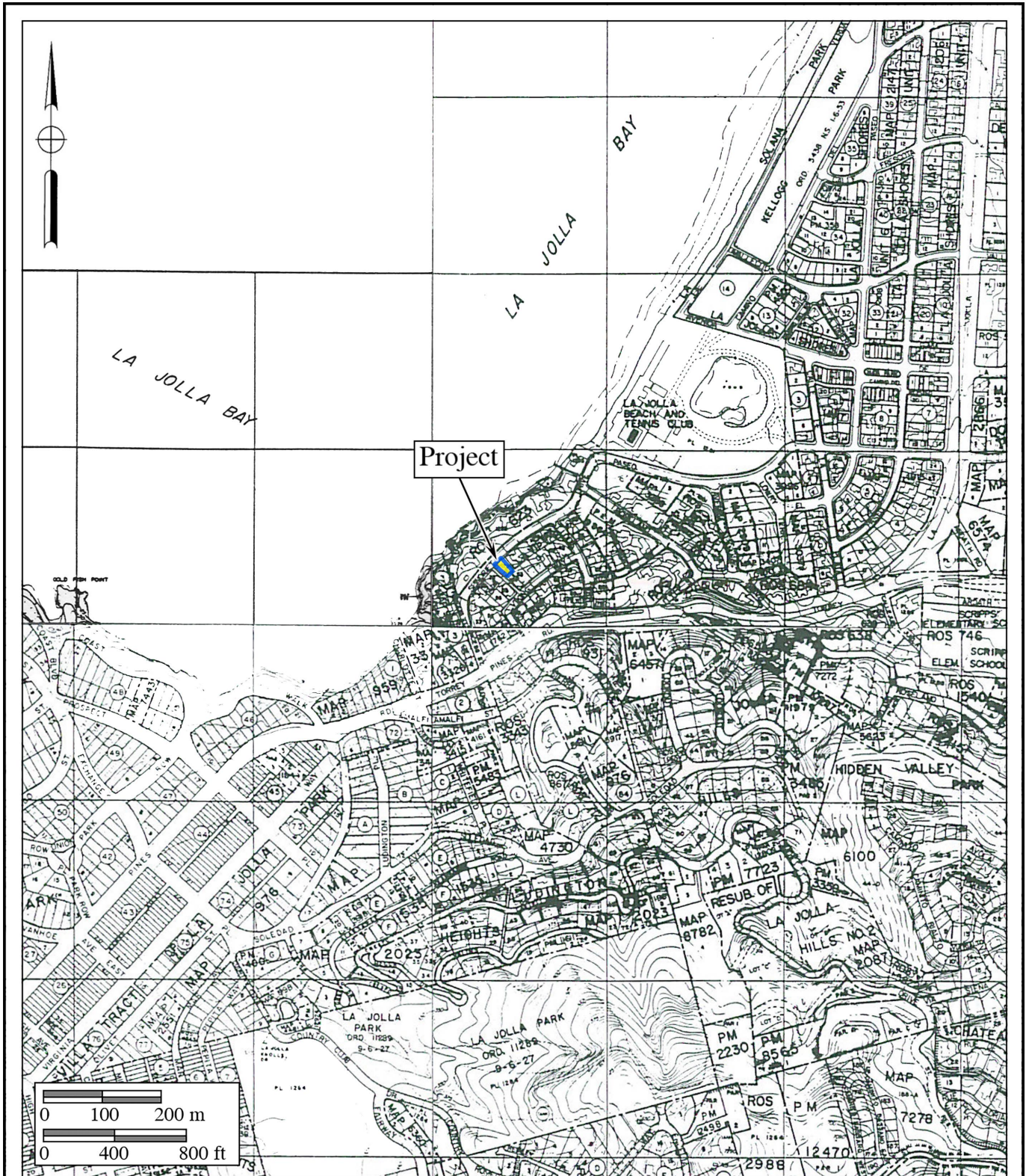


Figure 2.0-3

Project Location Map

The 1851 Spindrift Drive Project

Shown on The City of San Diego 1" to 800' Scale Engineering Map



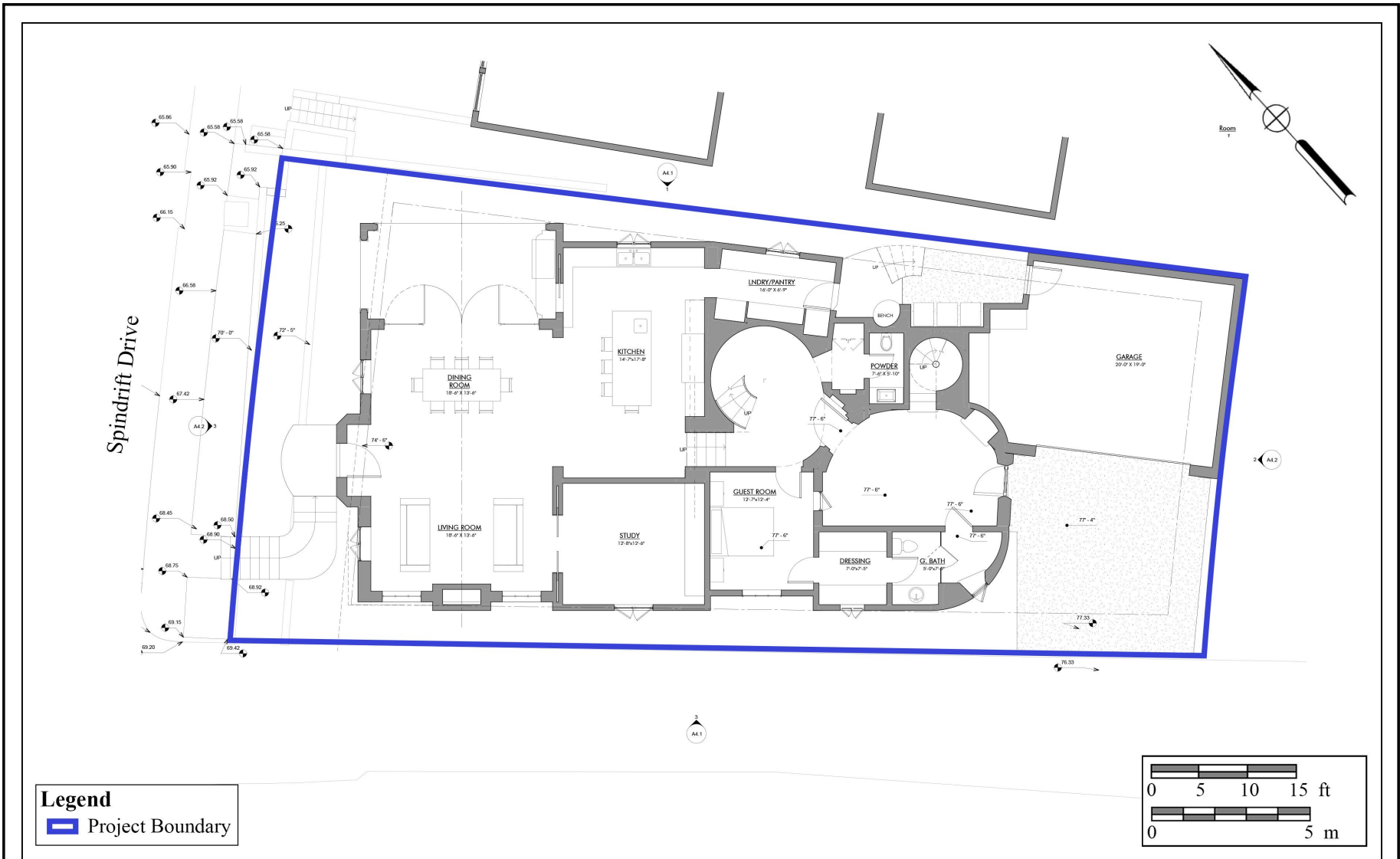


Figure 2.0-4
Project Development Map
 The 1851 Spindrift Drive Project





Plate 2.0-1: View of the existing residence at 1851 Spindrift Drive, facing east.



Plate 2.0-2: View of the backyard at 1851 Spindrift Drive, facing northwest.

All aspects of the project were directed by Consulting Archaeologist and Principal Investigator Brian F. Smith. Archaeological Field Director Clarence Hoff and field archaeologists Stephen Anderson, David Grabski, Parker Sheriff, Vanessa Michaelson, and Brett Lewis completed the field investigations. Red Tail provided Native American monitoring and consultation. Jillian Conroy, Tracy Stropes, and Brian Smith prepared the report text and Jillian Conroy generated the report graphics and conducted the laboratory analysis and data entry. Courtney McNair conducted technical editing and report production.

3.0 SETTING

The project setting includes both the physical and biological contexts of the project, as well as the cultural setting of prehistoric and historic human activities in the general area. The following section discusses both the environmental and cultural settings of the study area, the relationship between the two, and the relevance of that relationship to the project.

3.1 Natural Setting

The project is located in the La Jolla Community Plan Area of the city of San Diego. The project encompasses 4,453 square feet of flat to gently sloping land that is situated on the cliffs above La Jolla Bay. The elevation at the property is approximately 68 feet above mean sea level (AMSL) in the northwest corner and 78 feet AMSL in the southeast corner. The lot currently contains limited hardscape and landscaping for a single-family residence.

3.1.1 Geology and Hydrology

San Diego County lies in the Peninsular Ranges Geologic Province of southern California. The mountainous zone, which extends from northwest to southeast through the county, ranges to a maximum height of 6,533 feet AMSL (Beauchamp 1986). Foothills and valleys, which comprise the cismontane region, extend west from the mountains. This region typically receives more rainfall than the mesas and less than the mountainous region. Between the foothills and the coast lies the coastal mesa region, which is cut by several large drainages originating in the mountains and foothills. The coast is characterized by large bays and lagoons, major rivers, which empty into the sea, and mesas, which terminate at the ocean in the form of bluffs (Beauchamp 1986).

The project and the portion of SDI-39 being investigated are mapped as disturbed and graded; however, the Bay Point Formation (Kennedy 1975) surrounding the project consists of a geologic deposit of mostly marine and nonmarine fossiliferous sandstone. The project lies just west of several faults, including Ardath, Mount Soledad, and Rose Canyon.

3.1.2 Soils

Soils in the area fall within the Huero-Stockpen Association and are characterized by moderately well drained loams to gravelly clay loams that have a subsoil of clay or sandstone (Bowman et al. 1973). Soil in the immediate vicinity of the project is mapped as Urban Land, which consists of densely urbanized and developed areas where soil identification is not possible.

3.1.3 Biology

The prehistoric biological community was characterized by a variety of soft, low, aromatic, drought-deciduous shrubs, such as California sagebrush, flat-top buckwheat, California bush sunflower, and sage, with scattered evergreen shrubs including lemonadeberry, laurel sumac, coyote bush, and toyon. Plants in the understory included native needlegrass, mariposa lily, golden

yarrow, everlasting, deerweed, rattlesnake weed, soap plant, San Diego barrel cactus, ashy spike moss, San Diego goldenstar, and blue dicks (Beauchamp 1986; Sawyer 1995).

Many different terrestrial and aquatic animals live in these habitat types. Terrestrial animals include mule deer, black-tailed hare, cottontail rabbit, California ground squirrel, Botta's pocket gopher, deer mouse, woodrat, bat, coyote, gray fox, striped skunk, raccoon, bobcat, mountain lion, California quail, pied-billed grebe, cormorant, great blue heron, mallard, and a variety of reptiles and amphibians. A number of different pelagic fish, such as perch and marine mollusks, including scallops, oysters, and clams, would have been available in the La Jolla Cove and the associated mudflats.

3.2 Cultural Setting

The area of western San Diego County has a rich and extensive record of both prehistoric and historic human activity. The cultures that have been identified in the general vicinity of the project area include the Paleo Indian manifestation of the San Dieguito Complex, the Archaic Stage and Early Milling Stone horizons represented by the La Jolla Complex, and the Late Prehistoric Kumeyaay Native Americans. Following the Hispanic intrusion into the region (1769), the Presidio of San Diego, the Mission San Diego de Alcalá, and the Pueblo of San Diego were established. The project area was possibly used in conjunction with the agricultural activities of the mission until the period of mission secularization. The pastoral activities of the Mexican Period (1822 to 1846) likely included use of the areas near the project for grazing purposes. Farming also blossomed and gradually replaced cattle ranching in many of the coastal areas. A brief discussion of the prehistoric and historic cultural elements documented for the project area is provided below.

3.2.1 Paleoenvironment

Because of the close relationship between prehistoric settlement and subsistence patterns and the environment, it is necessary to understand the setting in which these systems operated. At the end of the final period of glaciation, approximately 11,000 to 10,000 years before the present (YBP), the sea level was considerably lower than it is now; the coastline at that time would have been two to two and a half miles west of its present location (Smith and Moriarty 1985a, 1985b). At approximately 7,000 YBP, the sea level rose rapidly, filling in many coastal canyons that had been dry during the glacial period. The period between 7,000 and 4,000 YBP was characterized by conditions that were drier and warmer than they were previously, followed by a cooler, moister environment similar to the present-day climate (Robbins-Wade 1990). Changes in sea level and coastal topography are often manifested in archaeological sites through the types of shellfish that were utilized by prehistoric groups. Different species of shellfish prefer certain types of environments, and dated sites that contain shellfish remains reflect the setting that was exploited by the prehistoric occupants.

Unfortunately, pollen studies have not been conducted for this area of San Diego; however, studies in other areas of southern California, such as Santa Barbara, indicate that the coastal plains

supported a pine forest between approximately 12,000 and 8,000 YBP (Robbins-Wade 1990). After 8,000 YBP, this environment was replaced by more open habitats, which supported oak and non-arboreal communities. The coastal sage scrub and chaparral environments of today appear to have become dominant after 2,200 YBP (Robbins-Wade 1990).

3.2.2 Prehistory

In general, the prehistoric record of San Diego County has been documented in many reports and studies, several of which represent the earliest scientific works concerning the recognition and interpretation of the archaeological manifestations present in this region. Geographer Malcolm Rogers initiated the recordation of sites in the area during the 1920s and 1930s, using his field notes to construct the first cultural sequences based upon artifact assemblages and stratigraphy (Rogers 1966). Subsequent scholars expanded the information gathered by Rogers and offered more academic interpretations of the prehistoric record. Moriarty (1966, 1967, 1969), Warren (1964, 1966), and True (1958, 1966) all produced seminal works that critically defined the various prehistoric cultural phenomena present in this region (Moratto 1984). Additional studies have sought to further refine these earlier works (Cardenas 1986; Moratto 1984; Moriarty 1966, 1967; True 1970, 1980, 1986; True and Beemer 1982; True and Pankey 1985; Waugh 1986). In sharp contrast, the current trend in San Diego prehistory has also resulted in a revisionist group that rejects the established cultural historical sequence for San Diego. This revisionist group (Warren et al. 1998) has replaced the concepts of La Jolla, San Dieguito, and all of their other manifestations with an extensive, all-encompassing, chronologically undifferentiated cultural unit that ranges from the initial occupation of southern California to around A.D. 1000 (Bull 1983, 1987; Ezell 1983, 1987; Gallegos 1987; Kyle et al. 1990; Stropes 2007). For the present study, the prehistory of the region is divided into four major periods including: Early Man, Paleo Indian, Early Archaic, and Late Prehistoric.

Early Man Period (Prior to 8500 B.C.)

At the present time, there has been no concrete archaeological evidence to support the occupation of San Diego County prior to 10,500 YBP. Some archaeologists, such as Carter (1957, 1980) and Minshall (1976), have been proponents of Native American occupation of the region as early as 100,000 years ago. However, their evidence for such claims is sparse at best and they have lost much support over the years as more precise dating techniques have become available for skeletal remains thought to represent early man in San Diego. In addition, many of the “artifacts” initially identified as products of early man have since been rejected as natural products of geologic activity. Some of the local proposed early man sites include Texas Street, Buchanan Canyon, Brown, Mission Valley (San Diego River Valley), Del Mar, and La Jolla (Bada et al. 1974; Carter 1957, 1980; Minshall 1976, 1989; Moriarty and Minshall 1972; Reeves 1985; Reeves et al. 1986).

Paleo Indian Period (8500 to 6000 B.C.)

For the region, it is generally accepted that the earliest identifiable culture in the archaeological record is represented by the material remains of the Paleo Indian Period San Dieguito Complex. The San Dieguito Complex was thought to represent the remains of a group of people who occupied sites in this region between 10,500 and 8,000 YBP, and who were related to or contemporaneous with groups in the Great Basin. As of yet, no absolute dates have been forthcoming to support the great age attributed to this cultural phenomenon. The artifacts recovered from San Dieguito Complex sites duplicate the typology attributed to the Western Pluvial Lakes Tradition (Moratto 1984; Davis et al. 1969). These artifacts generally include scrapers, choppers, large bifaces, and large projectile points, with few milling tools. Tools recovered from San Dieguito Complex sites, along with the general pattern of their site locations, led early researchers to believe that the people of the San Dieguito Complex were a wandering hunter/gatherer society (Moriarty 1969; Rogers 1966).

The San Dieguito Complex is the least understood of the cultures that have inhabited the San Diego County region. This is due to an overall lack of stratigraphic information and/or datable materials recovered from sites identified as belonging to the San Dieguito Complex. Currently, controversy exists among researchers regarding the relationship of the San Dieguito Complex and the subsequent cultural manifestation in the area, the La Jolla Complex. However, firm evidence has not been recovered to indicate whether the San Dieguito Complex “evolved” into the La Jolla Complex, the people of the La Jolla Complex moved into the area and assimilated with the people of the San Dieguito Complex, or the people of the San Dieguito Complex retreated from the area because of environmental or cultural pressures.

Early Archaic Period (6000 B.C. to A.D. 0)

Based upon evidence suggesting climatic shifts and archaeologically observable changes in subsistence strategies, a new cultural pattern is believed to have emerged in the San Diego region around 6000 B.C. Archaeologists believe that this Archaic Period pattern evolved from or replaced the San Dieguito Complex culture, resulting in a pattern referred to as the Encinitas Tradition. In San Diego, the Encinitas Tradition is believed to be represented by the coastal La Jolla Complex and its inland manifestation, the Pauma Complex. The La Jolla Complex is best recognized for its pattern of shell middens and grinding tools closely associated with marine resources and flexed burials (Shumway et al. 1961; Smith and Moriarty 1985a). Increasing numbers of inland sites have been identified as dating to the Archaic Period, focusing upon terrestrial subsistence (Cardenas 1986; Smith 1996; Raven-Jennings and Smith 1999a, 1999b).

The tool typology of the La Jolla Complex displays a wide range of sophistication in the lithic manufacturing techniques used to create the tools found at their sites. Scrapers, the dominant flaked tool type, were created by either splitting cobbles or by finely flaking quarried material. Evidence suggests that after about 8,200 YBP, milling tools began to appear in La Jolla Complex sites. Inland sites of the Encinitas Tradition (Pauma Complex) exhibit a reduced quantity of

marine-related food refuse and contain large quantities of milling tools and food bone. The lithic tool assemblage shifts slightly to encompass the procurement and processing of terrestrial resources, suggesting seasonal migration from the coast to the inland valleys (Smith 1996). At the present time, the transition from the Archaic Period to the Late Prehistoric Period is not well understood. Many questions remain concerning cultural transformation between periods, possibilities of ethnic replacement, and/or a possible hiatus from the western portion of the county.

Late Prehistoric Period (A.D. 0 to 1769)

The transition into the Late Prehistoric Period within the project area is primarily represented by a marked change in archaeological patterning known as the Yuman Tradition. This tradition is primarily represented by the Cuyamaca Complex, which is believed to have derived from the mountains of southern San Diego County. The people of the Cuyamaca Complex are considered ancestral to the ethnohistoric Kumeyaay (Diegueño). Although several archaeologists consider the local Native American tribes to be relatively latecomers, the traditional stories and histories passed down through oral tradition by the local Native American groups speak both presently and ethnographically to their presence here since the time of creation.

The Kumeyaay Native Americans were a seasonal hunting and gathering people with cultural elements that were very distinct from the people of the La Jolla Complex. Noted variations in material culture include cremation, the use of the bow and arrow, and adaptation to the use of the acorn as a main food staple (Moratto 1984). Along the coast, the Kumeyaay made use of marine resources by fishing and collecting shellfish for food. Seasonally available plant food resources (including acorns) and game were sources of nourishment for the Kumeyaay. By far the most important food resource for these people was the acorn. The acorn represented a storable surplus, which in turn allowed for seasonal sedentism and its attendant expansion of social phenomena.

Firm evidence has not been recovered to indicate whether the people of the La Jolla Complex were present when the Kumeyaay Native Americans migrated into the coastal zone. However, stratigraphic information recovered from Site SDI-4609 in Sorrento Valley may suggest a hiatus of 650 ± 100 years between the occupation of the coastal area by the La Jolla Complex ($1,730 \pm 75$ YBP is the youngest date for the La Jolla Complex inhabitants at SDI-4609) and Late Prehistoric cultures (Smith and Moriarty 1983). More recently, a reevaluation of two prone burials at the Spindrift Site excavated by Moriarty (1965) and radiocarbon dates of a pre-ceramic phase of Yuman occupation near Santee suggest a comingling of the latest La Jolla Complex inhabitants and the earliest Yuman inhabitants about 2,000 YBP (Kyle and Gallegos 1993).

3.2.3 History

Exploration Period (1530 to 1769)

The historic period around San Diego Bay began with the landing of Juan Rodríguez Cabrillo and his men in 1542 (Chapman 1925). Sixty years after the Cabrillo expeditions (1602

to 1603), Sebastian Vizcaíno made an extensive and thorough exploration of the Pacific coast. Although the voyage did not extend beyond the northern limits of the Cabrillo track, Vizcaíno had the most lasting effect on the nomenclature of the coast. Many of the names he gave to various locations have survived, whereas nearly every one of Cabrillo's has faded from use. Cabrillo gave the name "San Miguel" to the first port at which he stopped in what is now the United States; 60 years later, Vizcaíno changed it to "San Diego" (Rolle 1969).

Spanish Colonial Period (1769 to 1821)

The Spanish occupation of the claimed territory of Alta California took place during the reign of King Carlos III of Spain (Engelhardt 1920). José de Gálvez, a powerful representative of the king in Mexico, conceived the plan to colonize Alta California and thereby secure the area for the Spanish Crown (Rolle 1969). The effort involved both military and religious components, where the overall intent of establishing forts and missions was to gain control of the land and the native inhabitants through conversion. Actual colonization of the San Diego area began on July 16, 1769, when a Spanish exploration party commanded by Gaspar de Portolá (with Father Junípero Serra in charge of religious conversion of the native populations) arrived by the overland route to San Diego to secure California for the Spanish Crown (Palou 1926). The natural attraction of the harbor at San Diego and the establishment of a military presence in the area solidified the importance of San Diego to the Spanish colonization of the region and the growth of the civilian population. Missions were constructed from San Diego to as far north as San Francisco. The mission locations were based upon a number of important territorial, military, and religious considerations. Grants of land were made to persons who applied, but many tracts reverted back to the government due to lack of use. As an extension of territorial control by the Spanish Empire, each mission was placed so as to command as much territory and as large a population as possible. While primary access to California during the Spanish Period was by sea, the route of El Camino Real served as the land route for transportation, commercial, and military activities within the colony. This route was considered to be the most direct path between the missions (Rolle 1969; Caughey 1970). As increasing numbers of Spanish and Mexican peoples, as well as the later Americans during the Gold Rush, settled in the area, the Native American populations diminished as they were displaced or decimated by disease (Carrico and Taylor 1983).

Mexican Period (1821 to 1846)

Father Miguel Hidalgo y Costilla and a group of Native American followers began a revolt against Spanish rule on September 16, 1810. Hidalgo did not succeed in the fight against the Spanish, and was ultimately executed. However, the revolt continued and the Spanish were finally defeated in 1821. Mexican Independence Day is celebrated on September 16 of each year in honor of Father Hidalgo's bravery. The revolution also had repercussions in the northern territories, and by 1834, all of the mission lands in Alta California had been removed from the control of the Franciscan Order under the Acts of Secularization. Without proper maintenance, the missions

quickly began to disintegrate. After 1836, missionaries ceased to make regular visits to the outlying Native American communities to minister their needs (Engelhardt 1920). Large tracts of land continued to be granted to those who applied or who had gained favor with the Mexican government. Grants of land were also made to settle government debts, and the Mexican government was also called upon to reaffirm some older Spanish land grants shortly before the Mexican-American War in 1846 (Moyer 1969).

Anglo-American Period (1846 to Present)

California was invaded by United States troops during the Mexican-American War from 1846 to 1848. The acquisition of strategic Pacific ports and California land was one of the principal objectives of the war (Price 1967). At the time, the inhabitants of California were practically defenseless, and they quickly surrendered to the United States Navy in July of 1847 (Bancroft 1886).

The cattle ranchers of the “counties” of southern California prospered during the cattle boom of the early 1850s. They were able to “reap windfall profit ... pay taxes and lawyer’s bills ... and generally live according to custom” (Pitt 1966). However, cattle ranching soon declined, contributing to the expansion of agriculture. With the passage of the “No Fence Act,” San Diego’s economy shifted from stock raising to farming (Robinson 1948). The act allowed for the expansion of unfenced farms, which was crucial in an area where fencing material was practically unavailable. Five years after its passage, most of the arable lands in San Diego County had been patented as either ranchos or homesteads, and growing grain crops replaced raising cattle in many of the county’s inland valleys (Blick 1976; Elliott 1883 [1965]).

By 1870, farmers had learned to dry farm and were coping with some of the peculiarities of San Diego County’s climate (*San Diego Union* 1868; Van Dyke 1886). Between 1869 and 1871, the amount of cultivated acreage in the county rose from less than 5,000, to more than 20,000 acres (*San Diego Union* 1872). Of course, droughts continued to hinder the development of agriculture (Crouch 1915; *San Diego Union* 1870; Shipek 1977). Large-scale farming in San Diego County was limited by a lack of water and the small size of arable valleys. The small urban population and poor roads also restricted commercial crop growing. Meanwhile, cattle continued to be grazed in parts of inland San Diego County. In the Otay Mesa area, for example, the “No Fence Act” had little effect on cattle farmers because ranches were spaced far apart and natural ridges kept the cattle out of nearby growing crops (Gordinier 1966).

During the first two decades of the twentieth century, the population of San Diego County continued to grow. The population of the inland portion of the county declined during the 1890s, but between 1900 and 1910, it rose by about 70 percent. The pioneering efforts were over, the railroads had broken the relative isolation of southern California, and life in San Diego County became similar to other communities throughout the west. After World War I, the history of San Diego County was primarily determined by the growth of San Diego Bay. In 1919, the United States Navy decided to make the bay the home base for the Pacific Fleet (Pourade 1967), as did

the aircraft industry in the 1920s (Heiges 1976). The establishment of these industries led to the growth of the county as a whole; however, most of the civilian population growth occurred in the coastal areas in the northern portion of the county where the population almost tripled between 1920 and 1930. During this time, the history of inland San Diego County was subsidiary to that of the city of San Diego, which had become a Navy center and an industrial city (Heiges 1976). In inland San Diego County, agriculture became specialized and recreational areas were established in the mountain and desert areas. Just before World War II, urbanization began to spread to the inland parts of the county.

3.2.4 History of the La Jolla Area

A limited research effort was initiated in order to characterize the circumstances of the early development of La Jolla so that the current project could be placed in context with the surrounding community. Several early land developments contributed to the overall disturbance of the major prehistoric sites in the area of the project. However, small development projects continuously encounter pockets of cultural sites that have survived grading and construction impacts over the years.

Most researchers agree that the origin of the name La Jolla is a variation of the original “La Hoya,” which literally translated from Spanish means “pit, hole, grave, or valley.” The equivalent American translation is “river basin” (Castillo and Bond 1975). James Pascoe, the city surveyor, spelled it “La Joya” on his 1870 map of city land, which translates as “the jewel.” The location of La Hoya (or La Joya) was consistently shown as the canyon in which the southern portion of Torrey Pines Road is currently located. The first post office was established on February 28, 1888 and closed on March 31, 1893, but reopened as “Lajolla” (one word) on August 17, 1894. On June 19, 1905, the name of this post office was changed to “La Jolla” (two words) (Salley 1977).

