

APPENDIX C

CULTURAL RESOURCES REPORTS

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HISTORIC RESOURCES ASSESSMENT

**CALIFORNIA STATE UNIVERSITY, LONG BEACH
TECHNOLOGY PARK PHASE III PROJECT**

**ASSESSOR'S PARCEL NUMBERS 7402-021-020, 7402-021-021, 7402-021-029, 7402-021-031, 7402-021-032, 7402-021-033, 7402-021-044, AND
7402-021-045**

CITY OF LONG BEACH

LOS ANGELES COUNTY, CALIFORNIA

LSA

August 2017

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CITY OF LONG BEACH

LOS ANGELES COUNTY, CALIFORNIA

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LSA Project No. CLB1704



August 2017

MANAGEMENT SUMMARY

LSA Associates, Inc. (LSA) was retained by Long Beach Development Services to conduct a historic resources assessment of the California State University, Long Beach (CSULB) Technology Park Phase III Project (Assessor's Parcel Numbers [APNs] 7402-021-020, 7402-021-021, 7402-021-029, 7402-021-031, 7402-021-032, 7402-021-033, 7402-021-044, and 7402-021-045) located on the west side of the centerline of Cota Avenue between 20th Street and Pacific Coast Highway (PCH) in the City of Long Beach, Los Angeles County, California. The proposed project includes 205,300 square feet of warehousing land use, which includes approximately 20,000 square feet of office (including 10,000 square feet of proposed mezzanine office). There are two proposed alternatives for the project. Alternative 1 proposes to develop the building for occupation by a single tenant, with access to PCH provided via two driveways. Access will also be provided to Technology Place. Only egress will be permitted onto Cota Avenue.

Alternative 2 proposes to develop the building for occupation by two tenants with equal square footage. Access to PCH will be provided via two driveways. Access will also be provided to Technology Place. Full access will be provided onto Cota Avenue.

The City of Long Beach (City) as Lead Agency for the project required this study as part of the environmental review process to comply with the California Environmental Quality Act (CEQA). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any historical resources that may exist in or around the project area, as mandated by CEQA.

In 2013, LSA conducted a similar study for a different project that was to be located on the same site. As a result of that study, one historic-period (50 years of age or older) resource (the former gas meter building) was documented and evaluated for significance using the criteria for listing in the California Register of Historical Resources (California Register) and the City's criteria for designation as a local Landmark (Title 2, Chapter 2.63 of the City's Municipal Code). The former gas building was determined ineligible and not a historical resource pursuant to CEQA due to lack of integrity.

As part of this study, LSA conducted additional archival research and a subsequent intensive-level field survey of the entire project area to identify any additional resources that now meet the age threshold of 50 years or older. As a result of these efforts, two office buildings and three covered carports were identified, documented, and evaluated as a part of this study. The buildings and structures have sustained alterations, retain a low level of architectural integrity, and do not meet either the California Register or the City's Historic Landmark criteria. Therefore, the property is not a historical resource pursuant to CEQA and LSA recommends to the City a finding of *No Impact* regarding historic-period built environment resources. No further historic resources investigation is recommended for the project unless the development plans change to include areas not covered by this study.

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APPENDIX

A: DPR SITE RECORDS

INTRODUCTION

LSA is under contract to the City of Long Beach (City) to conduct a cultural resources study of the California State University, Long Beach (CSULB) Technology Park Phase III project (Assessor's Parcel Numbers [APNs] 7402-021-020, 7402-021-021, 7402-021-029, 7402-021-031, 7402-021-032, 7402-021-033, 7402-021-044, and 7402-021-045) in the City of Long Beach (Figure 1). The 9.88-acre project area is developed with two buildings made up of four units each, three covered carport buildings, a parking lot, a former gas meter building, and vacant lots. The project area is transected by Technology Place (formerly West 19th Street). Figure 2 shows the layout of the built environment features. All buildings and the parking lot are proposed to be removed to facilitate development of the property with either a new, approximately 20,000-square foot building (Alternative 1) or two approximately 10,000-square foot buildings (Alternative 2).

This cultural resources assessment was completed pursuant to CEQA, Public Resources Code (PRC) Chapter 2.6, Section 21083.2 and 21084.1, and California Code of Regulations (CCR) Title 14, Chapter 3, Article 5, Section 15064.5.

The project area is located on the west side of the centerline of Cota Avenue between 20th Street and Pacific Coast Highway in southern Los Angeles County, California, in an unsectioned portion of Township 4 South, Range 13 West, San Bernardino Baseline and Meridian, as shown on the 1981 U.S. Geological Survey (USGS) *Long Beach, California* 7.5-minute topographic quadrangle.

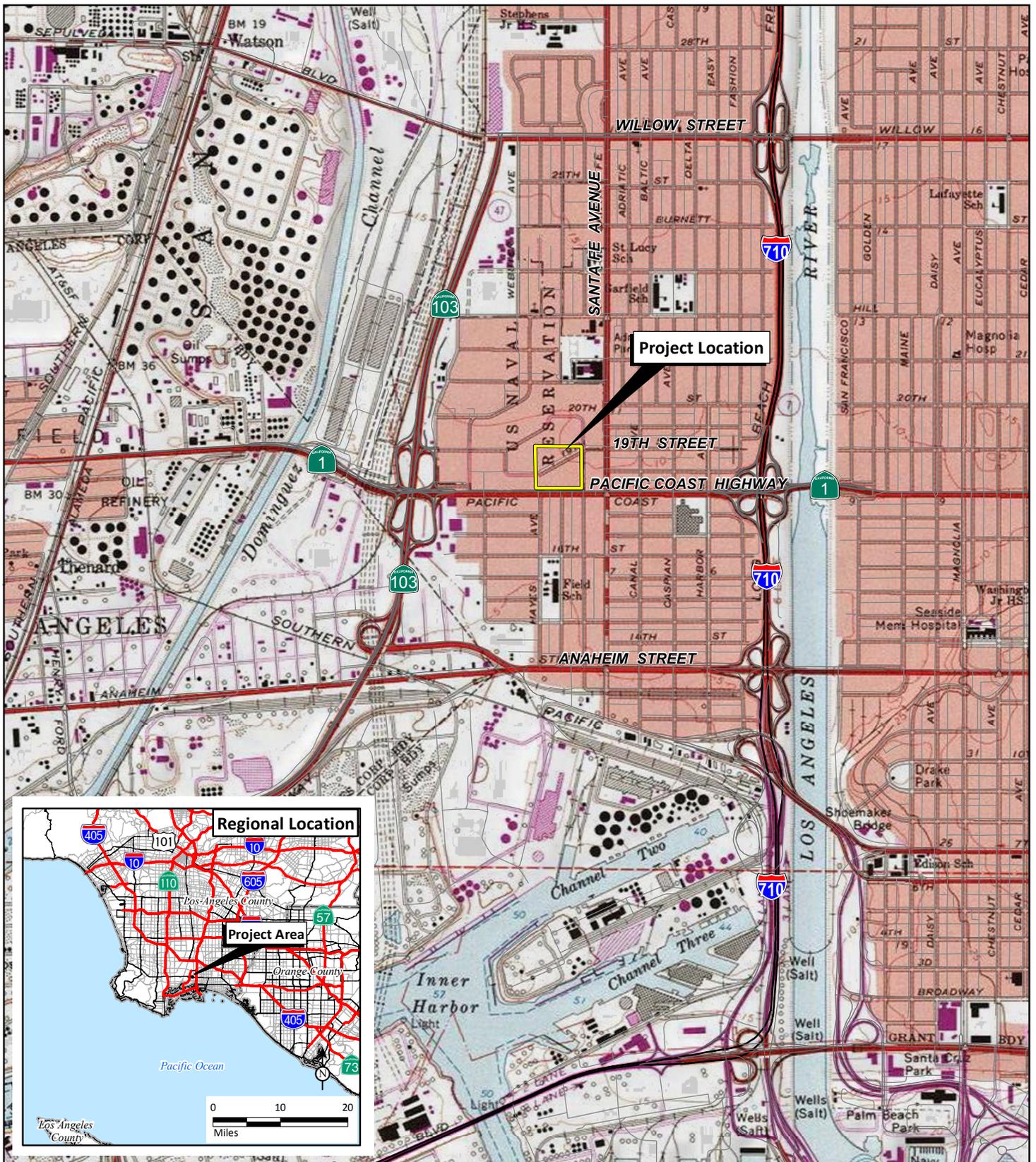
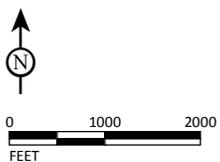


FIGURE 1

LSA



California State University, Long Beach
 Technology Park Phase III
 Historical Resources Assessment
 Regional and Project Location

SOURCE: USGS 7.5' Quad: Long Beach (81), CA; ESRI Streetmap, 2013/Riverside County, 2015.

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FIGURE 2

LSA

Legend

 Project Boundary



0 100 200
FEET

SOURCE: Bing Aerial, 2016.

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California State University, Long Beach
Technology Park Phase III
Historical Resources Assessment

Project Aerial

HISTORICAL OVERVIEW

The earliest known occupants of Long Beach were Native Americans. The Gabrielino tribe, named after the Mission San Gabriel, occupied nearly the entire basin and coastline comprising the Counties of Long Angeles and Orange (Bean and Smith 1978: 538).

The first Europeans, namely Spanish explorers and missionaries, arrived in the present-day Long Beach area in the late 18th century. In 1771, the Mission San Gabriel Arcángel was established, beginning the rapid decline of the Gabrielino population and ushering in what became known as the Spanish/Mission (1769–1821) and Mexican/Rancho (1821 to 1848) periods in California history (Bean and Smith 1978: 540–541).

During the Spanish and subsequent Mexican control, the southern portion of present-day Los Angeles County was divided into several land grants (Beck and Haase 1974:24). In 1784, Pedro Fages, the Spanish governor of California, granted 300,000 acres to a Spanish soldier by the name of Manuel Nieto (Sapphos Environmental, Inc. 2009:32). Following his death in 1804, the land grant, known as Los Coyotes, passed to Nieto's heirs and, in 1834, was divided into five smaller ranchos. Two of these new ranchos, Rancho Los Alamitos and Rancho Los Cerritos, encompassed the majority of what now comprises the City of Long Beach (Hoover et al. 2002:156). Both of these ranchos dealt primarily in cattle, changing hands several times over the next two decades.

California became a territory of the United States in 1848 and the 31st state in the Union in 1850 (Hayes 2007:87, 102). By the late 1870s, both Rancho Los Alamitos and Rancho Los Cerritos were purchased by members of the Bixby family, who continued to operate the properties as ranches well into the early 20th century. The land was primarily used for sheep ranching, dairy farms, and for growing beans, barley, and alfalfa (Beck and Haase 1974:71; Sapphos Environmental, Inc. 2009:33).

However, starting in the 1870s, the Bixby family slowly started selling off lots along the Los Angeles River, facilitating settlement by farmers and smaller families (Sapphos Environmental, Inc. 2009:34). The new Cerritos and American Colonies, along with the American Colony's town site of Willmore City, were established and began advertising the area's fertile soil and beautiful beaches, hoping to attract both settlement and tourists (Gudde 1998: 215). Despite the colonies' favorable location, they ultimately struggled to attract a large number of permanent residents (Schipske 2011:25).

In 1884, the American Colony was purchased by a San Francisco real estate firm by the name of Pomeroy and Mills, who subsequently became the Long Beach Land and Water Company and renamed the colony and Willmore City Long Beach after the area's long, wide beaches (Gudde 1998:215). Under this new leadership, Long Beach began to prosper. "Further growth was spurred by expansion of the national and regional railroad network," which "sparked unprecedented interest in Southern California" and "[created] a land speculation fever that spread wildly during the late 1800s" (Sapphos Environmental, Inc. 2009:35-36). With a population of approximately 800, the City of Long Beach was incorporated on February 10, 1888 (Guinn 1915:448).

Despite the eventual collapse of the real estate boom, Long Beach continued to expand, strengthened by developers' investments into infrastructure and commercial ventures and the

burgeoning tourist industry, which continued to draw visitors to the seaside resorts, pavilions, and pleasure wharf (Grobaty 2012:24).

In 1905, the Los Angeles Dock and Terminal Company purchased the 800 acres of marshland that had been included in the original sale of the town to the Long Beach Development Company and began to improve the area in preparation for shipping (Guinn 1915:449). The harbor was dredged, a 1,400-foot turning basin and three channels were created, and a 500-foot municipal wharf was constructed (Sapphos Environmental, Inc. 2009:39). Over the next two decades, improvements to the new harbor continued, including the further dredging of the channels and construction of docks, landings, warehouses, and a 7,000-foot breakwater. By 1930, Long Beach harbor was handling one million tons of cargo each year (White 2009:34).

While seaside tourism and shipping industries continued to grow, commerce in Long Beach shifted drastically after the discovery of oil in Signal Hill in 1921 (Grobaty 2012:24). Ownership, production, and sale of oil came to dominate Long Beach's economy. Over the next five years, the City's population more than doubled due to an influx of people hoping to find work in the oil industry. This in turn caused a building boom, as well as a dependence on the City's port to export its resources (Sapphos Environmental, Inc. 2009:45). By the 1930s, oil production soared to over 225 million barrels (Schipske 2011:10).

Unlike most cities during the 1930s, Long Beach's steady growth and prosperity was only mildly tempered during the Great Depression thanks to its thriving oil, shipping, and manufacturing industries. By this time, the City boasted "over 145,000 residents, a thriving municipal harbor and airport, city-owned gas and water systems, 448.28 acres of parks, a main library and six branches, 34 schools and a junior college, 65 churches, 12 banks, 3 transcontinental railroads connecting with the harbor, and 1 electric interurban railway and 3 automobile bus lines providing transportation in the city" (Schipske 2011:10).

However, on the evening of March 10, 1933, a 6.4-magnitude earthquake rocked the City, toppling masonry buildings, shaking houses off their foundations, disabling the City's natural gas service, and damaging or weakening countless structures (Grobaty 2012:149). "In the wake of the disaster, reconstruction was financed with federal grants and loans, which, coupled with the activity generated through rebuilding, rejuvenated the local economy" (Sapphos Environmental, Inc. 2009:47).

The rise in the defense industry, which first established a strong presence in the area in 1919 when the United States Navy announced its decision to make the Port of Long Beach the official headquarters for its new Pacific fleet, also helped stabilize the local economy (Sapphos Environmental, Inc. 2009:159). In 1941, with the United States entry into the World War II (WWII) looming, the Roosevelt Naval Base, shipyard, and hospital were constructed, as well as an 8.9-mile breakwater, which created 30 square miles of protected anchorage (Sapphos Environmental, Inc. 2009:48). The military and war efforts created thousands of new jobs, attracting workers to Long Beach from all over the country (Sapphos Environmental, Inc. 2009:160).

The rapid war-related growth in Long Beach resulted in a shortage of affordable housing for enlisted Navy personnel and defense workers (Hector et al. 1993:18). Unfinished low-rent housing projects, including the Cabrillo Housing complex, of which the project area was a part, initially authorized by the 1937 U.S. Housing Act were quickly converted from public housing to defense housing (Sapphos Environmental, Inc. 2009:114; Lybargers Long Beach Harbor Tract Map 1907). By 1945, the City had eleven military and defense worker housing facilities (Hector et al. 1993:22). Many of the housing facilities were located in western Long Beach where the project area is located. The Savannah Naval Housing facility was located immediately north of the Cabrillo Housing complex.

At the end of WWII, nearly 13 million veterans returned to the U.S. looking to buy homes and start families. Residential development in Long Beach exploded, resulting in the acquisition of an additional 9.8 square miles of land to the City for subdivisions (Sapphos Environmental, Inc. 2009: 49).

However, “by the late 1950s and early 1960s, military downsizing and the addition of tourist attractions such as Disneyland and Knott’s Berry Farm in neighboring communities began to draw visitors away from Long Beach and caused its own residents to seek diversion in other Southern California cities” (Sapphos Environmental, Inc. 2009:50). This, combined with the rise in suburban living and the construction of freeways, pushed populations away from the downtown area and buildings were neglected or demolished to make way for urban renewal projects. Over the next three decades, groups struggled to revitalize Long Beach’s downtown area. “Despite an increasing interest in preservation on the part of the public, redevelopment efforts in the 1980s continued to result in the loss of historic buildings” (Sapphos Environmental, Inc. 2009:51). In the 1990s, Long Beach saw several major redevelopment projects, the construction of the Aquarium of the Pacific, and the renovation of the waterfront area, as well as a concerted preservation effort to rehabilitate its downtown area (Hoover et al 2002:173).

“As of 2008, the City spans 50 square miles and is home to 461,564 people, making it the fifth most populous city in California. The economy is supported by a variety of industries, including aerospace manufacturing, shipping, and education. The Port of Long Beach is the busiest port on the West Coast, handling more cargo tonnage than any other western harbor. In addition, the City maintains a healthy tourist economy, which welcomes more than 5 million visitors annually” (Sapphos Environmental, Inc. 2009:51).

METHODS

ARCHIVAL RESEARCH

LSA completed archival research during the months of February 2013 and June 2017. Research methodology focused on the review of a variety of primary and secondary source materials relating to the history and development of the project area. Sources included, but were not limited to, online sources, published literature in local and regional history, historic aerial photographs, historic maps, and information provided by the City. Primary historical themes included the property's association with the Cabrillo Naval Housing complex.

Some of the repositories and individuals contacted for this project are provided below. A complete list of all references is included at the end of this report.

- City of Long Beach Permit Center.
- City of Long Beach Public Works Department.
- Long Beach Public Library.
- Greg Armento, reference librarian for CSULB.
- Long Beach Historical Society.
- Maureen Neeley, HouStories.
- Claudine Barnett, former librarian.
- Stephanie Spika, Long Beach Public Library librarian.

ARCHITECTURAL FIELD SURVEY

On February 18, 2013, and June 8, 2017, LSA Architectural Historian Elisa Bechtel conducted intensive-level architectural surveys. During the surveys, Ms. Bechtel took numerous photographs of the exteriors of each of the buildings, as well as other features such as the carports and the former gas meter building. In addition, she made detailed notations regarding the structural and architectural characteristics and current conditions of the buildings and their associated features. She also conducted a brief reconnaissance survey of the immediate vicinity.

RESULTS

ARCHIVAL RESEARCH

Based on archival research, the following historic context information relevant to the project area was developed.

World War II: Cabrillo Housing Project

“With the increasing importance of the Long Beach Harbor, the U.S. Navy designated Long Beach as the headquarters for its new Pacific Fleet in 1919. By the late 1920s, more than 3,000 officers and enlisted men were stationed in Long Beach. By 1932, the U.S. Navy added 50 ships to Long Beach Harbor and approximately 8,500 servicemen. This population spike created a strong demand for housing” (Sapphos Environmental, Inc. 2009:46).

Initial requests by Navy officials to construct inexpensive housing for its personnel were rejected by City officials, who feared that low-cost housing would negatively affect Long Beach’s reputation as an affluent community and seaside resort. However, with WWII looming, the Navy’s influence in the City was too great to ignore, and in 1938, the Long Beach City Planning Commission submitted requests to the Housing Authority of the County of Los Angeles to begin construction (Sapphos Environmental, Inc. 2009:113).

Construction of a 40-acre housing development now known as Savannah Family Housing was begun in late 1940 by the J.V. McNeil Company of Los Angeles on property located north of the project area (*Long Beach Press Telegram* 1941). Shortly after the Savannah project was completed, the federal government requested another parcel of approximately 100 acres for construction of the Cabrillo Family Housing facility, which would extend south from Savannah’s southern boundary (20th Street) to Pacific Coast Highway, encompassing the project area (Hector et al. 1993:22). This area had formerly been subdivided as part of Lybargers Long Beach Harbor Tract Map (Mapbook 12-146-147) in 1907 into lots with a typical size of 5,200 square feet (Hector et al. 1993:22; Lybargers Long Beach Harbor Tract Map 1907). The only building remaining in the project area from this period of Navy development is the former gas meter building, built in 1942 and located in the northeast part of the project area. By the end of the war, Long Beach would boast approximately 5,100 units of public housing, comprising apartments, trailers, or Quonset huts, spread across 11 separate facilities (McBryde 1944).

In 1960, 1,983 Navy housing units in the Long Beach area were listed as substandard and 1,583 were slated for demolition by 1965 pursuant to the Landham Act (*The Independent* 1962a). Congress then partially approved the Navy’s request for construction of 1,500 new units to replace those demolished (*The Independent* 1962a and 1962b). A 1993 cultural resources report, which includes the current project area, states that most of the buildings associated with the Cabrillo Housing Project that were evaluated as part of the 1993 study are modern multifamily units built in 1965, 1966, and 1968 (Hector et al. 1993:30). Historic aerials also support the argument that the two four-unit buildings and the three carport buildings within the current project boundaries were built after 1965 as replacements for units demolished in 1965 (Figures 3 and 4; Historic Aerials 1963 and 1972).

With the exception of the former gas meter building, the buildings currently within the project area do not appear on the 1963 historic aerial. However, they do appear in the 1972 historic aerials where the 1940s buildings once stood. City directories also show a reorganization of addresses that coincide with the periods of demolition and construction of these new units, reinforcing the idea that the four-unit and carport buildings date to the mid- to late 1960s (City Directory 1965, 1966, and 1968). Therefore, the two multi-unit buildings and the three carports are not associated with the WWII theme but rather the Naval facility's postwar period.

In 1991, the Department of Defense notified the City of Long Beach that it was going to close three Naval facilities in the City: the Cabrillo and Savannah Naval Housing facilities, the Naval hospital, and a portion of the Naval station at the port (California State University, Long Beach Foundation 2012).



Figure 3: Project area in 1963.

Map is oriented to the north and multi-unit buildings and carports are not extant. (Source: HistoricAerials.com)



Figure 4: Project area in 1972.

Map is oriented to the north and shows the two multi-unit buildings and carport buildings. (Source: HistoricAerials.com)

In 1993, the Committee on Armed Services of the House of Representatives passed a bill providing for the transfer of the Cabrillo site to the City, with the understanding that the site would then be subsequently transferred to the CSULB Foundation (California State University, Long Beach Foundation 2012). It was officially transferred to the City in 1996 and redevelopment of the land soon began. Twenty-six acres were utilized for the establishment of the Villages at Cabrillo, which provides housing for the homeless, as well as 17 acres for the Job Corps Training Center, which lies to the north of the project area (California State University, Long Beach Foundation 2012).

Over the next four years, the CSULB Foundation received grants for \$5,800,000 from the U.S. Department of Commerce, which it used to demolish the remaining post-1965 housing units and prepare the land for construction of CSULB's Technology Park, which is situated west of the project area. The CSULB Foundation then renovated 12,000 square-feet of building space (the two four-unit buildings) in the project area, half of which it leased to the Cole Vocational Center and the other half it offered free of charge to house a job-incubator use. The Long Beach Enterprise Center, a non-

profit entity, was established to operate the job-incubator and the City Council approved a grant of \$250,000 to fund the use. The Enterprise Center established a Board of Directors and hired a Director but never began operating in the Center (California State University, Long Beach Foundation 2012).

FIELD SURVEY

During the architectural field surveys, two buildings and four accessory structures were surveyed. These include two multi-unit buildings (1900, 1908, 1916, and 1924 West 19th Street and 1932, 1940, 1948, and 1956 West 19th Street), a former gas meter building, and three carports. They are described below and in the attached Department of Parks and Recreation (DPR) 523 forms in Appendix A.

The two multi-unit buildings date from the mid- to late 1960s, each consisting of four attached units (Figures 5 through 13). They have irregular plans and are arranged in a rough L-shape with 1900, 1908, 1916, and 1924 West 19th Street oriented to the east and 1932, 1940, 1948, and 1956 West 19th Street oriented to the north. The buildings are fenced off from the parking lot by a tall wrought iron fence. Alternating flat and low-pitched, front-gabled roofs surmount the buildings. The exterior walls are clad in stucco siding. All fenestration is boarded up, but it appears that the front-gabled portions of the buildings feature large windows that extend up under the gables, and the flat-roofed portions include several windows situated beneath pent roofs. The rear elevations of the buildings also include what appear to be sliding glass doors. The buildings are in poor condition and have been vandalized (i.e., graffiti, broken windows, and various other damages); several of the buildings show signs of fire damage, including a charred hole in the roofline along the rear/west elevation of 1900 West 19th Street (Figures 10 and 11). The three carports feature flat wooden roofs with metal pipe supports and are constructed of cinderblock (Figures 12 and 13).



Figure 5: 1900 West 19th Street, eastern façade, view to the west (6/8/17).



Figure 6: 1916 and 1908 West 19th Street, eastern façade, view to the west (6/8/17).



Figure 7: 1940 and 1948 West 19th Street, northern façade, view to the southwest (6/8/17).



Figure 8: 1932 and 1940 West 19th Street, northern façade, view to the southeast (6/8/17).



Figure 9: 1956 and 1948 West 19th Street, southern elevation, view to the northwest (6/8/17).



Figure 10: Overview of property and fire damage, view to the east (6/8/17).



Figure 11: Fire damage, western elevation of 1900 West 19th Street, view to the east (6/8/17).



Figure 12: Carports, view to the east (6/8/17).

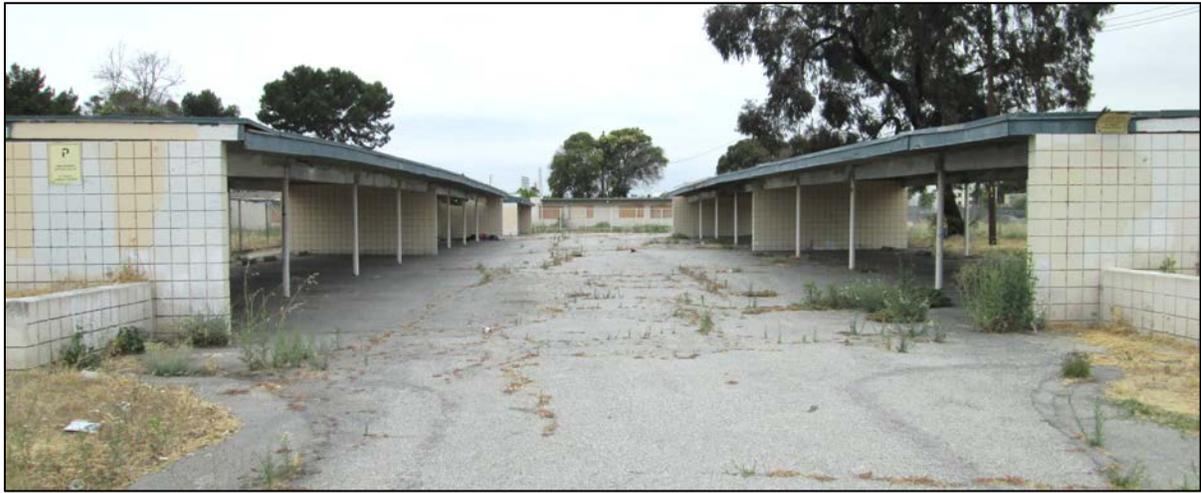


Figure 13: Carports, view to the west (6/8/17).

The former gas meter building, constructed in 1942, is located on the corner of West 19th Street and Cota Avenue and is oriented to the east (Figures 14 and 15). It measures 26 feet by 16 feet (Hector et al. 1993:31). It is a wood-framed stucco building with a shed roof and features a large, tracked sliding door on the eastern elevation and a large metal pipe extending into the ground on its western elevation. This nondescript building is in poor condition, but retains a high degree of integrity.



Figure 14: Former gas meter building, eastern elevation. View to the southwest (6/8/17).



Figure 15: Former gas meter building, western elevation. View to the northeast (6/8/17).

SIGNIFICANCE EVALUATION

Based on the research results discussed above, the following sections present the historical significance evaluation of the two multi-unit buildings, their associated carports, and former gas meter building and the conclusions regarding whether any qualify as a “historical resource” as defined by CEQA.

DEFINITIONS

CEQA (PRC Chapter 2.6, Section 21083.2 and CCR Title 145, Chapter 3, Article 5, Section 15064.5) calls for the evaluation and recordation of historical resources. The criteria for determining the significance of impacts to historical resources are based on Section 15064.5 of the CEQA Guidelines and Guidelines for the Nomination of Properties to the California Register. Properties eligible for listing in the California Register and subject to review under CEQA are those meeting the criteria for listing in the California Register, National Register, or designation under a local ordinance.

California Register of Historical Resources

The California Register criteria are based on National Register criteria. For a property to be eligible for inclusion in the California Register, one or more of the following criteria must be met:

1. It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
2. It is associated with the lives of persons important to local, California, or national history;
3. It embodies the distinctive characteristics of a type, period, region, or method or construction, or represents the work of a master, or possesses high artistic values; and/or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to meeting one or more of the above criteria, the California Register requires that sufficient time has passed since a resource’s period of significance to “obtain a scholarly perspective on the events or individuals associated with the resource.” Fifty years is used as a general estimate of time needed to develop the perspective to understand the resource’s significance (CCR 4852 [d][2]).

The California Register also requires that a resource possess integrity, which is defined as “the authenticity of an historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance” (California Office of Historic Preservation 1999:2). To retain integrity, a resource should have its original location, design, setting, materials, workmanship, feeling, and association. Which of these factors is most important depends on the particular criterion under which the resource is considered eligible for listing (California Office of Historic Preservation 1999). There are seven aspects of integrity:

- a) *Location* is the place where the historic property was constructed or the place where the historic event occurred.
- b) *Design* is the combination of elements that create the form, plan, space, structure, and style of a property.
- c) *Setting* is the physical environment of a historic property.
- d) *Materials* are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- e) *Workmanship* is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- f) *Feeling* is a property's expression of the aesthetic or historic sense of a particular period of time.
- g) *Association* is the direct link between an important historic event or person and a historic property.

City of Long Beach

A local register of historical resources, as defined by PRC §5020.1(k), "means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution." For properties within the City of Long Beach, the City's Heritage Commission Ordinance provides two historical significance designations: Landmark or Historic District. The criteria for these designations are outlined in Chapter 2.63 of the Long Beach Municipal Code.

The Commission may designate a resource as a **Landmark** if it retains integrity and manifests one or more of the following criteria:

- Criterion A: It is associated with events that have made a significant contribution to the broad patterns of the City's history;
- Criterion B: It is associated with the lives of persons significant in the City's past;
- Criterion C: It embodies the distinctive characteristics of a type, period or method of construction, or it represents the work of a master or it possesses high artistic values;
- Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

A group of cultural resources qualify for designation as a **Landmark District** if it retains integrity as a whole and meets the following criteria:

- Criterion A: The grouping represents a significant and distinguishable entity that is significant within a historic context.
- Criterion B: A minimum of sixty percent (60%) of the properties within the boundaries of the proposed landmark district qualify as a contributing property.

In general, the City's Criterion A corresponds to California Register Criterion 1, Criterion B to California Register Criterion 2, Criterion C to California Register Criterion 3, and Criterion D to California Register Criterion 4. The City ordinance does not place any specific age or integrity requirements on historic resources. The ordinance also allows for the nomination of churches, cemeteries, and resources that have been moved from their original locations (Sapphos Environmental, Inc. 2009:22).

EVALUATION

Summary of History

The project area includes two multi-unit buildings, a former gas meter building, and three carport buildings. The multi-unit buildings and carports were built between 1965 and 1968, while the former gas meter building was built in 1942 as a part of the Cabrillo Naval Housing facility. The Cabrillo Naval Housing facility provided low-rent housing for military and defense workers during and after WWII. The majority of the associated buildings were demolished in 1965 and replaced by newer, more adequate housing, which included the two multi-unit buildings and their associated carports. After the decommissioning of the Naval facilities in Long Beach in 1991, the housing facility was transferred first to the City of Long Beach and then to the CSULB Foundation for development of the Villages at Cabrillo, the CSULB Technology Park, and the Job Corps Training Center, the latter two of which are now adjacent to the project area.

Today, the majority of the property is undeveloped and overgrown. The buildings are unoccupied and have been vandalized (i.e., graffiti, broken windows, and various other damages); several of the multi-unit buildings show signs of fire damage.

Significance Evaluation

The property is being evaluated for significance using the California Register criteria and the City's criteria for local designation. Since the City's Landmark and Historic District criteria are identical to the California Register criteria with the exception of the integrity requirement, one evaluation for all designations is provided below.

Under California Register Criterion 1 and Local Criterion A, this property is associated with the historic theme of WWII development, a key element of the 20th century development of Long Beach as a naval hub. In the 1940s, it was developed with affordable housing for enlisted Navy personnel and defense workers; however, all of the buildings in the project area that were constructed during that period have been demolished with the exception of the former gas meter building. This building is nondescript and without the associated housing development and related features, it is unable to convey its association with this period. More specifically, while the building retains integrity of location, design, and materials, it lacks integrity of setting, association, workmanship, and feeling. Due to its lack of integrity, the building no longer clearly conveys its association with the WWII housing development.

The two multi-unit buildings, along with their associated carport structures, were two of several housing units constructed between 1965 and 1968 to replace the original substandard Naval housing from the 1940s. This need to build and expand the housing facility is indicative of the larger

postwar residential boom that made a significant contribution to the broad patterns of local, regional, and even national history. “More than 40 million housing units were built in the United States during the 30 year period following the end of World War II, and at least 30 million of these were single-family houses” (California Department of Transportation 2011:2). These homes were typically modest in size and style and constructed in a short time as part of large tracts marketed to the working class. Unlike pre-war tracts by subdividers, the post-war tracts were often developed using only one or two builders and the homes were similar in size, quality, and degree of architectural elaboration (California Department of Transportation 2011). “The fundamental unit for postwar housing is not the individual house, but the tract, or a single construction phase within a larger tract or new community” and typically a single home would not be individually significant in this context (California Department of Transportation 2011:121). As with most residences associated with this historic context, individually these buildings are unimportant and insignificant. They lost their integrity of setting, feeling, and association when their associated housing tract was demolished, resulting in their inability to convey their association with the Naval facility’s postwar period. Therefore, under these criteria, the property is not eligible for listing in the California Register nor does it qualify for designation as a local Landmark or a part of a Historic District.

Under California Register Criterion 2 and Local Criterion B, no evidence was found associating the property with important people in history. Although it was owned and developed by the United States Navy, it is no more closely associated with or representative of important Naval personnel than thousands of other Navy-related developments of that period. Therefore, under these criteria, the property is not eligible for listing in the California Register nor does it qualify for designation as a local Landmark or a part of a Historic District.

Under California Register Criterion 3 and Local Criterion C, the former gas meter building is most likely one of the few remaining gas meter buildings from the WWII era in this vicinity. However, having lost its integrity of setting and feeling and being of modest construction and design, it is not an important property type, is not representative of an architectural style, and does not convey its association with the military development of the 1940s. It is also not the work of a master.

The two multi-unit buildings exhibit the contemporary, low-pitched, front-gabled roofs and large windows common of the Mid-Century Modern style, which was prevalent in postwar construction. However, the buildings lost their integrity of setting, feeling, and association after the demolition of the neighboring post-1965 housing on the property and their conversion into offices during the late 1990s. This loss of integrity, coupled with the buildings’ modest construction and design, inhibit their ability to convey their association with the Naval facility’s postwar development. They are not representative of an architectural style, do not represent an important property type, and are not the work of a master. Therefore, under these criteria, the property is not eligible for listing in the California Register nor does it qualify for designation as a local Landmark or a part of a Historic District.

Under California Register Criterion 4 and Local Criterion D, which typically relates to archaeological resources, the property does not have the potential to yield information on 20th century construction techniques. Therefore, under these criteria, the property is not eligible for listing in the

California Register nor does it qualify for designation as a local Landmark or a part of a Historic District.

Based on the above analysis, the property does not meet the criteria for listing in the California Register or for local designation as a Landmark or a Historic District. It is not a historical resource as defined by CEQA.

RECOMMENDATIONS

CEQA establishes that “a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment” (PRC §21084.1). “Substantial adverse change,” according to PRC §5020.1(q), means “demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired.”

No “historical resources,” as defined by CEQA, were encountered during the course of this study and, therefore, the project as currently proposed will cause no substantial adverse change to any known historical resources. As a result, no mitigation measures are required and LSA recommends to the City a finding of *No Impact* regarding historic-period built environment resources. No further historic resources investigation is recommended for the project unless development plans change to include areas not covered by this study.

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1907 Mapbook 12-146-147. Los Angeles County Land Records Viewer. Accessed online in February 2013 at: <http://dpw.lacounty.gov/sur/landrecords/>.

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APPENDIX A

DPR FORMS

State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
 HRI # _____
 Trinomial _____
 NRHP Status Code 6Z

Other Listings _____
 Review Code _____ Reviewer _____ Date _____

Page 1 of 5 Resource Name or #: 1900–1924 West 19th Street and 1932–1956 West 19th Street

P1. Other Identifier: 1900, 1908, 1916, and 1924 West 19th Street oriented to the east and 1932, 1940, 1948, and 1956 West 19th Street: Cabrillo Naval Housing Facility

***P2. Location:** Not for Publication Unrestricted ***a. County:** Los Angeles and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Long Beach, CA **Date:** 1964 PR 1981 **T** 4S ; **R** 13W ; **Sec.** 5 S.B.B.M.

c. Address: 1900–1924 West 19th Street and 1932–1956 West 19th Street **City:** Long Beach **Zip:** 90810

d. UTM: Zone: 11; _____mE/ _____mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) **APN:** 7402-021-031 and -032

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The property consists of two buildings made up of four attached units, each and three carport structures. The buildings have irregular plans and are arranged in a rough L-shape with 1900–1924 West 19th Street oriented to the east and 1932–1956 West 19th Street oriented to the north. A tall wrought iron fence separates the buildings from the parking lot. Alternating flat and low-pitched, front-gabled roofs surmount the buildings. The exterior walls are clad in stucco siding. All fenestration is boarded up but it appears that the front-gabled portions of the buildings feature large windows that extend up under the gables and the flat-roofed portions include several windows situated beneath pent roofs. The rear elevations of the buildings also include what appear to be sliding glass doors. The buildings are in poor condition and have been vandalized (i.e., graffiti, broken windows, and various other damages); several of the buildings show signs of fire damage, including a charred hole in the roofline along the rear/west elevation of 1900 West 19th Street. The three carports feature flat wooden roofs with metal pipe supports and are constructed of cinderblock.

***P3b. Resource Attributes:** (List attributes and codes) HP34, Military Property

***P4. Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)



P5b. Description of Photo: (View, date, accession #) Top: 1932 and 1940 West 19th Street, northern façade, view to the southeast; bottom: overview of property to the east (6/8/17).

***P6. Date Constructed/Age and Sources:** Historic Prehistoric Both
 1965, 1966, and 1968 (Hector et al. 1993:30)

***P7. Owner and Address:**
 Unknown

***P8. Recorded by:** (Name, affiliation, and address)
 Elisa Bechtel, MLitt
 LSA Associates, Inc.
 1500 Iowa Avenue, Suite 200
 Riverside, CA 92507

***P9. Date Recorded:** September and August 2017

***P10. Survey Type:** (Describe)
 Intensive-level CEQA compliance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Bechtel 2017. *Historic Resources Assessment, California State University, Long Beach Technology Park Phase III Project, Assessor's Parcel Numbers 7402-021-020, 7402-021-021, 7402-021-029, 7402-021-031, 7402-021-032, 7402-021-033, 7402-021-044, and 7402-021-045, City of Long Beach, County of Los Angeles, California.*

***Attachments:** NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 5

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) 1900-1924 West 19th Street and 1932-1956 West 19th Street

B1. Historic Name: Cabrillo Naval Housing Facility

B2. Common Name: _____

B3. Original Use: Military housing **B4. Present Use:** Vacant

***B5. Architectural Style:** Mid-Century Modern influences

***B6. Construction History:** (Construction date, alterations, and date of alterations)

1965, 1966, and 1968- construction of the units and their associated carports (Hector et al.1993:30).