The first purchase of Pueblo Lands in this area occurred on February 27, 1869, when the City of San Diego sold Pueblo Lot 1261 to Samuel Sizer. On the same day, the City sold Pueblo Lot 1259 to Daniel Sizer. These lots sold for \$1.25 per acre and were both located south of “La Hoya Valley.” The *San Diego Union* (1869) referred to the canyon as “La Hoya” when describing Sizer’s agricultural development to the south. By the 1870s, excursions to the point and cove were offered by the Horton House in their Concord Coach, a stagecoach drawn by four horses (*San Diego Union* 1932).

The boom of the 1880s extended to La Jolla with the construction of a hotel and rental cottages (Randolph 1955). Initially, water supplies were unreliable, consisting of only two sources: a small well in Rose Canyon and a small pipeline connected to the Pacific Beach water supply. Reliable transportation to La Jolla came with the extension of the San Diego, Old Town, and Pacific Beach Railway in 1894. This narrow-gauge railroad was responsible for bringing passengers and prefabricated cottages (on flat cars) to the growing community (Randolph 1955). The railroad was dismantled in 1919, but not before an unsuccessful experiment with a gasoline-powered rail car (known locally as the “Red Devil”) was conducted.

As the number of residences and businesses increased in La Jolla, so did the need for public services. On July 10, 1888, the San Diego City Council passed an ordinance providing for the disposal of garbage, night soil, dead animals, ashes, and rubbish (Document 101817). In 1909, natural gas was brought to La Jolla, and in 1911, electricity was made available to the community (Randolph 1955). An electric railway provided service to La Jolla between 1924 and 1940. In 1918, street paving began, and by 1922, the Girard Street business section was completely paved.

Visitors to La Jolla enjoyed the park at Alligator Head from the earliest days of stagecoach excursions. Trees and shrubs were planted around the park, but a months-long failure of the water supply during 1890 caused many of the plants to die. During the 1890s, the park was also the focus of construction for guest cottages and hotels, such as the La Jolla Beach House, which indicates that developmental impacts to prehistoric archaeological resources, as well as impacts from increased visitation, occurred from this early period. Randolph (1955) wrote about a Native American settlement at La Jolla (probably SDI-39), which was supported by Native American informants and the recovery of several artifacts, including metates, stone utensils, and other relics from La Jolla Cove. As the development of La Jolla continued, other subdivisions and plots were converted from farming and/or grazing to residential use. The “La Jolla Vista” subdivision of 1923, located on the east side of Spindrift Drive, was one of those subdivisions (San Diego County Engineering Map Records). A photograph showing La Jolla Cove in 1894 is provided in Plate 3.2–1.



Plate 3.2–1: La Jolla Cove in 1894.
(Photograph courtesy of the San Diego Historical Society)

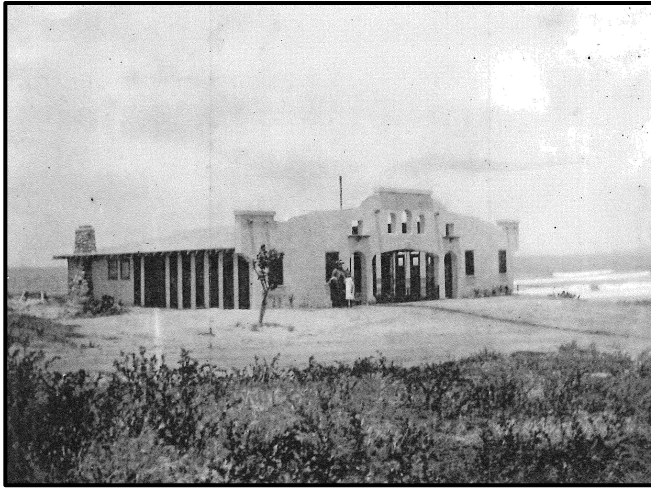


Plate 3.2–2: The Spindrift Inn prior to completion in 1916. (Photograph courtesy of Margaret Hannay)

The earliest notable development in this area was the construction of the Spindrift Inn northeast of the subject property in 1916. Roy Clarke Rose built the inn as a bathhouse and restaurant using lumber salvaged from the ruins of the Congregational Church (Plate 3.2–2). Rose and the original renters, a Mr. and Mrs. Wilder, decided to name the inn “Spindrift” for “the wind driven foam from the breast of the waves” (Hannay n.d.).

Peter and Margaret Hannay purchased the inn in 1922. According to Margaret Hannay, “at that time Spindrift was at the end of nowhere”; only a trail ran down

to the inn, which was widened when homes began to be built in the area (Hannay n.d.). The Pelican Club (a social club) was established around the same time as the inn, where the club members met approximately once a month before gathering afterward at different members’ residences for cocktails. The club was originally organized by W.L. Maloon, Dr. Truman A. Parker, W.L. Peete, and Ivan Rice. The original members included W.C. Crandall, John R.E. Sumner, William Trump, and Billy Woods. Later members included Laurence Burdick, H.G. Lazelle, William McDonald, Remsen McGinnis, J. Lewis Morse, William E. Pate, Thomas A. Rothwell, F.P. Sherwood, A.B. Smith, E.C. Stimpson, H.U. Sverdup, Keith Trask, Dr. T. Wayland Vaughn, Morris T. Weeks, and William C. Zimmerman (Randolph 1955). The last meeting of the Pelican Club was held in 1937, and the Hannays sold the inn shortly thereafter (Hannay n.d.).

In 1926, the initial development of the La Jolla Beach and Yacht Club (Plate 3.2–3) took place immediately adjacent to the Spindrift Inn.



Plate 3.2–3: La Jolla Beach and Yacht Club in 1927. (Photograph courtesy of the San Diego Historical Society)

The board of governors, who helped sponsor the \$1,000,000 project, included Charles H. Bencini, A.J. Bickerstaff, Arthur H. Braly, T.A. Davis, Arthur D. Dodworth, George Harbaugh, William Kettner, J.D. Marsden, Sherman A. Paddock, Robert B. Stacy-Judd, and Will J. Thayer (*San Diego Union* 1926). Designed by Hollywood architect Robert B. Stacy-Judd as a “unique architectural adaptation of [an] ancient Mayan building method,” the La Jolla Beach and Yacht Club facility was opened in 1927 (*San Diego Union* 1927). The Beach and Yacht Club and the Spindrift Inn gained in popularity in the 1920s and 1930s and were successful in spite of the Depression that gripped the country between the stock market crash of 1929 and the opening of World War II. The La Jolla Vista subdivision, on the other hand, was slow in building to capacity, possibly because of the real estate bust from 1925 to 1926 (Brandes et al. 1999).

In 1935, Frederick William Kellogg purchased the La Jolla Beach and Yacht Club and transferred ownership to himself and his wife, Florence Scripps Kellogg, niece of Ellen Browning Scripps. After taking ownership, Kellogg renamed the facility the La Jolla Beach and Tennis Club and built four tennis courts, an Olympic-sized swimming pool, and 42 apartments (Randolph 1955). Once the apartments were complete, Kellogg began a remodel of the Spindrift Inn to convert it into a restaurant. Kellogg “knocked a hole through the wall” of the Spindrift Inn and built the Marine Room dining room immediately adjacent to the inn (Daily-Lipe and Dawson 2002). However, Kellogg passed away in 1940 before the project was complete. His son, William J. Kellogg, ultimately finished the remodel and the new Marine Room restaurant opened in 1941 (Daily-Lipe and Dawson 2002) (Plate 3.2–4). A year after the Marine Room opened, the windows were smashed in by rising surf caused by a winter storm. Each time that the windows would be replaced after a storm, they were smashed in again by the surf. In 1948, the Spindrift Lounge was constructed and the plate glass was replaced with Herculite three-fourth-inch glass (Olten et al. 2011).

During World War II, two military training camps came to La Jolla (Camp Callan and Camp Elliot) and two emplacements on Mount Soledad and one on the beach in La Jolla were established



Plate 3.2–4: The Marine Room during a storm in 1944.
(Photograph courtesy of the Marine Room)

(Pierson 2001). Although these military installations were replaced after the Korean War with the University of California at San Diego campus and the expansion of the Scripps Institution of Oceanography, La Jolla’s economic base gained a substantial business element. This trend continues with ever-present tourism playing a significant part in the local economy. The residential population has historically included permanent and seasonal residents, many of whom have achieved a significant degree of financial and historical notoriety and success.

3.3 Research Results

The project is located within the boundary of SDI-39, a previously recorded prehistoric occupation complex spanning the Early Archaic to Late Prehistoric cultural periods. Site SDI-39, the Spindrift Site, has been determined to be significant according to CEQA and City of San Diego criteria. An important element of the significance of the Spindrift Site is the numerous human burials that have been discovered and the abundance of human bone encountered in graded lots and streets within this neighborhood.

Site SDI-39 has been identified as an important, significant site since it was first recorded by Welty in 1912, when he noted that the site stretched for as long as 1,000 feet along the shore and up to 1,200 feet inland. Welty noted depths from one to eight feet, a dense black midden, shell, charcoal, and fragments of human remains.

Archaeological work by Malcolm Rogers in 1931 named SDI-39 the “Spindrift Site,” after the street name. In a joint effort, the 1931 San Diego/Smithsonian Project sought to uncover the origins of human occupation on the west coast. As a result of this project, Rogers excavated a series of sites throughout La Jolla (Rogers 1929). Although these studies were conducted at a time when La Jolla was undergoing development for homes, much of Rogers’s work was conducted prior to the massive impacts to cultural resources that occurred in San Diego after World War II. Rogers’s site record for SDI-39 indicates that the site covered 20 acres and exhibited occupation materials including cobble hearths and whale bone, which were hypothesized to have been used as housing materials. Over the next several years, Rogers excavated an estimated 40 cubic feet of soil across three areas of Spindrift Drive. His excavations uncovered human remains and large amounts of prehistoric materials. During this time, Rogers’s work identified intact strata from the earliest to the latest periods of occupation at SDI-39. As a result of his studies, Rogers divided the cultural deposit into three distinct layers of occupation: the earliest (Stratum 1) was composed of invertebrate faunal remains, milling equipment, lithic tools, fire-cracked rock, and charcoal; the next layer (Stratum 2) contained a lower frequency of cultural materials and the majority of inhumations; and the last layer (Stratum 3) was considered the most dense and contained ceramics, cremations, and large amounts of other Late Prehistoric cultural materials. According to information in Pignuolo and Brodie (2009), Rogers’s trenching studies were located directly north of the current project.

The next notable work at SDI-39 was conducted by Dr. James Moriarty, III in 1961 on what was known as the Oliver Gill Lot, located just north of 1834 Spindrift Drive. Moriarty’s work resulted in the collection of a large range of milling equipment (manos, metates, mortars, pestles, and stone bowls), projectile points, and ceramics. His salvage work at the site identified (at the time) the earliest known evidence of ceramics along the coast (1,270 ± BP). Moriarty’s detailed stratigraphic analysis allowed for the identification of transitions between La Jollan and Yuman populations.

Since Moriarty’s work in 1961, several limited test excavations have taken place across portions of SDI-39. Examples of these limited excavations include Berryman and Roth (1993),

Wade (1998a, 1998b), Gross and Robbins-Wade (1999), Case et al. (2003), Rosenberg and Smith (2007), Stropes and Smith (2011a), Berryman et al. (2014), and Smith et al. (2015a, 2015b). Based upon these previous investigations at SDI-39 throughout the Spindrift neighborhood, the deposit is characterized as one to one and a half meters in depth, containing a variety of marine shell, lithic materials, faunal bone, ceramics, milling tools, and potentially human remains (Stropes and Smith 2011a). The early documentation, large quantity, and wide range of materials identified for SDI-39 clearly indicate that the site served a habitation function.

Although the majority of radiocarbon analysis from the site has been limited to only identifying the Late Prehistoric Period component (Gross and Robbins-Wade 1999; Berryman and Roth 1993), more recent studies by Stropes and Smith (2011a) and Smith et al. (2015a, 2015b) have identified additional Late Period and Archaic Period dates that place occupation of the site between 990 B.C. to A.D. 1950. This occupation range is also supported by C-14 studies conducted by Berryman et al. (2014), who analyzed 11 radiocarbon samples, which resulted in an average date range for the site between 780 B.C. and A.D. 1950. These studies clearly indicate the presence of a large Archaic Period component that is only now being ratified through conventional C-14 methods.

3.4 Records Search Results

The SCIC records search identified 23 recorded cultural resource sites within one-quarter mile of the project, one of which (prehistoric village Site SDI-39) is recorded within the subject property (Table 3.4–1). The remaining 22 sites include 14 historic single-family residences, two isolated historic artifacts, one historic sidewalk stamp, one prehistoric shell midden, two prehistoric campsites, one area of prehistoric habitation debris, and one prehistoric artifact and shell scatter.

Table 3.4–1
Cultural Resources Located Within a
Quarter-Mile Radius of 1851 Spindrift Drive

Site(s)	Description
P-37-017306, P-37-018366, P-37-018661, P-37-018775, P-37-018792, P-37-018991, P-37-019081, P-37-027666, P-37-028511, P-37-033149, P-37-035587, P-37-035644, P-37-034699, and P-37-027507	Historic single-family residence
P-37-027459 and P-37-027460	Historic isolate
P-37-034704	Historic sidewalk/curb stamp
SDI-17,372	Major prehistoric campsite with human remains
SDI-17,383	Prehistoric campsite
SDI-18,307	Prehistoric shell midden with human remains

Site(s)	Description
SDI-19,056	Prehistoric artifact and shell scatter
SDI-20,129	Prehistoric habitation debris
SDI-39/W-1	Prehistoric shell midden/ village with human remains

An additional 26 historic addresses are present within the search radius and 93 previous reports have been conducted within one-quarter mile of the project. None of the previous studies intersect with the current project. However, a review of reports from projects in the immediate area of 7960 La Jolla Way indicates that elements of SDI-39 have been discovered throughout the area south of the La Jolla Beach and Tennis Club. A component of SDI-39 was recorded by Gross and Robbins-Wade (1998) at the Spindrift Drive/St. Louis Terrace intersection, and another component was recorded one block north on Roseland Drive by Berryman and Roth (1993). Additional portions of SDI-39 were identified by Rosenberg and Smith (2007) at 1905 Spindrift Drive and Stropes and Smith (2020) at 7965 Roseland Drive.

The largest archaeological study of SDI-39 on record at the SCIC is at 1900 and 1912 Spindrift Drive, where substantial quantities of the prehistoric deposit were excavated to allow a large residential complex to be constructed. The majority of this work was conducted by BFSA (Smith et al. 2015a, 2015b), but some elements were also completed by HDR in 2013. Laguna Mountain Environmental, Inc. (LMEI) prepared a report on testing/monitoring of underground utility trenching conducted by the City of San Diego, where human remains were discovered in an affected portion of Site SDI-39 (Pigniolo and Brodie 2009). Although the report is unfinished, LMEI and the City have shared sensitive burial information with BFSA for the purpose of evaluating potential impacts from various proposed projects in this neighborhood. The actual locations of the various human remains must remain confidential but will be used to elevate the cultural resource sensitivity of the immediate surroundings.

The characteristics of SDI-39 recorded by Welty (the original recorder of the 1912 site form), Rogers (1931 [site form]), Moriarty (1965), Berryman and Roth (1993), Wade (1998c [site form]), and Gross and Robbins-Wade (1998) generally depict the site as a widespread shell midden spanning both the Archaic and Late Prehistoric periods. Human burials have been recorded along with hearth features and a wide spectrum of artifacts. Certainly, SDI-39 represents a significant prehistoric occupation site that was closely associated with the marine resources present in the La Jolla Bay area, as well as terrestrial resources associated with the marsh that was present where the La Jolla Beach and Tennis Club currently exists.

The expanded boundary for SDI-39 was submitted to the SCIC in 2009 at the request of the City of San Diego and LMEI, and now includes the areas studied by Gross and Robbins-Wade (1998, 1999), Berryman and Roth (1993), Smith (2000), Rosenberg and Smith (2007), Wade (1998b), Pigniolo and Brodie (2009), Case et al. (2007), and Cheever (2001). A site boundary configuration has been proposed by Pigniolo and Brodie (2009) as a consequence of their research

on the Princess Street/Spindrift Drive undergrounding project.

3.5 Regulatory Setting

The cultural resources study for 1851 Spindrift Drive followed the appropriate local and state protocols and procedures for this type of study. Statutory requirements of CEQA and subsequent legislation (Section 15064.5), as well as the guidelines of the City of San Diego, would be followed in evaluating the significance of identified cultural resources. Specific definitions for archaeological resource type(s) used in this report are those established by the State Historic Preservation Office (SHPO 1995).

3.5.1 California Environmental Quality Act

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

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

history.

- 4) The fact that a resource is not listed in, or determined eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to Section 5020.1[k] of the PRC), or identified in an historical resources survey (meeting the criteria in Section 5024.1[g] of the PRC), does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Section 5020.1(j) or 5024.1.

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

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

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

- 1) When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in Subsection (a).
- 2) If a lead agency determines that the archaeological site is an historical resource, it shall

refer to the provisions of Section 21084.1 of the PRC, Section 15126.4 of the guidelines, and the limits contained in Section 21083.2 of the PRC do not apply.

- 3) If an archaeological site does not meet the criteria defined in Subsection (a), but does meet the definition of a unique archaeological resource in Section 21803.2 of the PRC, the site shall be treated in accordance with the provisions of Section 21083.2. The time and cost limitations described in PRC Section 21083.2(c-f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.
- 4) If an archaeological resource is neither a unique archaeological nor historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or Environmental Impact Report, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

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

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

3.5.2 City of San Diego Historical Resources Board Eligibility Criteria

Because this project requires approval from the City of San Diego, HRB eligibility criteria were used for this evaluation. Therefore, criteria for listing on the San Diego Register of Historical Resources (SDRHR), the CRHR, and the National Register of Historic Places (NRHP) would be followed in evaluating the significance of identified resources.

A resource must be significant at the local, state, or national level, under one or more of the following criteria in order to be eligible for designation on the SDRHR:

- **City of San Diego HRB Criterion A:**
It exemplifies or reflects special elements of the city's, a community's, or a neighborhood's historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping, or architectural development;
- **City of San Diego HRB Criterion B:**
It is identified with persons or events significant in local, state, or national history;
- **City of San Diego HRB Criterion C:**
It embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship;
- **City of San Diego HRB Criterion D:**
It is representative of the notable work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist, or craftsman;
- **City of San Diego HRB Criterion E:**
It is listed or has been determined eligible by the National Park Service for listing on the NRHP, or is listed or has been determined eligible by the State Historic Preservation Office for listing on the State (California) Register of Historical Resources; or
- **City of San Diego HRB Criterion F:**
It is a finite group of resources related to one another in a clearly distinguishable way or is a geographically definable area or neighborhood containing improvements, which have a special character, historical interest, or aesthetic value, or which represent one or more architectural period or styles in the history and development of the city.

The four primary evaluation criteria to determine a resource's eligibility to the NRHP, in accordance with the regulations outlined in 36 CFR 800, are identified by 36 CFR 60.4. Historic resource properties may be considered eligible for listing on the NRHP if they meet one or more of the following criteria identified in 36 CFR 60.4:

- (A) Is associated with events that have made a significant contribution to the broad patterns of our history;
- (B) Is associated with the lives of persons important in our past;
- (C) Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or that represent a significant and distinguishable entity whose components may lack individual

distinction; or

- (D) Has yielded, or may be likely to yield, information important in prehistory or history.

According to PRC Section 5024.1(c), a resource may be listed as a historic resource in the CRHR if it meets any of the following NRHP criteria:

- (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- (B) Is associated with the lives of persons important in our past;
- (C) Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- (D) Has yielded, or may be likely to yield, information important in prehistory or history.

3.5.3 Development Regulations for Important Archaeological Sites (Section 143.0253)

In addition to the general development regulations in Section 143.0250 of the City's Historical Resources Guidelines, the following regulations apply to important archaeological sites.

- (a) Important archaeological sites shall be preserved in their natural state, except that development may be permitted as provided in this section or as provided in Section 143.0260. Ch. Art. Div. 14 3 2 14 San Diego Municipal Code Chapter 14: General Regulations (6-2017).

- (1) Development may be permitted in areas containing important archaeological sites if necessary to achieve a reasonable development area, with up to 25.00 percent encroachment into any important archaeological site allowed. This 25.00 percent encroachment includes all grading, structures, public and private streets, brush management, except as provided in Section 143.0225, and any project-serving utilities.

- (b) Any encroachment into important archaeological sites shall include measures to mitigate for the partial loss of the resource as a condition of approval. Mitigation shall include the following methods, consistent with the Historical Resources Guidelines of the Land Development Manual:

- (1) The preservation through avoidance of the remaining portion of the important archaeological site; and,
- (2) The implementation of a research design and excavation program that recovers

the scientific value of the portion of the important archaeological site that would be lost due to encroachment.

3.6 Native American Consultation

Assembly Bill (AB) 52, the Native American Historic Resource Protection Act, sets forth as proactive approach intended to reduce the potential for delay and conflicts between Native American and development interests. Projects subject to AB 52 are those that file a notice of preparation for an Environmental Impact Report or notice of intent to adopt a negative, or mitigated negative, declaration on or after July 1, 2016. AB 52 adds Tribal Cultural Resources (TCRs) to the specific cultural resources protected under CEQA. Under AB 52, a TCR is defined as a site, feature, cultural landscape (must be geographically defined in terms of size and scope), sacred place, or object with cultural value to a California Native American tribe that is either included or eligible for inclusion in the CRHR, or included in a local register of historical resources. A Native American tribe or the lead agency, supported by substantial evidence, may choose at its discretion to treat a resource as a TCR. AB 52 also mandates lead agencies to consult with tribes, if requested by the tribe, and sets the principles for conducting and concluding consultation.

4.0 RESEARCH DESIGN

The primary goal of the research design is to attempt to reconstruct the way in which humans have used the land and resources within the project area through time. As people used the area, evidence of their activities has been preserved on and in the ground. Archaeological methods are used to retrieve and analyze portions of this evidence to reconstruct past lifeways. This type of inquiry is part of the cultural resources management aspect of environmental conformance studies.

The testing program employed as the basis for excavations at 1851 Spindrift Drive includes a records search, background research, test excavations, and the mapping of features, artifacts, and locations of subsurface archaeological tests. Primary objectives, such as determining the boundaries of any discoveries, depth of any archaeological deposits, stratigraphy, integrity, content, and spatial distribution of any subsurface artifacts and cultural ecofacts, are essential to the current test phase of the program. Normally, a research orientation transcends these goals by expanding the meaning of information extracted from a site through the use of archaeological questions important in current scientific research. Regional and temporal research issues should be taken into consideration when posing such questions; however, because the boundary of buried intact cultural resources is uncertain, the research design for the current project is limited in scope. The topics and associated research questions provided below address concerns specific to the project.

The research designs included in the ATPs for 1851 Spindrift Drive (Smith 2017, 2021), which were previously submitted to the City of San Diego for review, incorporate information derived from other studies in the neighborhood that have encountered elements of SDI-39 (see Section 3.4).

Regional and locally specific questions were employed to approach focused archaeological research questions for 1851 Spindrift Drive. Many of these research questions overlap, as they address environmental setting and prehistoric occupation patterns. Although a wide range of research questions may be possible for investigations at SDI-39, the primary research areas were selected based upon previous work in the neighborhood, potential of available data to address these questions, and possible overall contribution to the archaeological record. The specific research questions focus upon chronology, lithic technology, settlement patterning, and subsistence strategy. The goal of the testing program was to determine if data from 1851 Spindrift Drive could possibly contribute to the proposed research questions that reflect research conducted elsewhere in the Spindrift neighborhood. The research topics listed below were used to guide the study and to determine the sample size necessary to provide sufficient materials to address these posed research questions.

Chronology

What was the period(s) of use and/or occupation for Site SDI-39? Is there evidence

of multiple periods of occupation at SDI-39 and can they be identified through radiocarbon analysis? Temporally, how does this site fit into the overall pattern for San Diego County? That is, what group or culture are we examining in the context of the known culture history, and can we differentiate between periods of occupation(s)?

Determining the period(s) of occupation of a site or region can be accomplished through radiocarbon dating and relative dating techniques. Radiocarbon dating depends upon the retrieval of dateable materials, such as bone or shell. In San Diego County, radiocarbon dates range from approximately 9,000 years ago to historic contact. In contrast, relative dating is based upon the recovery of specific artifacts that are temporally diagnostic, such as atlatl dart points, arrow points, and ceramics. Stratigraphic analyses, obsidian sourcing, and hydration rind measurements may also serve as relative dating measures. Combining radiocarbon and relative dating techniques helps to provide a greater chronological picture for any given site.

Previous work at SDI-39 has produced radiocarbon dates that document its occupation as being within the Archaic and Late periods. The dating of different areas within the large area representative of SDI-39 would provide greater understanding of the site's occupation history, and dates from 1851 Spindrift Drive will add to the general information base for the site. In addition, this research helps to delineate (where possible) divisions between Late Prehistoric and Early Archaic occupation. Finally, further chronological analyses may also reveal if the site may be better understood synchronically, diachronically, or both. However, in order to address the posed research questions, a more accurate temporal placement of the site was necessary.

Study Topics

1. Can multiple periods of occupation be determined through chronological analysis of SDI-39?
2. Does the chronological data suggest longer periods of occupation during the Late Prehistoric Period or Early Archaic Period?
3. Where does SDI-39 place chronologically in the overall pattern for sites along the San Diego coast and southern California in general?
4. How do temporally diagnostic artifacts from SDI-39 compare to C-14 data, and does the data suggest stratigraphic mixing of the assemblage?

Data Needs

Previous work in this general area of La Jolla indicates that, at a minimum, shell and bone ecofacts are present within SDI-39. Therefore, materials used for radiocarbon dating should be selected based upon context and quality. If the recovered data permits, relative dating may be possible using point types, the presence of ceramics, and obsidian analysis. If obsidian is present in the collection, samples may be tested for hydration values that can be used to relatively date the

site by using comparable hydration rates.

Lithic Technology

What technological lithic trajectories were employed by the prehistoric inhabitants of SDI-39? Which lithic reduction strategies were in use and when? What role did milling technology play at SDI-39? Is there notable variation in observable lithic technologies between coastal sites and inland sites of the same time period?

Several flake tool reduction strategies have been identified for the southern California coastal region. These strategies include biface reduction, split-nodule core reduction, small blade core reduction, bipolar core reduction, and nodule reduction. The decision to use one or the other of these techniques was dependent upon several factors, the most important of which being the type of material being worked, the morphology of the parent material, and the intended tool. For example, some lithic materials, such as Monterey chert and Piedra de Lumbre (PDL) chert, are more easily worked, and with heat treatment become some of the best knappable material in the western United States. Problems exist, however, when material is in its raw state. PDL chert generally occurs in small pieces, and was therefore used extensively in the late Holocene for small arrow points (Pigniolo 1992). However, this material has been recovered from a site dating to 8,000 years ago (Gallegos 1991). Monterey chert occurs in small cobbles and in layers. For small cobbles, bipolar reduction would be the most efficient method of producing usable flakes. For the layered Monterey chert, biface reduction was the most expedient method of producing tools, as the layers were already thin and only the outer perimeter needed to be worked (Cooley 1982).

Other chert sources in San Diego need to be identified and the material chemically characterized. Large biface production and reduction requires pieces of material large enough to be reduced and homogeneous enough to produce workable items. Santiago Peak Volcanics, found in San Diego, have been used extensively for the production of large tools (*i.e.*, adzes, scrapers, scraper planes, cores, and hammerstones) and bifaces (Schroth and Flenniken 1997). The use of quarry material from these formations may be an early to middle Holocene marker, as the larger spear and dart points would have necessitated the use of larger blocks of parent material.

Nodule core reduction comprises numerous techniques with specific trajectories such as pyramidal-shaped, split-nodule core reduction (used to produce thick, contracting flakes for flake tools), the production of teshoa flakes for large flake tools, and nodule core tools wherein the parent material, rather than the removed flakes, becomes the tool. Cobble layers found in streambeds, across coastal terraces, and along the coast provided materials for these reduction sequences. Nodule core reduction is known in southern California archaeological literature as “Cobble Core Reduction” (Gallegos et al. 2002; Gallegos et al. 2003). The term “nodule” was substituted for “cobble” because a cobble is geologically defined as a size clast (64 to 256 millimeters), and many prehistoric core and core-based artifacts (such as some battered implements) were manufactured from boulders (>256 millimeters), and to a lesser extent, pebbles

(four to 64 millimeters). The term “nodule” was selected because nodules as a class are not size-specific and tend to be rounded to sub-rounded.