***B7. Moved?** No Yes Unknown **Date:** _____ **Original Location:** _____

***B8. Related Features:** Carport structures and parking lot.

B9a. Architect: unknown **b. Builder:** unknown

***B10. Significance: Theme:** Postwar development **Area:** City of Long Beach

Period of Significance: 1965-1968 **Property Type:** Military building **Applicable Criteria:** NA

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

These circa 1965 multi-unit buildings and their associated carports do not appear to meet the criteria for listing in the California Register of Historical Resources (California Register) or the City of Long Beach's criteria for local landmarks (Title 2, Chapter 2.63 of the City's Municipal Code) and are not a historical resource for purposes of the California Environmental Quality Act (CEQA).

Historic Context. In addition to the context provided here, please refer to the related report (P11 above). "With the increasing importance of the Long Beach Harbor, the U.S. Navy designated Long Beach as the headquarters for its new Pacific Fleet in 1919. By the late 1920s, more than 3,000 officers and enlisted men were stationed in Long Beach. By 1932, the U.S. Navy added 50 ships to Long Beach Harbor and approximately 8,500 servicemen. This population spike created a strong demand for housing" (Sapphos Environmental, Inc. 2009:46). Initial requests by Navy officials to construct inexpensive housing for its personnel were rejected by City officials, who feared that low-cost housing would negatively affect Long Beach's reputation as an affluent community and seaside resort. However, with WWII looming, the Navy's influence in the City was too great to ignore, and in 1938, the Long Beach City Planning Commission submitted requests to the Housing Authority of the County of Los Angeles to begin construction (Sapphos Environmental, Inc. 2009:113).

Construction of a 40-acre housing development now known as Savannah Family Housing was begun in late 1940 by the J.V. McNeil Company of Los Angeles on property located north of the project area (*Long Beach Press Telegram* 1941). Shortly after the Savannah project was completed, the federal government requested another parcel of approximately 100 acres for construction of the Cabrillo Family Housing facility, which would extend south from Savannah's southern boundary (20th Street) to Pacific Coast Highway, encompassing the project area that had formerly been subdivided as part of Lybargers Long Beach Harbor Tract Map (Mapbook 12-146-147) in 1907 into lots with a typical size of 5,200 square feet (Hector et al. 1993:22; Lybargers Long Beach Harbor Tract Map 1907). The only building remaining in the project area from this period of Navy development is the former gas meter building, built in 1942 and located in the northeast part of the project area. By the end of the war, Long Beach would boast approximately 5,100 units of public housing, comprising apartments, trailers, or Quonset huts, spread across 11 separate facilities (McBryde 1944). See *Continuation Sheet*

B11. Additional Resource Attributes: (List attributes and codes)

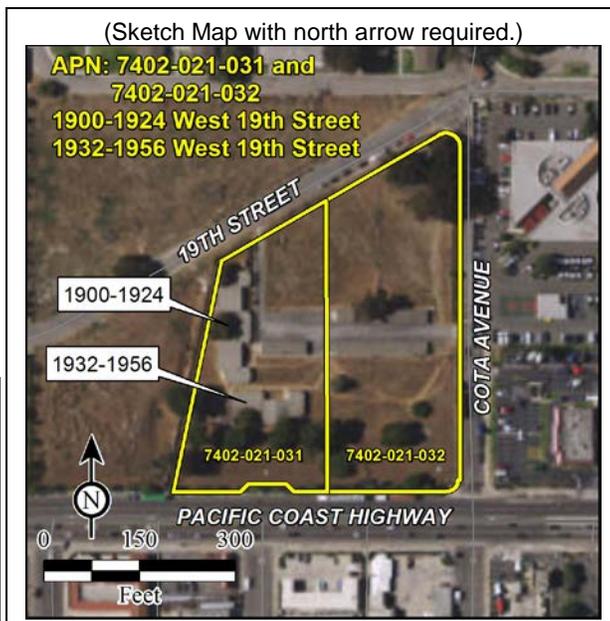
***B12. References:** See *Continuation Sheet*

B13. Remarks:

***B14. Evaluator:** Elisa Bechtel, MLitt, LSA Associates, Inc., 1500 Iowa Avenue, Suite 200, Riverside, California 92507

***Date of Evaluation:** August 2017

(This space reserved for official comments.)



CONTINUATION SHEET

Primary # _____

HRI # _____

Trinomial _____

Page 3 of 5 *Resource Name or #: (Assigned by recorder) 1900–1924 West 19th Street and 1932–1956 West 19th Street

*Recorded by LSA Associates, Inc. *Date: August 2017 Continuation Update

P5a. Photo or Drawing (continued from page 1)



Left: Western façade of 1900 West 19th Street, view to the west; right: 1956 and 1948 West 19th Street, southern elevation, view to the northwest (6/8/17).



Left: Western elevation of 1900 West 19th Street, view to the east; right: carports, view to the west (6/8/17).

***B10. Significance:** (continued from page 2) In 1960, 1,983 Navy housing units in the Long Beach area were listed as substandard and 1,583 were slated for demolition by 1965 pursuant to the Landham Act (*The Independent* 1962a). Congress then partially approved the Navy’s request for construction of 1,500 new units to replace those demolished (*The Independent* 1962a and 1962b). A 1993 cultural resources report, which includes the project area states that most of the buildings associated with the Cabrillo Housing Project that were evaluated as part of the study are modern multifamily units built in 1965, 1966, and 1968 (Hector et al 1993:30). Historic aerials also support the argument that the two four-unit buildings and the three carport buildings within the project boundaries were built after 1965 as replacements for units demolished in 1965 (Historic Aerials 1963 and 1972). With the exception of the former gas meter building, the buildings currently within the project area do not appear on the 1963 historic aerial. However, they do appear in the 1972 historic aerials where the 1940s buildings once stood. City directories also show a reorganization of addresses that coincide with the periods of demolition and construction of these new units, reinforcing the idea that the four-unit and carport buildings date only to the mid- to late 1960s (City Directory 1965, 1966, and 1968). Therefore, the two multi-unit buildings and the three carports are not associated with the WWII theme but rather the Naval facility’s postwar period.

In 1991, the Department of Defense notified the City of Long Beach that it was going to close three Naval facilities in the City: the Cabrillo and Savannah Naval Housing facilities, the Naval hospital, and a portion of the Naval station at the port (California State University, Long Beach Foundation 2012).

(See Continuation Sheet)

CONTINUATION SHEET

Primary # _____

HRI # _____

Trinomial _____

Page 4 of 5 *Resource Name or #: (Assigned by recorder) 1900–1924 West 19th Street and 1932–1956 West 19th Street*Recorded by LSA Associates, Inc. *Date: August 2017 X Continuation Update

In 1993, the Committee on Armed Services of the House of Representatives passed a bill providing for the transfer of the Cabrillo site to the City, with the understanding that the site would then be subsequently transferred to the CSULB Foundation (California State University, Long Beach Foundation 2012). It was officially transferred to the City in 1996 and redevelopment of the land soon began. Twenty-six acres were utilized for the establishment of the Villages at Cabrillo, which provides housing for the homeless, as well as 17 acres for the Job Corps Training Center, which lies to the north of the project area (California State University, Long Beach Foundation 2012).

Over the next four years, the CSULB Foundation received grants for \$5,800,000 from the U.S. Department of Commerce, which it used to demolish the remaining post-1965 housing units and prepare the land for construction of CSULB's Technology Park, which is situated west of the project area. The CSULB Foundation then renovated 12,000 square feet of building space (the two four-unit buildings) in the project area, half of which it leased to the Cole Vocational Center and the other half it offered free of charge to house a job-incubator use. The Long Beach Enterprise Center, a non-profit entity, was established to operate the job-incubator and the City Council approved a grant of \$250,000 to fund the use. The Enterprise Center established a Board of Directors and hired a Director but never began operating in the Center (California State University, Long Beach Foundation 2012).

***B10. Significance.** (continued from page 2) As previously stated, the property is being evaluated for significance under the California Register criteria and the City's criteria for local designation. Since the City's Landmark and Historic District criteria are identical to the California Register criteria with the exception of the integrity requirement, one evaluation for all designations is provided below.

Under California Register Criterion 1 and Local Criterion A, this property is associated with the historic theme of WWII development, a key element of the 20th century development of Long Beach as a naval hub. In the 1940s, it was developed with affordable housing for enlisted Navy personnel and defense workers; however, all of the buildings in the project area that were constructed during that period have been demolished with the exception of the former gas meter building. This building is nondescript and without the associated housing development and related features, it is unable to convey its association with this period. More specifically, while the building retains integrity of location, design, and materials, it lacks integrity of setting, association, workmanship, and feeling. Due to its lack of integrity, the building no longer clearly conveys its association with the WWII housing development.

The two multi-unit buildings, along with their associated carport structures, were two of several housing units constructed between 1965 and 1968 to replace the original substandard Naval housing from the 1940s. This need to build and expand the housing facility is indicative of the larger postwar residential boom that made a significant contribution to the broad patterns of local, regional, and even national history. "More than 40 million housing units were built in the United States during the 30 year period following the end of World War II, and at least 30 million of these were single-family houses" (California Department of Transportation 2011:2). These homes were typically modest in size and style and constructed in a short time as part of large tracts marketed to the working class. Unlike pre-war tracts by subdividers, the post-war tracts were often developed using only one or two builders and the homes were similar in size, quality, and degree of architectural elaboration (California Department of Transportation 2011). "The fundamental unit for postwar housing is not the individual house, but the tract, or a single construction phase within a larger tract or new community" and typically a single home would not be individually significant in this context (California Department of Transportation 2011:121). As with most residences associated with this historic context, individually these buildings are unimportant and insignificant. They lost their integrity of setting, feeling, and association when their associated housing tract was demolished, resulting in their inability to convey their association with the Naval facility's postwar period. Therefore, under these criteria, the property is not eligible for listing in the California Register nor does it qualify for designation as a local Landmark or a part of a Historic District.

Under California Register Criterion 2 and Local Criterion B, no evidence was found associating the property with important people in history. Although it was owned and developed by the United States Navy, it is no more closely associated with or representative of important Naval personnel than thousands of other Navy-related developments of that period. Therefore, under these criteria, the property is not eligible for listing in the California Register nor does it qualify for designation as a local Landmark or a part of a Historic District.

Under California Register Criterion 3 and Local Criterion C, the former gas meter building is most likely one of the few remaining gas meter buildings from the WWII era in this vicinity. However, having lost its integrity of setting and feeling and being of modest construction and design, it is not an important property type, is not representative of an architectural style, and does not convey its association with the military development of the 1940s. It is also not the work of a master.

(See Continuation Sheet)

CONTINUATION SHEET

Primary # _____

HRI # _____

Trinomial _____

Page 5 of 5 *Resource Name or #: (Assigned by recorder) 1900–1924 West 19th Street and 1932–1956 West 19th Street*Recorded by LSA Associates, Inc. *Date: August 2017 X Continuation _____ Update _____

The two multi-unit buildings exhibit the contemporary, low-pitched, front-gabled roofs and large windows common of the Mid-Century Modern style, which was prevalent in postwar construction. However, the buildings lost their integrity of setting, feeling, and association after the demolition of the neighboring post-1965 housing on the property and their conversion into offices during the late 1990s. This loss of integrity, coupled with the buildings' modest construction and design, inhibit their ability to convey their association with the Naval facility's postwar development. They are not representative of an architectural style, do not represent an important property type, and are not the work of a master. Therefore, under these criteria, the property is not eligible for listing in the California Register nor does it qualify for designation as a local Landmark or a part of a Historic District.

Under California Register Criterion 4 and Local Criterion D, which typically relates to archaeological resources, the property does not have the potential to yield information on 20th century construction techniques. Therefore, under these criteria, the property is not eligible for listing in the California Register nor does it qualify for designation as a local Landmark or a part of a Historic District.

Significance Evaluation Conclusion. Based on the above analysis, the property does not meet the criteria for listing in the California Register or for local designation as a Landmark or a Historic District. It is not a historical resource as defined by CEQA.

***B12. References:** (continued from page 2)

California Department of Transportation

2011 *Tract Housing in California, 1945-1973. A Context for National Register Evaluation.* Caltrans Division of Environmental Analysis, Sacramento.

California State University, Long Beach Foundation

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1972 Long Beach area. Accessed online in June 2017 at: <http://historicaerials.com/>.

The Independent

1962a "Navy to Vacate 1,583 Houses," June 20.

1962b "Hosmer Asks Aid on Rents, Appeals to JFK to Hold Line on Naval Housing," August 30.

Long Beach Press Telegram

1941 "Work Soon to Start on Navy Homes," November 1. Microfilm on file at the Long Beach Public Library.

Lybargers Long Beach Harbor Tract Map

1907 Mapbook 12-146-147. Los Angeles County Land Records Viewer. Accessed online in February 2013 at: <http://dpw.lacounty.gov/sur/landrecords/>.

McBryde, Jack

1944 "Ruchti Sets Out Plans for Postwar Home Projects," December 24. On file at the Long Beach Public Library.

Sapphos Environmental, Inc.

2009 City of Long Beach Historic Context Statement.

CONTINUATION SHEET

Primary # _____

HRI # _____

Trinomial _____

Page 1 of 3*Resource Name or #: (Assigned by recorder) Gas meter building*Recorded by LSA*Date: June 2017_____
ContinuationX Update

Description: The former gas meter building, originally constructed as a part of the Cabrillo Naval Housing facility, is located on the southwest corner of West 19th Street and Cota Avenue and is oriented to the east. It is a wood-framed stucco building with a shed roof and features a large, tracked sliding wood door on the eastern elevation and a large metal pipe extending into the ground on its western elevation. The building appears to have little to no alterations and retains integrity of location. However, it lacks integrity of setting, association, and feeling, as the vast majority of the buildings in that development were demolished in the mid-1960s and since then the surrounding area has been developed with modern structures that are unrelated to this former gas meter building.

Previous evaluation and results: This building was previously evaluated by LSA in 2013 and determined not eligible for listing in the California Register of Historic Places or the City of Long Beach's landmark register for its lack of integrity (Historic Resources Assessment, California State University Long Beach Foundation Project, Assessor's Parcel Numbers 7402-021-020, 7402-021-021, 7402-021-029, 7402-021-031, 7402-021-032, 7402-021-033, 7402-021-044, 7402-021-045, City Of Long Beach, Los Angeles County, California. Prepared by LSA Associates, Inc., March 2013).

Update: As part of the current project, LSA Architectural Historian Elisa Bechtel performed a field survey, reviewed the previous documentation, and confirmed that the condition of the building has not changed and that the earlier conclusions are still valid.

California Historical Resources Status Code: 6Z

Related Report: Historic Resources Assessment, California State University, Long Beach Technology Park Phase III Project, Assessor's Parcel Numbers 7402-021-020, 7402-021-021, 7402-021-029, 7402-021-031, 7402-021-032, 7402-021-033, 7402-021-044, and 7402-021-045, City of Long Beach, County of Los Angeles, California. Prepared by LSA, June 2017).

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 2 Resource Name or #: Gas meter building

P1. Other Identifier: Cabrillo Naval Housing Facility

***P2. Location:** Not for Publication Unrestricted *a. County: Los Angeles and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Long Beach, CA **Date:** 1964 PR 1981 **T** 4S ; **R** 13W ; S.B.B.M.

c. Address: _____ **City:** Long Beach **Zip:** 90810

d. UTM: Zone: 11; _____ mE/ _____ mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) APN: 7402-021-032; located at the southwest corner of West 19th Street and Cota Avenue in a grouping of mature trees

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The former gas meter building, originally constructed as a part of the Cabrillo Naval Housing facility, is located on the southwest corner of West 19th Street and Cota Avenue and is oriented to the east. It is a wood-framed stucco building with a shed roof and features a large, tracked sliding wood door on the eastern elevation and a large metal pipe extending into the ground on its western elevation. The building appears to have little to no alterations and retains integrity of location. However, it lacks integrity of setting, association, and feeling, as the vast majority of the buildings in that development were demolished in the mid-1960s and since then the surrounding area has been developed with modern structures that are unrelated to this former gas meter building.

***P3b. Resource Attributes:** (List attributes and codes) HP34- Military property

***P4. Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) Façade, view to the southwest (2/18/13)

***P6. Date Constructed/Age and Sources:** Historic
 Prehistoric Both
1942 (Hector, Manley, and Anderson 1993:31).

***P7. Owner and Address:**
Unknown

***P8. Recorded by:** (Name, affiliation, and address)
Elisa Bechtel, MLitt
Casey Tibbet, M.A.
LSA Associates, Inc.
1500 Iowa Avenue, Suite 200
Riverside, CA 92507

***P9. Date Recorded:**
April, 2013

***P10. Survey Type:** (Describe)
Intensive-level Section 106 and CEQA compliance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Historic Resources Assessment, California State University Long Beach Foundation Project, Assessor's Parcel Numbers 7402-021-020, 7402-021-021, 7402-021-029, 7402-021-031, 7402-021-032, 7402-021-033, 7402-021-044, 7402-021-045, City Of Long Beach, Los Angeles County, California. Prepared by LSA Associates, Inc., March 2013.

***Attachments:** NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Gas meter building

B1. Historic Name: Cabrillo Naval Housing Facility

B2. Common Name: _____

B3. Original Use: Gas meter building

B4. Present Use: Gas meter building

*B5. Architectural Style: Vernacular

*B6. Construction History: (Construction date, alterations, and date of alterations)
Built 1942 (Hector, Manley, and Anderson 1993:31).

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

B9a. Architect: Unknown

b. Builder: Unknown

*B10. Significance: Theme: Military housing Area: City of Long Beach

Period of Significance: 1942 Property Type: Military housing Applicable Criteria: NA

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This vernacular gas meter building, which was constructed in 1942, does not appear to meet the criteria for listing in the California Register of Historical Resources (California Register) or the City of Long Beach's criteria for local landmarks (Title 2, Chapter 2.63 of the City's Municipal Code) and is not a historical resource for purposes of the California Environmental Quality Act (CEQA).

Under Criteria 1/Local Criteria A and B, the building appears to be the only remaining resource from the Cabrillo Naval Housing facility built in the 1940s. The building appears to have few to no alterations and retains integrity of location. However, it lacks integrity of setting, association, and feeling, as the vast majority of the buildings in that development were demolished in the mid-1960s and since then the surrounding area has been developed with modern structures that are unrelated to this former gas meter building. The development of the property by the Navy was a small part of a larger significant event in Long Beach and the nation; however, on its own the building is unable to convey this association with the WWII period. Therefore, it is not eligible for listing in the California Register or local designation under these criteria. Under Criteria 2/Local Criteria C, no evidence was found indicating that the building is associated with persons important in national, state, or local history. Under Criteria 3/Local Criteria D, E, F, G, H, and K, the building appears to have few, if any, alterations. However, it is nondescript with no particular architectural style and does not convey any association with a particular era in history that might be characterized by a distinctive architectural style. In addition, it is not the work of a master, nor does it contain elements of design, details, materials, or craftsmanship that represent a significant innovation or a specific historical, cultural, or historical motif. Under Local Criteria I, while it is located on a corner, the property does not represent an established or familiar visual feature of the neighborhood or community as its small size, nondescript appearance, and location among a cluster of large trees does not make it noticeable from the main street. Under Criteria 4/Local Criteria J, which relate primarily to archaeological resources, the property does not appear to have the potential to yield important information about prehistory or history.

It should also be noted that a brief windshield survey of the surrounding area revealed that many of the industrial and commercial buildings have been altered or are modern and collectively do not constitute a potential historic district.

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References:

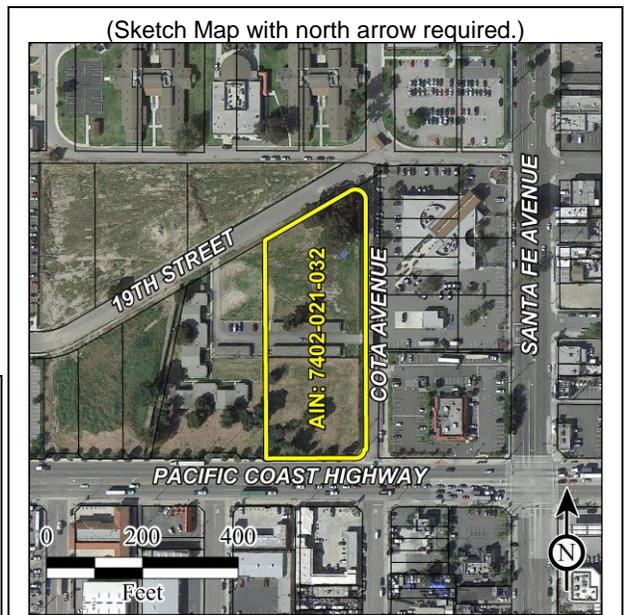
Hector, Susan, William Manley, and Carson Anderson
1993 Historic and Archaeological Inventory and Eligibility Survey for Savannah and Cabrillo Family Housing, Naval Station Long Beach, CA.

B13. Remarks:

*B14. Evaluator: Elisa Bechtel, MLitt., Casey Tibbet, M.A., LSA Associates, Inc., 1500 Iowa Avenue, Suite 200, Riverside, CA 92507

*Date of Evaluation: March 2013

(This space reserved for official comments.)



**ARCHAEOLOGICAL SURVEY OF THE 9.8 -
ACRE CALIFORNIA STATE UNIVERSITY
LONG BEACH FOUNDATION PROJECT**

**CITY OF LONG BEACH
LOS ANGELES COUNTY, CALIFORNIA**

LSA

April 2013

ARCHAEOLOGICAL SURVEY OF THE 9.8 -
ACRE CALIFORNIA STATE UNIVERSITY
LONG BEACH FOUNDATION PROJECT

CITY OF LONG BEACH
LOS ANGELES COUNTY, CALIFORNIA

Submitted to:

City of Long Beach
Development Services, Planning Bureau
333 West Ocean Boulevard, 5th Floor
Long Beach, California

Prepared by:

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LSA Project No. CLB1205

National Archaeological Data Base Information:

Type of Study: Record Search and Survey

Sites: None

USGS Quadrangle: Long Beach, Calif. (1978) 7.5-minute

Acreage: 9.8 acres

Key Words: Gabrielino, Long Beach, Negative Survey

LSA

April 2013

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APPENDIX

A: RECORD SEARCH RESULTS

ABSTRACT

A record search and survey for prehistoric cultural resources was conducted for the proposed California State University Long Beach Foundation Project (project) in the City of Long Beach (City), Los Angeles County (County), California. The purpose of this archaeological work was to identify the presence of prehistoric resources under the California Environmental Quality Act of 1970 (CEQA; as amended January 1, 2012): Public Resources Code (PRC), Division 13 (Environmental Quality), Chapters 2.6 Section 21083.2 (Archaeological Resources). Sites determined important under CEQA are eligible for listing on the California Register of Historical Resources (California Register). A description of historic resources is presented in Tibbett and Bechtel (2013).

The record search conducted at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton, indicated that the project area was previously surveyed in its entirety and that no prehistoric cultural resources have been documented in the project area. An intensive surface survey of the approximately 9.8-acre project area, conducted on February 18, 2013, resulted in the identification of no prehistoric resources. Due to the absence of prehistoric resources in the project area, it is recommended that no construction monitoring or additional cultural resource management of the project is necessary.

If archaeological materials are found during construction, a qualified archaeologist should be contacted in order to assess the nature and significance of the find and determine appropriate treatment. In the event human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of being granted access to the site. The MLD will have the opportunity to offer recommendations for the disposition of the remains.

INTRODUCTION

LSA Associates, Inc. (LSA) has been retained by the City of Long Beach to provide a cultural resource assessment for the California State University Long Beach Foundation Project in the City of Long Beach, in Los Angeles County, California. The purpose of this assessment is to address the requirements of the CEQA (as amended January 1, 2012): PRC, Division 13 (Environmental Quality), Chapters 2.6 Section 21083.2 (Archaeological Resources) and 2.6 §21084.1 (Historical Resources); and the State CEQA Guidelines (as amended March 18, 2010), California Code of Regulations (CCR) Title 14, Chapter 3, Article 5 Section 15064.5 (Determining the Significance of Impacts on Historical and Unique Archaeological Resources).

Project personnel included LSA archaeologist Ivan Strudwick. Portions of this report are adapted from Strudwick (2008). Record search information for the project area is provided as confidential Appendix A.

PROJECT LOCATION AND DESCRIPTION

The project area is a nearly square 9.8-acre project area on which a commercial development is proposed. In general, the project site is located at an elevation of 8–11 feet in the City of Long Beach 1.0 mile (1.6 kilometers [km]) directly north of the Inner Harbor at the Port of Long Beach and 0.5 mile (0.8 km) west of State Route 710 (SR-710), which runs along the west side of the currently channelized Los Angeles River. It is 3.0 miles (4.8 km) west-southwest of Signal Hill and about 5.0 miles (8.0 km) east-northeast of the Palos Verdes Peninsula (Figure 1).

Specifically, the project area is bounded by Pacific Coast Highway (PCH) on the south, West 19th Street (private) on the north, Cota Avenue on the east, and a commercial building on the west. Technology Place crosses the project area diagonally from the northeast to southwest. The project area is depicted on the United States Geological Survey (USGS) *Long Beach, California* 7.5-minute topographic quadrangle map (USGS 1978) in an unsectioned area of Township 4 South, Range 13 West (San Bernardino Baseline and Meridian; Figure 1).

The proposed development is a 125,000-square-foot commercial retail outlet that will front PCH. The remaining portions of the project area are parking and landscaping.

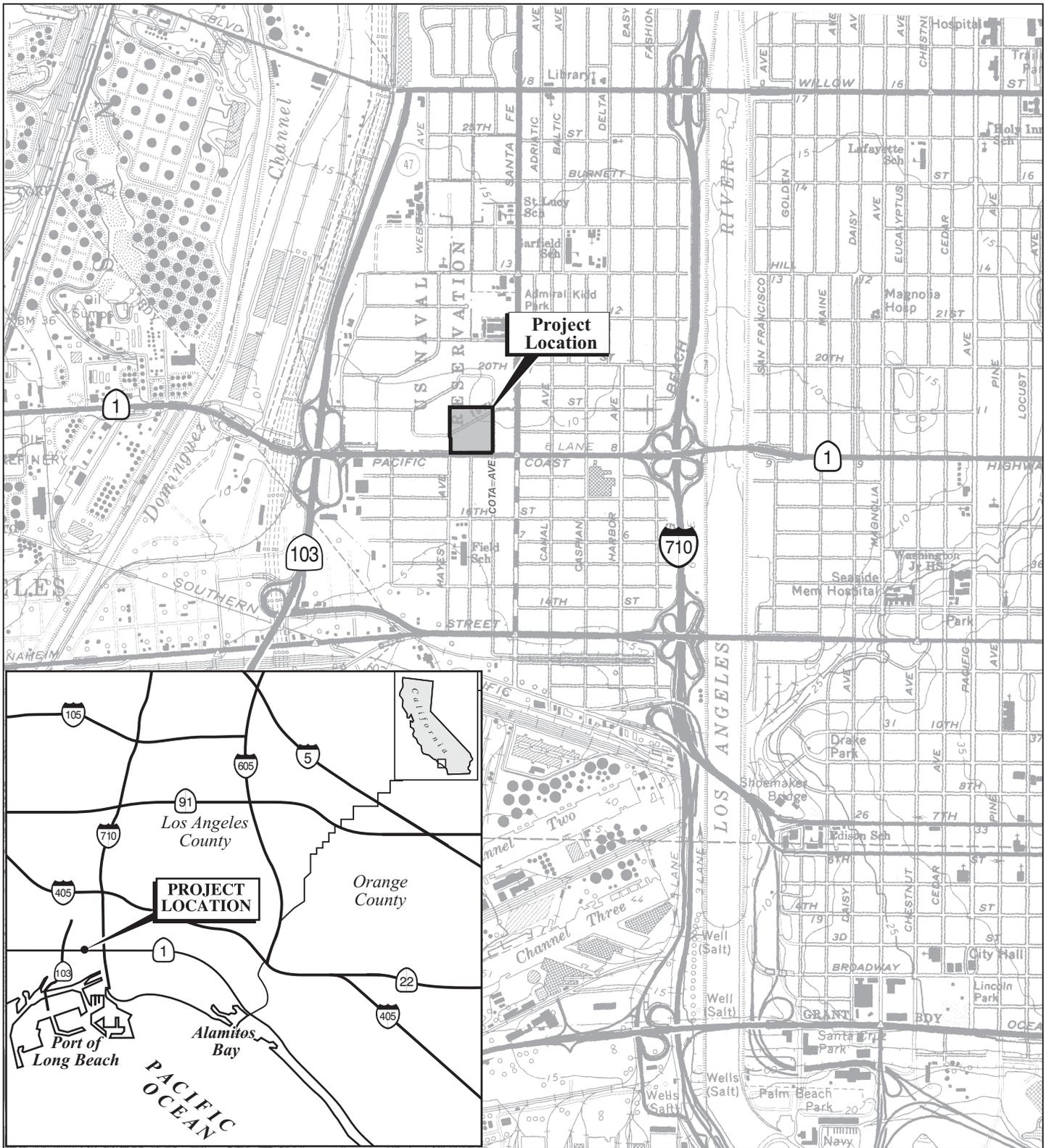
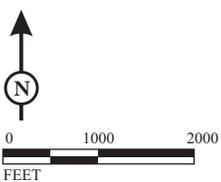


FIGURE 1

LSA



SOURCE: USGS 7.5' Quad - Long Beach, California
 I:\CLB1205\G\Vicinity Map.cdr (2/28/13)

CSULB Foundation Project
 Project Vicinity Map

SETTING

NATURAL SETTING

The natural setting of the project vicinity is presented based on the underlying theoretical assumption that humans and human social groups are in continual interaction with the physical environment. As part of the environment, humans respond to environmental limits through technological and behavioral adaptations in order to create more favorable living conditions. The location of archaeological sites is based on the result of this behavior that can be observed in the relationship of sites to the proximity of particular resources, topography, and other environmental factors that provide subsistence and protection from the elements. Technologically, prehistoric sites contain artifact and ecofact assemblages that can furnish a record of specific ecological interactions. The purpose of scientific archaeological studies is to analyze remains in order to identify the manners by which humans survived and adapted to ancient environmental conditions.

Biology

The project area is located just inland at Long Beach at an elevation of 9–11 feet above mean sea level (amsl). Prehistorically, it was near at least four biotic communities as described in Jaeger and Smith (1971:39–44). These biotic communities include coastal strand, coastal salt marsh, riparian woodland, and coastal scrub habitats. Today, the project area is within a fully developed urban environment. Prior to the growth of the City, however, the project area would have supported a coastal scrub habitat, which would have existed on the slightly elevated flood plain. In the freshwater drainages less than 0.5 mile (0.8 km) to the west would have been riparian areas. As this drainage neared the coast, it would have become a coastal salt marsh. The coastal strand biotic community would have existed along the sandy beach in areas only about 1.0 mile (1.6 km) distant. However, the primary biotic community within the project area today is urban and contains introduced grasses, brush, and trees.

Coastal Scrub Biotic Community. The primary biotic community within the project area during prehistoric times was the Coastal Scrub Biotic Community (Jaeger and Smith 1971:43–44). This biotic community is characterized by gently sloping cismontane areas between the abruptly rising mountains and sea in areas from San Luis Obispo County south to San Diego. These areas are often covered by shrubs that, in their natural state, often reach heights of over 6 feet. Common plants include the California wormwood or sagebrush (*Artemisia californica*), white sage (*Encelia apiana*), black sage (*Salvia mellifera*), yerba santa (*Eriodictyon californica*), California buckwheat (*Eriogonum fasciculatum*), lemonade berry (*Rhus integrifolia*), varieties of prickly pear cactus (*Opuntia* spp.), and Our Lord's candle (*Yucca whipplei*). Mammals include the California ground squirrel (*Spermophilus beecheyi*), kangaroo rat (*Dipodomys agilis*), wood rat (*Neotoma lepida*), California mouse (*Peromyscus californicus*), and the short-eared pocket mouse (*Perognathus fallax*). Birds common to this community include Costa's hummingbird (*Calypte coastae*), cactus wren (*Campylorhynchus brunneicapillum*), brown towhee (*Pipilo fuscus*), sage sparrow (*Amphispiza belli*),

and rufous-crowned sparrow (*Aimophila ruficeps*). Common reptiles found include the western fence lizard (*Sceloporus occidentalis*), striped racer (*Masticophis lateralis*), and western rattlesnake (*Crotalus viridis*).

In nearby riparian areas and in drainages away from the salt and brackish water of the salt marsh, willow (*Salix* spp.) for use in construction of prehistoric dwellings (Strudwick 2005:230–231) would have been available. Oak would have existed in the older, more stable alluvial areas near drainages as in the grassy plains. Prehistoric sites in the vicinity of the project commonly contained quantities of ground stone, indicating the processing of seeds and acorns. Prehistorically, oak was common in Southern California and in the Los Angeles Basin (Basin). Acorns were the most important single food source for the local native populations (Bean and Smith 1978:539; Bean and Shipek 1978:552), as well as the most characteristic feature of the California Indians as a whole (Gifford 1965:237). Acorn soup or “mush” was the daily food for over three-fourths of native Californians (Balls 1962:10). Other foods were also available in the vicinity. Prehistoric populations would have been able to hunt deer (*Odocoileus hemionus*), rabbit (*Sylvilagus* spp.), and other small mammals, rodents, and birds common to the plain and nearby waterways. They could have fished in the nearby Pacific Ocean and collected marine shellfish from the sub- and intertidal areas of the coastal strand. A number of available food resources existed in the area and native human populations.

Geology

Peninsular Range Geomorphic Province. This section on geology has been adapted from Smith (2013). The project area is located at the northern end of the Peninsular Range geomorphic province, a 900 miles (1,450 km) northwest-southeast trending structural block that extends from the tip of Baja California to the Transverse Ranges and includes the Los Angeles Basin (Jenkins 1943; Norris and Webb 1976). The total width of the province is approximately 225 miles (362 km), with a maximum landbound width of 65 miles (105 km; Sharp 1976). The Peninsular Ranges contains extensive pre-Cretaceous (> 65 million years ago) igneous and metamorphic rock covered by limited exposures of post-Cretaceous sedimentary deposits. These post-Cretaceous sedimentary deposits are thought to be one of the most important Tertiary marine fossil-producing areas in the world due to the completeness of the geologic record and general abundance of the fossils (Raschke 1984). Belyea and Minch (1989) report that the nearby Santa Ana Mountains contain the most complete exposures of Late Mesozoic and Cenozoic (from approximately 150 million years ago to recent times) stratigraphy in the entire Peninsular Ranges. The dominant rocks in the Peninsular Range are granitic, having invaded an older metamorphic series of rocks (Jenkins 1943:87).

The Los Angeles Basin. Specifically, the project is located within the Los Angeles Basin. The Basin is a broad, almost level alluvial plain bounded on the north and northeast by hills and mountains of the Northern Peninsular and Transverse Ranges and on the south and west by the Pacific Ocean. The Basin is divided into several areas: the Downey Plain, in which the project site lies, is the largest section and is located in the central portion of the Basin; the Tustin Plain, located to the east, is separated from the Basin by the Santa Ana River; and the Torrance Plain and the El Segundo Sand Hills are located on the western margin of the Basin. Smaller plains such as the Santa Monica and La Brea Plains are located on the northern margin.

The marine and nonmarine sediments within the Basin are up to 6 miles (9.6 km) thick formed over a period of 15 million years due to sediment accumulated in an enormous basin. This basin slowly uplifted resulting in the shallow gradient exhibited today. Currently, the main sediment sources for the Basin are the several rivers that flow into it. These include the Los Angeles, San Gabriel, and Santa Ana Rivers. Due to the shallow incline of the Basin, over time these rivers have followed various channels, distributing their sediment evenly across the Basin. For example, prior to the flood of 1825, the Los Angeles River drained west to the Pacific Ocean at Marina Del Rey, north of the Palos Verdes Peninsula, following the current path of Ballona Creek. The flood of 1825 altered the river's course to run east of the Palos Verdes Peninsula where it followed several drainages south to the ocean between the Wilmington and Long Beach areas. Today, the Los Angeles River is channelized, flowing directly south 0.5 mile (0.8 km) east of the project area where it empties into the Port of Long Beach.

Project Area Sediment. The project area is located within an area of undivided (unspecified) sandy Young Alluvial Fan and Valley Deposits (Saucedo et al. 2003) derived from local streams emerging from the mountains and hills that have deposited sediments within approximately the past 11,000-12,000 years. Alluvium is a geologically recent deposit of gravel, sand, silt, or mud deposited by flowing water in a stream or river. Alluvial deposits are found along old and active stream and river drainages and are usually loosely consolidated. Sand grains are generally subangular to subrounded, while the cobbles and gravel are rounded to well-rounded. Specifically within the project area, alluvial sediment consists of sand deposits. However, with the stability offered by surface vegetation, some silt and clay has accumulated.

CULTURAL SETTING

Prehistory

The description of an overall regional chronology demarcating the major stages of cultural evolution in Southern California has been attempted many times (Figure 2). Two principal regional chronologies (Wallace 1955 and 1978; and Warren 1968) have been revised slightly for the County (Koerper 1981; Koerper and Drover 1983; Mason and Peterson 1994). Other chronologies from the Southern California area have also been proposed. In coastal Santa Barbara County, D.B. Rogers (1929) and King (1981) are two examples. In coastal San Diego County, M. Rogers (1939, 1945, 1966) was the first to define a chronology, while other principal researchers, including Meighan (1954), True (1958, 1966, 1970), and Moriarty (1966) followed with their own chronological organizations that tended to be more area-specific than either Wallace (1955, 1978) or Warren (1968).

Part of the reason that so many different chronologies were proposed was twofold. First, prehistoric cultural development in Southern California occurred gradually and was stable for long periods so that creating a specific chronology for a wide region was difficult. Second, cultural changes that occurred over time in some areas may not have been observed in other areas. So even if a change did occur, it may not have been identified by researchers. As such, chronologies tend to be specific to certain areas, and development of regional chronologies identifying overall trends occurred more slowly and was not as common. The cultural setting within this report has been adapted from Strudwick (2008).

Southern California researchers have divided regional prehistory into a four-stage chronology describing changing artifact assemblages and evolving ecological adaptations. The principal chronology, a regional synthesis first proposed by Wallace (1955), divides the area prehistory by major cultural changes within general prehistoric time periods. Wallace defined four chronologically based cultural divisions for Southern California, as depicted in Figure 2.

Early Period (Prior to 6000 BC). The Early Period (also known as the Hunting Period) covers the interval from the first presence of humans in Southern California until post-glacial times (6000 to 3000 BC). Artifacts and cultural activities from this period represent a predominantly hunting culture; diagnostic artifacts include extremely large, often fluted, bifaces associated with use of the spear and the atlatl, or spear thrower. In Southern California, important Early Period sites have been found near prehistoric Lake Mohave and along the San Dieguito River (Wallace 1955, 1978:27; Moratto 1984:81, 93-99).

Although Early Period sites are rare in the Los Angeles and Orange County area, it is thought that Level 1, the deepest level at the Malaga Cove Site (LAN-138), may date to this time period (Walker 1951:39-40, 51). Two sites in the Upper Newport Bay area, Sites CA-ORA-195 and CA-ORA-64, are also thought to date from this period. Radiocarbon dates on shell recovered from Site ORA-64 range from approximately 6500 BC to 2900 BC; these dates place the earliest components of the site within the Early Period. Artifacts recovered from this site include elongated, crudely flaked blades with thick oval cross sections that may be diagnostic of San Dieguito lithic technology. Faunal remains recovered from the earliest component of the site indicate that bay fishing and some fowling were practiced. Shell remains that may date to the Early Period were predominantly of mussels (*Mytilus* spp.) (Drover et al. 1983:10, 22, 26, 34, 47, and Table 1).