For coastal areas of San Diego, nodule core reduction technology is the most common core technology identified in archaeological sites that range from the early Holocene to historic contact with native peoples (Stropes 2007). In addition, products of nodule core reduction are some of the most abundant tool forms identified in assemblages throughout the region. This simple and expedient technology may have been so commonly employed because it provided a simple and relatively effortless way to produce useful flakes and flake blanks intended for immediate use or further reduction into a wide range of tool forms. Effort is defined in reference to the lithic technology described herein as the amount of energy needed to reduce stone into a viable product. Because of the local abundance of metavolcanic materials in nodule form, there was little need for more material-efficient, and consequently more time-consuming, technology.

Prehistorically, the use of ground stone implements (*i.e.*, manos, metates, and pestles) is common throughout San Diego County archaeology sites. However, when viewed chronologically, many researchers have suggested that lithic milling equipment was either absent or rare in assemblages identified to the Paleo Indian Period (Chartkoff and Chartkoff 1984; Moratto 1984; Moriarty 1966; Rogers 1939), suggesting a greater reliance upon food packages that required minimal milling-based processing for consumption. In contrast, it is also believed that a lack of milling at Paleo Indian Period sites is a reflection of site-use patterning rather than the absence of milling technology for the time period. To date, minimal research has been conducted regarding ground stone manufacture and the use, or change of use, through time in San Diego County. However, studies such as Flenniken’s 1993 analysis of tools from SDI-10,148 have demonstrated that sites exist in San Diego that demonstrate ground stone manufacture and rejuvenation activities (Flenniken et al. 1993). Therefore, analysis of debitage and tools from habitation sites can provide information regarding manufacture, use, and rejuvenation of ground stone, if present. In addition, variation in resource exploitation and changes in site function should be analyzed to determine if ground stone tools were designed for specific functions (*i.e.*, mortar and pestle use for acorn processing) and if technological changes in milling equipment occurred through time as climate and resources changed.

Previous work at various Spindrift area properties that contain elements of SDI-39 have recovered a wide range of flaked lithic materials and ground stone. With this knowledge, we can predict that the recovery from 1851 Spindrift Drive may provide enough data to characterize the general lithic trajectories present. Therefore, the following study topics will be addressed.

Study Topics

1. Which technological reduction strategies are present based upon a technological analysis of flaked stone at the property?
2. Which reduction strategies were used to produce which tools? Were these strategies the same or different?

3. Is there variation between flake-based tool kits at sites where shellfish processing is the dominant activity and sites focused upon other subsistence activities from the same time period?
4. How do the technologies identified at SDI-39 and the stages of tool reduction relate to site function and tools recovered at the site?
5. Were the prehistoric lithic tools present within the property manufactured on-site or at another location?
6. Have specific lithic reduction techniques changed through time at SDI-39 (*i.e.*, does large biface reduction predominate during the Paleo Indian Period and do nodule-based technologies predominate during the Early Archaic Period and Late Prehistoric Period)? What function did milling technologies serve at SDI-39?

Data Needs

Previous work in the Spindrift neighborhood indicates that flaked lithics and ground stone implements are present throughout SDI-39. Therefore, all lithic materials recovered from 1851 Spindrift Drive will be selected for technological analysis based upon replicative data. In order to address the proposed research questions, the following will be required:

- Collection of an appropriate sample of cores, tools, and debitage;
- Technologically-based analysis of cores, tools, debitage, and milling equipment; and
- Identification of the technological attributes and reduction sequences used to produce the tools.

Settlement and Subsistence

Which settlement and subsistence patterns can be identified at SDI-39 and have these patterns changed over time? Did the pattern of shellfish collection change over time? If so, what influenced the changes: environmental change, population change, technological change, or a combination of these factors? If this site is representative of a continuously occupied habitation site, how does this site relate to other sites such as base camps, special-use sites, or extractive sites? How did occupation and use of this site contribute to seasonal or year-round occupation of the region in general?

Traditionally, sites such as prehistoric habitation sites are archaeologically differentiated from specialized function sites (*i.e.*, quarries, shellfish processing sites, and milling stations) by the range of materials identified in the assemblage. In addition, there is also a notable amount of variability between habitation sites as a group with regards to site size, artifact density, and diversity of material culture. This observed variation may relate to differences in the quantity of people who occupied a given site, the duration of site occupation, the frequency with which a site

was reused, and the range of activities performed at a site. Identifying such variations in site patterning may help to facilitate the reconstruction of prehistoric social organization and economic adaptations to environmental change.

Although many attempts have been made to discern settlement patterns for Late Prehistoric Period sites based upon ethnographic data, the same cannot be said for Early Archaic Period sites in San Diego. The study of earlier settlement systems represented in the archaeological record has gone largely unstudied with the exception of research pertaining to whether coastal Early Archaic Period habitation sites (such as SDI-39) represent permanent settlements or short-term, seasonal camps (Davis 1976) primarily focused upon economic exploitation of shellfish. The data gathered from SDI-39 will help to further illuminate settlement and site type issues for the region and may provide a greater understanding for Early Archaic Period site patterning.

Seasonal site use at SDI-39 is implicit in the availability of fresh water only during the rainy season (winter). However, the attraction of fresh water may have been strongest during the summer months due to the seasonal availability of preferred resources (Jochim 1976). Seasonality of coastal sites may be determined in two ways. The first is the analysis of fish otoliths, which provide information regarding the season of capture, and hence, the season of site occupation. Since SDI-39 is located near the original La Jolla Estuary, seasonal concentrations of perennially available species must be considered. In addition, the presence of fish that inhabit the nearshore or the bay purely on a seasonal basis, such as some skates, rays, and sharks, must also be considered. For instance, if a seasonally sensitive fish species is identified that is only available near the shore during a certain period, but the otolith analysis indicates that the fish was captured during a season when it would not normally have been present, then not only is seasonality addressed, but other activities, including seagoing vessel construction and deep-water fishing, must also be considered.

Invertebrate faunal analysis from SDI-39 may also help to identify environmental change for coastal southern California based upon the rise in sea level that occurred during the early to middle Holocene. This change is believed to have prompted the flooding of coastal valleys and the formation of much of the San Diego lagoon system. The majority of evidence for environmental change in or near lagoons is based upon the analysis of core samples combined with radiocarbon dates and radiocarbon-dated shellfish samples taken from prehistoric sites near lagoons. Several studies have employed shellfish analysis to explain site patterning and environmental change (Miller 1966; Warren et al. 1961; Warren and Pavesic 1963; Bull and Kaldenberg 1976; Masters 1988).

Environmental studies suggest that circa 3,500 years ago, sea levels stabilized, which resulted in an increase in the siltation of the majority of northern San Diego County lagoons during the late Holocene. In contrast, San Diego Bay formed in the early Holocene and stayed open to the ocean throughout the Holocene (Gallegos and Kyle 1988). Taking this into consideration, some prehistoric sites around more northern lagoons may reflect a changing environment and the loss of certain lagoon shellfish and fish species. Sites reflecting exploitation of bay resources,

however, may not reflect a change in the exploitation pattern of shellfish species, type of shellfish, and/or absence of shellfish.

Previous studies within SDI-39 have produced large amounts of shellfish remains and a moderate amount of faunal remains (including marine mammal). Cultural materials recovered as a result of the testing program provided enough data to characterize the general subsistence and settlement pattern for the portion of SDI-39 within 1851 Spindrift Drive. Therefore, the following study topics can be addressed:

Study Topics

1. Does Site SDI-39 represent Early Archaic Period and/or Late Prehistoric Period components, and if so, is environmental change/change in resource exploitation over time reflected in the faunal assemblage?
2. Does Site SDI-39 represent a specialized food processing site or a campsite where a wide range of foods were gathered and processed?
3. As very little is known about Early Archaic Period settlement patterns, what information does SDI-39 provide to add to our prehistoric understanding of site occupation and use patterning?
4. Does the faunal assemblage indicate if SDI-39 was occupied on a seasonal or year-round basis?

Data Needs

In order to address questions about economic exploitation of resources at SDI-39, floral and faunal remains need to be recovered from 1851 Spindrift Drive to permit the reconstruction of diet or dietary practices and preferences of site occupants. The presence of particular plant and animal species allows for a more complete understanding of the range of environments exploited by the occupants of SDI-39. Methods for interpreting available data include speciation of vertebrate and invertebrate faunal materials, protein residue analysis, and the subsequent identification of habitats based upon species information. Based upon previous studies of intact strata, pollen and phytolith preservation may have been possible and should be considered when intact subsurface levels and/or features are identified. Artifacts recovered from the site can also provide inferential information regarding subsistence exploitation. For example, if plant material is not found, the presence of mortars, manos, pestles, bowls, and metates provides evidence that floral and faunal materials were processed at the site. Immunological studies of residues on tools from the site may provide data relating to both the use of tools and to resources exploited. As such, protein residue analysis from recovered ground stone implements and flaked tools may also be required. Often, it is necessary to process relatively large numbers of lithic tools to obtain protein residue information for a given site.

In order to understand settlement patterning for SDI-39, the recovered archaeological assemblage must be viewed in its entirety. It is through the comparison of chronological studies,

faunal studies, environmental reconstruction, and prehistoric technology studies that an understanding of the settlement patterning of the site will be achieved. In addition, although the number of otoliths commonly found in a midden is very small, if present, otoliths can be identified by species and subjected to seasonality study. The resulting data can then be assumed to reflect the species sample, and consequently, at a minimum, the seasonality of the site occupation.

5.0 METHODOLOGY

The goal of this study is to evaluate archaeological data obtained from research and field investigations for 1851 Spindrift Drive. All investigations conducted by BFSA related to this project conformed to CEQA and City of San Diego guidelines, as well as project-specific requirements provided by city staff.

5.1 Archaeological Methodology

The archaeological assessment program for this project included a field investigation that incorporated subsurface excavations (10 STPs and four GTPs) to produce an evaluation of resource significance. This archaeological study conformed to City of San Diego Historical Resources Guidelines and project-specific requirements. Statutory requirements of the City's guidelines, CEQA, and subsequent legislation (Section 15064.5) were followed in evaluating the significance and integrity of the cultural resource. Specific definitions for archaeological resource type(s) used in this report are those established by the State Historic Preservation Office (SHPO 1995).

5.1.1 Field Methodology

The archaeological survey was conducted by inspecting areas of exposed soil within the property, generally in the landscaped areas, to search for cultural materials. As part of the survey and evaluation, 10 STPs were excavated to explore the potential for subsurface cultural deposits. The 30-by-30-centimeter-wide shovel tests were excavated in decimeter levels to between 40 and 130 centimeters below the surface. The placement of the STPs was determined by accessible ground surface and the locations that will be directly impacted by the proposed project.

Subsurface GTP excavations were also excavated and monitored by BFSA archaeologists. The four 30-by-40-centimeter GTPs were hand excavated until it was no longer possible (to approximately 100-centimeters in depth). Once hand excavations were no longer possible, a 10-centimeter-in-diameter auger was used to complete the excavations. The GTPs were excavated to between 120 and 270 centimeters in depth.

All excavated soils were sifted through one-eighth-inch hardware mesh screens and all collected ecofacts were placed in plastic Ziploc bags and labeled with the appropriate provenience information. All STPs were mapped using a Trimble Geo XT Global Positioning System (GPS) unit equipped with TerraSync software. Photographs were taken to document field conditions during the current study. A Native American representative from Red Tail was present for portions of the field investigations.

5.1.2 Laboratory Methodology

In keeping with generally accepted archaeological procedures, any cultural materials collected from the property were categorized as to typology, material, and function. Comparative collections curated in the BFSA laboratory are often helpful in identifying unusual or highly

fragmentary specimens. The cataloging process for recovered specimens utilizes a classification system commonly employed in this region. After cataloging and identification, collections are marked with the appropriate provenience and catalog information, then packaged for permanent curation. A sample of the shell recovered from the site excavations was identified to the most precise taxonomic level; however, no radiocarbon dating or other specialized studies were conducted as part of this phase of the project. The complete recovery catalog has been provided in Appendix F.

5.1.3 Curation

The project field notes, photographs, and report will be curated at the offices of BFSFA in Poway, California. All artifact collections will be temporarily housed at BFSFA until permanent curation can be arranged at a curation facility approved by the City of San Diego. All fees associated with this curation will be the responsibility of the project applicant(s).

5.1.4 Native American Consultation

Native American consultation will be conducted by the BFSFA and the City of San Diego. BFSFA requested a review of the SLF by the NAHC for the area surrounding the project (Appendix D). In addition, the current project is subject to AB 52. The AB 52 process, which includes new requirements by the legislature regarding TCRs, will require a minimum of two months to complete for the current project.

6.0 REPORT OF FINDINGS

The recorded evidence of significant deposits associated with prehistoric archaeological Site SDI-39 across the entire Spindrift neighborhood has heightened the City of San Diego's concern for archaeological resources in this area. As a consequence, the BFSAs archaeologists were extremely diligent when searching for evidence of cultural materials at every opportunity within the property. The subject property was previously disturbed as a result of the residential development of this neighborhood between the 1920s and the 1950s, which has compromised the potential to discover cultural resources. In addition, the property is covered by landscaping, hardscape, and a residential structure, which masked much of the ground surface.

The following discussion presents the results of the current field investigations. Evidence of prehistoric Site SDI-39 was discovered within the property during the current study. As will be discussed below, the testing program identified both intact and disturbed cultural deposits. Based upon the findings of this study, the proposed development will impact intact cultural deposits.

6.1 Fieldwork Results

6.1.1 Field Reconnaissance

The entire property was closely inspected for any evidence of prehistoric Site SDI-39 during the cultural resources survey. The survey process included the accessible areas along the side yards and backyard of the property. The existing built environment includes the single-family residence, associated brick or paved walkways and patios (hardscape), and landscaping. The archaeological survey focused upon all areas of bare soil, which were closely inspected for artifacts and ecofacts. The survey noted evidence of cultural materials in the front yard landscaping adjacent to Spindrift Drive. Primarily, marine shell was noted in a dark soil matrix.

6.1.2 Subsurface Investigation

As part of the survey process, STPs and GTPs were planned and approved by the City as a means to sample areas that would be impacted by the proposed project. Because of the potential that cultural deposits could be masked or buried beneath hardscape or landscaping, subsurface tests were needed to search for any evidence of prehistoric deposits associated with SDI-39.

In 2017 and 2021, BFSAs excavated a total of 10 STPs and monitored the excavation of four GTPs within the 1851 Spindrift Drive property (Figure 6.1-1). Of the STPs, all were positive for cultural materials except for STP 5. Of the GTPs, only GTP 1 was positive for cultural materials. Overall, a total of 108 artifacts were recovered from the STPs and 19 artifacts were recovered from GTP 1 (Table 6.1-1). Signs of disturbance across the property included PVC pipes, concrete, and brick fragments encountered between zero and 50 centimeters (Table 6.1-2). The cultural deposit encountered in the STPs was most dense between 20 and 80 centimeters (Table 6.1-3), while non-cultural landscaping soil and/or fill dirt was observed between zero and 20 centimeters. The majority of artifacts were identified in STP 1, which was terminated at 130 centimeters due to the presence of subsoil. A detailed table showing recovery by depth in each

STP and GTP is presented in Table 6.1–4 (Appendix E).

Five soil horizons were identified at varying depths within the subsurface excavations at the 1851 Spindrift Drive property:

- Soil Horizon A: Dark brown (10YR 3/3) semi-compact sandy silt mixed with potting soil or sod
- Soil Horizon B: Very dark brown (10YR 2/2) intact midden soils
- Soil Horizon C: Yellowish brown (10YR 5/6) sandy silt fill mixed with concrete and brick fragments
- Soil Horizon D: Light gray (10YR 7/1) semi-compact sand
- Soil Horizon E: Pale brown (10YR 6/3) compact clay subsoil

STPs 1, 6, 7, 8, and 9 were placed in the front yard of the single-family residence. STPs 1, 8, and 9 were located in the north portion of the front yard and soils encountered within these STPs included Horizon A from zero to 20 centimeters, Horizon B from 20 to 100 centimeters, a transition between Horizon B and Horizon E from 100 to 125 centimeters, and Horizon E from 125 to 130 centimeters. Although STPs 8 and 9 were terminated at 70 and 80 centimeters, respectively (within Soil Horizon B), it is likely that they would continue to follow the soil profile of STP 1. STP 7 was also located in the front yard; however, it was placed at a slightly lower elevation along Spindrift Drive. As a result, soils encountered within this STP include Horizon A from zero to 10 centimeters, followed by Horizon B from 10 to 40 centimeters, and terminating with Horizon E from 40 to 50 centimeters. The soil profile of STP 6, which was located in the westernmost portion of the front yard, was similar to STP 7, consisting of Horizon A from zero to 10 centimeters, Horizon B from 10 to 30 centimeters, and Horizon E from 30 to 40 centimeters. The cultural deposit in STPs 1, 6, 7, 8, and 9 is represented by the Horizon B soil; however, it can be logically assumed that cultural deposits from the back of this lot or even from Spindrift Drive could be part of the upper levels of the cultural deposits observed on the west side of the lot. Since the northwest corner of the parcel represents the lowest point of the original topography, it would appear that the initial grading of the lot likely included the pushing of cultural soil from the high elevations at the southeast portion to the northwest low point. While portions of the Horizon B soil may be redeposited cultural soil, the lower soil is confidently characterized as intact deposits. Intact deposits were only noted on the northwest corner of the parcel in the front yard.

Figure 6.1-1
Excavation Location Map
Site SDI-39

(Deleted for Public Review; Bound Separately)

Table 6.1-1
Excavation Summary
Site SDI-39 at 1851 Spindrift Drive

Object Type	Geotechnical Test				Shovel Test										Total	Percent†
	1	2	3	4	1	2	3	4	5	6	7	8	9	10		
Flaked Stone																
Debitage	12				35	2	3	-		5	4	11	10	1	83	65.35
Angular Hammer				-			1								1	0.79
Adze				-	1										1	0.79
Ground Stone																
Mano				-	1										1	0.79
Ground Stone	1														1	0.79
Other Formed Objects																
<i>Olivella</i> sp. Bead				-	1										1	0.79
Pottery Vessel	6			-	12	1	2	2	-	1	-	8	5	2	39	30.71
Bulk Items (weights in grams)																
Faunal Bone	1.4			-	10.6					0.3	0.04	3.4	4.4	-	20.1	-
Marine Shell	35.7			-	287.4	4.1	21.6	18.8	-	33.5	14.1	46.7	72.0	1.4	535.3	
Fire Affected Rock	868.5			-	831.3	-	120.1	113.2	-	32.1	230.1	344.8		-	2,540.1	
Total*	19			-	50	3	6	2	-	6	4	19	15	3	127	100.00
Percent†	14.96			-	39.37	2.36	4.72	1.57	-	4.72	3.15	14.96	11.81	2.36	100.00	

*Totals do not include grams

†Rounded totals may not equal 100.00 percent

Table 6.1-2
Excavation Soils Description and Disturbances
SDI-39 at 1851 Spindrift Drive

Unit No.	Depth (cm)	Soils Description	Disturbances
STP 1	0-10	Dark brown (10YR 3/3) semi-compact sandy silt mixed with potting soil and sod	Landscaping
	10-20		
	20-30	Very dark brown (10YR 2/2) intact midden soils	None observed
	30-40		
	40-50		
	50-60		
	60-70		
	70-80		
	80-90		
	90-100	Very dark brown (10YR 2/2) midden soils mottled with pale brown (10YR 6/3) compact clay subsoil	
	100-110		
	110-125		
125-130	Pale brown (10YR 6/3) compact clay subsoil		
STP 2	0-10	Dark brown (10YR 3/3) semi-compact sandy silt mixed with potting soil	Landscaping
	10-20	Yellowish brown (10YR 5/6) sandy silt fill	Concrete and brick fragments
	20-30		
	30-40		
	40-50		
50-60	Pale brown (10YR 6/3) compact clay subsoil	None observed	
STP 3	0-10	Dark brown (10YR 3/3) semi-compact sandy silt mixed with potting soil	Landscaping
	10-20	Yellowish brown (10YR 5/6) sandy silt fill	Concrete and brick fragments
	20-30		
	30-40		
	40-50		
50-60	Pale brown (10YR 6/3) compact clay subsoil	None observed	
STP 4	0-10	Dark brown (10YR 3/3) semi-compact sandy silt mixed with potting soil	Landscaping
	10-20	Yellowish brown (10YR 5/6) sandy silt fill	Concrete and brick fragments
	20-30		
	30-40		
	40-50		
	50-60	Pale brown (10YR 6/3) compact clay subsoil	None observed

Unit No.	Depth (cm)	Soils Description	Disturbances
STP 5	0-10	Dark brown (10YR 3/3) semi-compact sandy silt mixed with potting soil	Landscaping
	10-20	Pale brown (10YR 6/3) compact clay subsoil	None observed
	20-30		
	30-40		
STP 6	0-10	Dark brown (10YR 3/3) semi-compact sandy silt mixed with potting soil	Landscaping
	10-20	Very dark brown (10YR 2/2) intact midden soils	None observed
	20-30		
	30-40	Pale brown (10YR 6/3) compact clay subsoil	
STP 7	0-10	Dark brown (10YR 3/3) semi-compact sandy silt mixed with potting soil	Landscaping
	10-20	Very dark brown (10YR 2/2) intact midden soils	None observed
	20-30		
	30-40		
	40-50	Pale brown (10YR 6/3) compact clay subsoil	
STP 8	0-10	Dark brown (10YR 3/3) semi-compact sandy silt mixed with potting soil	PVC Pipe, landscaping
	10-20		
	20-30	Very dark brown (10YR 2/2) intact midden soils	None observed
	30-40		
	40-50		
	50-60		
	60-70		
STP 9	0-10	Dark brown (10YR 3/3) semi-compact sandy silt mixed with potting soil	Landscaping
	10-20		
	20-30	Very dark brown (10YR 2/2) intact midden soils	None observed
	30-40		
	40-50		
	50-60		
	60-70		
	70-80		
STP 10	0-10	Dark brown (10YR 3/3) semi-compact sandy silt mixed with potting soil	Landscaping
	10-20	Pale brown (10YR 6/3) compact clay subsoil	None observed
	20-30		
	30-40		
GTP 1	0-20	Dark brown (10YR 3/3) semi-compact sandy silt mixed with potting soil or sod	PVC piping and landscaping
	20-80	Very dark brown (10YR 2/2) intact midden soils	None observed

Unit No.	Depth (cm)	Soils Description	Disturbances
	80-100	Very dark brown (10YR 2/2) midden soils mottled with pale brown (10YR 6/3) compact clay subsoil	
	100-180	Pale brown (10YR 6/3) compact clay subsoil	
GTP 2	0-10	Dark brown (10YR 3/3) semi-compact sandy silt mixed with potting soil	Landscaping
	10-120	Yellowish brown (10YR 5/6) sandy silt fill mottled with Pale brown (10YR 6/3) compact clay subsoil	Concrete and brick fragments
GTP 3	0-10	Dark brown (10YR 3/3) semi-compact sandy silt mixed with potting soil	Landscaping
	10-75	Yellowish brown (10YR 5/6) sandy silt fill	Fill soils and concrete and brick fragments
	75-140	Light gray (10YR 7/1) semi-compact sand	
	140-270	Pale brown (10YR 6/3) compact clay subsoil	
GTP 4	0-10	Dark brown (10YR 3/3) semi-compact sandy silt mixed with potting soil	Landscaping
	10-40	Yellowish brown (10YR 5/6) sandy silt fill	Fill soils and concrete and brick fragments
	40-170	Pale brown (10YR 6/3) compact clay subsoil	

Table 6.1-3
Shovel Test Excavation Summary by Depth
Site SDI-39 at 1851 Spindrift Drive

Object Type	STP Depth (cm)													Total	Percent†
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-110	110-120	120-130		
Flaked Stone															
Debitage	5	11	11	6	8	9	-	13	1	3	1	2	1	71	65.74
Adze	-						1	-						1	0.93
Angular Hammer	-				1	-								1	0.93
Ground Stone															
Mano	-			1	-								1	0.93	
Other Formed Objects															
<i>Olivella</i> sp. Bead	-									1	-			1	0.93
Pottery Vessel	3	2	4	3	6	2	6	4	2	-	1	-		33	30.56
Bulk Items (weights in grams)															
Faunal Bone	-	0.7	0.4	1.5	2.2	0.8	0.4	5.5	0.1	6.4	0.4	-	0.3	18.7	-
Marine Shell	5.7	46.0	46.2	53.4	76.7	54.8	84.6	72.8	11.1	10.9	14.0	15.2	8.2	499.6	
Fire Affected Rock	-	278.0	248.8	126.5	89.1	194.3	227.9	140.1	276.9	1.3	77.0	11.9	-	1,671.8	
Total*	8	13	15	10	15	11	7	17	3	4	2	2	1	108	100.00
Percent†	7.41	12.04	13.89	9.26	13.89	10.19	6.48	15.74	2.78	3.70	1.85	1.85	0.93	100.00	

*Totals do not include grams

†Rounded totals may not equal 100.00 percent

8-0-9

GTPs 1 and 2 were also placed in the front yard of the residence. Like STPs 1, 8, and 9, the soil profile of GTP 1 includes Horizon A from zero to 20 centimeters, Horizon B from 20 to 80 centimeters, a transition between Horizon B and Horizon E from 80 to 100 centimeters, and Horizon E from 100 to 180 centimeters. Soils within GTP 2 consisted of just Horizon A (zero to 20 centimeters) followed immediately by Horizon C mottled with Horizon E (20 to 120 centimeters). While no disturbances were noted below 20 centimeters in GTP 1, it appears that the entirety of GTP 2 was disturbed. This observation confirms the disturbed potential of the upper areas in this northwest area of the lot.

The majority of cultural materials recovered from STPs 1, 6, 7, 8, and 9 were identified between 20 and 80 centimeters. STP 1 produced 35 debitage, one adze, one mano, one *Olivella* sp. bead, 12 Tizon Brown Ware (TBW) ceramic vessel fragments, 10.6 grams of faunal bone, 287.4 grams of marine shell, and 831.3 grams of fire affected rock (FAR); STP 6 produced five debitage, one TBW ceramic vessel fragment, 0.3 gram of faunal bone, 33.5 grams of marine shell, and 32.1 grams of FAR; STP 7 produced four debitage, 0.04 gram of faunal bone, 14.1 grams of marine shell, and 230.1 grams of FAR; STP 8 produced 11 debitage, eight TBW ceramic vessel fragments, 3.4 grams of faunal bone, 46.7 grams of marine shell, and 344.8 grams of FAR; STP 9 produced 10 debitage, five TBW ceramic vessel fragments, 4.4 grams of faunal bone, and 72.0 grams of marine shell; and GTP 1 produced 12 debitage, one ground stone, six TBW ceramic vessel fragments, 1.4 grams of faunal bone, 35.7 grams of marine shell, and 868.5 grams of FAR. GTP 2 was negative for cultural materials.

STPs 2, 3, 4, 5 and 10 were placed in the back yard of the single-family residence. The soil profiles of STPs 2, 3, and 4 include Soil Horizon A from zero to 10 centimeters, Soil Horizon C from ten to 50 centimeters, and Soil Horizon E from 50 to 60 centimeters. STPs 5 and 10 consisted only of Soil Horizon A (zero to 10 centimeters) and Soil Horizon E (10 to 40 centimeters). STPs 2, 3, and 4 were terminated at 60 centimeters due to the presence of subsoil encountered in each STP. STPs 5 and 10 were terminated at 40 centimeters due to a lack of cultural materials.

GTPs 3 and 4 were also placed in this area of the property: GTP 3 was placed along the northeast property boundary and GTP 4 was placed along the southwest property boundary next to STP 2. Within GTP 3, Soil Horizon A was encountered from zero to 10 centimeters followed by Horizon C from 10 to 75 centimeters and Horizon D from 75 to 140 centimeters. Horizon E was then identified from 140 to 270 centimeters. Soils encountered in GTP 4 include Horizon A from 10 to 40 centimeters, followed by Horizon C from 10 to 40 centimeters and Horizon E from 40 to 170 centimeters. Disturbances noted include a brick fragment located at about 140 centimeters in depth within GTP 3.

The majority of cultural materials recovered from STPs 2, 3, 4, and 10 were identified between 20 and 50 centimeters. STP 2 produced two debitage, one TBW ceramic vessel fragments, and 4.1 grams of marine shell; STP 3 produced three debitage, one angular hammer, two TBW ceramic vessel fragments, 21.6 grams of marine shell, and 120.1 grams of FAR; STP 4 produced two TBW ceramic vessel fragments, 18.8 grams of marine shell, and 113.2 grams of

FAR; and STP 10 produced one debitage, two TBW ceramic vessel fragments, and 1.4 grams of marine shell. STP 5 and GTPs 3 and 4 were negative for cultural materials.