Milling Stone Period (6000- 3000 BC). The transition from the Early Period to the Milling Stone Period is marked by an increased emphasis on the processing of seeds and edible plants, and is estimated to have occurred between 6000 BC and 3000 BC. According to Wallace (1978:28), wild seeds and edible plants formed the primary food source during this period with only limited use of shellfish and faunal resources; plant resources were processed using deep-basined mills and hand stones, hence the term Milling Stone Period. Milling Stone Period settlements were larger and occupied for longer periods of time than those of the Early Period, and mortuary practices included both flexed and extended burials as well as reburials. Grave offerings were few, although rock cairns were sometimes placed over the bodies (Wallace 1955:192; 1978:28).

Diagnostic artifacts recovered from Milling Stone Period archaeological sites include mills (metates) and hand stones (manos), and large projectile points indicating the continued use of darts and spear-throwers. Among the more interesting (and enigmatic) artifacts from this period are discoidals and cogged stones. Discoidals are round to ovoid ground stones with flat or slightly convex faces and edges, while cogged stones are discoidals with serrated edges resembling the teeth on gears. Both types of artifacts appear sometime around 4000 BC, and are dated to the Milling Stone Period; their use remains unclear, and they may have had a ceremonial function (Moratto 1984:149-150).

Wallace (1978:28) offers two possible scenarios to explain the cultural changes that occurred during the Milling Stone Period; quite possibly, both processes occurred simultaneously in different

geographical areas. In some regions (such as western San Diego County), Milling Stone cultures may have evolved gradually as the earlier hunting peoples learned to exploit a wider variety of food resources; in other areas, people migrating from interior regions may have introduced the technology for processing seeds and plant foods to coastal areas. Evidence for such migrations may be found in climatic data. The onset of the Milling Stone Period corresponds with an interval of warm, dry weather known as the Altithermal. During the Altithermal, many of the inland lakes disappeared and the region became less habitable, perhaps triggering the coastal migrations believed to have occurred at this time (Wallace 1978:28).

The best known site near the current project area dating to the Milling Stone period is Site CA-LAN-138 (Malaga Cove) where artifacts from the second deepest layer, Level 2, are principally ground stone (Walker 1951:51-60). A discoidal was also recovered from Level 2 at Site CA-LAN-138. Several Milling Stone Period sites have also been identified in Orange County. The best known is the Irvine Site (Site CA-ORA-64), dating to about 6000 BC. Drover et al. (1983) suggests that there are two separate Milling Stone Period components at the site. The first, dating to the early Milling Stone Period, may represent a seasonal camp used by a group whose permanent settlement (central base) was located elsewhere; the second component, dating to the late Milling Stone Period, may represent a central base camp. Contrary to Wallace's scheme, which emphasizes the gathering of seeds and plant foods over hunting, Drover et al. (1983:40-46, 53-59) found evidence of a broad-based food gathering economy; food remains recovered from the Irvine Site included terrestrial carnivores (dog), deer, fish (both bay-estuary and near-shore species), marine carnivores (shark), waterfowl, small terrestrial mammals, reptiles, terrestrial birds and shellfish (bay-estuary species). There was no evidence of deep-water fishing. Such diverse food gathering activities may have been typical of coastal Milling Stone Period sites; data from other coastal Milling Stone Period sites such as the Glen Annie, Little Sycamore, and Zuma Creek/Mesa sites demonstrate that food resources included seeds and vegetal foods, fish, mollusks, waterfowl, and land and sea mammals (Moratto 1984:130).

Intermediate Period (3000 BC – AD 500). By approximately 3000 BC, the inhabitants of Southern California were exploiting a diverse array of food resources including seeds and edible plants, shellfish, fish, and mammals. Along the coast, a greater reliance was placed on marine food resources as evidenced by the recovery of near-shore and pelagic (deep water) fish remains from archaeological sites. In the interior regions such as the Mohave Desert, the return of cooler, moister conditions led to increased populations along streams and lakes. Hunting appears to have been the primary food gathering activity in these interior areas; the best known sites from this region are located at Pinto Basin in northeastern Riverside County (Moratto 1984:153; Wallace 1978:30-31).

Intermediate Period sites are characterized by the appearance of the mortar and pestle (although the mano and metate also continued in use) and small projectile points. The use of the mortar and pestle may indicate an increased reliance upon acorns as a food source, while the small projectile points suggest that the bow and arrow was in limited use (Elsasser 1978:55; Wallace 1978:30-31). The circular shell fishhook also makes its appearance in coastal sites during this period; the circular fishhook is found most abundantly in areas adjacent to a rocky coastline and may have been less subject to fouling than gorges and other types of hooks (Strudwick 1986:283-284). Intermediate Period burials were generally by interment in a flexed position, face down, although a site at Big Tujunga Wash in the San Fernando Valley contained both reburials under stone cairns and cremations (Wallace 1955:193-195; Elsasser 1978:55).

Orange County researchers have had difficulty distinguishing Intermediate Period sites, since many of the tool types appear in earlier and later periods; the few known sites have often been identified using radiocarbon or obsidian hydration methods. At present, at least two Intermediate Period site components have been identified in Upper Newport Bay: Site CA-ORA-121 (Crownover et al. 1990) and Site CA-ORA-287 (Clevenger 1986). Two field camps (Sites CA-ORA-221/222 and CA-ORA-226) also are thought to have small Intermediate Period components (Rosenthal and Padon 1986; Mason et al. 1987). Closer to the project area the Malaga Cove Site (Site CA-LAN-138) is known to have Intermediate Period components (Walker 1951).

Late Prehistoric Period (AD 500-1769). The Late Prehistoric Period (Late Period), which began approximately AD 500, saw a number of important cultural developments in Southern California, including the concentration of larger populations in settlements and communities, greater utilization of the available food resources, and the development of regional subcultures. Cremation was the preferred method of burial during the Late Period, and elaborate mortuary customs with abundant grave goods were common. Other cultural traits diagnostic of the Late Period include increased use of the bow and arrow, steatite containers, circular shell fishhooks, asphaltum (as an adhesive), bone tools and personal ornaments of bone, shell, and stone (Bean and Smith 1978; Elsasser 1978:56; Moratto 1984:159; Wallace 1955:195). Because many of these artifacts are also recovered from earlier periods, other indicators must sometimes be used to distinguish Late Period sites. Among the most useful of these indicators are lithic artifacts manufactured from obsidian and fused shale. Obsidian from Obsidian Buttes near the Salton Sea was used sporadically in the manufacture of lithic artifacts until sometime after circa AD 1000; in Orange County, Grimes Canyon fused shale obtained from Ventura County was also used in tool manufacture (Demcak 1981; Hall 1988).

A number of the cultural elements found in Southern California during the Late Period have been linked to the migration of Uto-Aztecan-speaking peoples from the Great Basin; these traits include the manufacture of ceramics, the use of small triangular arrow points, and interment by cremation. The date of the Uto-Aztecan migration (which probably occurred in several successive waves over an extended period of time) remains uncertain; it has been dated as early as 2000 BC and as late as AD 700. Linguistic evidence suggests a date of AD 1 to 500 (Koerper 1979; Kroeber 1925:574-580; Moratto 1984:161). The Los Angeles and Orange County region was home to one Uto-Aztecan speaking group known as the Gabrielino. The name Gabrielino derives from the incorporation of these Indian peoples into Mission San Gabriel; similarly, the name Fernandeano derives from the incorporation of the Indians living in the San Fernando Valley into Mission San Fernando. However, linguistically and culturally the Gabrielino and Fernandeano were closely related, and the distinction seems unnecessary (Kroeber 1925; Bean and Smith 1978). The current project area is located near the center of coastal Gabrielino territory.

Ethnohistory

The Gabrielino Indians. The Gabrielino practiced a hunter-gatherer lifestyle and lived in permanent communities located near the intersection of two or more environmental zones (habitats); commonly chosen sites included: rivers, streams and inland watercourses; sheltered coastal bays and estuaries; and the transition zone marking the interface between prairies and foothills (see Johnson 1962; Bean and Smith 1978). The most important factors in choosing a community site were the presence of a

stable food supply and some measure of protection from flooding. Community populations generally ranged from 50 to 100 inhabitants, although larger settlements may have existed. Gabrielino communities located in the interior regions maintained permanent geographical territories or usage areas that may have averaged 30 square miles; however, it is unclear whether this pattern also held for the coastal settlements, where food resources may have been more plentiful (White 1963:117; also Oxendine 1983:44). In addition to these permanent settlements, the Gabrielino occupied temporary campsites that were used on a seasonal basis for hunting, fishing, and gathering wild plant foods and shellfish (McCawley 1996:25).

Three distinctive settlement-subsistence patterns have been identified for the Gabrielino communities. The first pattern was found in the interior mountains, where primary settlements were located in the lower reaches of canyons that offered protection against cold weather during the winter. During spring and summer, individual families traveled to seasonal camps to gather bulbs, seeds, and plant foods; in the fall they moved to oak groves to gather acorns. A second pattern prevailed on the inland prairies; each winter, the populations of these communities divided into family units and migrated to coastal shellfish-gathering camps. The third settlement and subsistence pattern was found among the coastal settlements located in the region north of San Pedro; during the winter season (when the seas were too rough for fishing), the inhabitants of these communities dispersed to inland camps to hunt and gather acorns and plant foods (Hudson 1971).

Politically, each Gabrielino community comprised one or more kinship groups (known as lineages), which were united under the leadership of a *tomyaar* or chief. Each lineage comprised several related nuclear families; membership in a lineage was traced through the father, and allowed an individual to claim use rights over the territory owned by that group. The *tomyaar* was the focus of the religious and secular life of the community and served as chief administrator, fiscal officer, war leader, legal arbitrator, and religious leader (Bean and Smith 1978; Harrington 1942:32, item 1263; 1986:R102 F642). The *tomyaar* was aided in his duties by a Council of Elders, which consisted of the leaders of the lineages residing in the community as well as other wealthy and influential individuals. Council positions were hereditary, and descended from father to son. Shamans also played an important role in Gabrielino society, serving as the principal doctors, psychotherapists, philosophers and intellectuals; often, the *tomyaar* himself was an important and influential shaman (Bean 1974:25-26).

The Gabrielino culture was characterized by an active and elaborate system of rituals and ceremonies. Rituals included individual rites of passage, village rites, seasonal ceremonies and participation in the widespread *Chinigchinich* cult. The cult of the culture hero, *Chinigchinich*, was observed and recorded by Franciscan Friar Gerónimo Boscana during his residences at Missions San Juan Capistrano and San Luis Rey (Harrington 1933, 1934; Boscana 1933; Hanna 1978). The *Chinigchinich* cult is believed to have originated at the village of *Povuu'nga*, located in the vicinity of California State University, Long Beach, just southeast of the current project area.

The Gabrielino Decline. The Franciscans' goal in founding the missions was to convert the Indians to the Spanish Catholic faith and incorporate them into the lower strata of Spanish society; however, the final result of missionization was the destruction of the Gabrielino culture and society. Two important factors contributed to this decline: first, many of the youngest, healthiest, and most productive Gabrielino were removed from the Gabrielino economy when they entered the Mission System; second, the introduction of highly infectious European diseases (for which the Gabrielino

had no immunities) led to epidemics and reduced birth rates, which further disrupted traditional Gabrielino political, social, and economic institutions. As a result, most of the traditional Gabrielino communities were depopulated and the survivors became assimilated into the Mexican-American community of Los Angeles. During the 1920s, the anthropologist A.L. Kroeber was unable to locate a group claiming Gabrielino heritage, although he did interview several individuals of Gabrielino ancestry. Presently, the federal government does not recognize a Gabrielino tribe or band, although there are individual spokespeople of Gabrielino descent (Rosenthal et al. 1991).

History

In California, the historic era has been divided into three periods: the Spanish Mission Period (1769–1821), the Mexican Rancho Period (1821–1848), and the American Period (1848–present; Robinson 1979). These periods are described below, beginning with the earliest.

Spanish Mission Period (1769–1821). The first recorded contact between the Gabrielino and Europeans occurred in 1542, when the Cabrillo expedition arrived at Santa Catalina Island (Wagner 1941). In the area, the first recorded contact occurred when Gaspar de Portolá's expedition crossed the region in 1769. The period between 1769 and 1821, when Mexico gained independence from Spain (McGroarty 1911:117, 148; Avina 1932:29; Robinson 1979:13), is here referred to as the Spanish Mission Period (Robinson 1979:51–52).

On September 8, 1771, Father Junipero Serra established a Franciscan mission at San Gabriel (Lowman 1993:2). The tribal name *Gabrielino* is derived from *Mission San Gabriel Arcangel*. On September 8, 1797, over a quarter of a century later, Father Lasuen founded *Mission San Fernando Rey de España* closer to Los Angeles than Mission San Gabriel (Lowman 1993:2, 14). Mission San Fernando was the second mission to be founded within the Gabrielino territory. Many of the converts from these two missions came from the local area, especially the Gabrielino community of *Puvunga*, which was located atop the hill in the City where California State University, Long Beach, and the Veteran's Hospital are now located.

In addition to the missions, the Spanish also established a town within the Gabrielino territory, *El Pueblo de la Reina de Los Angeles De Porciúncula*, and a number of private ranchos; these included *San Pedro*, *San Rafael*, *Portezuelo*, and *Los Coyotes*. *Los Coyotes* was granted in 1790 to Manuel Pérez Nieto and originally encompassed 300,000 acres (including the entire project area), although the grant was later reduced to approximately one-half that size due to the insistence of the Mission San Gabriel padres, upon whose concession Nieto's holdings overlapped. The grant extended from the Santa Ana River west to the San Gabriel River, which at that time emptied into the ocean near the present-day Long Beach-Wilmington boundary (Cleland 1951:8). The headquarters for *Rancho Los Coyotes* was located at "Los Nietos," near present-day Downey. Nieto cultivated only about 160 acres of this land, probably as a vineyard. The remainder of land he used as grazing land for his herds of horses and cattle, which reportedly numbered 15,000 to 20,000 head (Cleland 1951:8, 283, note 16). Sheep and hogs were also raised by Nieto on *Rancho Los Coyotes* (Cleland 1951:22). When Manuel Perez Nieto died in 1804, each of his four children received an undivided interest in the 167,000 acres *Rancho Los Coyotes*, and the huge land grant stayed intact for nearly another 30 years.

Mexican Rancho Period (1821–1848). In 1821, Mexico gained independence from Spain, and in 1848, the United States formally obtained California in the Treaty of Guadalupe Hidalgo (Cleland 1962:xiii), and the period from 1821 to 1848 is referred to as the Mexican Rancho Period. It was during the Mexican Period that large tracts of land termed *ranchos* were granted by the various Mexican Governors of *alta* California, usually to individuals who had worked in the service of the Mexican Government. In 1833, 12 years after gaining independence from Spain, the Mexican government's Secularization Act changed missions into civil parishes, and those natives who had inhabited regions adjacent to a Spanish Period mission were to obtain half of all mission possessions, including land. However, in most instances this did not occur, and the Secularization Act resulted in the transfer of large mission tracts to politically prominent individuals.

In 1833, the Manuel Nieto's heirs petitioned to divide *Rancho Los Coyotes* and later that year, the land was divided into six smaller grants: Los Alamitos, Los Cerritos, Los Coyotes, Las Bolsas, Palo Alto, and Santa Gertrudes (Cleland 1951:8). The land on which the project area lies was regranted to Nieto's daughter, Doña Manuela Nieto, as the five square league *Rancho Los Cerritos* (Shumway 1993:30).

In 1844, the adobe known as "Los Cerritos" was built by Don Juan Temple about 4.0 miles (6.4 km) north of what eventually became the City of Long Beach. Temple was a native of Massachusetts who married Rafaela Cota, a descendant of Manuel Nieto. In 1840, he purchased the shares that the Nieto family held in *Rancho Los Cerritos* and on which he built the Los Cerritos adobe (Hoover et al. 1962:15). Temple was a successful businessman in early Los Angeles. He opened the first general store in the Pueblo of Los Angeles, and later owned the first market that eventually became the site of the Courthouse. The location of Los Angeles' first office building, built by Temple and his brother as part of the "Temple Block," as well as the Courthouse, were both replaced by the modern City Hall building (Hoover et al. 1962:15-16). In 1867, the American patent (legal deed of ownership) to *Rancho Los Cerritos*, was issued to Juan Temple (Shumway 1993:30).

American Period (Post-1848). Following the end of hostilities between Mexico and the United States in January 1847, the United States officially obtained California from Mexico through the Treaty of Guadalupe Hidalgo on February 2, 1848 (Cleland 1962:xiii). As such, the American Period begins in 1848. In 1850, California was accepted into the Union of the United States, primarily due to the population increase created by the Gold Rush of 1849.

The cattle industry in California reached its greatest prosperity during the initial years of the American Period. Mexican Period land grants had created large pastoral estates in California, and a high demand for beef during the Gold Rush led to a cattle boom that lasted from 1849 to 1855. Cattle ranching remained a profitable business until the mid-1850s, when declining prices and a series of disastrous droughts destroyed the Southern California cattle industry (Cleland 1951:134–135).

In 1855, the demand for California beef began to decline as a result of sheep imports from New Mexico, cattle imports from the Mississippi and Missouri valleys, and the development of stock breeding farms. When the beef market collapsed, the California ranchers were unprepared. Many had borrowed heavily during the boom, mortgaging their land at interest rates as high as 10 percent per month. The collapse of the cattle market meant that many of these ranchos were lost through foreclosure, while others were sold to pay debts and taxes (Cleland 1951:108–114).

During the winter of 1861–1862, a disastrous series of floods struck California. According to rainfall statistics, more than 45 inches of rain fell in parts of California between November 1861 and February 1862 (Brewer 1930:253). It has been estimated that the 1862 flood was the largest in the recorded history of the Santa Ana River. At Agua Mansa, the high water line marked on the front steps of the church was used to estimate a flow rate of 320,000 cubic feet per second, more than three times the estimated high water maximum recorded in 1938 (Sidler 1968:19 in Taylor and Taylor 2006:3-4). Lesser flooding episodes along the Santa Ana River also occurred in 1867 and 1891.

This unprecedented deluge was then followed by 2 years of drought (Cleland 1951:130–131). The drought of the 1860s was a turning point in the economic history of Southern California. The era of the great cattle ranchos ended, and many of the landowners who survived the collapse of the cattle industry were forced to sell their property due to the drought. In order to make what profit they could from the sale of hides, tallow, and dried beef, the large ranchos, including Juan Temple's *Rancho Los Cerritos*, slaughtered some 15,000 cattle when they could not be sold for as little as \$10 each (Cleland 1951:110-111).

Southern California's economic transition continued through the 1870s. During this period, many of the large landholdings were subdivided, and a diversified agriculture centered on citrus fruits, grapes, and grains appeared. Interest rates declined to a modest 10 percent per year, helping spur continued growth and development. However, drought continued to plague ranchers. The years 1870–1871 and 1876 are reported as particularly dry years in Southern California (Cleland 1951:208–218).

Willmore City – Long Beach. In 1882, Willmore City was founded by William E. Willmore (Gudde 1998:215). In 1887, Long Beach Land and Water Company acquired Willmore City and applied the name "Long Beach." By the 1880s and 1890s, homes were being built in the areas of *Rancho Los Cerritos*, once used for pasture. By 1880, a sheepherder was living in the first building built for human habitation in what is now the City of Long Beach (Epley 1963:3). This wooden building was little larger than a shed and was located at what is now the intersection of Pine Avenue and First Street. It is not known when this building was first constructed. In 1886, the first major building in the city, the Long Beach Hotel (also known as the Willmore Hotel) was built.

In 1893, the first municipal pier in California, known as Pine Avenue Pier, was built by the City of Long Beach (Epley 1963:21). The 1896 Downey 15-minute USGS map clearly depicts the cities of Long Beach and Alamitos Beach as a cluster of homes on well-developed streets. Although Epley (1963:31) states that Long Beach's second pier, Magnolia Pier, opened in 1898, two piers are clearly shown on the 1896 USGS map. Widely dispersed homes are also evident within inland areas on the 1896 USGS map, though none within the current project area. Portions of what were to become Willow Street, Hill Street, and Pacific Coast Highway existed. The main thoroughfare through the area was East Anaheim Boulevard, which appears to have been the closest road to the coast to circumnavigate Alamitos Bay, which at the time presented a major obstacle in traveling south along the coast. Ocean Boulevard, although well-developed in the City of Long Beach, did not extend south along the coast past Alamitos Bay, due to the marshy conditions created by the bay.

As described in Hector et al. (1993) the population of Long Beach underwent a sustained and rapid growth during the first third of the 20th century. The population of Long Beach, 18,000 in 1910, grew

to nearly 56,000 by 1920, and 142,000 by 1930. This growth was due primarily to the City's popularity as a seaside resort and the discovery of oil.

Although commercial oil development in the Los Angeles area had been underway since Edward Doheney and Charles Canfield struck oil and natural gas in the Westlake Park area in 1892, most of the 3,000 wells drilled in the State during the first 35 years of California's commercial oil industry (1865–1900) were shallow holes drilled near well-known surface seeps. No large, important pools of oil were discovered in the State prior to 1897 (Franks and Lambert 1985:7). It was not until the 1920s that Los Angeles witnessed the discovery of six of the greatest American oil fields brought into production during the first half of the 20th century (Franks and Lambert 1985:73-74). These fields were Huntington Beach (1920), Long Beach (also known as Signal Hill, 1921), Torrance (1922), Inglewood (1924), and Seal Beach (1926). Nearly 300 oil wells were drilled on Signal Hill within 2 years of the initial discovery of oil there. The resulting demand for labor increased traffic and resulted in a scarcity of housing. Also, beginning in the mid-1920s, the City of Long Beach began a campaign to attract the U.S. Navy. In 1926, the Port of Long Beach was established, and by 1932, the Navy chose Long Beach for its next phase of development. From the late 1930s through the height of World War II, more Navy personnel resided in Long Beach than anywhere else in the country (Hector et al. 1993:14, 18). This rapid growth resulted in a shortage of affordable housing.

In the 1940s, the U.S. Navy took and developed land within the current project area through eminent domain in order to provide low-cost housing for enlisted Navy personnel (Hector et al. 1993:1, 22). In 1944, the Navy developed the "Cabrillo Housing" area, a tract of modest temporary houses intended to accommodate low-income families. The Cabrillo Housing area was constructed on the current project area, which until that time, had remained undeveloped. The Cabrillo Housing area was demolished in 1965 (Hector et al. 1993:22-23).

METHODS

ARCHIVAL RESEARCH

A record search was completed on February 7, 2013, at the SCCIC of the California Historical Resources Information System (CHRIS) located at California State University, Fullerton. It included a review of all recorded historic and prehistoric archaeological sites within a 1.0 mile radius of the project area, as well as a review of known cultural resource survey and excavation reports. In addition, the California State Historic Resources Inventory (HRI), which includes the National Register of Historic Place (National Register), California Historical Landmarks (CHL), California Points of Historical Interest (SPHI), and various local historical registers were examined.

FIELD SURVEY

On February 18, 2013, LSA Archaeologist Ivan Strudwick and LSA Architectural Historian Elisa Bechtel conducted a pedestrian survey of the project area. All portions of the property, except those portions that are currently developed with buildings, parking, and roads, were intensively surveyed.

REPORT OF FINDINGS

ARCHIVAL RESEARCH

Record search results indicate that a total of 38 previous cultural resource investigations have been conducted within a 1.0 mile (1.6 km) radius of the project area. One of these, a cultural resource survey by Hector et al. (1993) included the entire current project area. None of the remaining 37 cultural resource investigations included any portion of the project area. Of these, 22 were surveys (Stickel 1976; Eggars 1977; Winman and Stickel 1978; MacFarlane Archaeological Consultants 1991; Wlodarski 1992, 2006, 2011; Starzak 1994; Sylvia 2001; Duke 2002a, 2002b; Maki 2003; Martin and Self 2003; Bonner 2004, 2008; Bonner and Crawford 2007; McKenna 2007; Robinson 2007; Hollins 2008; Billat 2009; and Supernowicz 2011), 6 were inventories/resource reviews/analyses (Stickel 1981; Anonymous 1984; Peak and Associates 1992; Farrell 2005; Livingstone et al. 2006; and Strudwick 2007), 2 were evaluations (Rosen 1975; and McKenna 1993), 1 was a monitoring report (Arrington and Sikes 2006), 2 were environmental impact reports/statements (Chamberlaine and Rivers-Council 1992; and McCawley et al. 1994), 1 was a General Plan (Dixon 1974), 2 were research designs/treatment plans (Hill 1985; and Horne et al. 2000), and 2 were place name descriptions (King 1993; and Walker and Robinson n.d.). A total of 7 of these cultural resource reports are located within approximately 0.25 mile (0.4 km) of the current project area.

No cultural resources have been recorded within the project area as a result of past studies. One archaeological site, Site CA-LAN-2788, was recorded along the west side of the Dominguez Channel 0.75 mile (1.2 km) west-northwest of the project area. Although 24 above-ground historic resources have been recorded within 1 mile of the project area, none are within the project area. Within 1.0 mile of the project area, 45 properties are listed on the California Register and 36 properties have been evaluated for historical significance as part of the HRI. The majority of the evaluated properties were determined to be ineligible for the National Register. None of these resources is within the project area. Additionally, no properties within 1.0 mile of the project area are listed on the SPHI, or the National Register as a City of Los Angeles Historic-Cultural Monument (LAHCM), or as a CHL.

Historic maps provided by the SCCIC include three *Downey, California* 15-minute historic USGS maps (USGS 1896, 1942, 1943). The earliest of these maps (USGS 1896) shows no buildings within what is now the project area. This map shows a few isolated buildings outside of downtown Long Beach and Alamitos Beach, which is limited to an area measuring approximately 1 mile along the coast and less than 1 mile inland. The 1896 map also shows a dirt road that was eventually to become PCH. The location of the project area on this early map is just east of what is identified as "Watson Lakes," adjacent to a drainage that is now Dominguez Channel. An area identified as "Watson Crossing" is approximately 1 mile north-northwest of the project area. Another area marked "Seabright" is located 1 mile south of the current project area. By 1942, the Los Angeles River is within its currently channelized location, Watson Crossing is still identified on the map, and Long Beach has expanded greatly with development all along the coast south to Orange County (USGS 1942). Roads have been extended south along the coast past Bolsa Bay, and PCH is identified as 101-A (Alternate), indicating that it has become a major thoroughfare. By 1943, a location identified as

“Thenard Junction” on the 1942 USGS map (Southern Pacific Railroad) is now Wilmington; otherwise, the 1943 USGS map varies little from the 1942 map.

FIELD SURVEY

No prehistoric cultural resources were observed during the survey. A discussion of historic resources is presented in Tibbett and Bechtel (2013).

The project area is a naturally level area, but contains 6–15-foot-tall mounds of sediment in the southwest portion of the project area (Figures 3 and 4). Ground visibility within the project area at the time of the survey varied from approximately 20–30 percent to a high of 80–90 percent. The project area consists mainly of grassy and brushy areas with some buildings and parking areas in the central and eastern portions of the project area. Factors limiting ground visibility are principally grass and brush throughout the project area, as well as existing buildings and paved/parking areas in the central portion of the project.

Soil within the project area is primarily disturbed sandy loam with quantities of gravel “road rock.” This is consistent with the mapped surficial geology (Young Alluvial Fan and Valley Deposits, Undivided; Saucedo, et al. 2003). Some silt and clay have probably accumulated through vegetative growth. Gravel “road rock” is evident almost everywhere in the project area. The gravel was used as road base for paved roads, and was probably also spread across the surface of dirt roads to reduce muddiness during the rainy season. Gravel and some rock also exist in the piles of accumulated sediment in the southwestern portion of the project area. It is unknown whether the piles are the result of bulldozing sediment from the project area or dumping sediment that originated outside of the project area. The piles have been used as temporary homeless shelter, as has a small shed located in the northeastern portion of the project area just south of Technology Place. Much recent trash exists in the areas used by the homeless, as well as along Technology Place, which is a thoroughfare for pedestrians and vehicles. Other areas contain almost no recent trash, although it is evident that the majority of the project area has been graded as gravel and small fragments of glass, metal, and plastic are evident in most areas.

It is known that the project area once contained Navy housing and the gravel and small pieces of glass, metal, and plastic in the soil are likely the residual from the original military housing tract that was demolished in 1965 (Hector et al. 1993:22-23). It is also possible that the mounded sediment in the southwestern portion of the project area is the remnant of this bulldozing.



Looking west along the northern edge of the project area from the northeastern corner. Technology Place on left, W. 19th Street on right.



Looking NNW from the area with mounded sediment in the southwestern corner of project area. Technology Place running left to right. West edge of project area on left.

LSA

FIGURE 3

CSULB Foundation Project
Survey Photos



Looking ENE at buildings in central portion of project area from area with mounded sediment. Elicia Bechtel in orange vest. Pacific Coast Highway on right. Technology Place on left.



Looking WNW at buildings in central portion of project area from eastern edge of parcel along Cota Avenue.

LSA

FIGURE 4

CSULB Foundation Project
Survey Photos

RECOMMENDATIONS

No prehistoric material was identified during the archaeological field survey of the currently undeveloped portions of the 9.8 acre CSULB Foundation project area. Due to the absence of resources in the project area, it is recommended that no construction monitoring or additional cultural resource management of the project is necessary.

In the event that archaeological material is encountered during construction, a qualified professional archaeologist should be contacted in order to assess the nature and significance of the find and to determine the appropriate treatment of the resource.

In the event human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner will notify the NAHC, which will determine and notify an MLD. With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of being granted access to the site. The MLD will have the opportunity to offer recommendations for the disposition of the remains.

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APPENDIX A

RECORD SEARCH RESULTS

South Central Coastal Information Center

California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395 / FAX 657.278.5542
anthro.fullerton.edu/sccic.html - sccic@fullerton.edu
California Historical Resources Information System
Orange, Los Angeles, and Ventura Counties

FEB 12 2013

RECEIVED
IRVINE

February 7, 2013

SCCIC #12876.9578

Ms. Debbie McLean
LSA Associates
20 Executive Park, Ste.200
Irvine, CA 92614
(949) 553-0666

RE: Records Search Request for the California State University, Long Beach Foundation Project, Orange County, California. LSA job number CLB1205

Dear Ms. McLean,

As per your request received on February 5, 2013, a records search was conducted for the above referenced project. The search includes a review of all recorded archaeological sites within a 1-mile radius of the project site as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (SPHI), the California Historical Landmarks (SHL), the California Register of Historical Resources (CAL REG), the National Register of Historic Places (NRHP), the California State Historic Resources Inventory (HRI), and the City of Los Angeles Historic-Cultural Monuments (LAHCM) listings were reviewed for the above referenced project. The following is a discussion of the findings.

Long Beach, CA USGS 7.5' Quadrangle

MAPPED ARCHAEOLOGICAL RESOURCES:

One archaeological site (19-002788) has been identified on our maps within a 1-mile radius of the project site. No archaeological sites are located within the project site. No sites are listed on the Archaeological Determination of Eligibility (DOE) list. No isolates have been identified within a 1-mile radius of the project site. No isolates are located within the project site.

MAPPED HISTORIC BUILT-ENVIRONMENT RESOURCES:

Twenty-four above-ground historic resources (19-186868, 19-187117, 19-187164, 19-187169, 19-187181, 19-187222, 19-187235, 19-187306, 19-187682, 19-187683, 19-187684, 19-187685, 19-187686, 19-187687, 19-187688, 19-187689, 19-187690, 19-187691, 19-188402, 19-188864, 19-188865, 19-188866, 19-188867, 19-189988) have been identified on our maps within a 1-mile radius of the project site. No above-ground historic resources are located within the project site.

ADDITIONAL CULTURAL RESOURCES (all other listings)

The **California Historic Resources Inventory (HRI)** lists thirty-six properties that have been evaluated for historical significance within a 1-mile radius of the project site (**see enclosed list**). These are additional resources that are listed in the Historic Property Data File and are located either within the project site or within the search radius.

The **California Point of Historical Interest (SPHI)** of the Office of Historic Preservation, Department of Parks and Recreation, lists no properties within a 1-mile radius of the project site.

The **California Historical Landmarks (SHL)** of the Office of Historic Preservation, Department of Parks and Recreation, lists no properties within a 1-mile radius of the project site.

The **California Register of Historical Resources (CAL REG)** lists forty-five properties within a 1-mile radius of the project site (**+see enclosed list**). These are properties determined to have a National Register of Historic Places Status of 1 or 2, a California Historical Landmark numbering 770 and higher, or a Point of Historical Interest listed after 1/1/1998.

The **National Register of Historic Places (NRHP)** lists no properties within a 1-mile radius of the project site.

The **City of Los Angeles Historic-Cultural Monuments (LAHCM)** lists no properties within a 1-mile radius of the project site.

HISTORIC MAPS:

Copies of our historic maps – Downey, CA (1896, 1942, & 1943) 15' USGS - are enclosed for your review.

PREVIOUS CULTURAL RESOURCES INVESTIGATIONS:

Thirty-three studies (LA83, LA358, LA2399, LA2644, LA2862*, LA2882, LA2910, LA2950, LA2970, LA3102, LA4130, LA4512, LA4625, LA5871, LA5880, LA6062, LA6204, LA7908, LA7952, LA8255, LA8474, LA8475, LA8486, LA8728, LA9129, LA9430, LA9573, LA9836, LA9838, LA10524, LA10858, LA11029, and LA11700) have been conducted within a 1-mile radius of the project site. Of these, one is located within the project site. There are twenty additional investigations located on the Long Beach, CA 7.5' USGS Quadrangle that are potentially within a 1-mile radius of the project site. These reports are not mapped due to insufficient locational information.

(* = Located within the project site)

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you **do not include** resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at 657.278.5395 Monday through Thursday 9:00 am to 3:30 pm.

Should you require any additional information for the above referenced project, reference the SCCIC number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Sincerely,
SCCIC



Lindsey Noyes
Lead Staff Researcher

Enclosures:

- (X) Maps – Long Beach, CA 7.5' USGS Quadrangle, Downey, CA (1896, 1942, 1943)
15' USGS Quadrangle – 10 pages
- (X) Bibliography – 15 pages
- (X) HRI – 15 pages
- (X) National Register Status Codes – 1 page
- (X) Confidentiality Form
- (X) Invoice #12876.9578

**PALEONTOLOGICAL RESOURCES
ASSESSMENT**

**CALIFORNIA STATE UNIVERSITY LONG BEACH FOUNDATION
PROJECT**

CITY OF LONG BEACH, LOS ANGELES COUNTY, CALIFORNIA

LSA

June 2013

PALEONTOLOGICAL RESOURCES ASSESSMENT

CALIFORNIA STATE UNIVERSITY LONG BEACH FOUNDATION
PROJECT

CITY OF LONG BEACH, LOS ANGELES COUNTY, CALIFORNIA

Submitted to:

City of Long Beach
Development Services/Planning Bureau
333 West Ocean Blvd., 5th Floor
Long Beach, California

Prepared by:

Brooks Smith
LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, California 92614
(949) 553-0666

Project No. CLB1205

Data Base Information:

Type of Study: Locality Search and Survey

Localities Recorded: None

Acreage: 9.88 acres

USGS Quadrangle: Long Beach, California

Key Words: Holocene and Pleistocene Alluvium, Negative Survey,
Paleontologically Sensitive Sediments at Depth

LSA

June 2013

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APPENDIX

A: LOCALITY SEARCH RESULTS

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1.0 ABSTRACT

LSA Associates, Inc. (LSA) conducted a paleontological resources assessment for the California State University Long Beach (CSULB) Foundation Project (project), located in the City of Long Beach (City), County of Los Angeles (County), California. The project area consists of a square-shaped 9.88-acre (ac) parcel of land. The assessment included a locality search, an examination of geologic maps and paleontological literature, a field survey, and this report. The purpose of the assessment was to determine whether there was the potential to encounter paleontological resources within the proposed project area during project development.

An examination of geological mapping indicates that the surface of the project area is situated entirely upon sediments of Young Alluvial Fan and Valley Deposits that are from the Late Pleistocene to the Holocene (11,700 years to the present). It is possible that excavation associated with this project may encounter Pleistocene Alluvial Deposits; however, these will likely not be encountered until a depth of at least 10 feet (ft) below the surface is reached. The locality search conducted at the Natural History Museum of Los Angeles County (LACM) indicated that there are no known paleontological resources located within the project area. However, there are localities within approximately 1.5 miles (mi) of the project area of Pleistocene Alluvium that is located at depth beneath the project. Geotechnical investigations conducted within the project area indicate that the project is almost uniformly underlain by 2 to 3 ft of Artificial Fill over alluvial sediments. The geotechnical report also states that there are several sediment stockpiles within the project area.

No paleontological resources were observed during the field survey. Ground visibility within the project at the time of the survey varied from a low of 20–30 percent to a high of 80 percent. The project area consists mainly of grassy and brushy areas, with some buildings and parking areas in the central to eastern portion of the project area and stockpiles of dirt in the southwest portion of the project. The survey also confirmed that the surficial geology, although disturbed by prior grading activities, is consistent with the Holocene alluvial sediments that are mapped as being present within the project area.

Based on the results of the paleontological assessment, there is a potential to encounter paleontological resources beginning at depths of 10 ft beneath the surface of the project. In order to mitigate impacts to paleontological resources that may be present within the project area, LSA recommends the following if project-related excavation extends deeper than 10 ft beneath the surface in native sediments:

- A paleontologist shall be hired to develop a Paleontological Resource Impact Mitigation Program (PRIMP) for this project. The PRIMP shall include the methods that will be used to protect paleontological resources that may exist within the project area beginning at a depth of 10 ft beneath the surface in native sediments. The PRIMP shall include procedures for monitoring, fossil preparation and identification, curation into a repository, and preparation of a report at the conclusion of grading.

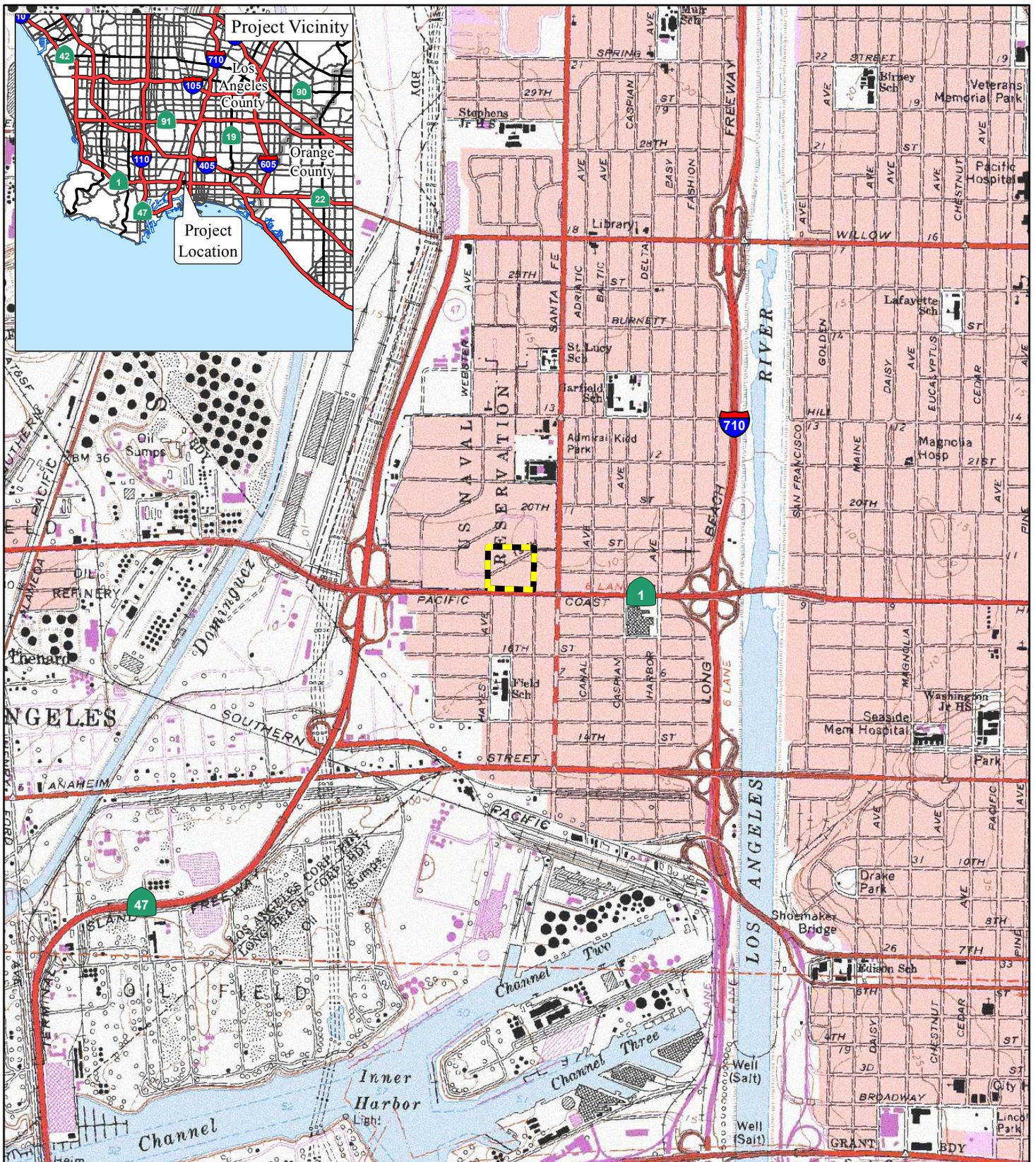
- Excavation and grading activities that extend deeper than 10 ft beneath the surface in native sediments shall be monitored by a qualified paleontologist following a PRIMP. If paleontological resources are encountered during the course of ground disturbance, the paleontological monitor shall have the authority to temporarily redirect construction away from the area of the find in order to assess its significance under California Environmental Quality Act (CEQA) Guidelines. Collected resources shall be prepared to the point of identification, identified to the lowest taxonomic level possible, cataloged, and curated into the permanent collections of an accredited scientific institution. At the conclusion of the monitoring program, a report of findings shall be prepared to document the results of the monitoring program.
- In the event that paleontological resources are encountered when a paleontological monitor is not on site, work in the immediate area of the find shall be redirected, and a paleontologist shall be contacted to assess the find for significance; if determined to be significant, it shall be collected from the field. In addition, if the find is located in sediments that are less than 10 ft beneath the surface, the paleontologist shall make recommendations as to whether monitoring shall be required in these sediments on a full-time basis at a depth shallower than 10ft.