The soil profiles of STPs 1, 8, and 9 and GTP 1 characterized the north portion of the front yard of the single-family residence as primarily undisturbed below 20 centimeters. STPs 6 and 7 indicate that the top portion of the midden was likely pushed or removed during leveling of the lot in the 1920s to 1950s for construction of the residence, but that an intact portion of midden is present. GTP 2, which is entirely disturbed and void of artifacts, indicates that the middle portion of the front yard likely lacks any intact midden soils. The soil profiles of STPs 2, 3, 4, 5, and 10 and GTPs 3 and 4 characterized the back yard of the single-family residence as disturbed mixed fill and cultural soil.

The recovery pattern and soil characteristics within the shovel tests demonstrated that both intact and disturbed cultural deposits were present between 20 and 100 centimeters primarily on the west side of the property documenting an association with SDI-39; however, some of these deposits consist of disturbed deposits mixed with fill soil or non-cultural formational soil. The depth of intact midden and disturbed midden, or a combination of non-midden and graded midden soil, varied across the property as a result of past grading. Representative photographs of STPs and GTPs placed in the front yard and back yard are presented in Plates 6.1–1 to 6.1–4.



Plate 6.1-1: Overview of STP 1, facing southeast.



Plate 6.1-2: Overview of GTP 1.



Plates 6.1-1 and 6.1-2
Subsurface Excavations in the Front Yard
The 1851 Spindrift Drive Project



Plate 6.1-3: Overview of STP 3, facing east.



Plate 6.1-4: Overview of GTP 4.



Plates 6.1-3 and 6.1-4
Subsurface Excavations in the Back Yard
The 1851 Spindrift Drive Project

6.2 Flaked Lithic Artifacts

The goal of the current project was to evaluate the integrity and significance of the portion of SDI-39 within the project. The general assemblage recovered from 1851 Spindrift Drive was reviewed for the ability to provide the data necessary to address research questions.

Debitage

The highest frequency of the recovereddebitage from the 1851 Spindrift Drive property is of volcanic lithic material (N=65), followed by quartzite (N=14), metavolcanic (N=2), quartz (N=1), and granitic (N=1). Preliminary analysis indicates that the lithic technologies for the project likely represent the convergence of two technological trajectories operating as part of a single system. Nodule core reduction technology is the most common technology identified in the lithic sample from SDI-39 at 1851 Spindrift Drive. This simple and expedient technology was commonly used because local nodule metavolcanic/volcanic materials were abundant. Furthermore, this technology provided a simple and relatively effortless method to produce useful flake blanks intended for further reduction. The desired products were flake blanks that were thin in cross-section, long and narrow in plan view, and effectively ranged between four and 10 centimeters in length. Products of biface reduction were also identified as part of the flintknapping activities at SDI-39. Evidence in the assemblage also suggests that the flaked stone reduction technology identified at SDI-39 was also directly related to arrow point production and rejuvenation. Furthermore, the formed artifacts are supported by the technologically diagnosticdebitage, in that thedebitage resulted from arrow point production and rejuvenation.

Angular Hammers

Prehistoric flaked stone assemblages from southern California and the Southwest contain a common artifact identified by archaeologists by a variety of names including chopper, hammerstone, pounder, muller, milling stone, flaked hammerstone, handstone, battered hammerstone, masher, basher, utilized core, scraper plane, pecking stone, fist ax, and hand ax, to name a few (*cf.* Dodd 197; Wallace 1978). Many of these artifacts are employed as archaeological identifiers of specific prehistoric cultures (Wallace 1954; Kowta 1969). Others are simply weighed, measured, and generally described as plant and animal resource processing tools. Dodd (1979) and others (*cf.* Ambler 1985; Geib 1986), however, have devoted considerable time and energy to the identification and function of a rather unsophisticated, yet highly specialized and important, prehistoric tool class: angular hammers.

Angular hammers are separated from other artifact classes base upon pockmarks located on one or more intentionally prepared areas on a single tool, which are the result of repeated pounding against another hard object. These implements are most frequently produced from conchoidally fractured, subrounded to subangular, spherical to discoidal, cobble-sized quartzite, metavolcanic, and volcanic nodular alluvial materials. One angular hammer was identified at SDI-39 at 1851 Spindrift Drive. Angular hammers were employed prehistorically and ethnographically to shape, sharpen, and resharpen ground stone (Flenniken et al. 1993). The presence of an angular

hammer at SDI-39 is not surprising given the frequency of milling features and the intensity of milling behavior that took place at the site.

Adzes

Southern California archaeology has been plagued for years with amorphous lumps of metavolcanic stone that possess steep, unifacial edges. However, archaeologists have long recognized these objects as artifacts. Steep-edged unifacial tools (SEUTs) have been subjected to numerous morphological and functional categories (*i.e.*, horse hoof scraper, scraper plane, flake scraper, biscuit scraper, and various core types). Schroth and Flenniken's (1997) analysis of flaked stone tools from SDI-11,424 is, by far, the best effort to sort these artifacts into techno-functional categories. The category of adze, or woodworking tool, defines these tools.

One adze was identified at SDI-39 at 1851 Spindrift Drive. Adzes were manufactured from thick flake blanks (eight centimeters or thicker) and, more commonly, from exhausted cobble cores. Adzes are plano-convex in cross-section, have steep sides, are almost circular in plan view, are heavy, and most importantly, have strong, acute cutting edges. These tools are ideal woodworking tools because they are sharp, weighted, and durable. Brian Hayden's (1979) ethnographic study in Australia, *Paleolithic Reflections*, describes the manufacture and use of SEUTs in extreme detail. Given that the environments of Australia and southern California are very similar, and that wood was essential for prehistoric artifacts, southern California SEUTs were most likely used in a similar manner. This functional interpretation is supported by the fact that these tool categories (SEUTs and adzes) are the same in terms of manufacture, material quality, size, shape, wear patterns, and overall variation. Additionally, experimentation described by Schroth and Flenniken (1997) supports the use of SEUTs as adzes.

Morphological variation within the adze category is, perhaps, the main reason for the numerous scraper, plane, and core categories. However, this variation in size and weight was an important technological consideration for the various tasks required of these tools. With basically the same attributes, except those of size and weight, SEUTs functioned as adzes where different sizes and weights were essential for the different tasks at hand. The most critical attribute in addition to size and weight was an acute, sharp cutting edge. When this edge became dulled during woodworking, the tool was resharpened or rejuvenated by removing flakes from the steep face while employing the plano-surface as a platform.

6.3 Ground Lithic Artifacts

All ground stone materials identified at SDI-39 were selected for analysis and interpretation. Ground stone implements/features may include a wide range of objects used for or created by the processes of abrasion, impaction, or polishing (Adams 2002). Often, ground stone tools are associated with the processing/milling of seeds, nuts (*i.e.*, acorns, walnuts, and holly leaf cherry), and small mammals. In addition, ethnographic evidence indicates that bone, clay, and pigments may have also been processed with the same tools (Gayton 1929; Kroeber 1976; Spier 1978). Implements or features of this type may be identified by the pattern of wear developed

through milling stone against stone. This process often results in a smooth and/or polished surface, depending upon the substance, grinding method, and lithic material type. These surfaces were frequently pecked or resharpened when ground too smooth. Ground stone implements/features are sometimes shaped into a desired form through pecking, grinding, and/or flaking. Thus, tool identification is based upon the presence of ground or smooth surfaces, pecked or resharpened surfaces, and evidence of shaping of the tool form.

Manos

One volcanic mano fragment was recovered during the current study. Analysis indicates that unifacial use wear of this mano suggests expedient, or short-term use. Further, modification for finger grips was not noted. The overall curvature of the mano slight to low, indicating that the opposing milling surface that the manos were ground against (*i.e.*, metate or milling slick) was shallow in form (Adams 2002).

The presence of an angular hammer in the 1851 Spindrift Drive collection documents the maintenance of ground stone tools during site occupation. Angular hammerstones were needed to constantly recreate rough surfaces on milling stones to enhance the abrasion process and thereby make the grinding of seeds more efficient. It is possible, however, that manos were recycled and used in rock hearth/earth ovens. This idea is supported by the presence of multiple manos and metate fragments in many of the rock features identified at SDI-39. In general, where milling tools are present, the ratio of manos to metates at a site is much greater. It has been suggested that the reason for this is that manos wear out much faster than metates (Wright 1993), and as such, more manos are produced as needed. The larger milling assemblage recovered from SDI-39 suggests that the site inhabitants depended upon food packages that required milling for processing (*i.e.*, seeds). It is evident that a portion of the inhabitants' diet at SDI-39 was derived from plant foods that required milling to process plant foods.

Ground Stone Fragments

One sandstone ground stone fragment was identified in the present collection. A ground stone fragment is a piece of a ground stone implement that has some grinding, but lacks any defining attributes that would facilitate tool identification. The majority of fragments recovered from SDI-39 are granitic, although some are volcanic. As with the mano recovered from the site, the ground stone fragment is thermally damaged.

Fire-Affected Rock

Although FAR was identified throughout the property, no distinct, formal rock/hearth features were able to be clearly defined. This may be a result of the limitations of the study and/or potential mixing within the midden deposit. In total, 2,540.1 grams of FAR were recovered from the site. The mano and ground stone fragments were also heavily burned, suggesting recycling of broken or discarded ground stone into rock features. Given the scale of the assemblage, the fire-affected rock from SDI-39 at 1851 Spindrift Drive likely served multiple functions: cooking food

in baskets; manufacturing ceramics; general warmth; earth ovens; cremations; and open fires. Additional excavations at the site would hopefully reveal intact rock features to provide a greater understanding of their use at the site.

6.4 Shell Artifact Analysis

A processual understanding of manufacture, distribution, and use of shell artifacts has not been achieved for San Diego County. In addition, the range of morphological bead types used in the San Diego region is not well understood. When compared to other regions of California, there is little information concerning the process by which shell artifacts were manufactured and used, or of the evolutionary changes these artifacts may have gone through over time. The analysis of shell artifacts from other regions of California (most notably the Chumash culture area) has demonstrated considerable anthropological value in understanding prehistoric economies, trade systems and networks, and the organization of wealth and status in prehistoric societies (Fenenga 1988). For these regions, particular styles of shell artifacts have been established as chronologically diagnostic in a number of archaeological sites. When compared to many sites in the San Diego region, the SDI-39 shell artifact assemblage is considered large. Although the present data will not answer some of the larger questions that could be resolved by a greater regional study of multiple archaeological sites, it will certainly contribute to the present limited body of data and will be of value to future research issues regarding shell artifacts.

Olivella sp. Shell Beads

The typology developed by Gifford (1947) was employed for this analysis. As a result, one spire-lopped Type F5 *Olivella biplicata* shell bead was recovered as a result of the current study at SDI-39. *Olivella biplicata* is a relatively small marine gastropod. Spire-lopped and spire-ground beads are primarily whole shells that have the spire end modified by breaking or grinding to produce a hole for stringing or attaching. These are the simplest and most easily produced form of shell bead. In general, whole *Olivella* sp. beads are not considered to be reliable time markers throughout California. However, spire-lopped/spire-ground *Olivella* sp. beads are likely the oldest form of shell bead known from California (Fenenga 1988). Evidence from Site SDI-11,079 in Otay Mesa suggests the employment of *Olivella* sp. shells for beads as early as 9,000 years ago (Kyle et al. 1998), and ethnographic evidence demonstrates that their use continued throughout historic times (Howard 1974; Dietz and Jackson 1981; Roop and Flynn 1978). Further, the presence of unmodified *Olivella* sp. shells in the invertebrate faunal assemblage suggests local manufacture of the bead specimens at SDI-39.

6.5 Ceramic Analysis

A total of 39 prehistoric pottery fragments were recovered from excavations at 1851 Spindrift Drive Project. The specimens include 38 fragmented body sherds and one rim sherd. Two of the body fragments also exhibit evidence of etching. The highest number of specimens was recovered from STP 1 (N=12). However, while the ceramics were spread throughout the site,

the northeastern portion of the front yard, in the vicinity of STPs 1, 8, and 9, and GTP 1, displayed the highest concentration of ceramic materials. The specimens were visually analyzed under a microscope to identify specific mineral inclusions and possible corresponding geologic locales. Results of this analysis indicate that the sherds all appear to be TBW. The manufacturing patterns observed in a small number of the body specimens indicate that coil pattern production methods were used on-site in at least a portion of the ceramic assemblage. In addition, many of the sherds demonstrate a high frequency of undulating interior surfaces typical of the paddle and anvil technique. The rim sherd and relatively unsmoothed (undulating) interiors suggest the representation of jars and smoothed interiors suggest bowls (storage versus cooking/consumption), indicating that both forms are present within the boundaries of the project. In addition, multiple sherds display evidence of fire blackening/soot, suggesting a vessel used for cooking.

A review of the pottery fragments indicates that some of the specimens exhibit the presence of distinct carbon cores, which suggests that at least some of the pottery was fired at low temperatures, possibly in an open firing. Both the Stropes and Smith (2011) analysis and the Smith et al. (2015a, 2015b) analysis are largely similar to that of the current collection. However, while the Stropes and Smith (2011) analysis noted the presence of both TBW and Lower Colorado Buff Ware ceramics, the current study did not. The presence of ceramics within the assemblage indicates a Late Prehistoric occupation for the portion of SDI-39 within the project.

6.6 Invertebrate Faunal Analysis

Limited density deposits of invertebrate faunal remains (shell) totaling 535.3 grams were recovered from the test excavations to a depth of at least 130 centimeters. As stated previously, since the goal of the current project was to identify the integrity and significance of the portion of SDI-39 within the project, a formal invertebrate faunal analysis was not conducted at this time. The goal of the testing program is not to answer in-depth research questions about invertebrate exploitation patterns, but rather to identify if the materials from the site possess the potential to answer such questions. A representative sample of shell was reviewed for species and overall density across the site. Representative species include *Tivela stultorum*, *Mytilus californianus*, *Pseudochama exogyra*, *Argopecten ventricosus*, *Donax gouldii*, *Chione* sp., *Haliotis rufescens*, *Chiton* sp., *Lottia* sp., and *Tegula* sp. The shell species present within the assemblage are representative of three marine environments: rocky shore/outer coast, sandy beach, and bay/lagoon/estuary. Although the prehistoric inhabitants of Site SDI-39 primarily exploited the rocky shore/outer coast marine habitats for shellfish, there is also evidence of exploitation of sandy beach and bay/lagoon/estuary habitats. Given the results of the shellfish review for this portion of SDI-39, the inhabitants would have exploited the nearby shoreline areas and visited the nearest bay habitat around La Jolla Cove.

6.7 Vertebrate Faunal Remains

A small frequency of vertebrate faunal remains totaling 20.1 grams was recovered from SDI-39 at 1851 Spindrift Drive. All of the vertebrate remains were recovered from the front yard

of the residence, in STPs 1, 6, 7, 8, and 9 and GTP 1. Given the small amount of faunal remains recovered and their fragmentary nature, a species-specific analysis was not conducted during this phase of work. Upon observation, the faunal remains appear to represent fish, and very small to medium sized mammals. Marine and land mammals would have made for easy exploitation in the open ocean, coves, lagoons, or chaparral habitats near the site.

6.8 Human Remains

The excavations at 1851 Spindrift Drive did not encounter any in situ burials or cremations; however, three highly fragmented pieces of likely human bone were recovered from STP 7, STP 9, and GTP 1. Upon the initial identification of likely human remains by forensic anthropologist Dr. Madeleine Hinkes, the San Diego County Medical Examiner’s Office, City of San Diego officials, and the NAHC were immediately notified. The NAHC subsequently named Steve Banegas of the Kumeyaay Cultural Repatriation Committee as the MLD. Per Native American requests, the human bone fragments were not analyzed or photographed in any way other than visual inspection. None of the remains were included in the recovery tables or catalogs. No soil or charcoal samples from the surrounding soil were submitted for specialized studies. The human remains will be repatriated to the MLD representative.

6.9 Summary and Discussion

The archaeological testing program at 1851 Spindrift Drive identified a portion of known prehistoric Site SDI-39, which has demonstrated further research potential. The focus of the current investigation was to determine if the portion of SDI-39 located within the project is intact and retains integrity. The STPs excavated at 1851 Spindrift Drive identified the presence of both intact and disturbed subsurface deposits associated with SDI-39. Nine of the STPs and one of the GTPs were positive for cultural material, with a maximum depth of STP 1 at 130 centimeters. STP 1 and GTP 1 indicate that the north portion of the front yard contains intact and partially disturbed midden soils from approximately 20 to 100 centimeters. Tests located along the southern margins of the property and the backyard indicate that past grading impacts have removed most of the cultural deposit; however, traces of cultural material were still noted. A summary of the total recovery from SDI-39 during the current excavations is provided in Table 6.9–1.

Table 6.9–1
Excavation Data Summary
Site SDI-39 at 1851 Spindrift Drive

Object Type	Excavation		Total	Percent†
	STPs	GTPs		
Flaked Stone				
Debitage	71	12	83	65.35

Object Type	Excavation		Total	Percent†
	STPs	GTPs		
Angular Hammer	1	-	1	0.79
Adze	1	-	1	0.79
Ground Stone				
Mano	1	-	1	0.79
Ground Stone	-	1	1	0.79
Other Formed Objects				
<i>Olivella</i> sp. Bead	1	-	1	0.79
Pottery Vessel	33	6	39	30.71
Bulk Items (weights in grams)				
Faunal Bone	18.7	1.4	20.1	-
Marine Shell	499.6	35.7	535.3	
Fire Affected Rock	1,671.7	868.5	2,540.1	
Total*	108	19	127	100.00
Percent†	85.04	14.96	100.00	

*Totals do not include grams

†Rounded totals may not equal 100.00 percent

Site SDI-39 is interpreted as being part of a large coastal occupation site. The data from the current excavations at 1851 Spindrift Drive suggests that subsistence practices within the project focused upon a range of activities including hunting, fishing, shellfish acquisition, and floral food resource extraction and processing. Essentially, the cultural deposit observed within the project reflects the same expansive prehistoric occupation recorded elsewhere in the Spindrift neighborhood and La Jolla shores area. BFSA is currently studying the extensive cultural deposit across Spindrift Drive from the subject property at 1834 Spindrift Drive that has produced an extensive artifact collection representing both the Archaic and Late Prehistoric periods. The long-term occupation of SDI-39 is evident in the material remains recovered from the portion of the site within the project. The wide range and volume of artifacts imply that site activities included deep water fishing (presumably with the use of boats), manufacture and use of baskets, manufacture and use of arrow points and arrow shafts, manufacture and use of shell beads, use and potential manufacture of ceramics, and hunting of marine mammals, birds, and occasionally terrestrial mammals. The amount of materials recovered from nine STPs and one GTP within the project is indicative of a substantial and long-term occupation around La Jolla Bay.

Throughout the Spindrift neighborhood, Native American occupation Site SDI-39 (*Mut kula xuy/Mut lah hoy ya*) has been extensively disturbed by grading and development. Occasionally, intact and undisturbed elements of SDI-39 are encountered; however, the majority of the occupation deposit has been affected by decades of development. At the subject property, the archaeological study has confirmed that elements of SDI-39 exist, including a small portion of

intact elements of SDI-39 and including one of the areas where construction is planned, in the north portion of the front yard. The areas of SDI-39 at 1851 Spindrift Drive that are identified as disturbed also lack provenience and stratigraphic integrity and are not significant from an archaeological perspective. However, the portion of SDI-39 at 1851 Spindrift Drive that is identified as intact is significant from an archaeological perspective.

7.0 DISCUSSION/IMPACT ANALYSIS

The property at 1851 Spindrift Drive is located within an area of documented prehistoric occupation where Archaic and Late Prehistoric populations focused upon the abundant marine resources around La Jolla Cove and La Jolla Shores. The cultural resources study conducted for 1851 Spindrift Drive consisted of a field survey of the property, a review of archival material and previous work in the area, subsurface excavations, and preparation of this report. All documentary materials pertinent to this study have been identified and included in this report.

The objective of the study is to ascertain the likelihood that cultural resources associated with SDI-39 existed within the 1851 Spindrift Drive property. A survey and subsurface testing determined the presence of intact and disturbed elements of the prehistoric village complex within the project. The total area of SDI-39 within the project was calculated as 4,705.5 square feet (the entire property area). Therefore, any soil disturbance associated with the proposed development has the potential to encounter both disturbed and intact cultural deposits. Although the deposit displays a low frequency of materials along the southern and eastern portions of the property, the northern and western areas (front yard) contain an intact midden deposit.

The proposed project will include the demolition of the existing single-family residence and single-car garage and the construction of a new two-story, single-family residence with a new two-car garage. The new residence and garage will be constructed in the same location as the existing buildings, but the proposed project excavations will result in an estimated 367 square feet of construction beyond the footprint of the existing residence.

Figure 7.0–1 illustrates the area of the existing residence and landscape/hardscape with the new, proposed development areas calculated, which obviously represent areas of impact to SDI-39. Impacts to SDI-39 within the property are unavoidable and potentially significant. Because of constraints to building on this lot, the new residence, garage, and property improvements invariably impact elements of SDI-39. Because SDI-39 is listed with the City of San Diego as a designated resource, intrusion into the cultural resource, beyond the existing footprint, is limited to 25.00 percent, as dictated by SDMC Section 143.0253. Therefore, the applicable encroachment limitations were analyzed to determine if the proposed development is within acceptable limits.

Based upon the encroachment calculations, the 4,705.5 square feet of SDI-39 within the project, minus the areas containing the existing residence and garage, leaves 2,787.5 square feet of site area. This allows for a total additional development area of 696.9 square feet based upon a total encroachment of 25.00 percent into the unbuilt portion of the lot. Encroachment into the lot beyond the limits of the existing residence will be 13.17 percent, or 367 square feet, limiting encroachment to less than 25.00 percent, the proposed design is in compliance with SDMC Section 143.0253. The cultural resources study has identified intact and disturbed elements of SDI-39 within the areas of the property that will be directly impacted by the project. Impacts to significant cultural resources can be mitigated through data recovery and monitoring of grading/excavations. The mitigation program is outlined in Section 8.0.

Figure 7.0-1
Impact Location Map

(Deleted for Public Review; Bound Separately)

7.1 Cultural Resource Evaluation

Within the Spindrift neighborhood, segments of prehistoric Site SDI-39 have been encountered beneath existing streets, landscaping, and residences. These residential elements of SDI-39 represent surviving parts of the large prehistoric village complex, which encompassed land surrounding the location of the La Jolla Beach and Tennis Club southward toward La Jolla Cove. The area of SDI-39 is tentatively identified as the Spindrift Archaeological District, a designation that reflects the abundance of cultural materials associated with the large Native American population that occupied this site for approximately 8,000 years.

Although SDI-39 has been substantially disturbed by land development over the past 80 years, the site is generally considered to be CEQA-significant where intact components are encountered due to the presence of human remains and associated cultural materials/features that represent a substantial human occupation of the area. The information from the analysis of the 1851 Spindrift Drive Project has been analyzed according to City of San Diego HRB designation criteria, City Historic Property Guidelines, and CEQA significance criteria. An updated California Department of Parks and Recreation (DPR) form has been completed (Appendix B).

The archaeological site was evaluated under CEQA criteria. The site within the subject property and in the general neighborhood is considered significant under Criterion D listed in Sections 15064.5 and 21083.2, for the potential to yield information important to the prehistory of this area. The subject property is located within the boundary of the Spindrift Archaeological Site (SDI-39), a previously recorded prehistoric occupation complex spanning the Early Archaic to the Late Prehistoric cultural periods. An important element of the significance of the Spindrift Site is the numerous human burials that have been discovered and the abundance of human bone encountered in graded lots and streets within this neighborhood. The subject property lies within this highly sensitive archaeological area. Site SDI-39 has been identified as an important, significant site since it was first recorded by Welty in 1912, when he noted that the site stretched for as long as 1,000 feet along the shore and up to 1,200 feet inland. Welty noted depths from one to eight feet, a dense black midden, shell, charcoal, and fragments of human remains.

The early documentation, large quantity, and wide range of materials identified for SDI-39 clearly indicates that the site served a habitation function. To date, radiocarbon analysis from the site has been limited to only identifying the Late Prehistoric Period component. Despite this, previous studies clearly indicate the presence of a large Archaic component that has yet to be ratified through conventional C-14 methods.

Within the Spindrift neighborhood, segments of prehistoric Site SDI-39 have been encountered beneath existing streets, landscaping, and residences. These residential elements of SDI-39 represent surviving parts of the large prehistoric village complex, which encompassed land surrounding the location of the La Jolla Beach and Tennis Club and southward toward La Jolla Cove. The area of SDI-39 is tentatively identified as the Spindrift Archaeological District, a designation that reflects the abundance of cultural materials associated with the large Native American population that occupied this site for approximately 8,000 years.

On April 19, 2017, April 26, 2021, and October 21, 2021, BFSA conducted a preliminary survey and testing program at the subject property. Previous grading and construction activities disturbed the majority of the property when the parcel was graded in the 1920s. The limited subsurface investigation of the property involved the excavation of 10 STPs and four GTPs, which identified subsurface cultural deposits throughout the property. Some locations within the property have had most of the cultural deposit removed. Excavations indicated that the majority of the intact cultural deposits are located on the northwest side of the property, while more disturbed cultural deposits were noted on the southern and eastern half of the property. With the authorization of the City of San Diego, excavations were conducted around the existing residence, focusing upon areas of potential construction for the new residence and garage. The recovery from these subsurface excavations confirmed the presence of elements of SDI-39 within the project, primarily concentrated between zero and 80 centimeters deep on the northwest side of the lot. The recovery included pottery, lithic production waste, ground stone tools, flaked stone tools, a shell bead, marine shell, and faunal bone. Furthermore, human remains (three very small fragments) were identified during the investigations.

7.1.1 City of San Diego Historical Resources Board Evaluation

The intact elements of SDI-39 noted on the northwest portion of the subject property can be designated as a historic resource under City of San Diego HRB Criterion A. This designation reflects the characteristics of the Spindrift Archaeological Site (SDI-39), which contains numerous human burials, thousands of artifacts, features, ecofacts (shell and bone), and trade material. Whether or not the portion of SDI-39 that is present within the subject property reflects all aspects of the prehistoric village could not be confirmed, particularly whether or not human remains are present. However, intact midden was documented to a depth of 80 centimeters, which highlights the potential for important cultural materials to be present.

City of San Diego HRB Criterion A

The key distinction provided by the City in HRB Criterion A for cultural resources exhibiting significant archaeological development is that the resource “must exemplify archaeological development through subsurface deposits and may include associated surface features.” Consideration for designation is therefore established based upon whether or not the resource reflects special elements of archaeological development as listed under Criterion A.

When evaluating an archaeological resource, integrity is the authenticity of the resource’s physical identity clearly indicated by the retention of characteristics that existed during its period of significance. It is important to note that integrity is not the same as condition. Integrity directly relates to the presence or absence of historic materials and character-defining features, while condition relates to the relative state of physical deterioration of the resource. In most instances, integrity is more relevant to the significance of a resource than condition; however, if a resource is in such poor condition that original materials and features may no longer be salvageable, then

the resource's integrity may be adversely impacted. The eight aspects of integrity used in evaluating a historic resource are:

1. **Location** is the place where a resource was constructed or where an event occurred.
2. **Design** results from intentional decisions made during the conception and planning of a resource. Design includes form, plan, space, structure, and style of a property.
3. **Setting** applies to a physical environment, the character of a resource's location, and a resource's relationship to the surrounding area.
4. **Materials** comprise the physical elements combined or deposited in a particular pattern or configuration to form a property.
5. **Workmanship** consists of the physical evidence of crafts employed by a particular culture, people, or artisan, which includes traditional, vernacular, and high styles.
6. **Feeling** relies upon present physical features of a property to convey and evoke an aesthetic or historic sense of past time and place.
7. **Association** directly links a property with a historic event, activity, or person of past time and place, and requires the presence of physical features to convey the property's character.
8. **Depositional Integrity** addresses whether or not the archaeological deposit has retained its overall integrity.

In order to assess each aspect of integrity when evaluating the portion of SDI-39 present at 1851 Spindrift Drive, the following steps were taken, as recommended in the City of San Diego *Guidelines for the Application of Historical Resources Board Designation Criteria*, Land Development Manual, Historical Resources Guidelines, Appendix E, Part 2, adopted August 27, 2009:

1. **Integrity of location** was assessed through the implementation of archaeological excavations of the portion of SDI-39 located within the 1851 Spindrift Drive property. Intact deposits were encountered in the northwest portion of the property at depths from 20 to 80 centimeters below the surface. These intact deposits indicate that this portion of SDI-39 has remained undisturbed in its present location since its period of significance.
2. **Integrity of design** was assessed by evaluating the spatial arrangement of the portion of SDI-39, and any features present, within the 1851 Spindrift Drive property. It was discovered through archaeological investigations that the intact portion of SDI-39 located in the northwest portion of the property does not contain any features or specific site use areas, and therefore, integrity of design could not be determined.
3. **Integrity of setting** was assessed by inspecting the elements of the property, which include topographic features, open space, views, landscapes, vegetation, man-made

- features, and relationships between buildings and other features. While many of the topographic features and ocean views are still intact, integrity of setting has been significantly reduced due to the residential development of the property and surrounding parcels.
4. **Integrity of materials** is normally assessed by determining the presence or absence of original materials used in the construction of features, as well as the possible introduction of materials that may have altered any features of the resource. Because no features were discovered during archaeological investigations of this portion of SDI-39, integrity of materials could not be determined.
 5. **Integrity of workmanship** is normally assessed by evaluating the quality of the features present within the resource boundaries. Because no features were located within this portion of SDI-39, integrity of workmanship could not be determined.
 6. **Integrity of feeling** is normally assessed by evaluating whether or not the resource's features, in combination with its setting, convey a historic sense of the property during its period of significance. Because no features were identified within this portion of SDI-39, integrity of feeling could not be determined.
 7. **Integrity of association** was assessed by evaluating the resource's data or information and its ability to answer any research questions relevant to the history of the city of San Diego or the state of California. Since the 1851 Spindrift Drive property involves a portion of a single site, the research questions are more focused, rather than intended to answer wide-reaching theories regarding the prehistoric settlement and subsistence of southern San Diego County, or even the San Diego coastal area. Research questions, which this portion of SDI-39 may provide answers for, include those regarding cultural chronology, subsistence strategies and the environment, and the trade and procurement of lithic materials. The cultural chronology questions include:
 - When did the occupation/utilization of Site SDI-39 occur? What culture group is represented at this portion of Site SDI-39?
 - What type of activities occurred at the site? Do the remains from Site SDI-39 represent a wide resource base that might suggest a habitation or temporary camp, or are the remains more typical of a task-specific resource extraction site?
 - Did the utilization of Site SDI-39 occur during a time period similar to the occupation of regional sites such as the Village of La Rinconada de Jamo, Ystagua, Torrey Pines, Mesa, and W-20?
 - How does the occupation of Site SDI-39 compare to other sites in the area? How does it relate to these sites spatially and temporally?
 - Are the previously accepted culturally diagnostic artifact types (marine shell, ground stone tools, and cobble-based tools for La Jolla; ceramics, small projectile points, and bedrock milling for Late Prehistoric) accurate cultural

markers for this site?

The subsistence strategies and the environment questions include:

- What activities were undertaken at Site SDI-39 and what resources were exploited?
- Do the faunal remains from the deposit at Site SDI-39 reflect a narrow range of animals taken in keeping with the predicted narrow resource breadth at Archaic sites, or do they represent a more widespread subsistence base suggestive of the Late Prehistoric?
- How important were coastal resources (fish and mollusks) to the inhabitants of the site?
- Can faunal and plant residue remains provide information about the seasonality of use of the sites?
- In what manner were subsistence resources processed and prepared?
- How does subsistence and settlement data from Site SDI-39 compare to other La Jolla and Late Prehistoric sites in the area?
- If contemporary, how does the evidence for subsistence at Site SDI-39 compare to that from nearby sites in Rose Canyon?
- Is there evidence of changes in subsistence strategies, as observed in faunal and marine shell assemblages, either over time or through seasonal use of the site?
- How does Site SDI-39 fit existing models of local settlement and subsistence?
- What types of environments were exploited by the occupants of Site SDI-39?
- Are there changes in the artifact assemblage of Site SDI-39 that can be related to environmental or cultural change?

The trade and procurement of lithic materials questions include:

- What types of non-local items are present at Site SDI-39?
- What fine-grained lithic materials were utilized at Site SDI-39? Are these materials found in La Jolla or Late Prehistoric contexts?
- What are the sources for these materials, and what do these sources imply in terms of group interactions? How were they transported to the site, as raw material or as finished tools?
- What procurement range is indicated by the source of the non-local items? What intergroup relations are implied by the presence of these items?
- What is the role of Site SDI-39 in the exchange system? How does that role vary over the occupation of the site?
- What kinds of tools are made from fine-grained materials?

8. **Depositional Integrity** was assessed by evaluating whether or not intact deposits exist within the 1851 Spindrift Drive property. Intact midden was documented in the northwest portion of the property through shovel test and geotechnical boring excavations. The intact midden was located at a depth of 20 to 80 centimeters. It would appear that all elements of SDI-39 within 1851 Spindrift Drive have been disturbed to a depth of minimally 20 centimeters. In some areas, intact cultural deposits exist below the disturbed layer. Although these pockets of intact midden hold research potential, the cultural deposit as a whole within this property lacks depositional integrity.

The area of SDI-39 within the northwestern portion of the 1851 Spindrift Drive property meets the basic criteria to be considered an HRB-significant cultural resource. Specifically, this portion of SDI-39 meets the listing requirements in City of San Diego HRB Criterion A as containing significant archaeological deposits linked to the larger prehistoric village complex identified throughout the Spindrift neighborhood. Impacts to HRB-significant cultural deposits within the northern area of the property can be mitigated through data recovery and mitigation monitoring.

City of San Diego HRB Criterion B

The portion of SDI-39 located within the 1851 Spindrift Drive property is not associated with any specific persons or events significant in local, state, or national history. Therefore, this portion of the site is not eligible for listing under HRB Criterion B.

City of San Diego HRB Criterion C

Because no features were encountered during archaeological investigations of the portion of SDI-39 located within the 1851 Spindrift Drive property, this portion of SDI-39 does not embody distinctive characteristics of a style, type, period, or method of construction, nor is it a valuable example of the use of indigenous materials or craftsmanship. Therefore, this portion of the site is not eligible for listing under HRB Criterion C.

City of San Diego HRB Criterion D

Because no features are associated with this portion of SDI-39, it is not representative of the notable work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist or craftsman. Therefore, this portion of the site is not eligible for listing under HRB Criterion D.

City of San Diego HRB Criterion E

This portion of SDI-39 has not been listed or determined eligible by the National Park Service for listing on the NRHP, nor is it listed or been determined eligible by the State Historic

Preservation Office for listing on the CRHR. Therefore, this portion of the site is not eligible for listing under HRB Criterion E.

City of San Diego HRB Criterion F

This portion of SDI-39 is located within the proposed Spindrift Archaeological District and qualifies as a contributing element of that district. However, because this district has not yet been adopted by the HRB, this portion of the site is not currently eligible for listing under HRB Criterion F.

8.0 MANAGEMENT CONSIDERATIONS

The archaeological study of 1851 Spindrift Drive identified evidence that prehistoric Site SDI-39 exists within the parcel. In accordance with City of San Diego Historical Resources Guidelines, efforts were undertaken to minimize impacts to a designated cultural resource. Essentially, the entire property contains disturbed and intact elements of SDI-39. Both disturbed and intact elements of SDI-39 will be impacted by the proposed development, which will result in an estimated 367 square feet of construction beyond the footprint of the existing residence. Based upon the development calculations, the maximum encroachment into the cultural deposit would be 13.17 percent. This level or percentage of encroachment is permissible under City of San Diego SDMC Section 143.0253, which states that any encroachment into a significant resource must be less than 25.00 percent beyond the existing footprint. Encroachment into a significant archaeological site at a level of less than 25.00 percent must still mitigate impacts to the cultural resource in accordance with established protocols, guidelines, and tribal participation. The potential impacts to disturbed and intact midden deposits at this project can be mitigated to a level below significant through the implementation of the mitigation monitoring program outlined below. These measures are consistent with other mitigation programs conducted recently in the Spindrift neighborhood. A copy of this report will be provided to Native American representative Clint Linton to review and confirm his consent to the mitigation protocol.

8.1 Historical Resources Archaeological Data Recovery Program

In order to comply with City of San Diego guidelines and the SDMC for the treatment of cultural resources, the following ADRP shall be implemented as a requirement of the development permit. The goal of this plan is the successful mitigation of impacts and the preservation of valuable, nonrenewable cultural resources, where possible, within the property.

1. This project requires implementation of an ADRP to mitigate impacts to archaeological Site SDI-39. Data recovery will be performed following demolition of the existing structure and will be part of the demolition permit process. Data recovery work should be completed prior to the issuance of ANY construction permits, or the start of ANY construction if no permits are required, unless the consulting archaeologist and the Mitigation Monitoring Coordination (MMC) section of the City of San Diego Development Services Department (DSD) determine that construction permits may be issued because data recovery excavations are dependent upon grading work. The ADRP with Native American participation consists of a 100.00 percent archaeological excavation of all intact cultural deposits and 100.00 percent controlled and monitored mechanical excavation of disturbed cultural deposits. All soils from both the archaeological excavations and the controlled mechanical excavations will be hydro-screened through fine-mesh screen to recover all cultural materials and any human

remains. The ADRP shall be completed as outlined in this document. The elements of the MMRP are provided below:

- a. The area of development that must include archaeological monitoring and potentially data recovery (if intact deposits are encountered) is approximately 367 square feet.
- b. For the demolition permit and the process of removing the existing residence and hardscape, the archaeologist and Native American representative shall attend a preconstruction meeting with the applicant's representatives, the City's MMC, and the contractors. The protocols to be followed during demolition shall include archaeological and Native American monitoring whenever soil is disturbed.
- c. For the mitigation program, the governing protocol will be that all intact cultural deposits to be affected by grading, drilling, or excavation will be hand-excavated by archaeologists and then hydro-screened to provide the greatest opportunity to identify and recover human remains. All grading excavations within the disturbed midden deposits shall be closely monitored by an archaeologist and a Native American monitor to watch for cultural materials and possible human remains. All cultural soil, whether disturbed or intact, will be hydro-screened for maximum recovery of cultural materials and human remains.
- d. All field operations will include the participation of Kumeyaay Native American representatives as monitors. Because human remains have already been identified, this monitor may also be the Most Likely Descendent (MLD), or the MLD may be on-site independent of the Native American monitor.
- e. A laboratory program will be completed for all recovered cultural materials. All items in the collection will be subjected to standard laboratory procedures of cleaning, cataloging, data entry, and artifact analysis of: lithics; ceramics; faunal materials (marine and terrestrial species, including fish and sea mammals); seasonality; shell; lithic reduction; residue; radiocarbon dating; obsidian hydration and sourcing; shell beads; fishing equipment; and trade materials. Based upon the substantial quantity of all varieties of artifacts and ecofacts from excavations in and around 1851 Spindrift Drive, the projection can be made that the laboratory analysis could be exhaustive.
- f. Curation of all materials recovered during the ADRP, with the exception of human remains and any associated burial goods, shall be prepared in compliance with local, state, and federal standards and shall be permanently curated at an approved facility that meets the City's standards.
- g. ADRP provisions for the discovery of human remains shall be invoked in accordance with the California PRC and the Health and Safety Code. In the event that human remains are encountered during the ADRP, soil shall only be exported

from the project site after it has been cleared by the MLD and the project archaeologist. Any potential human remains recovered during the ADRP will be directly repatriated to the MLD or MLD Representative at the location of the discovery.

- h. Disturbance of SDI-39 within the property cannot exceed the 25.00 percent encroachment level. No grading or excavations outside of the designated limits of construction will be permitted.
- i. Archaeological and Native American monitoring shall be conducted for all excavations and earthwork after completion of the ADRP and acceptance of a draft progress report for the program. The detailed MMRP is identified below in Section 8.2.
- j. Upon completion of the ADRP and prior to issuance of grading permits, the qualified archaeologist and Native American monitor shall attend a second preconstruction meeting to make comments and/or suggestions concerning the proposed grading process.

8.2 Monitoring Program

As CEQA-significant cultural deposits exist within the property and cultural deposits may be impacted by the project, in addition to the data recovery program, the following mitigation monitoring program shall be incorporated into the development permit:

I. Prior to Permit Issuance

A. Entitlements Plan Check

- 1. Prior to issuance of any construction permits, including, but not limited to, the first grading permit, demolition plans/permits, building plans/permits, or a Notice to Proceed for Subdivisions, but prior to the first preconstruction meeting, whichever is applicable, the Assistant Deputy Director (ADD) environmental designee shall verify that the requirements for archaeological and Native American monitoring have been noted on the applicable construction documents through the plan check process.

B. Letters of Qualification Have Been Submitted to the ADD

- 1. The applicant shall submit a letter of verification to MMC identifying the PI for the project and the names of all persons involved in the archaeological monitoring program, as defined in the City of San Diego Historical Resources Guidelines.
- 2. MMC will provide a letter to the applicant confirming that the qualifications of the PI and all persons involved in the archaeological monitoring of the project meet the qualifications established in the Historical Resources Guidelines.
- 3. Prior to the start of work, the applicant must obtain written approval from MMC

for any personnel changes associated with the monitoring program.

II. Prior to Start of Construction

A. Verification of Records Search

1. The PI shall provide verification to MMC that a site-specific records search (one-quarter-mile radius) has been completed. Verification includes, but is not limited to, a copy of a confirmation letter from the SCIC, or, if the search was in-house, a letter of verification from the PI stating that the search was completed.
2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.
3. The PI may submit a detailed letter to MMC requesting a reduction to the one-quarter-mile radius.

B. PI Shall Attend Preconstruction Meetings

1. Prior to beginning any work that requires monitoring, the applicant shall arrange a preconstruction meeting that shall include the PI, the Native American consultant/monitor (where Native American resources may be impacted), the Construction Manager (CM) and/or Grading Contractor (GC), the Resident Engineer (RE), the Building Inspector (BI), if appropriate, and MMC. The qualified archaeologist and Native American monitor shall attend any grading/excavation-related preconstruction meetings to make comments and/or suggestions concerning the archaeological monitoring program with the CM and/or GC.
 - a. If the PI is unable to attend the preconstruction meeting, the applicant shall schedule a focused preconstruction meeting with MMC, the PI, the RE, the CM and/or GC, or the BI, if appropriate, prior to the start of any work that requires monitoring.

2. Identify Areas to Be Monitored

- a. Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) (with verification that the AME has been reviewed and approved by the Native American consultant/monitor when Native American resources may be impacted) based upon the appropriate construction documents (reduced to 11x17) to MMC identifying the areas to be monitored including the delineation of grading/excavation limits.
- b. The AME shall be based upon the results of a site-specific records

search as well as information regarding existing known soil conditions (native or formation).

3. When Monitoring Will Occur

- a. Prior to the start of any work, the PI shall also submit a construction schedule to MMC through the RE indicating when and where monitoring will occur.
- b. The PI may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based upon relevant information such as review of final construction documents that indicate site conditions such as depth of excavation and/or site graded to bedrock, etc., which may reduce or increase the potential for resources to be present.

III. During Construction

A. Monitor(s) Shall Be Present During Grading/Excavation/Trenching

1. The archaeological monitor shall be present full-time during all soil-disturbing and grading/excavation/trenching activities that could result in impacts to archaeological resources as identified on the AME. The CM and/or GC is responsible for notifying the RE, the PI, and MMC of changes to any construction activities, such as in the case of a potential safety concern within the area being monitored. In certain circumstances, OSHA safety requirements may necessitate modification of the AME.
2. The Native American consultant/monitor shall determine the extent of their presence during soil-disturbing and grading/excavation/trenching activities based upon the AME and provide that information to the PI and MMC. If prehistoric resources are encountered during the Native American consultant/monitor's absence, work shall stop and the Discovery Notification Process detailed in Sections III.B-C and IV.A-D shall commence.
3. The PI may submit a detailed letter to MMC during construction requesting a modification to the monitoring program when a field condition, such as modern disturbance post-dating the previous grading/trenching activities, presence of fossil formations, or encountering native soils, that may reduce or increase the potential for resources to be present.
4. The archaeological and Native American consultant/monitor shall document field activity via the Consultant Site Visit Record (CSV). The CSVs shall be faxed by the CM and/or GC to the RE on the first day of monitoring, the last day of monitoring, monthly (Notification of Monitoring Completion), and in

the case of ANY discoveries. The RE shall forward copies to MMC.

B. Discovery Notification Process

1. In the event of a discovery, the archaeological monitor shall direct the contractor to temporarily divert all soil-disturbing activities, including but not limited to, digging, trenching, excavating, or grading activities in the area of discovery and in the area reasonably suspected to overlay adjacent resources, and immediately notify the RE or BI, as appropriate.
2. The monitor shall immediately notify the PI (unless monitor is the PI) of the discovery.
3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photographs of the resource in context, if possible.
4. No soil shall be exported off-site until a determination can be made regarding the significance of the resource, specifically if Native American resources are encountered.

C. Determination of Significance

1. The PI and Native American consultant/monitor, where Native American resources are discovered, shall evaluate the significance of the resource. If human remains are involved, follow protocol in Section IV, below.
 - a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required.
 - b. If the resource is significant, the PI shall submit an ADRP, which will have been reviewed by the Native American consultant/monitor, and obtain written approval from MMC. Impacts to significant resources must be mitigated before ground-disturbing activities in the area of discovery will be allowed to resume. Note: If a unique archaeological site is also a historic resource as defined in CEQA, then the limits on the amount(s) that a project applicant may be required to pay to cover mitigation costs as indicated in CEQA Section 21083.2 shall not apply.
 - c. If the resource is not significant, the PI shall submit a letter to MMC indicating that artifacts will be collected, curated, and documented in the final monitoring report. The letter shall also indicate that no further work is required.

IV. Discovery of Human Remains

If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the

human remains. The following procedures as set forth in CEQA Section 15064.5(e), the California PRC (Section 5097.98), and the State Health and Safety Code (Section 7050.5) shall be undertaken:

A. Notification

1. The archaeological monitor shall notify the RE or BI as appropriate, MMC, and the PI, if the monitor is not qualified as a PI. MMC will notify the appropriate senior planner in the Environmental Analysis Section (EAS) of the DSD to assist with the discovery notification process.
2. The PI shall notify the medical examiner after consultation with the RE, either in person or via telephone.

B. Isolate Discovery Site

1. Work shall be directed away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the medical examiner in consultation with the PI concerning the provenance of the remains.
2. The medical examiner, in consultation with the PI, will determine the need for a field examination to determine the provenance.
3. If a field examination is not warranted, the medical examiner will determine, with input from the PI, if the remains are, or are most likely to be, of Native American origin.

C. If Human Remains ARE Determined to Be Native American

1. The medical examiner will notify the NAHC within 24 hours. By law, ONLY the medical examiner can make this call.
2. The NAHC will immediately identify the person or persons determined to be the MLD and provide contact information.
3. The MLD will contact the PI within 24 hours or sooner after the medical examiner has completed coordination, to begin the consultation process in accordance with CEQA Section 15064.5(e), the California PRC, and the State Health and Safety Code.
4. The MLD will have 48 hours to make recommendations to the property owner or representative for the treatment or disposition with proper dignity of the human remains and associated grave goods.
5. Disposition of Native American human remains will be determined between the MLD and the PI, and, if:
 - a. The NAHC is unable to identify the MLD; OR the MLD failed to make a recommendation within 48 hours after being notified by the NAHC; OR the landowner or authorized representative rejects the

recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner; THEN, in order to protect these sites, the landowner shall do one or more of the following:

- (1) Record the site with the NAHC.
- (2) Record an open space or conservation easement on the site.
- (3) Record a document with the County.

D. If Human Remains Are NOT Native American

1. The PI shall contact the medical examiner and notify them of the historic-era context of the burial.
2. The medical examiner will determine the appropriate course of action with the PI and city staff (PRC 5097.98).
3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the San Diego Museum of Man for analysis. The decision for internment of the human remains shall be made in consultation with MMC, the EAS, the applicant/landowner, any known descendant group, and the San Diego Museum of Man.

V. Night and/or Weekend Work

A. If Night and/or Weekend Work is Included in the Contract

1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the preconstruction meeting.
2. The following procedures shall be followed:

a. No Discoveries

In the event that no discoveries were encountered during night and/or weekend work, the PI shall record the information on the CSVN and submit to MMC via fax by 8:00 a.m. of the next business day.

b. Discoveries

All discoveries shall be processed and documented using the existing procedures detailed in Sections III and IV. Discovery of human remains shall always be treated as a significant discovery.

c. Potentially Significant Discoveries

If the PI determines that a potentially significant discovery has been made, the procedures detailed under Sections III and IV shall be followed.

- d. The PI shall immediately (or by 8:00 a.m. of the next business day) contact

MMC to report and discuss the findings as indicated in Section III-B, unless other specific arrangements have been made.

- B. If Night and/or Weekend Work Becomes Necessary During the Course of Construction
 - 1. The CM and/or GC shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.
 - 2. The RE, or BI, as appropriate, shall notify MMC immediately.
- C. All Other Procedures Described Above Shall Apply, as Appropriate.

VI. Post-Construction

- A. Preparation and Submittal of Draft Monitoring Report
 - 1. The PI shall submit two copies of the draft monitoring report (even if negative), prepared in accordance with the Historical Resources Guidelines (Appendix C/D), which describe the results, analysis, and conclusions of all phases of the archaeological monitoring program (with appropriate graphics) to MMC for review and approval within 90 days following the completion of monitoring. It should be noted that if the PI is unable to submit the draft monitoring report within the allotted 90-day timeframe resulting from delays with analysis, special study results, or other complex issues, a schedule shall be submitted to MMC establishing agreed due dates and the provision for submittal of monthly status reports until this measure can be met.
 - a. For significant archaeological resources encountered during monitoring, the ADRP shall be included in the draft monitoring report.
 - b. The PI shall be responsible for recording (on the appropriate State of California DPR forms-523 A/B) any significant or potentially significant resources encountered during the archaeological monitoring program in accordance with City of San Diego Historical Resources Guidelines, and submittal of such forms to the SCIC with the final monitoring report.
 - 2. MMC shall return the draft monitoring report to the PI for revision or for preparation of the final monitoring report.
 - 3. The PI shall submit the revised draft monitoring report to MMC for approval.
 - 4. MMC shall provide written verification to the PI of the approved report.
 - 5. MMC shall notify the RE or BI, as appropriate, of receipt of all draft monitoring report submittals and approvals.
- B. Handling of Artifacts
 - 1. The PI shall be responsible for ensuring that all cultural remains collected are

- cleaned and cataloged.
- 2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area, that faunal material is identified as to species, and that specialty studies are completed, as appropriate.
- 3. The cost for curation is the responsibility of the property owner.
- C. Curation of Artifacts: Accession Agreement and Acceptance Verification
 - 1. The PI shall be responsible for ensuring that all artifacts associated with the survey, testing, and/or data recovery for this project are permanently curated with an appropriate institution. This shall be completed in consultation with MMC and the Native American representative, as applicable.
 - 2. The PI shall include the Acceptance Verification from the curation institution in the final monitoring report submitted to the RE or BI and MMC.
 - 3. When applicable to the situation, the PI shall include written verification from the Native American consultant/monitor indicating that Native American resources were treated in accordance with state law and/or applicable agreements. If the resources were reinterred, verification shall be provided to show what protective measures were taken to ensure that no further disturbance occurs in accordance with Section IV.
- D. Final Monitoring Report(s)
 - 1. The PI shall submit one copy of the approved final monitoring report to the RE or BI as appropriate, and one copy to MMC (even if negative), within 90 days after notification from MMC that the draft monitoring report has been approved.
 - 2. The RE shall, in no case, issue the Notice of Completion and/or release of the Performance Bond for grading until receiving a copy of the approved final monitoring report from MMC, which includes the Acceptance Verification from the curation institution.

9.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this archaeological report, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief, and have been compiled in accordance with CEQA criteria as defined in Section 15064.5 and the City of San Diego Historical Resources Guidelines.



Brian F. Smith
Principal Investigator

January 3, 2022

Date

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- 1961 Early Gathering Complexes of Western San Diego County: Results and Interpretations of an Archaeological Survey. *Archaeological Survey Annual Report* 1960-1961. University of California, Los Angeles.

Waugh, Georgie

- 1986 *Intensification and Land-use: Archaeological Indication of Transition and Transformation in a Late Prehistoric Complex in Southern California*. Dissertation, University of California, Davis.

Welty, H.O.

- 1912 Site record for SDI-39-W-1. Record on file at the South Coastal Information Center at San Diego State University, San Diego, California.

Wright, Mona K.

- 1993 Simulated Use of Experimental Maize Grinding Tools from Southwestern Colorado. In *Kiva* 58(3):345-355.

APPENDIX A

Qualifications of Key Personnel

Brian F. Smith, MA

Owner, Principal Investigator

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



Education

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

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

Professional Memberships

Society for California Archaeology

Experience

Principal Investigator
Brian F. Smith and Associates, Inc.

1977–Present
Poway, California

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

Professional Accomplishments

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

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

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

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

Emerald Acres: Archaeological survey and testing program of 14 archaeological sites across 333 acres in the Winchester area of Riverside County (2000-2018).

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

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

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

Citracado Business Park West: An archaeological survey and testing program at a significant prehistoric archaeological site and historic building assessment for a 17-acre project in the city of Escondido. The project resulted in the identification of 82 bedrock milling features, two previously recorded loci and two additional and distinct loci, and approximately 2,000 artifacts (2018).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Cultural Resources Survey for the Remote Video Surveillance Project, El Centro Sector, Imperial County: Project manager/director for a survey of 29 individual sites near the U.S./Mexico Border for proposed video surveillance camera locations associated with the San Diego Border barrier Project—project coordination and budgeting; direction of field crews; site identification and recordation; assessment of

potential impacts to cultural resources; meeting and coordinating with U.S. Army Corps of Engineers, U.S. Border Patrol, and other government agencies involved; co-authoring of cultural resources project report. January, February, and July 2002.

Cultural Resources Survey and Test of Sites Within the Proposed Development of the Menifee West GPA, Riverside County, California: Project manager/director of the investigation of nine sites, both prehistoric and historic—included project coordination and budgeting; direction of field crews; assessment of sites for significance based on County of Riverside and CEQA guidelines; historic research; co-authoring of cultural resources project report. January-March 2002.

Mitigation of An Archaic Cultural Resource for the Eastlake III Woods Project for the City of Chula Vista, California: Project archaeologist/ director—included direction of field crews; development and completion of data recovery program including collection of material for specialized faunal and botanical analyses; assessment of sites for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; co-authoring of cultural resources project report, in prep. September 2001-March 2002.

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

Cultural Resources Survey and Test of Sites Within the Proposed Lawson Valley Project, San Diego County, California: Project manager/director of the investigation of 28 prehistoric and two historic sites— included project coordination; direction of field crews; assessment of sites for significance based on CEQA guidelines; cultural resources project report in prep. July-August 2000.

Cultural Resource Survey and Geotechnical Monitoring for the Mohyi Residence Project, La Jolla, California: Project manager/director of the investigation of a single-dwelling parcel—included project coordination; field survey; assessment of parcel for potentially buried cultural deposits; monitoring of geotechnical borings; authoring of cultural resources project report. Brian F. Smith and Associates, San Diego, California. June 2000.

Enhanced Cultural Resource Survey and Evaluation for the Prewitt/Schmucker/Cavadias Project, La Jolla, California: Project manager/director of the investigation of a single-dwelling parcel—included project coordination; direction of field crews; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. June 2000.

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

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

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

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

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

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

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

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

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

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

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

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

Survey and Testing of a Prehistoric Cultural Resource for the Proposed College Boulevard Alignment Project, Carlsbad, California: Project manager/director —included direction of field crews; development and completion of testing recovery program; assessment of site for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis;

authoring of cultural resources project report, in prep. July-August 1999.

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

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

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

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

Archaeological Evaluation of Cultural Resources Within the Proposed Corridor for the San Elijo Water Reclamation System Project, San Elijo, California: Project manager/director —test excavations; direction of artifact identification and analysis; graphics production; coauthorship of final cultural resources report. December 1994-July 1995.

Evaluation of Cultural Resources for the Environmental Impact Report for the Rose Canyon Trunk Sewer Project, San Diego, California: Project manager/Director —direction of test excavations; identification and analysis of prehistoric and historic artifact collections; data synthesis; co-authorship of final cultural resources report, San Diego, California. June 1991-March 1992.

Reports/Papers

Author, coauthor, or contributor to over 2,500 cultural resources management publications, a selection of which are presented below.

- 2019 Final Archaeological Data Recovery and Mitigation Monitoring Program for the Westin Hotel and Timeshare Project, City of Carlsbad, California.
- 2019 A Phase I and II Cultural Resources Assessment for the Jack Rabbit Trail Logistics Center Project, City of Beaumont, Riverside County, California.
- 2019 A Section 106 (NHPA) Historic Resources Study for the Altair Project, City of Temecula, California.
- 2019 Phase II Cultural Resource Study for the McElwain Project, City of Murrieta, California.
- 2019 Cultural Resources Mitigation Monitoring Report for the Family Dollar Mecca Project, Riverside County, California.

- 2019 A Cultural Resources Assessment for TR 37177, City of Riverside, Riverside County, California.
- 2019 Cultural Resources Monitoring Report for the Westlake Project (TM 33267), City of Lake Elsinore, Riverside County, California.
- 2019 A Phase I Cultural Resources Survey for the Go Fresh Gas Project, Perris, California.
- 2019 Cultural Resources Monitoring Report for the South Milliken Distribution Center Project, City of Eastvale, Riverside County, California.
- 2019 A Class III Section 106 (NHPA) Study for the Perris Valley Storm Drain Channel Widening Project, Perris, Riverside County, California.
- 2019 A Section 106 (NHPA) Historic Resources Study for the Twin Channel Project, City of San Bernardino, San Bernardino County, California.
- 2019 A Class III Archaeological Study for the Tuscany Valley (TM 33725) Project National Historic Preservation Act Section 106 Compliance, Lake Elsinore, Riverside County, California.
- 2019 A Phase I Cultural Resources Survey for the IPT Perris DC III Western/Nandina Project, Perris, California.
- 2019 A Phase I Cultural Resources Assessment for the Menifee Gateway Project, City of Menifee, Riverside County, California.
- 2019 Results of Archaeological Monitoring at the Atwell Phase 1A Project (formerly Butterfield Specific Plan), City of Banning, Riverside County, California.
- 2019 A Phase I Cultural Resource Study for the Eastvale Self Storage Project, Eastvale, California.
- 2019 A Phase I Cultural Resources Survey Report for the Commercial/Retail NWC Mountain and Lake Streets Project, City of Lake Elsinore, Riverside County, California.
- 2019 A Phase I Cultural Resources Assessment for the Anza Baptist Church Project, Riverside County, California.
- 2019 A Phase I Cultural Resources Assessment for the Inland Propane Project, Riverside County, California.
- 2019 A Phase I and II Cultural Resources Assessment for the Seaton Commerce Center Project, Riverside County, California.
- 2019 A Phase I Cultural Resources Assessment for the Val Verde Logistics Center Project, Riverside County, California.
- 2019 A Phase I Cultural Resources Assessment for the Santa Gertrudis Creek Pedestrian/Bicycle Trail Extension and Interconnect Project, City of Temecula, Riverside County, California.
- 2019 Cultural Resource Report for the U.S. Allied Carriers Project, City of Riverside, Riverside County, California.
- 2018 A Section 106 (NHPA) Historical Resources Study for the Otay Ranch Village 13 Project, County of San Diego.
- 2018 An Archaeological/Historical Study for the Citracado Business Park West Project, City of Escondido.

- 2018 Cultural Resources Monitoring Report for the Uptown Bressi Ranch Project, Carlsbad.
- 2018 A Phase I Cultural Resources Assessment for the South Pointe Banning Project, CUP 180010, Riverside County, California.
- 2018 Mitigation Monitoring Report for the Stedman Residence Project, 9030 La Jolla Shores Lane, La Jolla, California 92037.
- 2018 Historic Resources Interim Monitoring Reports No. 1 through 4 for the LADOT Bus Maintenance and CNG Fueling Facility, Los Angeles.
- 2018 A Phase I and II Cultural Resources Assessment for the Emerald Acres Project, Winchester, Riverside County.
- 2018 Mitigation Monitoring Report for the Green Dragon Project, City of San Diego.
- 2017 Cultural Resource Monitoring Report for the Moxy Hotel Project, San Diego, California.
- 2017 Mitigation Monitoring Report for the Bayside Fire Station, City of San Diego.
- 2017 Mitigation Monitoring Program for the Ballpark Village Project, City of San Diego.
- 2017 Historical Resource Research Report for the Herbert and Alexina Childs/Thomas L. Shepherd House, 210 Westbourne Street, La Jolla, California 92037.
- 2017 A Phase I and II Cultural Resources Assessment for the Alberhill Ranch Specific Plan Amendment No. 3.1 Project, City of Lake Elsinore, Riverside County, California.
- 2017 A Cultural Resources Mitigation Monitoring Report for the Golden City Project, Tracts 28532-1, -2, -3, -4, and -5, and Tract 34445, City of Murrieta, California.
- 2016 Mitigation Monitoring Report for the Blue Sky San Diego Project, City of San Diego.
- 2016 Historic Resource Research Report for the Midway Postal Service and Distribution Center, 2535 Midway Drive, San Diego, California 92138.
- 2016 Results of the Mitigation Monitoring Program for the Amitai Residence Project, 2514 Ellentown Road, La Jolla, California 92037.
- 2016 Historic American Buildings Survey, Los Angeles Memorial Sports Arena.
- 2015 An Archaeological/Historical Study for the Safari Highlands Ranch Project, City of Escondido, County of San Diego.
- 2015 A Phase I and II Cultural Resources Assessment for the Decker Parcels II Project, Planning Case No. 36962, Riverside County, California.
- 2015 A Phase I and II Cultural Resources Assessment for the Decker Parcels I Project, Planning Case No. 36950, Riverside County, California.
- 2015 Cultural Resource Data Recovery and Mitigation Monitoring Program for Site SDI-10,237 Locus F, Everly Subdivision Project, El Cajon, California.
- 2015 Phase I Cultural Resource Survey for the Woodward Street Senior Housing Project, City of San Marcos, California (APN 218-120-31).

- 2015 An Updated Cultural Resource Survey for the Box Springs Project (TR 33410), APNs 255-230-010, 255-240-005, 255-240-006, and Portions of 257-180-004, 257-180-005, and 257-180-006.
- 2015 A Phase I and II Cultural Resource Report for the Lake Ranch Project, TR 36730, Riverside County, California.
- 2015 A Phase II Cultural Resource Assessment for the Munro Valley Solar Project, Inyo County, California.
- 2014 Cultural Resources Monitoring Report for the Diamond Valley Solar Project, Community of Winchester, County of Riverside.
- 2014 National Historic Preservation Act Section 106 Compliance for the Proposed Saddleback Estates Project, Riverside County, California.
- 2014 A Phase II Cultural Resource Evaluation Report for RIV-8137 at the Toscana Project, TR 36593, Riverside County, California.
- 2014 Cultural Resources Study for the Estates at Del Mar Project, City of Del Mar, San Diego, California (TTM 14-001).
- 2014 Cultural Resources Study for the Aliso Canyon Major Subdivision Project, Rancho Santa Fe, San Diego County, California.
- 2014 Cultural Resources Due Diligence Assessment of the Ocean Colony Project, City of Encinitas.
- 2014 A Phase I and Phase II Cultural Resource Assessment for the Citrus Heights II Project, TTM 36475, Riverside County, California.
- 2013 A Phase I Cultural Resource Assessment for the Modular Logistics Center, Moreno Valley, Riverside County, California.
- 2013 A Phase I Cultural Resources Survey of the Ivey Ranch Project, Thousand Palms, Riverside County, California.
- 2013 Cultural Resources Report for the Emerald Acres Project, Riverside County, California.
- 2013 A Cultural Resources Records Search and Review for the Pala Del Norte Conservation Bank Project, San Diego County, California.
- 2013 An Updated Phase I Cultural Resources Assessment for Tentative Tract Maps 36484 and 36485, Audie Murphy Ranch, City of Menifee, County of Riverside.
- 2013 El Centro Town Center Industrial Development Project (EDA Grant No. 07-01-06386); Result of Cultural Resource Monitoring.
- 2013 Cultural Resources Survey Report for the Renda Residence Project, 9521 La Jolla Farms Road, La Jolla, California.
- 2013 A Phase I Cultural Resource Study for the Ballpark Village Project, San Diego, California.
- 2013 Archaeological Monitoring and Mitigation Program, San Clemente Senior Housing Project, 2350 South El Camino Real, City of San Clemente, Orange County, California (CUP No. 06-065; APN-060-032-04).
- 2012 Mitigation Monitoring Report for the Los Peñasquitos Recycled Water Pipeline.

- 2012 Cultural Resources Report for Menifee Heights (Tract 32277).
- 2012 A Phase I Cultural Resource Study for the Altman Residence at 9696 La Jolla Farms Road, La Jolla, California 92037.
- 2012 Mission Ranch Project (TM 5290-1/MUP P87-036W3): Results of Cultural Resources Monitoring During Mass Grading.
- 2012 A Phase I Cultural Resource Study for the Payan Property Project, San Diego, California.
- 2012 Phase I Archaeological Survey of the Rieger Residence, 13707 Durango Drive, Del Mar, California 92014, APN 300-369-49.
- 2011 Mission Ranch Project (TM 5290-1/MUP P87-036W3): Results of Cultural Resources Monitoring During Mass Grading.
- 2011 Mitigation Monitoring Report for the 1887 Viking Way Project, La Jolla, California.
- 2011 Cultural Resource Monitoring Report for the Sewer Group 714 Project.
- 2011 Results of Archaeological Monitoring at the 10th Avenue Parking Lot Project, City of San Diego, California (APNs 534-194-02 and 03).
- 2011 Archaeological Survey of the Pelberg Residence for a Bulletin 560 Permit Application; 8335 Camino Del Oro; La Jolla, California 92037 APN 346-162-01-00.
- 2011 A Cultural Resources Survey Update and Evaluation for the Robertson Ranch West Project and an Evaluation of National Register Eligibility of Archaeological sites for Sites for Section 106 Review (NHPA).
- 2011 Mitigation Monitoring Report for the 43rd and Logan Project.
- 2011 Mitigation Monitoring Report for the Sewer Group 682 M Project, City of San Diego Project #174116.
- 2011 A Phase I Cultural Resource Study for the Nooren Residence Project, 8001 Calle de la Plata, La Jolla, California, Project No. 226965.
- 2011 A Phase I Cultural Resource Study for the Keating Residence Project, 9633 La Jolla Farms Road, La Jolla, California 92037.
- 2010 Mitigation Monitoring Report for the 15th & Island Project, City of San Diego; APNs 535-365-01, 535-365-02 and 535-392-05 through 535-392-07.
- 2010 Archaeological Resource Report Form: Mitigation Monitoring of the Sewer and Water Group 772 Project, San Diego, California, W.O. Nos. 187861 and 178351.
- 2010 Pottery Canyon Site Archaeological Evaluation Project, City of San Diego, California, Contract No. H105126.
- 2010 Archaeological Resource Report Form: Mitigation Monitoring of the Racetrack View Drive Project, San Diego, California; Project No. 163216.
- 2010 A Historical Evaluation of Structures on the Butterfield Trails Property.
- 2010 Historic Archaeological Significance Evaluation of 1761 Haydn Drive, Encinitas, California (APN

260-276-07-00).

- 2010 Results of Archaeological Monitoring of the Heller/Nguyen Project, TPM 06-01, Poway, California.
- 2010 Cultural Resource Survey and Evaluation Program for the Sunday Drive Parcel Project, San Diego County, California, APN 189-281-14.
- 2010 Archaeological Resource Report Form: Mitigation Monitoring of the Emergency Garnet Avenue Storm Drain Replacement Project, San Diego, California, Project No. B10062
- 2010 An Archaeological Study for the 1912 Spindrift Drive Project
- 2009 Cultural Resource Assessment of the North Ocean Beach Gateway Project City of San Diego #64A-003A; Project #154116.
- 2009 Archaeological Constraints Study of the Morgan Valley Wind Assessment Project, Lake County, California.
- 2008 Results of an Archaeological Review of the Helen Park Lane 3.1-acre Property (APN 314-561-31), Poway, California.
- 2008 Archaeological Letter Report for a Phase I Archaeological Assessment of the Valley Park Condominium Project, Ramona, California; APN 282-262-75-00.
- 2007 Archaeology at the Ballpark. Brian F. Smith and Associates, San Diego, California. Submitted to the Centre City Development Corporation.
- 2007 Result of an Archaeological Survey for the Villages at Promenade Project (APNs 115-180-007-3, 115-180-049-1, 115-180-042-4, 115-180-047-9) in the City of Corona, Riverside County.
- 2007 Monitoring Results for the Capping of Site CA-SDI-6038/SDM-W-5517 within the Katzer Jamul Center Project; P00-017.
- 2006 Archaeological Assessment for The Johnson Project (APN 322-011-10), Poway, California.
- 2005 Results of Archaeological Monitoring at the El Camino Del Teatro Accelerated Sewer Replacement Project (Bid No. K041364; WO # 177741; CIP # 46-610.6.
- 2005 Results of Archaeological Monitoring at the Baltazar Draper Avenue Project (Project No. 15857; APN: 351-040-09).
- 2004 TM 5325 ER #03-14-043 Cultural Resources.
- 2004 An Archaeological Survey and an Evaluation of Cultural Resources at the Salt Creek Project. Report on file at Brian F. Smith and Associates.
- 2003 An Archaeological Assessment for the Hidden Meadows Project, San Diego County, TM 5174, Log No. 99-08-033. Report on file at Brian F. Smith and Associates.
- 2003 An Archaeological Survey for the Manchester Estates Project, Coastal Development Permit #02-009, Encinitas, California. Report on file at Brian F. Smith and Associates.
- 2003 Archaeological Investigations at the Manchester Estates Project, Coastal Development Permit #02-009, Encinitas, California. Report on file at Brian F. Smith and Associates.
- 2003 Archaeological Monitoring of Geological Testing Cores at the Pacific Beach Christian Church Project. Report on file at Brian F. Smith and Associates.

- 2003 San Juan Creek Drilling Archaeological Monitoring. Report on file at Brian F. Smith and Associates.
- 2003 Evaluation of Archaeological Resources Within the Spring Canyon Biological Mitigation Area, Otay Mesa, San Diego County, California. Brian F. Smith and Associates, San Diego, California.
- 2002 An Archaeological/Historical Study for the Otay Ranch Village 13 Project (et al.). Brian F. Smith and Associates, San Diego, California.
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- 2000 Cultural Resource Survey and Geotechnical Monitoring for the Mohyi Residence Project. Brian F. Smith and Associates, San Diego, California.
- 2000 Enhanced Cultural Resource Survey and Evaluation for the Prewitt/Schmucker/Cavadias Project. Brian F. Smith and Associates, San Diego, California.
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- 2000 Enhanced Cultural Resource Survey and Evaluation for the Tyrian 3 Project, La Jolla, California. Brian F. Smith and Associates, San Diego, California.
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- 1999 An Archaeological Survey of the Home Creek Village Project, 4600 Block of Home Avenue, San Diego, California. Brian F. Smith and Associates, San Diego, California.
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- 1999 An Archaeological/Historical Survey and Evaluation of a Cultural Resource for The Osterkamp Development Project, Valley Center, California. Brian F. Smith and Associates, San Diego, California.
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- 1999 An Archaeological Survey and Evaluation of a Cultural Resource for the Proposed College Boulevard Alignment Project. Brian F. Smith and Associates, San Diego, California.

- 1999 Results of an Archaeological Evaluation for the Anthony's Pizza Acquisition Project in Ocean Beach, City of San Diego (with L. Pierson and B. Smith). Brian F. Smith and Associates, San Diego, California.
- 1996 An Archaeological Testing Program for the Scripps Poway Parkway East Project. Brian F. Smith and Associates, San Diego, California.
- 1995 Results of a Cultural Resources Study for the 4S Ranch. Brian F. Smith and Associates, San Diego, California.
- 1995 Results of an Archaeological Evaluation of Cultural Resources Within the Proposed Corridor for the San Elijo Water Reclamation System. Brian F. Smith and Associates, San Diego, California.
- 1994 Results of the Cultural Resources Mitigation Programs at Sites SDI-11,044/H and SDI-12,038 at the Salt Creek Ranch Project. Brian F. Smith and Associates, San Diego, California.
- 1993 Results of an Archaeological Survey and Evaluation of Cultural Resources at the Stallion Oaks Ranch Project. Brian F. Smith and Associates, San Diego, California.
- 1992 Results of an Archaeological Survey and the Evaluation of Cultural Resources at the Ely Lot Split Project. Brian F. Smith and Associates, San Diego, California.
- 1991 The Results of an Archaeological Study for the Walton Development Group Project. Brian F. Smith and Associates, San Diego, California.

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Education

Master of Arts, Anthropology, San Diego State University, California 2007
Bachelor of Science, Anthropology, University of California, Riverside 2000

Professional Memberships

Register of Professional Archaeologists
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Experience

Project Archaeologist March 2009–Present
Brian F. Smith and Associates, Inc. Poway, California

Project Management of all phases of archaeological investigations for local, state, and federal agencies, field supervision, lithic analysis, National Register of Historic Places (NRHP) and California Environmental Quality Act (CEQA) site evaluations, and authoring/coauthoring of cultural resource management reports.

Archaeological Principal Investigator June 2008–February 2009
TRC Solutions Irvine, California

Cultural resource segment of Natural Sciences and Permitting Division; management of archaeological investigations for private companies and local, state, and federal agencies, personnel management, field and laboratory supervision, lithic analysis, Native American consultation and reporting, MRHP and CEQA site evaluations, and authoring/coauthoring cultural resource management reports.

Principal Investigator and Project Archaeologist June 2006–May 2008
Archaeological Resource Analysts Oceanside, California

As a sub consultant, served as Principal Investigator and Project Archaeologist for several projects for SRS Inc., including field direction, project and personnel management, lab analysis, and authorship of company reports.

Project Archaeologist September 1996–June 2006
Gallegos & Associates Carlsbad, California

Project management, laboratory management, lithic analysis, field direction, Native American consultation, report authorship/technical editing, and composition of several data

recovery/preservation programs for both CEQA and NEPA level compliance.

**Project Archaeologist
Macko Inc.**

**September 1993–September 1996
Santa Ana, California**

Project management, laboratory management, lithic analysis, field supervision, and report authorship/technical editing.

**Archaeological Field Technician
Chambers Group Inc.**

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Irvine, California**

Archaeological excavation, surveying, monitoring, wet screen facilities management, and project logistics.

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Reports/Papers

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- 2020 A Section 106 (NHPA) Historic Resources Study for the Pacifica Estates Project, Fallbrook, San Diego County, California. Prepared for Jose Islas.
- 2019 A Cultural Resource Assessment for the Glen Circle Project, Poway, California. Prepared for MDD Homes.
- 2019 Cultural Resources Survey for the Highlands at Warner Springs and Off-Site Fire Access Road Project, Warner Springs, San Diego County, California. Prepared for Warner Springs Estates, LLC.
- 2019 A Cultural Resources Assessment for the 8801 East Marginal Way Project, City of Tukwila, King County, Washington. Prepared for CenterPoint Properties Trust.
- 2019 Cultural Resource Monitoring Report for the 7980 Park Village Road Emergency Repair Project, San Diego, California. Prepared for Orion Construction Corporation.
- 2019 Mitigation Monitoring and Reporting Program for the Harmony Grove Village, San Diego County, California. Prepared for Lennar – San Diego Division.
- 2019 Cultural Resource Monitoring Report for the Price-Cohen Residence Project, 2045 Lowry Place, La Jolla, California 92037. Prepared for Lena Price and Thomas Cohen.
- 2019 A Section 106 (NHPA) Historic Resources Study for the Melrose Drive Widening Project, City of Oceanside, California. Prepared for California West Communities.
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- 2019 Cultural Resources Study for the Ocean Breeze Ranch Project, Bonsall, San Diego County, California. Prepared for Ocean Breeze Ranch, LLC.
- 2019 Mitigation Monitoring and Reporting Program for the Arthofer Residence Project, 1890 Viking Way, La Jolla, California. Prepared for Frank and Sharon Arthofer.
- 2019 A Phase I and II Cultural Resources Assessment for the Greentree Ranch Project, Riverside County, California. Prepared for T&B Planning, Inc.
- 2018 A Section 106 (NHPA) Historic Resources Study for the Escondido Country Club Project, SPL-2018-00135-CJA, City of Escondido, California. Prepared for New Urban West, Inc.
- 2018 A Phase I Cultural Resources Study for the North County Plaza Project, Carlsbad, California. Prepared for Planning Systems, Inc.
- 2018 Cultural Resources Addendum Report for the Ivey Palms Project, Thousand Palms, Riverside, California. Prepared for T&B Planning, Inc.
- 2017 Cultural Resource Monitoring Report for the Altman Residence Project, 9696 La Jolla Farms Road, La Jolla, California 92037. Prepared for Steve and Lisa Altman.
- 2017 Cultural Resources Study for the Escondido Country Club Project, City of Escondido, California. Prepared for New Urban West, Inc.
- 2017 A Class III Archaeological Study for the Tract 28859 Project for Section 106 Compliance. Prepared for Menifee 28859, LLC.
- 2016 A Section 106 (NHPA) Historic Resources Study for the Lake Ranch Project, TR 36730, Riverside County, California.
- 2016 Mitigation Monitoring and Reporting Program for the Imperial Beach Bikeway Village Project, 536 13th Street and 535 Florence Street, Imperial Beach, California. Prepared for Bikeway Village, LLC.
- 2015 Cultural Resource Data Recovery and Mitigation Monitoring Program for Site SDI-10,237 Locus F, Evely Subdivision Project, El Cajon, California. Prepared for Shea Homes.
- 2015 A Class III Historic Resource Study for the Miramar Clearwell Improvements Project, San Diego, California. Prepared for Global Environmental Permitting, Inc.
- 2015 A Class III Historic Resource Study for the College Boulevard Project, Carlsbad, California. Prepared for Bent West, LLC.
- 2015 A Class III Archaeological Study for the Parkside Project for Section 106 Compliance, Riverside County, California. Prepared for Lennar Corporation.
- 2015 A Cultural Resource Assessment for the Zhao Residence Project, Poway, California (275-240-66). Prepared for Pacific Sotheby's International Realty.
- 2014 Phase I Cultural Resources Survey for the Utah Trail Project, County of San Bernardino, California (APNs 621-281-22 through 621-281-25). Prepared for Ecos Energy, LLC.
- 2014 Phase I Archaeological Assessment for the Sky Canyon Project (PP25309), Riverside County, California. Prepared for Rocky Snider California Project Management Office.

- 2014 Phase I Cultural Resources Survey for the Shoshone Valley Road Project, County of San Bernardino, California (APNs 613-233-01, -02, -03, -04, -27, -28, -29, and -30). Prepared for Ecos Energy, LLC.
- 2014 Phase I Cultural Resources Survey for the Nuevo 055 Project, Community of Nuevo, County of Riverside. Prepared for Ecos Energy, LLC.
- 2014 A Phase I Cultural Resource Study for the Bourgeois Project, Poway, California. Prepared for Bill Yen & Associates, Inc.
- 2014 A Cultural Resources Survey for the Aliso Canyon Major Subdivision Project, Rancho Santa Fe, San Diego County, California. Prepared for Zephyr Partners.
- 2014 Cultural Resource Monitoring Report for the Sewer Group 723 Project, San Diego, California. Prepared for Ortiz Corporation.
- 2013 A Phase I Cultural Resource Study for the Rogers Tierra Bonita Project, Poway, California. Prepared for John D. Fitch & Associates.
- 2013 A Cultural Resource Assessment Update for the Girard Townhome Project, TR 35477, Riverside County, California. Prepared for G8 Development, Inc.
- 2013 Phase I Archaeological Assessment for the Ridge Park Project, City of Temecula, California. Prepared for Ambient Communities.
- 2013 A Phase I and Phase II Cultural Resource Study for the Citrus Heights/Fairway Drive Project, Riverside County, California. Prepared for CV Communities.
- 2013 Phase I Archaeological Assessment for the Bixby Highgrove Project (TTM 36437), Riverside County, California. Prepared for T&B Planning, Inc.
- 2013 A Class III Cultural Resources Study for the Ramona Ranch Affordable Housing Project for Section 106 Compliance, San Diego County, California. Prepared for AMCAL Multi-Housing, Inc.
- 2013 Phase I Archaeological Assessment for the Yates Road Project (TTM 36437), Riverside County, California. Prepared for CV Communities, LLC.
- 2013 A Cultural Resources Survey and Evaluation Program for the Warner Ranch Project, San Diego County, California. Prepared for HP Warner Ranch, LP.
- 2013 A Phase I Cultural Resource Assessment for TPM 36585, Riverside County, California. Prepared for GF Real Estate Services.
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- 2013 A Class III Cultural Resources Study for The Sierra Bella Project for Section 106 Compliance, Riverside County, California. Prepared for Forestar Corona, LLC.
- 2013 A Class III Cultural Resources Study for the Moosa Creek Mitigation Bank Project. Prepared for a Creek LLC.

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- 2013 Cultural Resources Survey and Evaluation Program for the Oak Creek Project, City of Escondido, California. Prepared for New Urban West, Inc.
- 2013 Phase I Cultural Resources Survey for the Hope Harbor Project, Riverside County, California. Prepared for Medhat Rofael.
- 2013 Archaeological Survey of the Liske Residence, La Jolla, California. Prepared for ECEGC Inc.
- 2013 An Updated Phase I Cultural Resources Assessment for Tentative Tract Maps Nos. 36484 and 36485, Audie Murphy Ranch. Prepared for Brookfield Residential.
- 2013 A Phase I Cultural Resources Study For the 401 West Ash Street Project San Diego, California. Prepared for PierPoint Legacy Holdings, LLC.
- 2013 Cultural Resource Test Plan for the Ten on Columbia Project, San Diego, California. Prepared for InDev, Inc.
- 2013 Phase I Cultural Resources Survey for the Washington Avenue Project, City of Murrieta, California. Prepared for Coastal Land Solutions.
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- 2012 Mitigation Monitoring Report for the for the Johnston Residence Project, La Jolla, California. Prepared for Heather Johnston.
- 2012 A Phase I Cultural Resource Study for the Howell Residence Project, Poway, California. Prepared for Cal Howell.
- 2012 Cultural Resource Monitoring Report for the Sewer and Water Group 799 Project. Prepared for Burtech Pipeline.
- 2012 A Phase I Cultural Resources Study For the Villa Hermosa Project San Diego, California. Prepared for David Chow.
- 2012 A Phase I Cultural Resource Study for the Payan Property Project, San Diego, California. Prepared for Landmark Engineering.
- 2012 A Phase I Cultural Resource Study for the El Camino Real Widening Project, Carlsbad, California. Prepared for Planning Systems.
- 2012 A Phase I Cultural Resource Study for the Encore Trust Project, La Jolla, California. Prepared for Metcalf Development and Consulting.
- 2012 A Phase I Cultural Resource Study for the Andres Residence Project, La Jolla, California. Prepared for Engineering Design Group.

- 2012 Phase I Cultural Resources Survey for the Diamond Springs Project, Riverside County, California. Prepared for Benjamin J. Stables III, B 3 Consulting.
- 2012 A Phase I Cultural Resource Study for the ActivCare at Mission Bay Project, San Diego, California. Prepared for ActivCare Living, Inc.
- 2012 Mitigation Monitoring Report for the Water Group 790 Project, City of San Diego, California. Prepared for Orion Construction Corporation.
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- 2012 Cultural Resource Monitoring Report for the Gatto Residence Project, La Jolla, California. Prepared for Marengo Morton Architects Inc.
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- 2012 Cultural Resource Monitoring Report for the Rose Creek Bikeway Bridge Project, City of San Diego, California. Prepared for Flatiron West, Inc.
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- 2011 A Class III Cultural Resources Study for the La Dama de Oro Project, San Bernardino County, California. Prepared for Mohave Gold Mining & Exploration, Inc.
- 2011 Mitigation Monitoring Report for the Jacobs Health Care Facility Project, City of San Diego, California. Prepared for Jacobs Health Care, LLC.
- 2011 A Phase I Cultural Resources Study For the Rowland Auto Dismantling Project, City of San Diego, California. Prepared for David Rowland.
- 2011 A Phase I Cultural Resource Study for the Dye Residence Project, La Jolla, California. Prepared for Eric Dye.
- 2011 Phase I Cultural Resources Survey for the Santa Rosa Academy Project, Riverside County, California. Prepared for Santa Rosa Academy Charter School c/o Bradley Burke Competitive Edge Development, LLC.
- 2011 Cultural Resource Data Recovery Study for SDI-4606 Locus B for Saint Gabriel's Catholic Church, Poway, California. Prepared for Saint Gabriel's Catholic Church.
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- 2011 Mitigation Monitoring Report for the Sewer and Water Group 768 Project, City of San Diego, California. Prepared for Ortiz Corporation.

- 2011 Cultural Resource Test for the 10th Avenue Parking Lot Project, City of San Diego, California. Prepared for 11th and B Investment Associates, LLC.
- 2011 A Cultural Resources Study for the Ampudia Lot Project, City of San Diego, California. Prepared for Venture Pacific Commercial Services, Inc.
- 2011 A Phase I Cultural Resource Study for the Hyde Residence Project, La Jolla, California. Prepared for Paul and Denise Hyde.
- 2011 A Phase I Cultural Resource Study for the Fialko Residence Project, La Jolla, California. Prepared for Thomas Armstrong Construction, Inc.
- 2011 Mitigation Monitoring Report for the Sewer Group 682M Project, City of San Diego, California. Prepared for HTA Engineering & Construction Inc.
- 2011 A Phase I Cultural Resource Study for the Butterfield Residence Project, La Jolla, California. Prepared for Geotechnical Exploration, Inc.
- 2011 A Cultural Resource Monitoring Report for the Eichen Residence Project, San Diego, California. Prepared for Steigerwald-Dougherty, Inc.
- 2011 Phase I Cultural Resources Survey for the Galway Downs Project, Riverside County, California. Prepared for Trip Hord.
- 2011 Cultural Resource Monitoring Report for Rancho Bella Vista Phase IV (TR 31871), Riverside County, California. Prepared for Lennar Inland Division.
- 2011 Cultural Resource Monitoring Report for the Salvation Army Vehicle Storage Area Demolition Project. Prepared for The Salvation Army General Counsel.
- 2011 A Phase I Cultural Resource Study for the Kates Residence Project, La Jolla, California. Prepared for Brad and Shannon Kates.
- 2011 A Phase I Cultural Resource Study for the Kralik Residence Project, La Jolla, California. Prepared for John Kralik.
- 2010 An Archaeological Monitoring Report for the Cricket Cell Tower Project (Permit # 3399 06-032), San Diego County, California. Prepared for Ken Hayes.
- 2010 A Cultural Resources Study for the 47th Street Warehouse Project City of San Diego, California, Project No. 190957. Prepared for 47th Street Properties.
- 2010 A Cultural Resource Study for the Dickenson Ranch Project, San Bernardino County, California. Prepared for Dickenson and Son Property Management and Investments.
- 2010 A Phase I Cultural Resources Survey for the Young Family Trust Lot Split Project City of Escondido, California. Prepared for Young Family Trust.
- 2010 An Archaeological Monitoring Report for the Jamul Rural Fire Station Auxiliary Access Road Project, San Diego County, California. Prepared for TCB.
- 2010 Cultural Resource Survey and Evaluation Program for the Citracado Parkway Extension Project, City of Escondido, California. Prepared for AECOM.

- 2010 Phase I Cultural Resources Survey for the Sycamore Creek Specific Plan No. 256 Amendment No. 2, Riverside County, California. Prepared for T&B Planning.
- 2010 A Phase III Cultural Resource Data Recovery Program for CA-SDI-16,986, Hidden Meadows, San Diego County, California (TPM 20794). Tuscan Ridge, LLC.
- 2010 Historic Properties Treatment Plan for the Talega (64 Area) 12kV Conversion Project Marine Corps Base Camp Pendleton San Diego County California. Prepared for Synergy Electric Company, Inc.
- 2010 A Cultural Resources Survey and Evaluation Program for the Highlands at Warner Springs Project, Warner Springs, San Diego County, California. Prepared for Warner Springs Estates, LLC.
- 2010 A Cultural Resources Literature Review for the 11099 North Torrey Pines Road Project, San Diego, California. Prepared for Touchstone Investments.
- 2010 A Phase I Cultural Resources Survey for the San Jacinto Poultry Ranch Storage Building Project, San Jacinto, California. Prepared for Moark, LLC.
- 2010 A Phase III Cultural Resource Data Recovery Program for SDI-16986, Hidden Meadows, San Diego, California (TPM 20794). Prepared for Tuscan Ridge, LLC.
- 2010 Cultural Resources Study for the Dos Colinas Project, Carlsbad, California. Prepared for Dos Colinas, LLC.
- 2010 A Phase I Archaeological Survey of the Greater Alpine Fire Safe Council Horsethief Vegetation Management Project. Prepared for the Greater Alpine Fire Safe Council.
- 2010 A Phase I Cultural Resource Study for the Moses Residence Project, La Jolla, California. Prepared for Brian Moses.
- 2010 Pottery Canyon Site Archaeological Evaluation Project City of San Diego, California. Prepared for the City of San Diego Park and Recreation Department.
- 2010 A Phase I Cultural Resource Study for the Shabaz Residence Project, La Jolla, California. Prepared for Negar Shabaz.
- 2009 A Phase I Cultural Resources Study for the Kramer 453 Project, San Bernardino County, California. Prepared for LightSource Renewables LLC.
- 2009 A Cultural Resources Study for the Hronopoulos Residence Project, City of San Diego, California. Prepared for Andreas Hronopoulos.
- 2009 A Cultural Resources Monitoring Report for the East Point Loma Trunk Sewer Project, San Diego, California. Prepared for Southern California Soil and Testing.
- 2009 A Cultural Resources Study for the McKean SDP Project. San Diego, California.
- 2009 An Archaeological Assessment for the Rivera-Placentia Project, City of Riverside, California. Prepared for Riverside Construction Company.
- 2009 Cultural Resource Data Recovery Plan for the North Ocean Beach Gateway Project. Prepared for the City of San Diego and KTU+A.
- 2009 Cultural Resource Letter Report for the Borrego Substation Feasibility Study, Borrego Springs,

- California. Prepared for RBF Consulting.
- 2009 A Cultural Resource Study for the Gatto Residence Project, La Jolla, California. Prepared for Marengo Martin Architects Inc.
- 2009 A Cultural Resource Report for the Central Feeder Connection Project, San Bernardino, California. Prepared for Albert A. Webb and Associates.
- 2009 A Cultural Resource Report for the Clay Street Connection Project, Riverside, California. Prepared for Albert A. Webb and Associates.
- 2009 A Cultural Resource Report for the Green Hills Project, San Diego County, California. Prepared for Atlas Investments, LLC.
- 2009 A Cultural Resource Report for the La Sierra Pipeline Project, Riverside, California. Prepared for Albert A. Webb and Associates.
- 2009 Cultural Resources Monitoring Report for the East Point Loma Trunk Sewer Project. Prepared for Southern California Soil & Testing.
- 2009 A Cultural Resource Report for the Mockingbird Connection Project, Riverside, California. Prepared for Albert A. Webb and Associates.
- 2009 A Cultural Resource Report for the Mesquite Lake Treatment Plan Project, Imperial County, California. Prepared for Albert A. Webb and Associates.
- 2008 Phase I Cultural Resource Survey for the 28220 Highridge Road Development Project, Rancho Palos Verdes, California. Prepared for REC Development.
- 2008 Wild Goose Expansion 3 Project Butte County, California Colusa County, California. Prepared for Niska Gas Storage LLC.
- 2008 Class III Cultural Resource Survey for the Burlington Northern Santa Fe Four Railway Bridge Renewal Project, San Bernardino County, California. Prepared for BNSF Railway Company.
- 2008 I-80 Colfax Site Cultural Resource Records Search Report, Placer County, California. Prepared for Granite Construction Company.
- 2008 I-80 Gold Run Site Cultural Resource Records Search Report, Placer County, California. Prepared for Granite Construction Company.
- 2008 Cultural Resource Monitoring at 31431 Camino Capistrano, San Juan Capistrano, California. Prepared for Herman Weissker, Inc.
- 2008 Cultural Resource Inventory for the Snow White Pumice Mine, Hinkley, California. Prepared for U.S. Mining and Minerals Corporation.
- 2007 Nodule Industries of North Coastal San Diego: Change and Stasis in 10,000 Years of Lithic Technology. Masters thesis on file, San Diego State University.
- 2007 Cultural Resource Inventory for Empire Homes (APN 104-180-04), Lake Forest, California. Prepared for Empire Homes.
- 2007 Phase I Archaeological Assessment for APN 104-200-09, Beaumont, California. Prepared for Mary

Chan.

- 2007 Cultural Resource Inventory for Empire Homes (APN 104-180-04), Lake Forest, California. Prepared for Empire Homes.
- 2006 Carlsbad Municipal Golf Course Data Recovery Program for CA-SDI-8694, and Indexing and Preservation Program Study for CA-SDI-8303 and CA-SDI-8797 Locus C, City of Carlsbad, California. Prepared for City of Carlsbad.
- 2005 Grand Pacific Resorts Data Recovery and Index Sample Program for CA-SDI-8797, Area A, City of Carlsbad, California. Prepared for Grand Pacific Resorts Inc.
- 2004 "Near the Harris Site Quarry" Cultural Resource Data Recovery and Preservation Program for CA-SDI-13028, San Diego County, California. Prepared for Harbrecht Development, L.P.
- 2004 Cultural Resource Survey and Boundary Test Report for the Lilac Ranch Project, San Diego County, California. Prepared for Empire Companies.
- 2003 Cultural Resource Data Recovery and Preservation Program for CA-SDI-12027, San Diego County, California. Prepared for Harbrecht Development Inc.
- 2002 Data Recovery Program for the Pacbell Site CA-SDI-5633, San Marcos, California. Prepared for Joseph Wong Design Associates.
- 2001 McCrink Ranch Cultural Resource Test Program Additional Information for Selected Sites, San Diego County, California. Prepared for Shapouri & Associates.
- 2001 The Quail Ridge Project Cultural Resource Test Program, San Diego County, California. Prepared for Helix Environmental Planning, Inc.
- 2000 Cultural Resource Survey and Evaluation for the North Sand Sheet Full Buildout Program, Owens Lake, California. Prepared for CH2MHill.
- 1995 Final Report: Archaeological Investigations Conducted for the Abalone Cove Dewatering Wells, City of Rancho Palos Verdes Los Angeles County, California. Prepared for the City of Rancho Palos Verdes, Environmental Services.
- 1995 Final Report: A Class III Intensive Survey of a 100-Acre Sand and Gravel Mining Area, Imperial County, California. Prepared for the Lilburn Corporation.
- 1994 Final Report: Data Recovery Excavations at Five Late Prehistoric Archaeological Sites Along the Los Trancos Access Road, Newport Coast Planned Community, Orange County, California. Prepared for the Coastal Community Builders, a division of The Irvine Company.

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- 2019 Cultural Resources Study for the 3868-3900 Sepulveda Boulevard Project, City of Culver City, Los Angeles County, California. Prepared for Sepulveda Suites, Inc.
- 2019 Final Archaeological Data Recovery and Mitigation Monitoring Program for the Westin Hotel and Timeshare Project, City of Carlsbad, California. Prepared for Grand Pacific Resorts, Inc.
- 2019 Cultural Resources Study for the Commerce Logistics Center Project, 5200 Sheila Street, Commerce, California 90040. Prepared for T&B Planning, Inc.

- 2019 A Section 106 (NHPA) Historic Resource Study for the McElwain Project (SPL-2019-00565), Murrieta, Riverside County, California. Prepared for Murrieta Development II, LLC.
- 2019 Phase II Cultural Resource Study for the McElwain Project, City of Murrieta, California. Prepared for Murrieta Development II, LLC.
- 2018 A Phase I and II Cultural Resources Assessment for the Emerald Acres Project, Winchester, Riverside County. Prepared for T&B Planning, Inc.
- 2018 A Cultural Resources Monitoring Report for the Golden City Project, Tracts 28532-1, -2, -3, -4, and -5 and Tract 34445, City of Murrieta, California. Prepared for North Murrieta Community, LLC.
- 2018 An Archaeological/Historical Study for the Citracado Business Park West Project, City of Escondido. Prepared for Pacific Harmony Grove Development.
- 2015 Cultural Resource Survey and Evaluation Program for the Westin Hotel and Timeshare Project, City of Carlsbad, California. Prepared for Grand Pacific Resorts, Inc.
- 2015 A Class III Cultural Resource Study for the Habitat for Humanity Project, Perris, California. Habitat for Humanity Inland Valley.
- 2015 A Phase II Cultural Resource Assessment for the Munro Valley Solar Project, Inyo County, California. Prepared for Prepared for Ecos Energy, LLC.
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APPENDIX B

Updated Site Record Form

(Deleted for Public Review; Bound Separately)

APPENDIX C

Archaeological Records Search Results

(Deleted for Public Review; Bound Separately)

APPENDIX D

NAHC Sacred Lands File Search Results

(Deleted for Public Review; Bound Separately)

APPENDIX E

Table 6.1-4

Table 6.1-4
Subsurface Recovery List by Depth
SDI-39 at 1851 Spindrift Drive

Unit No.	Depth (cm)	Object Type	Material Type	Quantity	Weight (grams)	Cat. No(s).	
STP 1	0-10	Marine Shell	Unidentifiable	-	0.4	1	
	10-20	Pottery Vessel	Tizon Brown Ware	1	1.6	2	
		Faunal Bone	Large Mammal	-	0.4	3	
		Marine Shell	<i>Tivela</i> sp.	-	4.9	4	
			<i>Chiton</i> sp.	-	3.5	5	
			<i>Pseudochama</i> sp.	-	4.2	6	
			<i>Donax</i> sp.	-	0.5	7	
		Debitage	Unidentifiable	-	4.2	8	
			Volcanic	3	2.1	9	
		20-30	Faunal Bone	Quartzite	3	6.1	10
				Medium Mammal	-	0.4	11
	Marine Shell		<i>Mytilus</i> sp.	-	1.6	12	
			<i>Pecten</i> sp.	-	0.1	13	
			<i>Chione</i> sp.	-	1.1	14	
			<i>Chiton</i> sp.	-	2.1	15	
			<i>Pseudochama</i> sp.	-	1.4	16	
			<i>Donax</i> sp.	-	0.1	17	
	Fire Affected Rock		Unidentifiable	-	3.5	18	
			Volcanic	-	194.8	19	
	30-40	Marine Shell	<i>Mytilus</i> sp.	-	8.4	20	
			<i>Tivela</i> sp.	-	2.7	21	
			<i>Chione</i> sp.	-	0.1	22	
			<i>Donax</i> sp.	-	2.6	23	
			<i>Chiton</i> sp.	-	7.9	24	
			<i>Astrea</i> sp.	-	0.5	25	
			<i>Lottia</i> sp.	-	1.3	26	
			Unidentifiable	-	2.8	27	
		Faunal Bone	Small Mammal	-	0.2	28	
		Pottery Vessel	Tizon Brown Ware	1	1.2	29	
		Debitage	Volcanic	3	5.9	30	
		Mano	Volcanic	1	256.1	31	
	Fire Affected Rock	Volcanic	-	55.2	32		
	40-50	Marine Shell	<i>Tivela</i> sp.	-	9.6	33	
			<i>Pseudochama</i> sp.	-	3.1	34	
			<i>Chiton</i> sp.	-	9.5	35	
			<i>Tegula</i> sp.	-	2.9	36	

Unit No.	Depth (cm)	Object Type	Material Type	Quantity	Weight (grams)	Cat. No(s).	
			<i>Mytilus</i> sp.	-	4.2	37	
			<i>Donax</i> sp.	-	1.8	38	
			<i>Astrea</i> sp.	-	1.5	39	
			<i>Pecten</i> sp.	-	2.3	40	
			Unidentifiable	-	2.6	41	
		Faunal Bone	Fish	-	0.9	42	
			Small Mammal	-	0.3	43	
		Pottery Vessel	Tizon Brown Ware	2	7.3	44, 45	
		Debitage	Quartz	1	0.5	46	
			Volcanic	4	2.3	47	
			Quartzite	1	0.3	48	
		50-60	Marine Shell	<i>Tivela</i> sp.	-	4.5	49
				<i>Pseudochama</i> sp.	-	9.4	50
	<i>Chiton</i> sp.			-	6.6	51	
	<i>Lotia</i> sp.			-	3.7	52	
	<i>Mytilus</i> sp.			-	3.5	53	
	<i>Donax</i> sp.			-	1.0	54	
	<i>Astrea</i> sp.			-	8.1	55	
	<i>Pecten</i> sp.			-	2.4	56	
	Faunal Bone		Small Mammal	-	0.2	57	
	Debitage		Quartzite	1	1.4	58	
			Volcanic	7	16.0	59	
	Fire Affected Rock		Volcanic	-	74.2	60	
	60-70		Marine Shell	<i>Donax</i> sp.	-	1.7	61
		<i>Mytilus</i> sp.		-	4.8	62	
		<i>Tivela</i> sp.		-	2.7	63	
		<i>Pseudochama</i> sp.		-	39.0	64	
		<i>Chiton</i> sp.		-	8.7	65	
		<i>Haliotis</i> sp.		-	7.0	66	
		<i>Pecten</i> sp.		-	4.8	67	
		<i>Tegula</i> sp.		-	0.5	68	
		Unidentifiable	-	1.8	69		
		Pottery Vessel	Tizon Brown Ware	4	5.7	70, 71	
Adze	Volcanic	1	33.0	72			
70-80	Marine Shell	<i>Haliotis</i> sp.	-	11.2	73		
		<i>Donax</i> sp.	-	0.7	74		
		<i>Mytilus</i> sp.	-	3.8	75		
		<i>Chiton</i> sp.	-	4.9	76		
		<i>Pecten</i> sp.	-	0.4	77		
		<i>Tivela</i> sp.	-	2.5	78		

Unit No.	Depth (cm)	Object Type	Material Type	Quantity	Weight (grams)	Cat. No(s).
			Unidentifiable	-	2.9	79
		Faunal Bone	Small Fish	-	1.1	80
		Debitage	Quartzite	1	28.7	81
			Volcanic	3	46.7	82
		Fire Affected Rock	Volcanic	-	140.1	83
		Pottery Vessel	Tizon Brown Ware	1	8.1	84
	80-90	Marine Shell	<i>Donax</i> sp.	-	0.5	85
			<i>Tegula</i> sp.	-	0.4	86
			<i>Chiton</i> sp.	-	2.6	87
			<i>Mytilus</i> sp.	-	2.5	88
			<i>Tivela</i> sp.	-	3.0	89
			Unidentifiable	-	2.1	90
		Faunal Bone	Mammal	-	0.1	91
		Pottery Vessel	Tizon Brown Ware	1	2.3	92
			Tizon Brown Ware	1	0.8	93
		Debitage	Volcanic	1	3.4	94
	Fire Affected Rock	Volcanic	-	276.9	95	
	90-100	Marine Shell	<i>Lotia</i> sp.	-	0.6	96
<i>Chiton</i> sp.			-	3.5	97	
<i>Tivela</i> sp.			-	4.0	98	
<i>Pecten</i> sp.			-	0.7	99	
<i>Donax</i> sp.			-	0.5	100	
<i>Mytilus</i> sp.			-	0.2	101	
Unidentifiable			-	1.4	102	
Bead		<i>Olivella</i> sp.	1	1.2	103	
Faunal Bone		Mammal	-	6.4	104	
Debitage		Quartzite	2	42.5	105	
	Volcanic	1	0.4	106		
Fire Affected Rock	Volcanic	-	1.3	107		
100-110	Marine Shell	<i>Pecten</i> sp.	-	0.1	108	
		<i>Pseudochama</i> sp.	-	2.5	109	
		<i>Donax</i> sp.	-	0.3	110	
		<i>Chiton</i> sp.	-	1.9	111	
		<i>Lotia</i> sp.	-	0.9	112	
		<i>Tivela</i> sp.	-	2.9	113	
		<i>Mytilus</i> sp.	-	2.8	114	
		Unidentifiable	-	2.6	115	
	Faunal Bone	Small Mammal	-	0.4	116	
	Debitage	Metavolcanic	1	0.2	117	
Pottery Vessel	Tizon Brown Ware	1	6.7	118		

Unit No.	Depth (cm)	Object Type	Material Type	Quantity	Weight (grams)	Cat. No(s).	
		Fire Affected Rock	Volcanic	-	77.0	119	
	110-120	Marine Shell	<i>Chiton</i> sp.	-	4.9	120	
			<i>Donax</i> sp.	-	6.3	121	
			<i>Tivela</i> sp.	-	1.4	122	
			<i>Pecten</i> sp.	-	0.1	123	
			Unidentifiable	-	2.5	124	
		Debitage	Quartzite	1	0.5	125	
			Volcanic	1	0.2	126	
	Fire Affected Rock	Granite	-	11.9	127		
	120-130	Marine Shell	<i>Tivela</i> sp.	-	1.1	128	
			<i>Pecten</i> sp.	-	0.1	129	
			<i>Haliotis</i> sp.	-	4.4	130	
			<i>Chiton</i> sp.	-	0.6	131	
			<i>Donax</i> sp.	-	1.1	132	
		<i>Tegula</i> sp.	-	0.8	133		
		Faunal Bone	Small Mammal	-	0.3	134	
	Debitage	Quartzite	1	1.0	135		
	STP 2	0-10	Marine Shell	Unidentifiable	-	0.7	136
			Debitage	Volcanic	2	2.1	137
10-20		Marine Shell	Unidentifiable	-	0.2	138	
20-30				-	0.6	139	
30-40				-	0.2	140	
40-50				-	0.6	141	
40-50		Pottery Vessel	Tizon Brown Ware	1	4.2	142	
50-60	Marine Shell	Unidentifiable	-	1.8	143		
STP 3	0-10	Marine Shell	<i>Tegula</i> sp.	-	0.4	144	
			<i>Donax</i> sp.	-	0.1	145	
			Unidentifiable	-	0.3	146	
	10-20		<i>Chiton</i> sp.	-	3.4	147	
			<i>Donax</i> sp.	-	0.7	148	
			<i>Haliotis</i> sp.	-	0.2	149	
			<i>Pseudochama</i> sp.	-	3.0	150	
			Unidentifiable	-	0.6	151	
			20-30	<i>Chiton</i> sp.	-	2.3	152
	<i>Astrea</i> sp.			-	3.3	153	
	<i>Donax</i> sp.			-	0.9	154	
	<i>Haliotis</i> sp.			-	0.4	155	
	Unidentifiable			-	1.4	156	
	Pottery Vessel			Tizon Brown Ware	2	5.6	157, 158
Debitage	Volcanic	2	28.1	159			

Unit No.	Depth (cm)	Object Type	Material Type	Quantity	Weight (grams)	Cat. No(s).
	30-40	Marine Shell	<i>Chiton</i> sp.	-	0.4	160
			<i>Donax</i> sp.	-	0.3	161
			Unidentifiable	-	0.3	162
	40-50		<i>Chiton</i> sp.	-	0.9	163
			<i>Donax</i> sp.	-	0.4	164
			Unidentifiable	-	1.1	165
		Angular Hammer	Volcanic	1	267.0	166
	50-60	Marine Shell	sp.	-	0.1	167
			Unidentifiable	-	1.2	168
		Debitage	Volcanic	1	4.1	169
Fire Affected Rock		Volcanic	-	120.1	170	
STP 4	0-10	No Recovery				
	10-20	Fire Affected Rock	Granite	-	59.2	171
	20-30		Volcanic	-	54.0	172
	30-40	Pottery Vessel	Tizon Brown Ware	1	5.9	173
				1	1.3	174
	40-50	Marine Shell	Undifferentiated	-	8.3	175
	50-60			-	7.4	176
			-	3.1	177	
STP 5	0-10	No Recovery				
	10-20					
	20-30					
	30-40					
STP 6	0-10	Marine Shell	Undifferentiated	-	3.6	178
				-	16.2	179
	10-20	Debitage	Volcanic	3	14.2	180
		Pottery Vessel	Tizon Brown Ware	1	3.5	181
		Fire Affected Rock	Granite	-	32.1	182
		Faunal Bone	Fish	-	0.3	183
	20-30	Marine Shell	Undifferentiated	-	10.1	193
	20-30	Debitage	Granite	1	11.7	194
	30-40	Marine Shell	Undifferentiated	-	3.6	192
Debitage		Quartzite	1	28.3	195	
STP 7	0-10	Debitage	Volcanic	3	21.6	184
	10-20	Marine Shell	Undifferentiated	-	1.3	185
		Fire Affected Rock	Granite	-	186.7	186
	20-30	Marine Shell	Undifferentiated	-	10.1	187
		Faunal Bone	Very Small Mammal	-	0.0	188
	30-40	Marine Shell	Undifferentiated	-	2.7	189
Fire Affected Rock		Granite	-	43.5	190	

Unit No.	Depth (cm)	Object Type	Material Type	Quantity	Weight (grams)	Cat. No(s).
		Debitage	Volcanic	1	10.4	191
	40-50	No Recovery				
STP 8	0-10	Marine Shell	Undifferentiated	-	0.2	196
		Pottery Vessel	Tizon Brown Ware	1	1.3	213
	10-20	Debitage	Volcanic	1	3.1	223
		Marine Shell	Undifferentiated	-	0.6	197
	20-30	Debitage	Volcanic	6	14.9	224
			Metavolcanic	1	2.8	225
			Quartzite	1	1.6	226
	30-40	Marine Shell	Undifferentiated	-	6.2	199
		Pottery Vessel	Tizon Brown Ware	1	1.2	214
		Faunal Bone	Undifferentiated	-	1.3	233
		Fire Affected Rock	Sandstone	-	27.8	239
	40-50	Marine Shell	Undifferentiated	-	26.9	200
		Faunal Bone		-	1.1	234
		Pottery Vessel	Tizon Brown Ware	3	7.3	215
		Debitage	Volcanic	2	3.3	227
	50-60	Fire Affected Rock	Granite	-	89.1	240
		Marine Shell	Undifferentiated	-	3.8	201
		Faunal Bone		-	0.6	235
	60-70	Pottery Vessel	Tizon Brown Ware	1	2.1	216
		Marine Shell	Undifferentiated	2	8.8	217
-				8.6	202	
Faunal Bone		Undifferentiated	-	0.4	236	
Fire Affected Rock	Volcanic	-	227.9	241		
STP 9	0-10	No Recovery				
	10-20	Marine Shell	Undifferentiated	-	1.2	203
	20-30	Marine Shell	Undifferentiated	-	6.8	204
		Pottery Vessel	Tizon Brown Ware	1	1.3	218
	30-40	Marine Shell	Undifferentiated	-	5.0	205
		Debitage	Volcanic	1	3.4	228
	40-50	Marine Shell	Undifferentiated	-	1.9	206
	50-60	Marine Shell	Undifferentiated	-	5.6	207
		Pottery Vessel	Tizon Brown Ware	1	3.5	219
	60-70	Marine Shell	Undifferentiated	-	5.2	208
	70-80	Marine Shell	Undifferentiated	-	46.4	209
		Pottery Vessel	Tizon Brown Ware	3	1.0	220
Debitage		Volcanic	9	5.3	229	
Faunal Bone		Undifferentiated	-	4.4	237	

Unit No.	Depth (cm)	Object Type	Material Type	Quantity	Weight (grams)	Cat. No(s).
STP 10	0-10	Marine Shell	Undifferentiated	-	0.1	210
		Pottery Vessel	Tizon Brown Ware	2	10.3	221
	10-20	Marine Shell	Undifferentiated	-	1.3	211
		Debitage	Volcanic	1	17.7	230
	20-30	No Recovery				
	30-40					
GTP 1	0-80	Marine Shell	Undifferentiated	-	35.7	212
		Pottery Vessel	Tizon Brown Ware	6	15.1	222
		Debitage	Volcanic	10	62.7	231
			Quartzite	2	18.6	232
		Faunal Bone	Undifferentiated	-	1.4	238
		Fire Affected Rock	Volcanic	-	868.5	242
		Ground Stone	Sandstone	1	213.8	243
	80-180	No Recovery				
GTP 2	0-10	No Recovery				
	10-120					
GTP 3	0-75	No Recovery				
	75-140					
	140-270					
GTP 4	0-40	No Recovery				
	40-170					

APPENDIX F

Artifact Catalog



Cat No	Unit Type	Unit No	Depth (cm)	Artifact Class	Object Type	Object Subtype	Modification	Material Type	L (mm)	W (mm)	Th (mm)	Condition	Portion	Qty	Wgt (g)	Comments	Date Exc
1	STP	1	0-10	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	0.40	-	4/19/2017
2	STP	1	10-20	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	1.60	-	4/19/2017
3	STP	1	10-20	Fauna	Bone	-	Unmodified	Large Mammal	-	-	-	Fragment	-	-	0.40	-	4/19/2017
4	STP	1	10-20	Fauna	Marine Shell	-	Unmodified	Tivela sp.	-	-	-	Fragment	-	-	4.90	-	4/19/2017
5	STP	1	10-20	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	3.50	-	4/19/2017
6	STP	1	10-20	Fauna	Marine Shell	-	Unmodified	Pseudochama sp.	-	-	-	Fragment	-	-	4.20	-	4/19/2017
7	STP	1	10-20	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	0.50	-	4/19/2017
8	STP	1	10-20	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	4.20	-	4/19/2017
9	STP	1	10-20	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	3	2.10	-	4/19/2017
10	STP	1	10-20	Flaked Stone	Debitage	-	-	Quartzite	-	-	-	Complete	-	3	6.10	-	4/19/2017
11	STP	1	20-30	Fauna	Bone	-	Unmodified	Medium Mammal	-	-	-	Fragment	-	-	0.37	-	4/19/2017
12	STP	1	20-30	Fauna	Marine Shell	-	Unmodified	Mytilus sp.	-	-	-	Fragment	-	-	1.58	-	4/19/2017
13	STP	1	20-30	Fauna	Marine Shell	-	Unmodified	Pecten sp.	-	-	-	Fragment	-	-	0.14	-	4/19/2017
14	STP	1	20-30	Fauna	Marine Shell	-	Unmodified	Chione sp.	-	-	-	Fragment	-	-	1.07	-	4/19/2017
15	STP	1	20-30	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	2.08	-	4/19/2017
16	STP	1	20-30	Fauna	Marine Shell	-	Unmodified	Pseudochama sp.	-	-	-	Fragment	-	-	1.36	-	4/19/2017
17	STP	1	20-30	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	0.06	-	4/19/2017
18	STP	1	20-30	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	3.46	-	4/19/2017
19	STP	1	20-30	Fire Affected Rock	Fire Affected Rock	-	-	Volcanic	-	-	-	Fragment	-	-	194.80	-	4/19/2017
20	STP	1	30-40	Fauna	Marine Shell	-	Unmodified	Mytilus sp.	-	-	-	Fragment	-	-	8.38	-	4/19/2017
21	STP	1	30-40	Fauna	Marine Shell	-	Unmodified	Tivela sp.	-	-	-	Fragment	-	-	2.72	-	4/19/2017
22	STP	1	30-40	Fauna	Marine Shell	-	Unmodified	Chione sp.	-	-	-	Fragment	-	-	0.13	-	4/19/2017
23	STP	1	30-40	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	2.64	-	4/19/2017
24	STP	1	30-40	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	7.94	-	4/19/2017
25	STP	1	30-40	Fauna	Marine Shell	-	Unmodified	Astrea sp.	-	-	-	Fragment	-	-	0.52	-	4/19/2017
26	STP	1	30-40	Fauna	Marine Shell	-	Unmodified	Lottia sp.	-	-	-	Fragment	-	-	1.29	-	4/19/2017
27	STP	1	30-40	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	2.83	-	4/19/2017
28	STP	1	30-40	Fauna	Bone	-	Unmodified	Small Mammal	-	-	-	Fragment	-	-	0.15	-	4/19/2017
29	STP	1	30-40	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	1.20	-	4/19/2017
30	STP	1	30-40	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	3	5.85	-	4/19/2017
31	STP	1	30-40	Ground Stone	Mano	Unifacial	-	Volcanic	74.1	62.4	64	Fragment	-	1	256.10	-	4/19/2017
32	STP	1	30-40	Fire Affected Rock	Fire Affected Rock	-	-	Volcanic	-	-	-	Fragment	-	-	55.20	-	4/19/2017
33	STP	1	40-50	Fauna	Marine Shell	-	Unmodified	Tivela sp.	-	-	-	Fragment	-	-	9.65	-	4/19/2017
34	STP	1	40-50	Fauna	Marine Shell	-	Unmodified	Pseudochama sp.	-	-	-	Fragment	-	-	3.13	-	4/19/2017
35	STP	1	40-50	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	9.51	-	4/19/2017
36	STP	1	40-50	Fauna	Marine Shell	-	Unmodified	Tegula sp.	-	-	-	Fragment	-	-	2.87	-	4/19/2017
37	STP	1	40-50	Fauna	Marine Shell	-	Unmodified	Mytilus sp.	-	-	-	Fragment	-	-	4.16	-	4/19/2017
38	STP	1	40-50	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	1.82	-	4/19/2017
39	STP	1	40-50	Fauna	Marine Shell	-	Unmodified	Astrea sp.	-	-	-	Fragment	-	-	1.48	-	4/19/2017
40	STP	1	40-50	Fauna	Marine Shell	-	Unmodified	Pecten sp.	-	-	-	Fragment	-	-	2.32	-	4/19/2017
41	STP	1	40-50	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	2.56	-	4/19/2017
42	STP	1	40-50	Fauna	Bone	-	Unmodified	Fish	-	-	-	Fragment	-	-	0.85	-	4/19/2017
43	STP	1	40-50	Fauna	Bone	-	Unmodified	Small Mammal	-	-	-	Fragment	-	-	0.35	-	4/19/2017



Cat No	Unit Type	Unit No	Depth (cm)	Artifact Class	Object Type	Object Subtype	Modification	Material Type	L (mm)	W (mm)	Th (mm)	Condition	Portion	Qty	Wgt (g)	Comments	Date Exc
44	STP	1	40-50	Ceramic	Pottery	Vessel	Etched	Tizon Brown Ware	-	-	-	Fragment	Body	1	4.80	2 fragments refit	4/19/2017
45	STP	1	40-50	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	2.49	-	4/19/2017
46	STP	1	40-50	Flaked Stone	Debitage	-	-	Quartz	-	-	-	Fragment	Distal	1	0.48	-	4/19/2017
47	STP	1	40-50	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	4	2.30	2 fragments refit	4/19/2017
48	STP	1	40-50	Flaked Stone	Debitage	-	-	Quartzite	-	-	-	Complete	-	1	0.33	-	4/19/2017
49	STP	1	50-60	Fauna	Marine Shell	-	Unmodified	Tivela sp.	-	-	-	Fragment	-	-	4.51	-	4/19/2017
50	STP	1	50-60	Fauna	Marine Shell	-	Unmodified	Pseudochama sp.	-	-	-	Fragment	-	-	9.37	-	4/19/2017
51	STP	1	50-60	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	6.64	-	4/19/2017
52	STP	1	50-60	Fauna	Marine Shell	-	Unmodified	Lotia sp.	-	-	-	Fragment	-	-	3.73	-	4/19/2017
53	STP	1	50-60	Fauna	Marine Shell	-	Unmodified	Mytilus sp.	-	-	-	Fragment	-	-	3.47	-	4/19/2017
54	STP	1	50-60	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	0.97	-	4/19/2017
55	STP	1	50-60	Fauna	Marine Shell	-	Unmodified	Astrea sp.	-	-	-	Fragment	-	-	8.10	-	4/19/2017
56	STP	1	50-60	Fauna	Marine Shell	-	Unmodified	Pecten sp.	-	-	-	Fragment	-	-	2.45	-	4/19/2017
57	STP	1	50-60	Fauna	Bone	-	Unmodified	Small Mammal	-	-	-	Fragment	-	-	0.16	-	4/19/2017
58	STP	1	50-60	Flaked Stone	Debitage	-	-	Quartzite	-	-	-	Complete	-	1	1.36	-	4/19/2017
59	STP	1	50-60	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	7	16.00	-	4/19/2017
60	STP	1	50-60	Fire Affected Rock	Fire Affected Rock	-	-	Volcanic	-	-	-	Fragment	-	-	74.20	-	4/19/2017
61	STP	1	60-70	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	1.71	-	4/19/2017
62	STP	1	60-70	Fauna	Marine Shell	-	Unmodified	Mytilus sp.	-	-	-	Fragment	-	-	4.75	-	4/19/2017
63	STP	1	60-70	Fauna	Marine Shell	-	Unmodified	Tivela sp.	-	-	-	Fragment	-	-	2.74	-	4/19/2017
64	STP	1	60-70	Fauna	Marine Shell	-	Unmodified	Pseudochama sp.	-	-	-	Fragment	-	-	39.00	-	4/19/2017
65	STP	1	60-70	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	8.66	-	4/19/2017
66	STP	1	60-70	Fauna	Marine Shell	-	Unmodified	Haliotis sp.	-	-	-	Fragment	-	-	6.96	-	4/19/2017
67	STP	1	60-70	Fauna	Marine Shell	-	Unmodified	Pecten sp.	-	-	-	Fragment	-	-	4.80	-	4/19/2017
68	STP	1	60-70	Fauna	Marine Shell	-	Unmodified	Tegula sp.	-	-	-	Fragment	-	-	0.50	-	4/19/2017
69	STP	1	60-70	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	1.76	-	4/19/2017
70	STP	1	60-70	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body, Rim	3	5.00	Rim: N=1	4/19/2017
71	STP	1	60-70	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	0.67	-	4/19/2017
72	STP	1	60-70	Flaked Stone	Adze	-	-	Volcanic	39.6	37.6	21.9	Complete	-	1	33.00	-	4/19/2017
73	STP	1	70-80	Fauna	Marine Shell	-	Unmodified	Haliotis sp.	-	-	-	Fragment	-	-	11.24	-	4/19/2017
74	STP	1	70-80	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	0.71	-	4/19/2017
75	STP	1	70-80	Fauna	Marine Shell	-	Unmodified	Mytilus sp.	-	-	-	Fragment	-	-	3.84	-	4/19/2017
76	STP	1	70-80	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	4.91	-	4/19/2017
77	STP	1	70-80	Fauna	Marine Shell	-	Unmodified	Pecten sp.	-	-	-	Fragment	-	-	0.44	-	4/19/2017
78	STP	1	70-80	Fauna	Marine Shell	-	Unmodified	Tivela sp.	-	-	-	Fragment	-	-	2.46	-	4/19/2017
79	STP	1	70-80	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	2.87	-	4/19/2017
80	STP	1	70-80	Fauna	Bone	-	Unmodified	Small Fish	-	-	-	Fragment	-	-	1.08	-	4/19/2017
81	STP	1	70-80	Flaked Stone	Debitage	-	-	Quartzite	-	-	-	Complete	-	1	28.70	-	4/19/2017
82	STP	1	70-80	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	3	46.70	-	4/19/2017
83	STP	1	70-80	Fire Affected Rock	Fire Affected Rock	-	-	Volcanic	-	-	-	Fragment	-	-	140.10	-	4/19/2017
84	STP	1	70-80	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	8.15	3 fragments	4/19/2017
85	STP	1	80-90	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	0.51	-	4/19/2017
86	STP	1	80-90	Fauna	Marine Shell	-	Unmodified	Tegula sp.	-	-	-	Fragment	-	-	0.40	-	4/19/2017



Cat No	Unit Type	Unit No	Depth (cm)	Artifact Class	Object Type	Object Subtype	Modification	Material Type	L (mm)	W (mm)	Th (mm)	Condition	Portion	Qty	Wgt (g)	Comments	Date Exc
87	STP	1	80-90	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	2.55	-	4/19/2017
88	STP	1	80-90	Fauna	Marine Shell	-	Unmodified	Mytilus sp.	-	-	-	Fragment	-	-	2.45	-	4/19/2017
89	STP	1	80-90	Fauna	Marine Shell	-	Unmodified	Tivela sp.	-	-	-	Fragment	-	-	3.02	-	4/19/2017
90	STP	1	80-90	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	2.14	-	4/19/2017
91	STP	1	80-90	Fauna	Bone	-	Unmodified	Mammal	-	-	-	Fragment	-	-	0.12	-	4/19/2017
92	STP	1	80-90	Ceramic	Pottery	Vessel	Etched	Tizon Brown Ware	-	-	-	Fragment	Body	1	2.26	-	4/19/2017
93	STP	1	80-90	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	0.76	-	4/19/2017
94	STP	1	80-90	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	1	3.42	-	4/19/2017
95	STP	1	80-90	Fire Affected Rock	Fire Affected Rock	-	-	Volcanic	-	-	-	Fragment	-	-	276.90	-	4/19/2017
96	STP	1	90-100	Fauna	Marine Shell	-	Unmodified	Lotia sp.	-	-	-	Fragment	-	-	0.59	-	4/19/2017
97	STP	1	90-100	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	3.46	-	4/19/2017
98	STP	1	90-100	Fauna	Marine Shell	-	Unmodified	Tivela sp.	-	-	-	Fragment	-	-	4.01	-	4/19/2017
99	STP	1	90-100	Fauna	Marine Shell	-	Unmodified	Pecten sp.	-	-	-	Fragment	-	-	0.72	-	4/19/2017
100	STP	1	90-100	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	0.48	-	4/19/2017
101	STP	1	90-100	Fauna	Marine Shell	-	Unmodified	Mytilus sp.	-	-	-	Fragment	-	-	0.20	-	4/19/2017
102	STP	1	90-100	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	1.44	-	4/19/2017
103	STP	1	90-100	Modified Shell	Bead	Spire-ground	-	Olivella sp.	19.1	11.1	9.42	Complete	-	1	1.23	-	4/19/2017
104	STP	1	90-100	Fauna	Bone	-	Unmodified	Mammal	-	-	-	Fragment	-	-	6.36	-	4/19/2017
105	STP	1	90-100	Flaked Stone	Debitage	-	-	Quartzite	-	-	-	Complete	-	2	42.50	-	4/19/2017
106	STP	1	90-100	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	1	0.38	-	4/19/2017
107	STP	1	90-100	Fire Affected Rock	Fire Affected Rock	-	-	Volcanic	-	-	-	Fragment	-	-	1.27	-	4/19/2017
108	STP	1	100-110	Fauna	Marine Shell	-	Unmodified	Pecten sp.	-	-	-	Fragment	-	-	0.12	-	4/19/2017
109	STP	1	100-110	Fauna	Marine Shell	-	Unmodified	Pseudochama sp.	-	-	-	Fragment	-	-	2.54	-	4/19/2017
110	STP	1	100-110	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	0.34	-	4/19/2017
111	STP	1	100-110	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	1.85	-	4/19/2017
112	STP	1	100-110	Fauna	Marine Shell	-	Unmodified	Lotia sp.	-	-	-	Fragment	-	-	0.86	-	4/19/2017
113	STP	1	100-110	Fauna	Marine Shell	-	Unmodified	Tivela sp.	-	-	-	Fragment	-	-	2.92	-	4/19/2017
114	STP	1	100-110	Fauna	Marine Shell	-	Unmodified	Mytilus sp.	-	-	-	Fragment	-	-	2.82	-	4/19/2017
115	STP	1	100-110	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	2.57	-	4/19/2017
116	STP	1	100-110	Fauna	Bone	-	Unmodified	Small Mammal	-	-	-	Fragment	-	-	0.43	-	4/19/2017
117	STP	1	100-110	Flaked Stone	Debitage	-	-	Metavolcanic	-	-	-	Fragment	Proximal	1	0.17	-	4/19/2017
118	STP	1	100-110	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	6.72	2 fragments	4/19/2017
119	STP	1	100-110	Fire Affected Rock	Fire Affected Rock	-	-	Volcanic	-	-	-	Fragment	-	-	77.00	-	4/19/2017
120	STP	1	110-120	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	4.88	-	4/19/2017
121	STP	1	110-120	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	6.32	-	4/19/2017
122	STP	1	110-120	Fauna	Marine Shell	-	Unmodified	Tivela sp.	-	-	-	Fragment	-	-	1.39	-	4/19/2017
123	STP	1	110-120	Fauna	Marine Shell	-	Unmodified	Pecten sp.	-	-	-	Fragment	-	-	0.14	-	4/19/2017
124	STP	1	110-120	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	2.45	-	4/19/2017
125	STP	1	110-120	Flaked Stone	Debitage	-	-	Quartzite	-	-	-	Complete	-	1	0.50	-	4/19/2017
126	STP	1	110-120	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	1	0.15	-	4/19/2017
127	STP	1	110-120	Fire Affected Rock	Fire Affected Rock	-	-	Granite	-	-	-	Fragment	-	-	11.85	-	4/19/2017



Cat No	Unit Type	Unit No	Depth (cm)	Artifact Class	Object Type	Object Subtype	Modification	Material Type	L (mm)	W (mm)	Th (mm)	Condition	Portion	Qty	Wgt (g)	Comments	Date Exc
128	STP	1	120-130	Fauna	Marine Shell	-	Unmodified	Tivela sp.	-	-	-	Fragment	-	-	1.14	-	4/19/2017
129	STP	1	120-130	Fauna	Marine Shell	-	Unmodified	Pecten sp.	-	-	-	Fragment	-	-	0.15	-	4/19/2017
130	STP	1	120-130	Fauna	Marine Shell	-	Unmodified	Haliotis sp.	-	-	-	Fragment	-	-	4.40	-	4/19/2017
131	STP	1	120-130	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	0.60	-	4/19/2017
132	STP	1	120-130	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	1.09	-	4/19/2017
133	STP	1	120-130	Fauna	Marine Shell	-	Unmodified	Tegula sp.	-	-	-	Fragment	-	-	0.83	-	4/19/2017
134	STP	1	120-130	Fauna	Bone	-	Unmodified	Small Mammal	-	-	-	Fragment	-	-	0.29	-	4/19/2017
135	STP	1	120-130	Flaked Stone	Debitage	-	-	Quartzite	-	-	-	Fragment	Distal	1	0.95	-	4/19/2017
136	STP	2	0-10	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	0.68	-	4/19/2017
137	STP	2	0-10	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	2	2.07	-	4/19/2017
138	STP	2	10-20	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	0.20	-	4/19/2017
139	STP	2	20-30	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	0.55	-	4/19/2017
140	STP	2	30-40	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	0.23	-	4/19/2017
141	STP	2	40-50	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	0.60	-	4/19/2017
142	STP	2	40-50	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	4.24	-	4/19/2017
143	STP	2	50-60	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	1.81	-	4/19/2017
144	STP	3	0-10	Fauna	Marine Shell	-	Unmodified	Tegula sp.	-	-	-	Fragment	-	-	0.41	-	4/19/2017
145	STP	3	0-10	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	0.09	-	4/19/2017
146	STP	3	0-10	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	0.29	-	4/19/2017
147	STP	3	10-20	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	3.36	-	4/19/2017
148	STP	3	10-20	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	0.68	-	4/19/2017
149	STP	3	10-20	Fauna	Marine Shell	-	Unmodified	Haliotis sp.	-	-	-	Fragment	-	-	0.23	-	4/19/2017
150	STP	3	10-20	Fauna	Marine Shell	-	Unmodified	Pseudochama sp.	-	-	-	Fragment	-	-	2.95	-	4/19/2017
151	STP	3	10-20	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	0.59	-	4/19/2017
152	STP	3	20-30	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	2.34	-	4/19/2017
153	STP	3	20-30	Fauna	Marine Shell	-	Unmodified	Astrea sp.	-	-	-	Fragment	-	-	3.35	-	4/19/2017
154	STP	3	20-30	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	0.85	-	4/19/2017
155	STP	3	20-30	Fauna	Marine Shell	-	Unmodified	Haliotis sp.	-	-	-	Fragment	-	-	0.38	-	4/19/2017
156	STP	3	20-30	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	1.38	-	4/19/2017
157	STP	3	20-30	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	2.18	-	4/19/2017
158	STP	3	20-30	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	3.40	-	4/19/2017
159	STP	3	20-30	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	2	28.10	-	4/19/2017
160	STP	3	30-40	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	0.41	-	4/19/2017
161	STP	3	30-40	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	0.34	-	4/19/2017
162	STP	3	30-40	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	0.25	-	4/19/2017
163	STP	3	40-50	Fauna	Marine Shell	-	Unmodified	Chiton sp.	-	-	-	Fragment	-	-	0.93	-	4/19/2017
164	STP	3	40-50	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	0.36	-	4/19/2017
165	STP	3	40-50	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	1.09	-	4/19/2017
166	STP	3	40-50	Flaked Stone	Angular Hammer	-	-	Volcanic	83.5	61.7	47.4	Complete	-	1	267.00	-	4/19/2017
167	STP	3	50-60	Fauna	Marine Shell	-	Unmodified	Donax sp.	-	-	-	Fragment	-	-	0.14	-	4/19/2017
168	STP	3	50-60	Fauna	Marine Shell	-	Unmodified	Unidentifiable	-	-	-	Fragment	-	-	1.19	-	4/19/2017
169	STP	3	50-60	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	1	4.09	-	4/19/2017
170	STP	3	50-60	Fire Affected Rock	Fire Affected Rock	-	-	Volcanic	-	-	-	Fragment	-	-	120.10	-	4/19/2017



Cat No	Unit Type	Unit No	Depth (cm)	Artifact Class	Object Type	Object Subtype	Modification	Material Type	L (mm)	W (mm)	Th (mm)	Condition	Portion	Qty	Wgt (g)	Comments	Date Exc
171	STP	4	10-20	Fire Affected Rock	Fire Affected Rock	-	-	Granite	-	-	-	Fragment	-	-	59.18	-	10/21/2021
172	STP	4	20-30	Fire Affected Rock	Fire Affected Rock	-	-	Volcanic	-	-	-	Fragment	-	-	54.02	-	10/21/2021
173	STP	4	20-30	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	5.87	-	10/21/2021
174	STP	4	30-40	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	1.30	-	10/21/2021
175	STP	4	30-40	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	8.26	-	10/21/2021
176	STP	4	40-50	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	7.42	-	10/21/2021
177	STP	4	50-60	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	3.08	-	10/21/2021
178	STP	6	0-10	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	3.58	-	10/21/2021
179	STP	6	10-20	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	16.21	-	10/21/2021
180	STP	6	10-20	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	3	14.16	-	10/21/2021
181	STP	6	10-20	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	3.50	-	10/21/2021
182	STP	6	10-20	Fire Affected Rock	Fire Affected Rock	-	-	Granite	-	-	-	Fragment	-	-	32.12	-	10/21/2021
183	STP	6	10-20	Fauna	Bone	-	Unmodified	Fish	-	-	-	Fragment	-	-	0.26	-	10/21/2021
184	STP	7	0-10	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	3	21.60	-	10/21/2021
185	STP	7	10-20	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	1.34	-	10/21/2021
186	STP	7	10-20	Fire Affected Rock	Fire Affected Rock	-	-	Granite	-	-	-	Fragment	-	-	186.67	-	10/21/2021
187	STP	7	20-30	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	10.09	-	10/21/2021
188	STP	7	20-30	Fauna	Bone	-	Unmodified	Very Small Mammal	-	-	-	Fragment	-	-	0.04	-	10/21/2021
189	STP	7	30-40	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	2.70	-	10/21/2021
190	STP	7	30-40	Fire Affected Rock	Fire Affected Rock	-	-	Granite	-	-	-	Fragment	-	-	43.45	-	10/21/2021
191	STP	7	30-40	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	1	10.44	-	10/21/2021
192	STP	6	30-40	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	3.64	-	10/21/2021
193	STP	6	20-30	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	10.07	-	10/21/2021
194	STP	6	20-30	Flaked Stone	Debitage	-	-	Granite	-	-	-	Complete	-	1	11.66	-	10/21/2021
195	STP	6	30-40	Flaked Stone	Debitage	-	-	Quartzite	-	-	-	Complete	-	1	28.30	-	10/21/2021
196	STP	8	0-10	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	0.18	-	10/21/2021
197	STP	8	10-20	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	0.61	-	10/21/2021
198	STP	8	20-30	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	0.59	-	10/21/2021
199	STP	8	30-40	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	6.17	-	10/21/2021
200	STP	8	40-50	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	26.89	-	10/21/2021
201	STP	8	50-60	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	3.75	-	10/21/2021
202	STP	8	60-70	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	8.55	-	10/21/2021
203	STP	9	10-20	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	1.22	-	10/21/2021
204	STP	9	20-30	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	6.81	-	10/21/2021
205	STP	9	30-40	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	4.95	-	10/21/2021
206	STP	9	40-50	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	1.88	-	10/21/2021
207	STP	9	50-60	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	5.58	-	10/21/2021
208	STP	9	60-70	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	5.22	-	10/21/2021
209	STP	9	70-80	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	46.36	-	10/21/2021
210	STP	10	0-10	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	0.09	-	10/21/2021



Cat No	Unit Type	Unit No	Depth (cm)	Artifact Class	Object Type	Object Subtype	Modification	Material Type	L (mm)	W (mm)	Th (mm)	Condition	Portion	Qty	Wgt (g)	Comments	Date Exc
211	STP	10	10-20	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	1.34	-	10/21/2021
212	GTP	1	0-80	Fauna	Marine Shell	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	35.67	-	10/21/2021
213	STP	8	0-10	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	1.29	-	10/21/2021
214	STP	8	30-40	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	1.23	-	10/21/2021
215	STP	8	40-50	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	3	7.31	-	10/21/2021
216	STP	8	50-60	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	2.05	-	10/21/2021
217	STP	8	60-70	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	2	8.83	-	10/21/2021
218	STP	9	20-30	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	1.34	-	10/21/2021
219	STP	9	50-60	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	1	3.48	-	10/21/2021
220	STP	9	70-80	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	3	0.95	-	10/21/2021
221	STP	10	0-10	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	2	10.31	-	10/21/2021
222	GTP	1	0-80	Ceramic	Pottery	Vessel	Unmodified	Tizon Brown Ware	-	-	-	Fragment	Body	6	15.07	-	10/21/2021
223	STP	8	10-20	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	1	3.10	-	10/21/2021
224	STP	8	20-30	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	6	14.91	-	10/21/2021
225	STP	8	20-30	Flaked Stone	Debitage	-	-	Metavolcanic	-	-	-	Complete	-	1	2.75	-	10/21/2021
226	STP	8	20-30	Flaked Stone	Debitage	-	-	Quartzite	-	-	-	Complete	-	1	1.63	-	10/21/2021
227	STP	8	40-50	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	2	3.29	-	10/21/2021
228	STP	9	30-40	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	1	3.40	-	10/21/2021
229	STP	9	70-80	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	9	5.32	-	10/21/2021
230	STP	10	10-20	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	1	17.73	-	10/21/2021
231	GTP	1	0-80	Flaked Stone	Debitage	-	-	Volcanic	-	-	-	Complete	-	10	62.73	-	10/21/2021
232	GTP	1	0-80	Flaked Stone	Debitage	-	-	Quartzite	-	-	-	Complete	-	2	18.57	-	10/21/2021
233	STP	8	30-40	Fauna	Bone	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	1.34	-	10/21/2021
234	STP	8	40-50	Fauna	Bone	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	1.05	-	10/21/2021
235	STP	8	50-60	Fauna	Bone	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	0.60	-	10/21/2021
236	STP	8	60-70	Fauna	Bone	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	0.38	-	10/21/2021
237	STP	9	70-80	Fauna	Bone	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	4.43	-	10/21/2021
238	GTP	1	0-80	Fauna	Bone	-	Unmodified	Undifferentiated	-	-	-	Fragment	-	-	1.44	-	10/21/2021
239	STP	8	30-40	Fire Affected Rock	Fire Affected Rock	-	-	Sandstone	-	-	-	Fragment	-	-	27.84	-	10/21/2021
240	STP	8	40-50	Fire Affected Rock	Fire Affected Rock	-	-	Granite	-	-	-	Fragment	-	-	89.06	-	10/21/2021
241	STP	8	60-70	Fire Affected Rock	Fire Affected Rock	-	-	Volcanic	-	-	-	Fragment	-	-	227.93	-	10/21/2021
242	GTP	1	0-80	Fire Affected Rock	Fire Affected Rock	-	-	Volcanic	-	-	-	Fragment	-	-	868.47	-	10/21/2021
243	GTP	1	0-80	Ground Stone	Ground Stone	-	-	Sandstone	87.3	52	47.6	Fragment	-	1	213.81	-	10/21/2021

STP: Shovel Test Pit

GTP: Geotechnical Test Pit

APPENDIX G

Confidential Maps

(Deleted for Public Review; Bound Separately)