2.0 INTRODUCTION

LSA was retained by the City of Long Beach to prepare a paleontological resources assessment for the CSULB Foundation Project located at the northwest corner of Pacific Coast Highway (PCH) and Cota Avenue. The project area is bound by West 19th Street to the north, Cota Avenue to the east, PCH to the south, and the Long Beach Foundation's Regional Technology Center to the west. Technology Avenue bisects the project on a diagonal running northeast to southwest. The project area is depicted on the United States Geological Survey (USGS) *Long Beach, California* 7.5-minute topographic quadrangle map in an unsectioned portion of Township 4 South, Range 13 West (San Bernardino Baseline and Meridian) (Figure 1).

The project area encompasses a total of 9.88 ac within a square-shaped parcel of land. The property is currently developed with several existing buildings and carports and some uncovered parking that occupy approximately 21,000 square feet (sf). In addition to Technology Avenue, a two-lane private paved street bisects the property on a diagonal running southwest to northeast. The rest of the property is undeveloped grassy fields with some trees. The proposed project includes demolition of the existing structures and parking areas and the development of a 125,000 sf commercial retail building on site with a maximum height of 28 ft. In addition, 486 on-site parking spaces will be provided in surface parking lots surrounding the proposed building. As part of the project, Technology Avenue, which crosses the project on a diagonal, will be demolished and vacated, as will be the westerly half of Cota Avenue on the east side of the project. Additionally, relocation of existing water, sewer, electric, and other utility lines presently on site is required, as well as installation of new utilities in the new commercial building. Based on the recommendations contained in the geotechnical report prepared for this project, earthwork associated with development of this property will include approximately 3 to 4 ft of excavation to prepare the subgrade, not including stockpile areas (Kleinfelder, 2012). In addition, there may be excavation up to 10 ft for the installation and/or relocation of utilities, such as sewer lines and storm drains.

The paleontological locality search, field survey, and assessment were conducted pursuant to CEQA Guidelines, Appendix G. The assessment documents the potential for paleontological resources older than 11,700 years to occur in the project area. In addition, work was conducted following the guidelines of the Society of Vertebrate Paleontology (SVP; 2010 and 1995). An impact to paleontological resources is considered significant if it can be reasonably argued that the project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.



LSA

LEGEND

 Project Location

FIGURE 1



0 1000 2000
FEET

SOURCE: USGS 7.5' Quad - LONG BEACH (1978), CA

F:\CLB1205\GIS\Paleo_Project_Location.mxd (2/22/2013)

CSULB Foundation Project
Project Vicinity and Location

3.0 LEGISLATION

3.1 STATE REGULATIONS

Under State law, paleontological resources are protected by both CEQA and Public Resources Code (PRC) Section 5097.5.

Under CEQA, Lead Agencies are required to consider impacts to the direct or indirect destruction of unique resources that are of value to the region or State. Appendix G of the CEQA Guidelines is a checklist with several choices given, including: Potentially Significant Impact, Less than Significant with Mitigation Incorporation, Less than Significant Impact, and No Impact. Specifically, in Appendix G, Section V(c), Lead Agencies are required to consider impacts to paleontological resources.

The California PRC Section 5097.5 states:

(a) No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

(b) As used in this section, “public lands” means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

However, because this project is not located on “public lands,” California PRC Section 5097.5 would not apply.

3.2 CITY OF LONG BEACH

The Historic Preservation Element of the General Plan of the City of Long Beach (City of Long Beach, 2010) outlines a vision for future historic preservation efforts within the City and the actions that need to be taken to achieve it. Development of the Historic Preservation Element was coordinated with the City’s 2030 General Plan update. The primary goals of the Historic Preservation Element are to integrate historic preservation into City procedures and interdepartmental decisions and to create a meaningful partnership with the community in order to implement the Historic Preservation Program. Although the Historic Preservation Element of General Plan of the City contains protection for things such as cultural and historic resources within the City, it contains no specific Goals, Policies, or Implementation Measures for the protection of paleontological resources. As such, no City-specific protections of paleontological resources will be required for this project.

4.0 METHODS

4.1 LOCALITY SEARCH

A paleontological locality search was conducted through the LACM, and geological and paleontological records maintained at LSA were examined. The search included a review of the area geology and any known paleontological resources recovered from the surrounding area, as well as the geologic units that would likely be encountered during excavation activities associated with the project. As geologic formations and units can be exposed over large geographic areas but contain similar lithologies and fossils, the literature review and fossil locality search includes areas well beyond the project area.

The purpose of the locality search was to establish the status and extent of previously recorded paleontological resources within and adjacent to the project. With this knowledge, LSA could make an informed assessment of the potential effects of the proposed project on paleontological resources and evaluate the types of fossils that might be uncovered during ground-disturbing activities. In addition, the sensitivity of the sediments expected to be encountered within the project could be determined.

4.2 FIELD SURVEY

On February 18, 2013, LSA surveyors Ivan Studwick and Elisa Bechtel conducted a pedestrian survey of the entire 9.88 ac project area. All portions of the property, except those that are currently developed with buildings, parking areas, and paved roads, were surveyed intensively.

The purpose of this survey was to confirm the accuracy of the geologic mapping and to identify whether any paleontological resources might be exposed on the surface. In this way, LSA could document the existence of paleontological material prior to the beginning of ground-disturbing activities and locate areas within the project that might contain abundant remains.

5.0 RESULTS

5.1 GEOLOGY

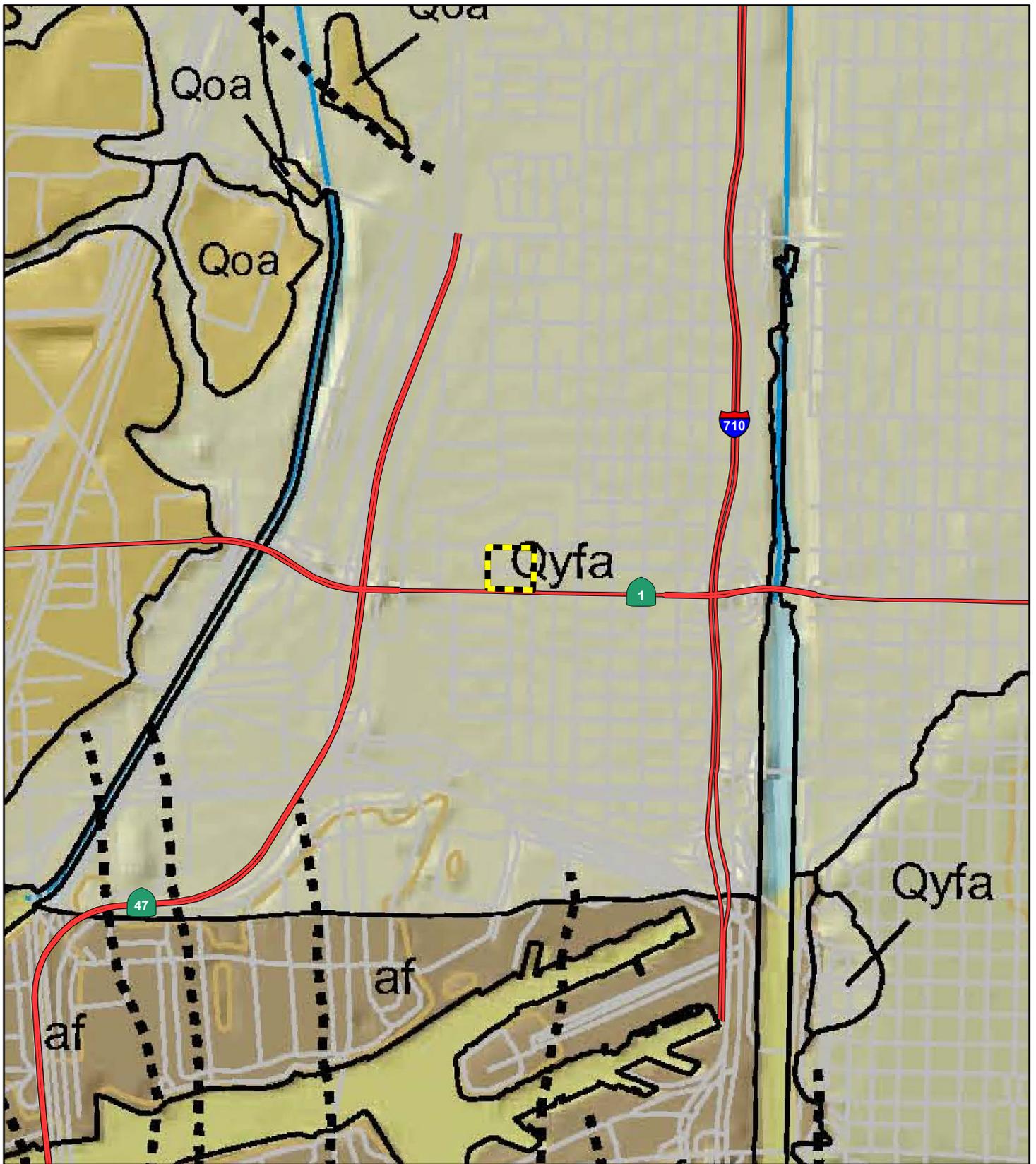
The project area is located at the northern end of the Peninsular Range geomorphic province, a 900 mi northwest-southeast trending structural block that extends from the tip of Baja California to the Transverse Ranges and includes the LA Basin (Norris and Webb 1976). The total width of the province is approximately 225 mi, with a maximum land-bound width of 65 mi (Sharp 1976). The Peninsular Ranges contain extensive Cretaceous (more than 65 million years ago [mya]) and pre-Cretaceous igneous and metamorphic rock covered by limited exposures of post-Cretaceous sedimentary deposits.

Specifically, the project is located within the Los Angeles (LA) Basin. The LA Basin is a broad, almost level alluvial plain (gradient of 0.5 to 1 percent). It is bounded on the north and northeast by hills and mountains of the Northern Peninsular and Transverse Ranges and on the south and west by the Pacific Ocean. The LA Basin is divided into several areas. The Downey Plain, in which the project lies, is the largest section and is located in the central portion of the LA Basin. The Tustin Plain is located to the east and separated from the LA Basin by the Santa Ana River. The Torrance Plain and the El Segundo Sand Hills are located on the western margin. Smaller plains, such as the Santa Monica and La Brea Plains, are located on the northern margin.

The marine and non-marine sediments within the basin are up to 6 mi deep. The basin began to form approximately 15 million years ago (mya) due to crustal stretching from movement along various faults. The crustal stretching resulted in the formation of a large bowl-like basin. Thick layers of sediment from both the ocean and rivers accumulated in this bowl. Approximately 5 mya, the crustal stretching subsided, and the ocean floor of the basin was uplifted to the surface. Additional sediment accumulated during and after the uplifting, resulting in the shallow gradient of the basin as it exists today.

Currently, the main sediment sources for the LA Basin are several rivers that flow into it. These include the Los Angeles, San Gabriel, and Santa Ana Rivers. Because the gradient of the LA Basin is quite shallow, these rivers have not always flowed in their current channels; rather they have flowed across the entire LA Basin, evenly depositing sediment. In fact, prior to the flood of 1825, the Los Angeles River ran west and emptied into the Pacific Ocean in the area of Marina Del Rey, north of the Palos Verdes Peninsula, following the current path of Ballona Creek. This is 20 mi north of where the Los Angeles River currently enters the Pacific Ocean at Wilmington, just to the south of the Shoemaker Bridge Replacement Project.

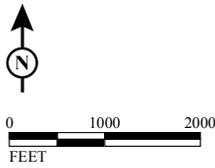
Specifically, Saucedo et al. (2003) have mapped Young Alluvial Fan and Valley Deposits, undivided as occurring on the surface of the project area (Figure 2). Artificial Fill is also known to be present within the project area based on the geotechnical report by Kleinfelder (2012).



L S A

LEGEND

-  Project Location
-  af - Artificial Fill
-  Qyfa - Young Alluvial Fan and Valley Deposits, Undifferentiated
-  Qoa - Old alluvial-fan deposits



SOURCE: Saucedo et.al (2003); TBM (2009)
 F:\CLB1205\GIS\Geology.mxd (2/25/2013)

FIGURE 2

5.1.1 Artificial Fill

Artificial Fill is not mapped within the project area on the geology map (Saucedo et al., 2003); however, due to the project being located in a developed area, Artificial Fill exists throughout the project. In fact, Kleinfelder (2012) noted there was Artificial Fill at least several feet thick across the project area.

Artificial Fill consists of sediments that have been removed from one location and transported to another by humans. Sometimes the transportation distance can be a few feet to dozens of miles. Composition is dependent on the source. When it is compacted and dense, it is known as “engineered fill,” but it can be unconsolidated and loosely compacted. Artificial Fill will sometimes contain modern debris such as asphalt, wood, bricks, concrete, metal, glass, plastic, and even plant material. Depending on the area, Artificial Fill thickness can range from 1 ft or less to several hundred feet.

Artificial Fill can contain fossils, but these fossils have been removed from their original location and are thus out of context. Although not specifically rated by Eisentraut and Cooper (2002), these fossils are not considered to be important for scientific study. The SVP rates this unit as Low, as there is potential for these sediments to be a thin cap on top of sediments that do have the potential to contain paleontological resources.

5.1.2 Young Alluvial Fan and Valley Deposits, Undivided

Young Alluvial Fan and Valley Deposits, Undivided are sometimes known as either Holocene Alluvial Fan or Holocene Valley Deposits. These sediments are derived from local streams emerging from the hills and mountains and deposit their sediment load near the mouth of the canyon in an alluvial fan, or on the valley floor itself. In general, they range in age from decades to several thousand years. However, by definition, the Holocene spans the time period from 11,700 years ago to the present, so some may be as old as 11,700 years. These deposits consist of loosely consolidated mixtures of gravel, sand, silt, and clay, ranging from poorly sorted to well-sorted. The sand grains are composed of mainly quartz, but also feldspar, biotite, and other minerals. The sand grains are generally subangular to subrounded, while the gravels and cobbles are rounded to well-rounded. There are sometimes larger-sized boulders and cobbles, especially close to the mouths of canyons. Color is usually yellow-brown to gray-brown and is usually dependent on the nearby, or upstream, geology. According to Saucedo et al. (2003), within the project area these sediments consist of poorly consolidated and poorly sorted sand deposits.

Although Holocene Alluvium can contain remains of plants and animals, generally not enough time has passed for the remains to become fossilized. In addition, the remains are contemporaneous with modern species, and these remains are usually not considered to be significant. It should be noted that although an area may be mapped with Holocene Alluvium on the surface, deposits of Pleistocene Alluvium or older formations are often encountered as shallow as 5–10 ft below the surface, and these older sediments can and do contain fossils. However, given the location of the project within the floodplain of the Los Angeles River, these older sediments are likely at least 10 ft beneath the surface.

5.1.3 Pleistocene Alluvial Deposits

Pleistocene Alluvium is also known as Old Alluvial Flood Plain Deposits, Pleistocene Alluvial Fan, and Pleistocene Alluvial Valley Deposits. They are similar to the Young Alluvial Fan and Valley Deposits, Undivided (described above), but are generally found on elevated terraces above the Young Alluvial Fan and Valley Deposits, Undivided, or at depth beneath the Young Alluvial Fan and Valley Deposits, Undivided.

There are some sediments mapped as Old Alluvial Flood Plain Deposits located approximately 1 mi to the west of the project (Saucedo et al., 2002), and similar Pleistocene Alluvial deposits are likely to be present at depth within the project. Pleistocene Alluvium is composed of mixtures of gravel, sand, silt, and clay that is usually moderately to poorly sorted and bedded. These deposits are also slightly to moderately consolidated, and when exposed on the surface they have usually been dissected by erosional gulleys and have some soil development. Colors can be variable, based on upstream geology, but are usually shades of reddish brown.

Old Alluvial Fan and Valley Deposits were deposited during the middle to late Pleistocene (300,000 to 11,700 years ago). Within the project area, these middle to late Pleistocene alluvial sediments likely are present at depths of 10 ft or more below the surface. This depth is based on the discoveries of Pleistocene fossils at depth in areas mapped as Holocene Alluvium on the surface in other areas, as well as the project's location within the floodplain of the Los Angeles River. Fossils are known in similar deposits from excavations for roads, housing developments, and quarries within the Southern California area (Jefferson, 1991a and 1991b; Reynolds and Reynolds, 1991; and Miller, 1971). Mammoths are the indicator fossil for the Pleistocene Epoch, which is divided into the older Irvingtonian North American Land Mammal Age (NALMA) that spans the period between 2.58 million and 300,000 years ago, and the Rancholabrean NALMA that spans the last 300,000 years of the Pleistocene. The indicator fossil for the Rancholabrean NALMA is *Bison* sp. Both NALMAs contain other fossils such as horse, coyote, rodents, birds, reptiles, and fish that help describe climatic and habitat conditions during the last 2 million years. There is a potential for these types of fossils whenever Pleistocene alluvial sediments are exposed. At depth within the project, fossils from the Rancholabrean NALMA would be expected.

5.2 LOCALITY SEARCH

According to the February 4, 2013, locality search conducted by the LACM (Appendix A), geologic mapping indicates that the project area is located upon surface exposures of younger Quaternary Alluvium derived from either the Dominguez Channel located to the west, or the Los Angeles River located to the east. The LACM does not have any recorded localities within the project boundaries or within the immediate area. The LACM believes that the younger Quaternary Alluvium that is exposed on the surface of the project area has a low potential to impact paleontological resources within its uppermost layers. However, the LACM states that beneath the surface of the project there are sediments of older Quaternary Alluvium that have produced fossil localities in other areas. The closest of these localities, LACM 1163, is located approximately 1.5 mi to the southwest, where a fossil bison (*Bison* sp.) was found at a depth of 5 ft beneath the surface in an area where Saucedo, et al. (2003) have mapped Old Alluvial Flood Plain Deposits on the surface. LACM 1165 is located approximately 1.5 mi to the northwest, also in Old Alluvial Flood Plain Deposits, where another bison (*Bison* sp.) was found at an unknown depth. Approximately 1.4 to 1.6 mi to the east-southeast

are localities LACM 1144 and LACM 3550, which contained fossils of sea lion, (*Zalophus* sp.), camel, (*Camelops* sp.), and bison (*Bison* sp.) from a depth of less than 48 ft below the surface within sediments mapped as marine terrace deposits.

The LACM believes that any substantial excavations on the proposed project area should be closely monitored to quickly and professionally collect any specimens so as to reduce impacts to both the construction schedule and the specimen. Further, the LACM believes that recovered fossils should be deposited into the collections of an accredited and permanent scientific institution for the benefit of current and future generations.

5.3 FIELD SURVEY

Ground visibility at the time of the survey was generally very good, ranging from a low of 20–30 percent to a high of 80 percent. A growth of grass and brush was the primary limiting factor, as were the existing buildings and parking areas in the central to eastern portion of the property. The entire surface of the project has been disturbed by prior grading activities, and an abundance of road gravel and modern trash is scattered through the project area. In addition, there are large piles of stockpiled dirt in the southwest corner of the project that are 6–15 ft high. The soil on the property is highly disturbed with quantities of gravel road base and is primarily of a sandy loam with some areas of silt and clay. This observed sediment, although disturbed, is consistent with the Young Alluvial Fan and Valley Deposits, Undivided mapped by Saucedo, et al. (2003) as being present within the project area.

5.4 GEOTECHNICAL INVESTIGATION

The geotechnical investigations associated with this project (Kleinfelder, 2012) indicate that the project is underlain by up to 4 ft of Artificial Fill, with the average across the project being between 2 and 3 ft. Artificial Fill was observed in all borings. Below the Artificial Fill, sediments identified as alluvium were encountered to the maximum 51.5 ft depth reached. In the upper 7–9 ft, the alluvium consists of loose to medium dense silty sand to sandy silt; between the depths of 9 and 40 ft, the alluvium consists of soft to stiff silt and clay interbedded with loose to very loose sand and silty sand, and below 40 ft, the alluvium consists of dense to very dense silty sand and sand. In addition, the geotechnical report noted that there were up stockpiles of dirt, primarily in the southwest portion of the project area.

Kleinfelder (2012) recommends that in order to develop the project, the sediment in the areas of the proposed building be removed and recompacted to a depth of at least 3 ft below the preapproved grade or 1 ft below the proposed footings, whichever is greater. In nonstructural areas outside the proposed building, Kleinfelder (2012) recommends that on-site sediments be removed and recompacted to a depth of 2 ft below existing grade or finished subgrade, whichever is greater. Kleinfelder (2012) also recommends that all existing utility lines present within the property that will be abandoned be completely removed.

5.5 PALEONTOLOGY SUMMARY

The results of the locality search and field survey conducted during preparation of this report indicate that no paleontological resources have been found within or immediately adjacent to the project area. The sediments exposed on the surface of the project area are composed of Artificial Fill. Based on its composition, the Artificial Fill appears to be consistent with the Young Alluvial Fan and Valley Deposits, Undivided that are mapped as being present within the area, and are present beneath the Artificial Fill. The Artificial Fill likely represents a reworking of the Young Alluvial Fan and Valley Deposits, Undivided during prior developments in the area. The Artificial Fill and the Young Alluvial Fan and Valley Deposits, Undivided have a low paleontological sensitivity in the approximate upper 10 ft of the project area. However, fossils are documented from sediments similar to those that may be encountered once excavation reaches a depth of approximately 10 ft beneath the surface.

6.0 DISCUSSION

6.1 SIGNIFICANCE

The SVP provides the following definitions of significance.

- **Significant Paleontological Resources** are fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small; uncommon invertebrate, plant, and trace fossils; and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years) (SVP, 2010).
- A **Significant Fossiliferous Deposit** is a rock unit or formation that contains significant nonrenewable paleontological resources, here defined as comprising one or more identifiable vertebrate fossils, large or small; and any associated invertebrate and plant fossils, traces, and other data that provide taphonomic, taxonomic, phylogenetic, ecologic, and stratigraphic information (ichnites and trace fossils generated by vertebrate animals, e.g., trackways or nests and middens, which provide datable material and climatic information). Paleontological resources are considered to be older than recorded history and/or older than 5,000 years before the present (SVP, 1995).

Generally, scientifically significant paleontological resources are identified sites or geological deposits containing individual fossils or assemblages of fossils that are unique or unusual, diagnostically or stratigraphically important, and add to the existing body of knowledge in specific areas, stratigraphically, taxonomically, or regionally (SVP, 1995). Particularly important are fossils found *in situ* (undisturbed) in primary context (e.g., fossils that have not been subjected to disturbance subsequent to their burial and fossilization). As such, they aid in stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, paleoclimatology, the relationships between aquatic and terrestrial species, and evolution in general. Discovery of *in situ* fossil-bearing deposits is rare for many species, especially vertebrates. Terrestrial vertebrate fossils are often assigned greater significance than other fossils because they are rarer than other types of fossils. This is primarily due to the fact that the best conditions for fossil preservation include little or no disturbance after death and quick burial in oxygen-depleted, fine-grained sediments. While these conditions often exist in marine settings, they are relatively rare in terrestrial settings. This has ramifications with regard to the amount of scientific study needed to characterize an individual species adequately and therefore affects how relative sensitivities are assigned to formations and rock units.

Although the project is not within Orange County, Eisentraut and Cooper (2002) developed a useful analysis for judging whether fossils are scientifically significant, which can be used for any area. In their Model Curation Program, fossils can be judged scientifically significant if they meet any of the following criteria within the following categories:

- **Taxonomy:** Assemblages that contain rare or unknown taxa, such as defining new (previously unknown to science) species, or that represent a species that is the first or that have very limited occurrence within the area or formation.
- **Evolution:** Fossils that represent important stages or links in evolutionary relationships or fill gaps or enhance underrepresented intervals in the stratigraphic record.
- **Biostratigraphy:** Fossils that are important for determining or confining relative geologic (stratigraphic) ages or for use in defining regional to interregional stratigraphic associations. These fossils are often known as biostratigraphic markers and represent plants or animals that existed for only a short and restricted period in the geologic past.
- **Paleoecology:** Fossils that are important for reconstructing ancient organism community structure and interpretation of ancient sedimentary environments. Depending on which fossils are found, much can be learned about the ancient environment from water depth, temperature, and salinity, to what the substrate was like (muddy, sandy, or rocky) to even whether the area was in a high energy location like a beach or low energy location like a bay. Even terrestrial animals can contain information about the ancient environment. For example, an abundance of grazing animals such as horse, bison, and mammoth suggest more of a grassland environment, while an abundance of browsing animals such as deer, mastodon, and camel suggest more of a brushy environment. Preserved parts of plants can also lend insight into what was growing in the area at a particular time. In addition, by studying the ratios of different species to each other's population densities, relationships between predator and prey can be determined.

There is a complex but vital interrelationship among evolution, biostratigraphy, and paleoecology: biostratigraphy (the record of fossil succession and progression) is the expression of evolution (change in populations of organisms through time), which in turn is driven by natural selection pressures exerted by changing environments (paleoecology).

- **Taphonomy:** Fossils that are exceptionally well or unusually/uniquely preserved or are relatively rare in the fossil record. This could include preservation of soft tissues such as hair, skin, or feathers from animals or the leaves/stems of plants that are not commonly fossilized.

6.1.1 Summary of Significance

All vertebrate fossils that can be related to a stratigraphic context are significant and are considered significant nonrenewable paleontological resources. Invertebrate and plant fossils, as well as other environmental indicators associated with vertebrate fossils, are considered significant. Certain invertebrate and plant fossils that are regionally rare or uncommon, or help to define stratigraphy, age, environmental conditions, or taxonomic relationships, are considered significant.

6.2 SENSITIVITY

Sensitivity is often stated "potential" since decisions about how to manage paleontological resources must be based on "potential," as the actual situation cannot be known until construction excavation for the project is underway.

According to the SVP (2010), protection of paleontological resources includes: (a) assessment of the potential for the area to contain significant paleontological resources that could be directly or

indirectly impacted, damaged, or destroyed by the proposed development, and (b) formulation and implementation of measures to mitigate these adverse impacts, including permanent preservation of the site and/or permanent preservation of salvaged fossils along with all contextual data in established institutions.

According to the SVP (2010), Paleontological Potential is the potential for the presence of significant nonrenewable paleontological resources. All sedimentary rocks, some volcanic rocks, and some metamorphic rocks have potential for the presence of significant nonrenewable paleontological resources, and review of available literature may further refine the potential of each rock unit, formation, or facies. The SVP has four categories of potential: High Potential, Low Potential, No Potential and Undetermined Potential. If a geographic area or geological unit is classified as having undetermined potential for paleontological resources, studies must be undertaken to determine whether that rock unit has a potential of either High or Low, or No Potential. These categories are described in more detail below.

6.2.1 High Potential

Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Rocks units classified as having high potential for producing paleontological resources include, but are not limited to, sedimentary formations and some volcanoclastic formations (e.g., ashes or tephra), some low-grade metamorphic rocks that contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e.g., middle Holocene and older, fine-grained fluvial sandstones, argillaceous and carbonate-rich paleosols, cross-bedded point bar sandstones, and fine-grained marine sandstones). Paleontological potential consists of both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, plant, or trace fossils, and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data. Rock units that contain potentially datable organic remains older than late Holocene, including deposits associated with animal nests or middens, and rock units that may contain new vertebrate deposits, traces, or trackways, are also classified as having high potential.

6.2.2 Low Potential

Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have a low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections, or based on general scientific consensus, fossils are only preserved in rare circumstances; the presence of fossils is the exception, not the rule (e.g., basalt flows or recent colluvium). Rock units with low potential typically will not require impact mitigation measures to protect fossils.

6.2.3 No Potential

Some rock units have no potential to contain significant paleontological resources (e.g., high-grade metamorphic rocks [such as gneisses and schists] and plutonic igneous rocks [such as granites and

diorites]). Rock units with no potential require no protection nor impact mitigation measures relative to paleontological resources.

6.2.4 Undetermined Potential

Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine whether these rock units have a high or low potential to contain significant paleontological resources. A field survey by a qualified professional to specifically determine the paleontological resource potential of these rock units is required before a PRIMP can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategically located excavations into subsurface stratigraphy.

Assessments of significance should be based on the recommendations of a professional Principal Paleontologist with expertise in the region under study and the resources found in that region. An evaluation of a particular rock unit's significance rests on the known importance of specific fossils. Often this significance is reflected as a sensitivity ranking of the rock unit relative to other rock units in the same region. Regardless of the format used by a paleontologist to rank formations, the importance of any rock unit must be explicitly stated in terms of specific fossils known or suspected to be present (and if the latter, why such fossils are suspected), and why these fossils are of paleontological importance. Some land-managing agencies may require the use of specific guidelines to assess significance, whereas others may defer to the expertise of local paleontologists and provide little guidance. Because each situation may differ, it is important that there is a clear understanding among project staff, consultants, and personnel from other agencies as to exactly what criteria will be used to assess the significance of fossils that have the potential to be within each rock unit that will be encountered over the course of the project.

If a paleontological resource is determined to be significant, of high sensitivity, or of scientific importance, a mitigation program must be developed and implemented. Mitigation can be initiated prior to and/or during construction.

As a practical matter, no consideration is generally afforded to paleontological sites for which scientific importance cannot be demonstrated. If a paleontological resource assessment results in a determination that the site is insignificant or of low sensitivity, this conclusion should be documented in the project's environmental document to demonstrate compliance with applicable statutory requirements.

6.2.5 Summary of Sensitivity

A formation or rock unit has paleontological sensitivity, or the potential for significant paleontological resources, if it previously has produced, or has lithologies conducive to, the preservation of vertebrate fossils and associated or regionally uncommon invertebrate and plant fossils. All sedimentary rocks, certain extrusive volcanic rocks, and mildly metamorphosed rocks are considered to have potential for paleontological resources.

6.2.6 Project-Specific Sensitivity

The paleontological sensitivities for each of the units that may be encountered during ground-disturbing activities within the study area are listed in Table A, along with the initial recommended monitoring effort. This initial recommendation may be reduced or increased by the Principal Paleontologist as the project progresses. A brief discussion of the sensitivity designations, the types of resources that may be encountered, and why they are significant is also included below.

Table A: Paleontological Sensitivities of Geological Units within the Study Area and Recommended Monitoring Effort

Formation/Unit	Location within Project	Sensitivity	Monitoring Effort
Artificial Fill	Throughout the project, upper 2 to 4 ft.	Low	None
Holocene Alluvial Fan and Valley Deposits	Below the Artificial Fill to depths of 10 ft	Low	None
Pleistocene Alluvial Fan and Valley Deposits ¹	Potentially beginning at depths below 10 ft	High	Full time

¹ Not exposed on the surface, monitoring effort reflects effort if or when the unit is encountered during grading.
ft = feet

6.2.7 Artificial Fill

Artificial Fill was emplaced by humans in the very recent past. Because of its young age and depositional methods, these deposits generally do not contain scientifically significant fossils. As such, Artificial Fill is assigned a low paleontological sensitivity rating and does not require paleontological monitoring.

6.2.8 Young Alluvial Fan and Valley Deposits, Undivided

Young Alluvial Fan and Valley Deposits, Undivided were deposited during the Holocene. Because of their young age, these deposits generally do not contain fossils. As such, these recent alluvial deposits are assigned a low paleontological sensitivity rating and do not require paleontological monitoring.

However, it should be noted that these sediments can be a thin veneer over the top of older sedimentary formations or units that can contain fossils. It is estimated, based on the location of the project, that these older sediments will likely not be encountered until a depth of at least 10 ft is reached. If fossiliferous sediments are encountered, monitoring will be required in the vicinity of the find on a full-time basis. Spot checks should occur for excavations that occur between 5 and 10 ft beneath the surface unless it can be determined that older sediments exist at shallower depths.

6.2.9 Pleistocene Alluvial Fan Deposits

Old Alluvial Fan and Valley Deposits were deposited during the middle to late Pleistocene and can contain Pleistocene vertebrate fossils that are scientifically significant, as they add to an understanding of the diversity of life during Pleistocene times in Southern California. As such, these sediments have a high paleontological sensitivity rating.

Paleontological monitoring should occur on a full-time basis in these sediments. Monitors should be looking for both large and small fossil remains, as the sediment is usually not too consolidated; it is a good candidate for spot screening for small vertebrate remains. If any small vertebrate remains are observed, a standard sample of up to 6,000 pounds should be collected from the sedimentary layer that is producing the fossils and processed through at least 1/20-inch mesh screens. It should be noted that this unit is not mapped on the surface of the project area, but is located nearby and likely occurs at depth within the project area. At a minimum, once excavation reaches a depth of 10 ft, full-time monitoring may be warranted in the event that this unit is present.

7.0 RECOMMENDATIONS

Although no significant paleontological resources were identified directly within the project area during the locality search or field survey, based on the results of the locality search and examination of geologic maps, Pleistocene Alluvial Deposits, which can contain fossil remains and have a high paleontological sensitivity, exist at depth within the project area, likely beginning at depths of 10 ft or more beneath the surface. Therefore, there is the potential to encounter paleontological resources during ground-disturbing activities if deep excavation occurs. Based on the current project design, it is unlikely that excavations associated with this project will reach these depths, except possibly in areas where storm drains are to be installed; however, the Hydrology Report remains in progress, so exact storm drain pipe diameters and necessary depths have not yet been determined. In order to mitigate potential adverse impacts to nonrenewable paleontological resources, as required by CEQA Appendix G, LSA recommends the following procedures if project-related excavation extends deeper than 10 ft beneath the surface within native sediments:

- A paleontologist shall be hired to develop a Paleontological Resource Impact Mitigation Program (PRIMP) for this project. The PRIMP shall include the methods that will be used to protect paleontological resources that may exist within the project area beginning at a depth of 10 feet (ft) beneath the surface in native sediments. The PRIMP shall include procedures for monitoring, fossil preparation and identification, curation into a repository, and preparation of a report at the conclusion of grading.
- Excavation and grading activities that extend deeper than 10 ft beneath the surface in native sediments shall be monitored by a qualified paleontologist following a PRIMP. If paleontological resources are encountered during the course of ground disturbance, the paleontological monitor shall have the authority to temporarily redirect construction away from the area of the find in order to assess its significance under California Environmental Quality Act (CEQA) Guidelines. Collected resources shall be prepared to the point of identification, identified to the lowest taxonomic level possible, cataloged, and curated into the permanent collections of an accredited scientific institution. At the conclusion of the monitoring program, a report of findings shall be prepared to document the results of the monitoring program.
- In the event that paleontological resources are encountered when a paleontological monitor is not on site, work in the immediate area of the find shall be redirected and a paleontologist shall be contacted to assess the find for significance; if determined to be significant, it shall be collected from the field. In addition, if the find is located in sediments that are less than 10 ft beneath the surface, the paleontologist shall make recommendations as to whether or not monitoring shall be required in these sediments on a full-time basis beginning at a shallower depth.

By following the above procedures, potential impacts to nonrenewable paleontological resources would be avoided.

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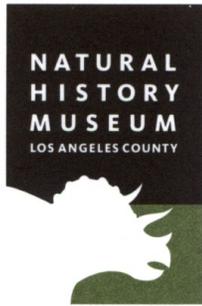
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APPENDIX A

LOCALITY SEARCH RESULTS

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org



Vertebrate Paleontology Section
Telephone: (213) 763-3325
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e-mail: smcleod@nhm.org

4 February 2013

LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, California 92614

Attn: Brooks Smith, Associate

re: Paleontological Resources Records Search for the proposed California State University Long Beach Retail Foundation Project, LSA Project # CLB1205, Phase 10, in the City of Long Beach, Los Angeles County, project area

Dear Brooks:

I have thoroughly searched our paleontology collection records for the locality and specimen data for the proposed California State University Long Beach Retail Foundation Project, LSA Project # CLB1205, Phase 10, in the City of Long Beach, Los Angeles County, project area as outlined on the portion of the Long Beach USGS topographic quadrangle map that you sent to me via e-mail on 1 February 2013. We do not have any fossil vertebrate localities that lie directly within the proposed project area, but we do have localities nearby from the same or similar sedimentary deposits as occur in the proposed project area.

Surficial deposits in entire proposed project area consist of younger Quaternary Alluvium, derived either from the Dominguez Channel that flows just to the west or, more likely, from the Los Angeles River that flows just to the east of the proposed project area. These sedimentary deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers, but they are underlain at relatively shallow depth by older Quaternary deposits. Older Quaternary deposits, probably referable to the Palos Verdes Sand, outcrop in the slightly more elevated terrain northwest of the proposed project area. Our closest vertebrate fossil locality from these older Quaternary deposits probably is LACM 1163, west-southwest of the proposed project area west of the Dominguez Channel along Anaheim Street near the intersection with Henry Ford

Avenue, that produced a specimen of fossil bison, *Bison*, at a depth of only five feet below the surface. Also from these older Quaternary deposits, northwest of the proposed project area across the Dominguez Channel at the intersection of Sepulveda Boulevard and Alameda Street, our vertebrate fossil locality LACM 1165 produced a specimen of fossil bison, *Bison*, at unrecorded depth. Other nearby vertebrate fossil localities from these deposits include LACM 1144 and 3550, east-southeast of the proposed project area east of the Los Angeles River near the intersections of Loma Vista Drive with Crystal Court and 12th Street with Pine Avenue respectively, that produced fossil specimens of sea lion, *Zalophus*, camel, *Camelops*, and bison, *Bison*, from a depth of less than 48 feet below the surface.

Even surface grading or shallow excavations in the younger Quaternary Alluvium exposed in the proposed project area may uncover significant vertebrate fossils of Late Pleistocene age. Any substantial excavations in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

A handwritten signature in cursive script that reads "Samuel A. McLeod".

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice