

# Appendix C

## **Cultural Report**





# **Cultural and Paleontological Resource Evaluation and Impact Assessment for the 3rd and Pacific Project, City of Long Beach, California**

*Angela H. Keller, Karen K. Swope, and Joseph J. El Adli*

Submitted to:

Ensemble Investments  
444 W. Ocean Boulevard, Ste. 1108  
Long Beach, California 90802



Technical Report 19-07  
Statistical Research, Inc.  
Redlands, California



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# CONTENTS

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|  |     |
|--|-----|
| List of Figures .....  | v   |
| List of Tables .....   | vii |
| List of Acronyms and Abbreviations .....                                 | ix  |
| Introduction.....  | 1   |
| Project Description .....  | 1   |
| Applicable Regulations .....   | 4   |
| Historical and Cultural Resources .....                                  | 4   |
| Unique Archaeological and Paleontological Resources .....                | 4   |
| Tribal Cultural Resources .....  | 5   |
| Native American Human Remains and Associated Items .....                 | 5   |
| City Ordinances .....  | 6   |
| City Downtown Plan.....  | 6   |
| Project Personnel and Qualifications.....                                | 8   |
| Setting .....  | 8   |
| Geology .....  | 8   |
| Culture History .....  | 9   |
| Prehistory .....   | 9   |
| Paleoindian Period.....  | 9   |
| Millingstone Period .....  | 11  |
| Intermediate Period .....  | 11  |
| Late Period .....  | 11  |
| Protohistoric and Early Historical Periods .....                         | 12  |
| The Gabrielino (Tongva/Kizh).....  | 12  |
| Historical Period .....  | 14  |
| Methods .....  | 20  |
| Archaeological Records Search.....                                       | 20  |
| Archival and Historical Research.....                                    | 20  |
| Ethnohistoric Research.....  | 21  |
| Native American Resource Search and Native American Contact Program..... | 21  |
| Historical-Period Built-Environment Assessment.....                      | 21  |
| Paleontological Resource Assessment .....                                | 21  |
| Paleontological Resources: Significance and Criteria .....               | 23  |
| Results.....   | 23  |
| Archaeological Records Search.....                                       | 23  |
| Previously Recorded Archaeological Resources .....                       | 28  |
| Previously Recorded Built-Environment Resources.....                     | 30  |
| Archival and Historical Background Research .....                        | 38  |
| Historical Overview of the Project .....                                 | 39  |
| 1878–1891 .....  | 39  |
| 1895 to 1905.....  | 39  |
| 1905 to 1929.....  | 42  |

|  |                             |
|--|-----------------------------|
| 1933 to 1950.....  | 42                          |
| 1953 to 2019.....  | 42                          |
| Ethnohistoric Research.....  | 45                          |
| Native American Resource Search and Native American Contact Program.....                     | 50                          |
| Historical-Period Built-Environment Assessment.....  | 50                          |
| Paleontological Resource Assessment .....  | 51                          |
| Literature Review.....   | 52                          |
| Old Shallow Marine Deposits (Qom).....   | 52                          |
| Artificial Fill.....   | 53                          |
| Paleontological Records Search.....  | 53                          |
| Conclusions.....   | 55                          |
| Historical-Period Archaeological Resources.....  | 55                          |
| Prehistoric Archaeological Resources.....  | 57                          |
| Native American Resources .....  | 57                          |
| Paleontological Resources.....   | 59                          |
| Established and Recommended Mitigation Measures.....   | 59                          |
| Applicable Mitigation Measures included in the Downtown Plan PEIR.....                       | 60                          |
| Recommended Mitigation Measure 1: Archaeological Resources and Human Remains.....            | 60                          |
| Recommended Mitigation Measure 2: Paleontological Resources.....                             | 61                          |
| References Cited .....   | 62                          |
| <b>Confidential Appendix A. Statistical Research, Inc., Native American</b>                  |                             |
| <b>Contact Program .....</b>   | <b>under separate cover</b> |
| <b>Appendix B. Natural History Museum of Los Angeles County Paleontological-Specimen and</b> |                             |
| <b>Locality-Records Search.....</b>  | <b>71</b>                   |

## LIST OF FIGURES

---

|  |    |
|--|----|
| Figure 1. Vicinity map of the Project.....   | 2  |
| Figure 2. Location map of the Project.....   | 3  |
| Figure 3. Geologic map of Long Beach (Saucedo et al. 2016), showing the Project footprint. ....  | 10 |
| Figure 4. 1878 U.S. General Land Office map of Township 5 South, Range 13 West, overlaid on modern USGS data, showing the Project location. ....   | 15 |
| Figure 5. 1896 USGS map of Long Beach, showing the Project footprint.....  | 17 |
| Figure 6. 1925 USGS map of Long Beach, showing the Project footprint.....  | 18 |
| Figure 7. 1949 USGS map of Long Beach, showing the Project footprint.....  | 19 |
| Figure 8. Map showing the locations of previous cultural resource studies within the Project and the surrounding 1-mile radius.....  | 27 |
| Figure 9. Map showing the locations of previously identified archaeological sites mapped at the SCCIC within 1 mile of the Project.....  | 29 |
| Figure 10. Map showing the locations of historical-period built-environment resources within 1 mile of the Project that are designated LBHLs and/or listed in or eligible for listing in the NRHP or CRHR. ....            | 36 |
| Figure 11. Close-up map showing the locations of historical-period built-environment resources in the vicinity of the Project that are designated LBHLs and/or listed in or eligible for listing in the NRHP or CRHR. .... | 37 |
| Figure 12. Portion of a Sanborn Fire Insurance Company map dated 1888, showing the location of the Project (EDR 2018a:16) (not to be reproduced).....  | 40 |
| Figure 13. Portion of a Sanborn Fire Insurance Company map dated 1905, showing the location of the Project (EDR 2018a:11) (not to be reproduced).....  | 41 |
| Figure 14. Portion of a Sanborn Fire Insurance Company map dated 1914, showing the location of the Project (EDR 2018a:9) (not to be reproduced).....   | 43 |
| Figure 15. Portion of a Sanborn Fire Insurance Company map dated 1949, showing the location of the Project (EDR 2018a:8) (not to be reproduced).....   | 44 |
| Figure 16. Map of Gabrielino settlements at the time of the Portolá expedition (from Johnston 1962:frontispiece).....  | 46 |
| Figure 17. Map of Native American sites in part of southern California (from Kroeber 1925:Plate 57)... ..  | 47 |
| Figure 18. Locations of Gabrielino villages, reconstructed from Mission records and overlaid on modern imagery (redrawn from King 2004:Figure 2).....  | 48 |
| Figure 19. Map showing the locations of historic sites, old highways, and battlefields in old Los Angeles County, ca. 1860 (from Kirkman 1937). ....   | 49 |

Figure 20. Portion of a Sanborn Fire Insurance Company map dated 1905, showing areas of historical-period archaeological sensitivity within the Project footprint (EDR 2018a:11) (not to be reproduced)..... 56

Figure 21. Portion of a Sanborn Fire Insurance Company map dated 1905, showing areas of prehistoric archaeological sensitivity within the Project footprint (EDR 2018a:11) (not to be reproduced)..... 58

## LIST OF TABLES

---

|   |    |
|---|----|
| Table 1. Repositories Consulted during the Archival Research .....  | 20 |
| Table 2. Paleontological Resource Sensitivity.....  | 22 |
| Table 3. Previously Conducted Cultural Resource Investigations in the Project and the Surrounding<br>1-Mile Radius .....  | 24 |
| Table 4. Previously Recorded Archaeological Sites within the 1-Mile Radius Surrounding the Project...   | 28 |
| Table 5. Historic Properties Identified within 1/4 Mile of the Project for the Downtown Plan .....  | 30 |
| Table 6. Historical-Period Built-Environment Resources Designated as City of Long Beach Historic<br>Landmarks and/or Listed in or Eligible for Listing in the NRHP or CRHR within 1 Mile of the<br>Project..... | 31 |
| Table 7. Consulted Historical Maps and Aerial Photographs .....   | 38 |
| Table 8. Geologic Units within the Project and Their Paleontological Potential .....  | 52 |
| Table 9. Vertebrate Fossil Taxa Discovered from Sediments Similar to Those Underlying the Project....   | 54 |



## LIST OF ACRONYMS AND ABBREVIATIONS

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|             |  |
|-------------|--|
| AB          | Assembly Bill  |
| APN         | Assessor's Parcel No.                                  |
| BLM         | Bureau of Land Management                              |
| CCR         | <i>California Code of Regulations</i>                  |
| CEQA        | California Environmental Quality Act                   |
| CHRIS       | California Historical Resources Information System     |
| City        | City of Long Beach                                     |
| CRHR        | California Register of Historical Resources            |
| CRMTP       | Cultural Resource Monitoring and Treatment Plan        |
| EDR         | Environmental Data Resources, Inc.                     |
| EIR         | Environmental Impact Report                            |
| ESA         | Environmental Site Assessment                          |
| Geocon West | Geocon West, Inc.                                      |
| HSC         | <i>Health and Safety Code</i>                          |
| ka          | thousand years ago                                     |
| LBHL        | Long Beach Historic Landmark                           |
| Ma          | million years ago                                      |
| NAHC        | Native American Heritage Commission                    |
| NHMLA       | Natural History Museum of Los Angeles County           |
| NRHP        | National Register of Historic Places                   |
| PEIR        | Program Environmental Impact Report                    |
| PFYC        | Potential Fossil Yield Classification                  |
| PRC         | <i>Public Resources Code</i>                           |
| PRMTP       | Paleontological Resource Mitigation and Treatment Plan |
| Project     | West 3rd Street and Pacific Avenue Mixed-Use Project   |
| RPA         | Registered Professional Archaeologist                  |
| Sapphos     | Sapphos Environmental, Inc.                            |
| SCCIC       | South Central Coastal Information Center               |
| sf          | square feet  |
| SLF         | Sacred Lands File                                      |
| SRI         | Statistical Research, Inc.                             |
| SVP         | Society of Vertebrate Paleontology                     |
| USGS        | U.S. Geological Survey                                 |



## Introduction

The proposed West 3rd Street and Pacific Avenue Mixed-Use Project (Project) will redevelop two contiguous blocks in the City of Long Beach (City), California (Figure 1). The Project is bounded by West 3rd Street on the south, West 4th Street on the north, Pacific Avenue on the west, and North Solano Court on the east. An alley, West Roble Way, bisects the property east to west (Figure 2). The proposed Project includes five parcels:

- Parcel 1 (Assessor's Parcel Number [APN] 7280-016-900), the western 100 feet of Lots 2 and 4, Block 81;
- Parcel 2 (APN 7280-016-901), the eastern 50 feet of Lots 2 and 4 and all of Lots 6 and 8, Block 81;
- Parcel 3 (APN 7280-016-902), Lots 10 and 12, Block 81;
- Parcel 4 (APN 7280-016-903), Lots 14 and 16, Block 81; and
- Parcel 5 (APNs 7280-016-904 and 7280-016-905), Lots 17 and 22, Block 81.

The Project is located in Section 1 of Township 5 South, Range 13 West, on the U.S. Geological Survey (USGS) 7.5-minute Long Beach, California, topographic quadrangle (see Figure 2), at an elevation of approximately 33 feet (10 m) above mean sea level. The Project site is currently developed as two at-grade parking lots paved with asphalt, enclosed with chain-link fencing, and separated by Roble Way. Historically, the Project parcels supported single-family residences, apartment buildings, commercial enterprises, and industrial uses. By 2005, all former structures within the Project footprint had been demolished, and the parking lots were developed in their current form.

Statistical Research, Inc. (SRI), has conducted a cultural and paleontological resource study to assess the potential impact of the Project on any cultural or paleontological resources that might be present on the property. This study will form the basis of the resulting cultural resource element in an addendum to the Downtown Plan Program Environmental Impact Report (EIR) being prepared by the City. This report presents our methods; documents the results of records searches, the literature review, archival research, and a Native American outreach program; and presents recommendations for further work needed to manage potential impacts to buried resources and to determine resource significance under the California Environmental Quality Act (CEQA). This study was conducted from December 2018 to January 2019.

Our research indicates that the Project has high sensitivity for the presence of buried historical-period archaeological resources, low sensitivity for the presence of buried prehistoric archaeological resources, and high sensitivity for the presence of significant vertebrate paleontological resources. As of the writing of this draft report, no specific Native American resources have been identified within the Project footprint or the immediate vicinity, but SRI's Native American contact program is ongoing. Recommendations for the treatment of possible resources, to reduce potential impacts to a less-than-significant level, are provided at the conclusion of this report.

## Project Description

The proposed Project is a mixed-use development consisting of residential units and retail commercial space. The development proposes two buildings: a 23-story high-rise building to the south and an 8-story building to the north. Both buildings will include ground-floor retail and public space, two levels of below-ground parking, and apartments and additional parking in the upper stories. The buildings will be divided by an east-west-running pedestrian paseo to be developed along the alignment of the existing Roble Way.

The Project will include 6,800 square feet (sf) of retail space in the northern building and 8,105 sf in the southern building, as well as 122,236 sf of residential space in the northern building and 269,476 sf in the southern building. The proposed Project would develop a total of 345 dwelling units, 19,237 sf of common outdoor space, and 10,827 sf of private outdoor space. Expected excavations will be approximately 42 feet (12.8 m) deep in some places, to accommodate parking, water storage, and structural supports.

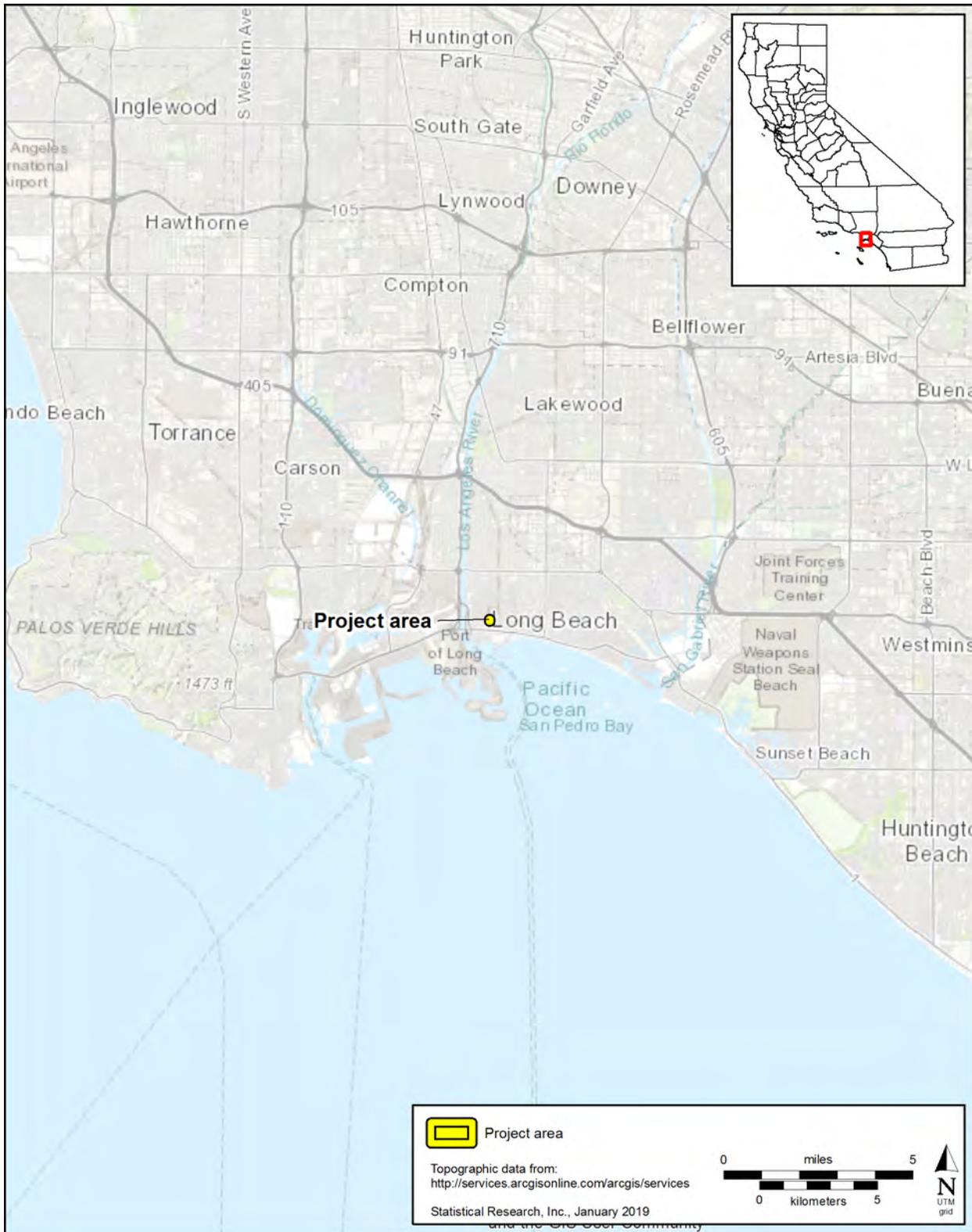


Figure 1. Vicinity map of the Project.

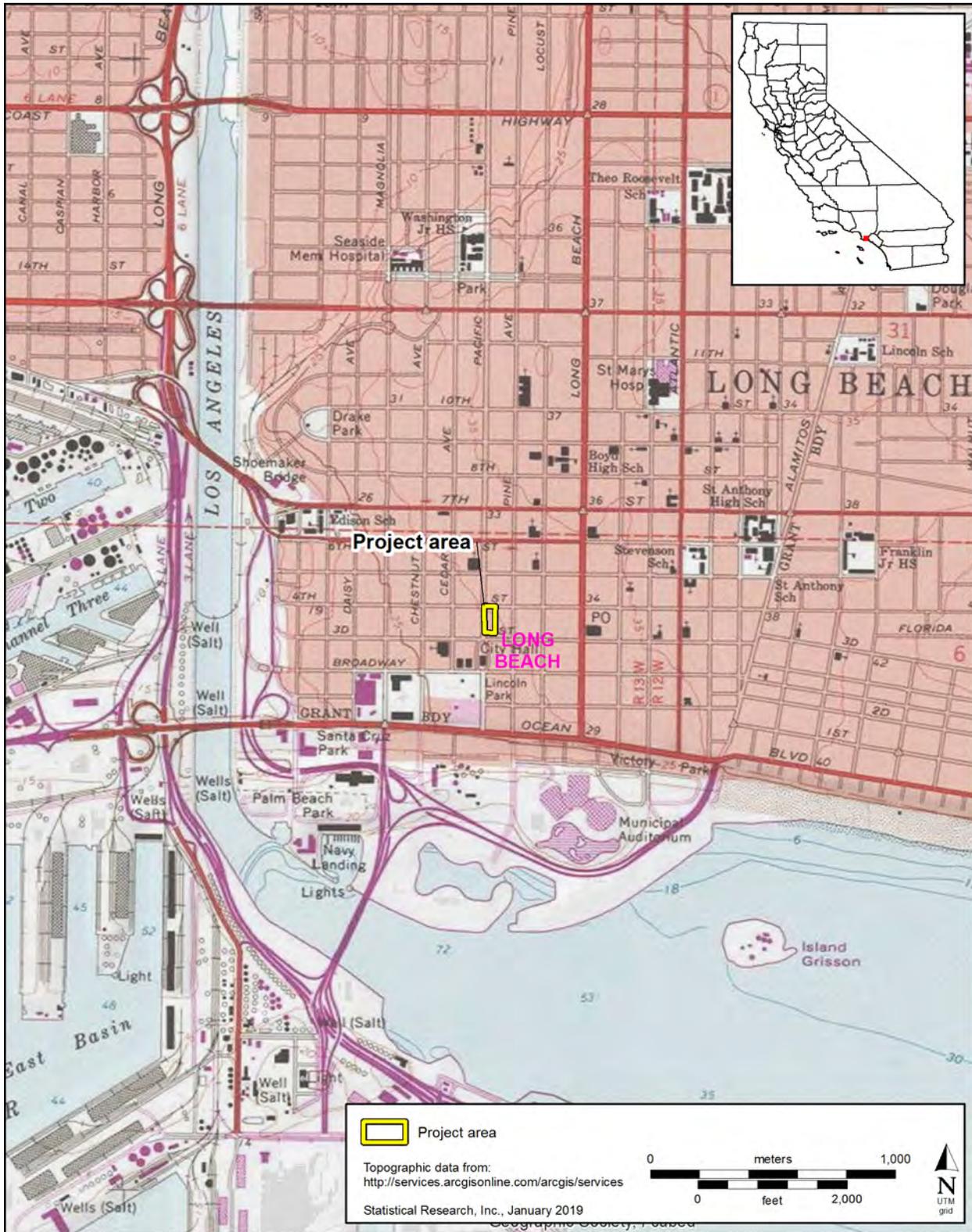


Figure 2. Location map of the Project.

## **Applicable Regulations**

The purpose of this investigation is to assess the probability of subsurface archaeological, paleontological, and Native American resources within the Project parcel, following CEQA guidelines. This investigation can be used to prepare the relevant resource documents in support of an EIR. The proposed Project is considered a “project” under CEQA and is subject to compliance with CEQA (*Public Resources Code*, Section 21000 [PRC § 21000] *et seq.*) and CEQA guidelines (*California Code of Regulations*, Title 14, Section 15000 [14 CCR § 15000] *et seq.*), as amended to date. The City is the CEQA lead agency for this Project. CEQA mandates that lead agencies consider whether a proposed project will have an adverse effect on the environment and whether any such effect can be feasibly eliminated by pursuing an alternative course of action or can be mitigated to a less-than-significant level.

## **Historical and Cultural Resources**

CEQA recognizes that historical resources are part of the environment and that “a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment” (PRC § 21084.1). For purposes of CEQA, a historical resource is any object, building, structure, site, area, place, record, or manuscript listed in or eligible for listing in the California Register of Historical Resources (CRHR) (PRC § 21084.1). A resource is eligible for listing in the CRHR if it meets any of the following criteria (PRC § 5024.1[c]):

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

CEQA also recognizes as historical resources any resources listed in or determined to be eligible for listing in the CRHR (PRC § 5024.1 and 14 CCR § 4850 *et seq.*) or in a local register of historical resources (PRC § 5024.1[k]). Further, any resource identified as significant in an historical resource survey that meets the requirements PRC 5024.1(g) shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant. Finally, any resource that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record.

## **Unique Archaeological and Paleontological Resources**

CEQA also requires the lead agency to consider whether the Project will have a significant effect on unique archaeological resources that are not eligible for listing in the CRHR and to avoid unique archaeological resources, when feasible, or mitigate any effects to a less-than-significant level (PRC § 21083.2). As defined in CEQA, a unique archaeological resource is an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria (PRC § 21083.2[g]):

- (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In addition, the Guidelines for Implementation of CEQA (14 CCR § 15000 *et seq.*) define the persons, agencies, activities, and procedures required to comply with CEQA. These guidelines include, as an issue to be addressed within the CEQA Environmental Checklist, the question, “Would the project . . . directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?” (CEQA Guidelines Appendices, Appendix G, Section VII[f]).

### **Tribal Cultural Resources**

Passed in 2015, Assembly Bill (AB) 52 amended CEQA (PRC § 21080.3.1) to require lead agencies to consult with California Native American tribes and to consider the effects of a project on tribal cultural resources. As amended by AB 52, CEQA recognizes that tribal cultural resources form part of the environment. The law recognizes that California Native American tribes have special expertise in regard to their tribal history and practices and that, therefore, affiliated tribal representatives should be consulted for environmental assessments to identify resources of significance to the tribes. AB 52 § 1(a)(9) also states that “a substantial adverse change to a tribal cultural resource has a significant effect on the environment.” As defined in PRC § 21074 and further refined in CEQA Appendix G: Environmental Checklist, “tribal cultural resources” are

- (1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
  - (a) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
  - (b) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
- (2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe [PRC § 21074(a)(1–2)].

### **Native American Human Remains and Associated Items**

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California *Health and Safety Code* (HSC) § 7050.5(b) requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the county coroner has examined the remains. PRC § 5097.98 also outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe that the remains are those of a Native American, the coroner must contact the Native American Heritage Commission (NAHC) within 24 hours (HSC § 7050.5[c]). The NAHC will then notify the “most likely descendant,” who may recommend the means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans. With

the permission of the landowner, the most likely descendant may inspect the site of discovery. The most likely descendant shall complete the inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site (PRC § 5097.98[a]).

## City Ordinances

The City's *Municipal Code* includes several provisions that directly reference historic preservation and additional provisions that impact historic preservation efforts in the City. For a thorough discussion of historic-preservation policies in the *Municipal Code*, see *Existing Conditions Report for Historic Preservation Element General Plan, City of Long Beach, CA* (City 2009).

The City's Cultural Heritage Commission Ordinance (*Municipal Code*, Chapter 2.63) is the primary mechanism by which the City identifies, manages, and protects its historic resources. The Cultural Heritage Ordinance provides for the establishment of a Cultural Heritage Commission as the appointed body responsible for enforcing the City's preservation guidelines and designating local landmarks, landmark districts, and properties within landmark districts. The ordinance establishes review procedures and penalties for violations of these provisions, which include both criminal and civil remedies. The current ordinance was adopted in 1992 and was last amended on December 1, 2015. According to the criteria for designation of landmarks and landmark districts (*Municipal Code*, Chapter 2.63.050), a cultural resource qualifies for designation as a landmark if it retains integrity and manifests one or more of the following criteria:

- a. It is associated with events that have made a significant contribution to the broad patterns of the City's history; or
- b. It is associated with the lives of persons significant in the City's past; or
- 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; or
- d. It has yielded, or may be likely to yield, information important in prehistory or history.

A group of cultural resources qualifies for designation as a landmark district if it retains integrity as a whole and meets the following criteria:

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

## City Downtown Plan

This Project will be developed in accordance with the City Downtown Plan (City 2012), for which a Program Environmental Impact Report (PEIR) was developed (City 2010). In support of the PEIR, the City commissioned a survey of historical-period properties within the Downtown Plan limits (ICF Jones and Stokes 2009). As a result of the historical survey and evaluation, 102 properties were identified as either previously designated or eligible for nomination as Long Beach Historic Landmark (LBHL) properties (City 2010:Table 4.3-4). Of those properties, 4 appeared eligible for listing in the NRHP and 6 appeared eligible for listing in the CRHR. To manage those historic properties and any other historical-period structures that were not assessed, the City included five mitigation measures in the Downtown Plan PEIR to reduce impacts to historical, archaeological, and Native American resources to a less-than-significant level under CEQA. These mitigation measures are paraphrased here, and the entire text of each can be found in the Draft PEIR (City 2010:4.3-12–4.3-14) with a minor revision to Mitigation Measure CR-1(a) in the Final PEIR (City 2011:Addenda-8).

- **Mitigation Measure CR-1(a)** stipulates that the City shall encourage the designation of 20 identified historic properties as LBHL properties. Additionally, the City shall encourage the ongoing maintenance and adaptive reuse of existing LBHL properties and other identified historical resources.
- **Mitigation Measure CR-1(b)** requires that prior to the issuance of a demolition permit or a building permit for alteration of a significant or historical-period property—including LBHL-listed and -eligible properties, properties listed in or eligible for listing in the NRHP or CRHR, and properties 45 years of age or older that have not been previously determined not eligible for listing—the proponent must follow a special process with the City for approval. This process includes notification of the City Historic Preservation staff to determine the steps necessary to evaluate the eligibility of the property for listing as an LBHL property and/or in the NRHP or CRHR. If a property is found to be eligible for listing at the local, state, and/or federal level, the property may be preserved, or if alteration or demolition is required, a thorough documentation program may be implemented, as specified in the PEIR (City 2010:1-14–1-15). The documentation program would, at a minimum, include professional photographs, scale drawings, and archival-quality sets of these materials for storage with the City Development Services Department.
- **Mitigation Measure CR-2(a)** states that a qualified project archaeologist or archaeological monitor approved by the City shall be present during excavation into native sediments for the purpose of identifying any unanticipated archaeological or Native American resources. The archaeological monitor shall have the power to halt or redirect ground-disturbing activities in the event of a find. If the archaeological monitor determines the find to be significant, the City and appropriate Native American representative shall be notified and a treatment plan for the resource(s) prepared in consultation with the City.
- **Mitigation Measure CR-2(b)** stipulates that if an archaeological or Native American find is encountered, a qualified project archaeologist shall prepare a final report of the recovery, treatment, evaluation, and disposition of the find for review and approval by the City and filing with the California Historic Resources Information System South Central Coastal Information Center.
- **Mitigation Measure CR-2(c)** describes the legally required protocol to be followed in the event that human remains are encountered during project construction pursuant to HSC § 7050.5 and PRC § 5097.98. Specifically, in the event of the discovery of human remains, no further disturbance of the remains shall occur until the county coroner has made a determination concerning the origin and disposition of the remains. If the remains are determined to be of Native American descent, the coroner shall notify the NAHC within 24 hours of the determination. The NAHC will then identify the person or persons thought to be the most likely descendant, who will help determine appropriate treatment and disposition of the remains. Preservation in place and project design alternatives shall be considered as possible courses of action by the project applicant, the City, and the most likely descendant.

The Downtown Plan PEIR also found that significant paleontological resources are known to exist within the plan area and that those resources might be encountered and damaged by building demolition or other ground-disturbing activities (City 2010:4.3-15). To manage the discovery of any unanticipated paleontological resources, the City included two mitigation measures in the Downtown Plan PEIR to reduce impacts to paleontological resources to a less-than-significant level under CEQA. These mitigation measures are paraphrased here, and the entire text of each can be found in the PEIR (City 2010:4.3-15).

- **Mitigation Measure CR-3(a)** states that a qualified paleontologist approved by the City shall be present during excavation into native sediments for the purpose of identifying any unanticipated paleontological resources. Monitoring shall consist of visually inspecting fresh exposures for fossil remains and, where appropriate, collection of sediment samples for further analysis. The frequency of inspections shall be based on the rate of project ground-disturbing activities, the nature of the geological formation being excavated, and the documented abundance of fossils encountered.
- **Mitigation Measure CR-3(b)** stipulates that if a paleontological find is encountered, the paleontologist shall have the power to redirect ground-disturbing activities away from the area of the find to allow for evaluation and salvage, if necessary. All recovered fossils shall be prepared to the point

of identification and cataloged before curation with a public, nonprofit institution with a research interest in the materials. The fossils shall be accompanied by a report including interpretation, notes, maps, and photographs of the salvage effort.

## **Project Personnel and Qualifications**

The following SRI personnel performed the research and analysis reported in this document. Angela H. Keller, Ph.D., is a Registered Professional Archaeologist (RPA) who specializes in the archaeology of the Americas and meets the Secretary of the Interior's Historic Preservation Professional Qualification Standards for Archaeology. Dr. Keller edited this report and wrote the general sections and the sections on prehistoric archaeology. Karen K. Swope, Ph.D., is an RPA meeting the Secretary of the Interior's Historic Preservation Professional Qualification Standards for Historical Archaeology and History. Dr. Swope contributed the historical-period background and the sections on historical archaeology. Carrie J. Gregory meets the Secretary of the Interior's Professional Historic Preservation Qualifications Standards in Architectural History, History, and Historic Preservation and is considered a Professional Qualified Staff-equivalent Principal Architectural Historian by the California Department of Transportation. Ms. Gregory conducted the built-environment assessment. Joseph J. El Adli, Ph.D., is a qualified paleontologist meeting the Society of Vertebrate Paleontology (SVP) criteria for a Project Paleontologist/Principal Investigator and has extensive experience in southern California. Dr. El Adli assessed pertinent paleontological and geological data and wrote the paleontology sections for this report. Joy Vyhmeister, M.A., is an RPA who meets the Secretary of the Interior's Historic Preservation Professional Qualification Standards for Archaeology. Ms. Vyhmeister conducted an archaeological records search for this report and organized the data collected as a result of that search.

## **Setting**

The City of Long Beach encompasses approximately 51.5 square miles (133.4 km<sup>2</sup>) and is the second-largest city, in terms of area, within Los Angeles County; it is second only to the City of Los Angeles. A quintessential southern California city, Long Beach is bounded by the Pacific Ocean on the south and a complex of freeways in the other directions: California State Route 91 to the north, Interstate 710 to the west, and Interstate 605 to the east. The current channels of the Los Angeles and San Gabriel Rivers roughly parallel the courses of Interstates 710 and 605, respectively. Both rivers have been channelized into their current configurations but generally follow the contours of drainages that previously fed large estuaries and bays. A small remnant of the once-expansive wetlands that characterized the Long Beach coastline is preserved to the east of the City, in the Seal Beach National Wildlife Refuge.

Between the outlets of the Los Angeles and San Gabriel Rivers is a large harbor that forms the southern edge of the City. This natural harbor has been dramatically transformed, through numerous reclamation and reconfiguration projects (see the Historical Period section, below), into the commercial Port of Long Beach, which abuts the even larger Port of Los Angeles to the west. The two sister ports are the largest and busiest shipping seaports in the United States, accounting for roughly 25 percent of the North American container trade (Lloyd's List 2016). Commerce through these ports has shaped the growth and character of Long Beach much as the rivers and estuaries that previously existed in these same locations attracted Native American people and provided a bounty of natural resources in the past.

## **Geology**

At the regional scale, the Project is situated within the Los Angeles Basin, in the northwestern portion of the Peninsular Ranges geomorphic province. The terrestrial (i.e., unsubmerged) portion of the Peninsular Ranges Province is characterized by a series of elongated northwest-southeast-trending mountains (Yerkes

et al. 1965). These mountain ranges are composed dominantly of plutonic igneous rocks (often granites and granitoids) of Cretaceous age (approximately 120–90 million years ago [Ma]) and older metamorphic rocks of Jurassic to earliest Cretaceous age (approximately 200–140 Ma) (Gastil 1975; Krummenacher et al. 1975; Walawender 2000). In the basins and valleys beneath these mountain ranges, these igneous and metamorphic basement rocks are often overlain by sedimentary deposits of late Mesozoic to Cenozoic age (approximately 90 Ma to 10 thousand years ago [ka]) (Tweet et al. 2014).

Structurally, the Los Angeles Basin is divided into four major blocks that are bounded and divided by fault zones. The Project lies within the Southwestern Block, which is relatively rectangular in shape and approximately 28 miles (45 km) in greatest length (northwest–southeast) and is located to the southwest of the Newport-Inglewood deformation zone. The majority of the Southwestern Block exists as a low plain extending from Santa Monica to Long Beach, punctuated by the rising Palos Verdes Peninsula in-between. The sediments of the Southwestern Block are relatively thick, especially in the coastal plain, where sedimentary strata have been estimated at 6,250 m (20,500 feet) in thickness. These sediments are middle Miocene to recent in age (approximately 20 Ma to today) (Yerkes et al. 1965). With some exceptions, strata within the Southwestern Block were primarily laid down in a variety of marine depositional contexts, and that has given rise to a rich fossil record.

The current California Geological Survey geologic map of the region (Saucedo et al. 2016) shows that the Project is within the old shallow marine deposits (Figure 3). These sediments are late to middle Pleistocene in age (approximately 781.0–11.7 ka) and are generally poorly consolidated silts, sands, and gravels. Sediments of the old shallow marine deposits were formed in various nearshore environments, such as beaches, strandlines, and estuaries. These deposits currently rest on an emergent wave-cut platform created and preserved by regional uplift (Saucedo et al. 2016).

A geotechnical investigation previously conducted for the Project (Geocon West, Inc. [Geocon West] 2017) found that mixed old alluvial and marine-terrace deposits dating to the Pleistocene underlie the entire property at a depth of roughly 2–3 feet (0.6–0.9 m) below deposits of artificial fill (Geocon West 2017:Appendix A). One boring (B1) in the northwestern corner of the Project encountered 6½ feet (2.0 m) of artificial fill and concrete that appear to have resulted from a localized disturbance. The geotechnical borings achieved depths between 20 and 60 feet (6.1–18.3 m) and encountered interbedded shallow marine-terrace deposits and continental alluvial sediments. These deposits consist of loose to compact, brownish sands and silty sands with occasional lenses of silt and clay. Groundwater was consistently encountered between 29 and 32 feet (8.8–9.8 m) in the borings that were drilled to that depth (Geocon West 2017:3).

## Culture History

Long Beach has a long cultural history that includes Native American groups, Spanish explorers and settlers, Mexicans, and Americans. The prehistory and history of the Long Beach area are briefly summarized below.

### Prehistory

#### Paleoindian Period

Roughly 12,000 years ago, southern California was populated by several related yet distinct cultural groups generally known as Paleoindians (Moratto 2004:76). Along the coast, these cultures are known as the Paleo-coastal tradition and are believed to have migrated down the coast from northern California. The people of the Paleo-coastal tradition are thought to have been the first to arrive in California (Erlandson et al. 2007), and the tradition is well documented along the coast of central California and on the northern Channel Islands (Erlandson et al. 2007). People of the Paleo-coastal tradition were maritime adapted and collected shellfish, hunted marine and land mammals and birds, and caught smaller fishes (Moratto 2004:78). The Paleoindians living farther inland are known as Clovis (from the original sites excavated near Clovis, New Mexico, in the early twentieth century) and were adapted to a terrestrial and lacustrine environment, using a very different subsistence technology from that of the Paleo-coastal people. Inland Paleoindian sites generally date to the same time as Paleo-coastal sites. Major Clovis localities are known at Lake Tulare (Moratto 2004:76, 78; Riddell and Olsen 1969) and China Lake (Davis 1975), among other locations in central and southern California.

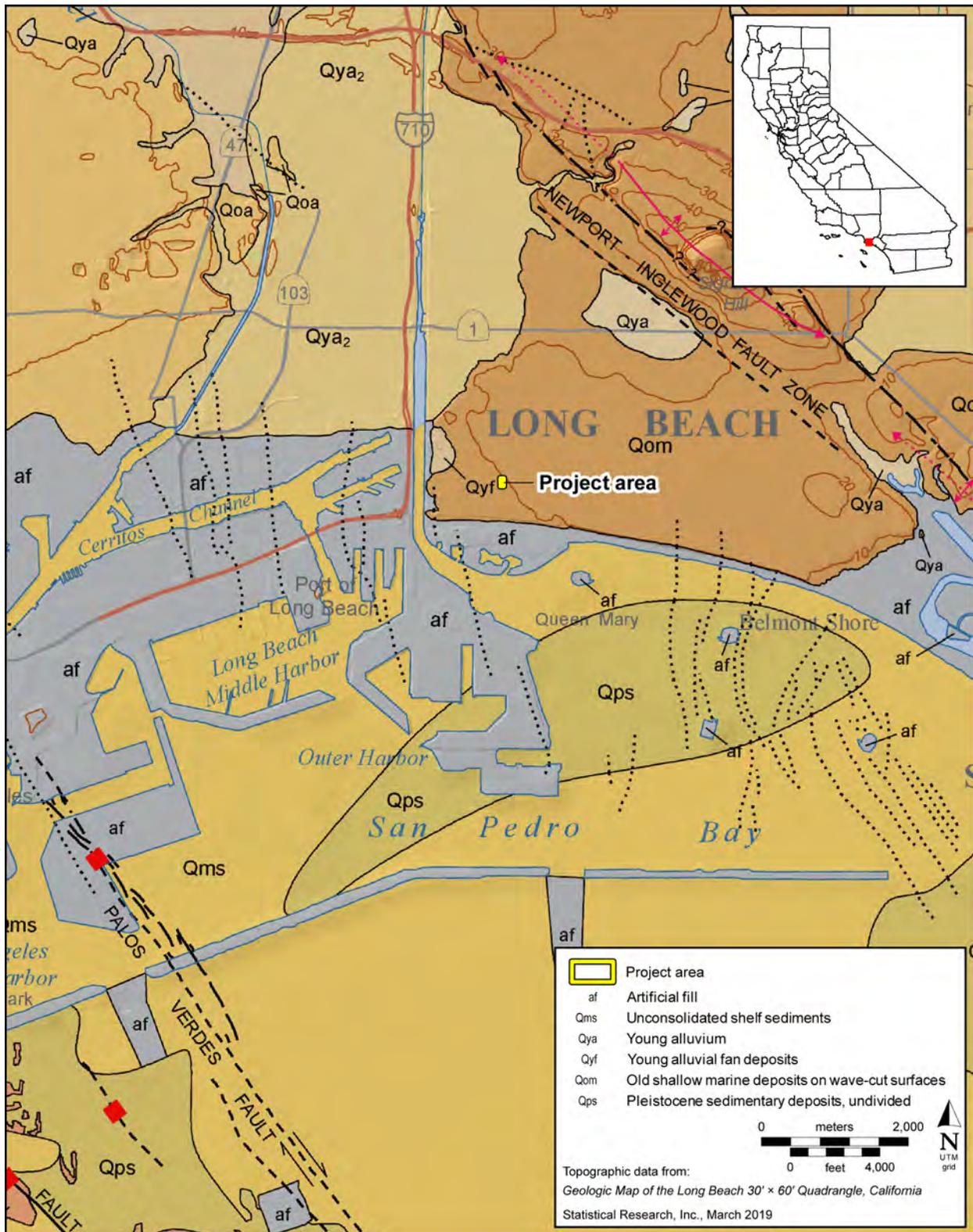


Figure 3. Geologic map of Long Beach (Saucedo et al. 2016), showing the Project footprint.

Although there are many regional variants to these groups, Paleoindians in California can be characterized by a few general traits (Moratto 2004:76, 78):

1. Paleoindians inhabited interior sites along ancient lake and marsh shorelines and coastal sites along stream channels and estuaries.
2. Paleoindians had a sophisticated lithic technology with advanced tool-making techniques for the creation of large flaked stone tools, especially large foliate points and lanceolate fluted points.
3. Ground stone tools were not used, and groups made use of the atlatl and dart.
4. Paleoindians were primarily nomadic or systematically followed seasonal resources as they became available. Some groups, however, may have been more sedentary, if the resources in the area were adequate for permanent settlements.

### **Millingstone Period**

The Millingstone period—sometimes referred to as the Early period—is a roughly 5,500-year span beginning in ca. 6500 cal B.C. and ending with the first dramatic increase in regional human population in ca. 1000 cal B.C. (the “cal” prefix indicates that these dates are derived from calibrated radiocarbon dates). During this period (called a “horizon” in some chronological schemes), milling implements (especially manos and metates), scraper planes, choppers, and core tools were abundant, and there was a dearth of projectile points (in this case, dart points and spears) and faunal remains. Inherent in the definition of the Millingstone period is a heavy dependence on seeds and a minor emphasis on hunting (hence the abundance of milling implements and the near absence of hunting equipment and faunal remains).

Sutton (2009) has argued that from the end of the Millingstone period (ca. 1500 cal B.C.), there was an initial entry of Takic (proto-Gabrielino/Cupan branch of the Uto-Aztecan language family) speakers into the region. These Takic groups appear to have replaced the existing late Millingstone period groups along the coast. The archaeological record reflects this major change. First, ancestral DNA and osteometric (bone-morphology and -measurement) studies of the small number of skeletal remains available from this period indicated that the entering Takic groups were biologically distinct from the preceding populations, suggesting that a migration took place (for a full discussion, see Sutton [2009]). Second, significant increases in site numbers were noted in some areas, suggesting the arrival of incoming groups during the early Intermediate period, earlier than has been traditionally thought. Also, larger sites with greater diversities of artifacts appeared at about that time but seem to have been occupied seasonally. Last, there were some changes in mortuary patterns on the coast. Flexed burials under cairns, a common burial practice throughout the Millingstone period, disappeared from the coast but continued inland; cremation was uncommon and was not a marker of the early Takic expansion, as is commonly believed (see Sutton 2009). Large mourning features with cremated human bone appeared in ca. 600 cal B.C. (during the early Intermediate period). These features apparently represent a diffusion of ideas from Yuman groups in the deserts to the east and could mark the inauguration of some sort of ritual complex in the region.

### **Intermediate Period**

The Intermediate period (1000 cal B.C.–cal A.D. 1000) is marked by changes in settlement patterns, economic activities, mortuary practices, and technology. The latter portion of the Intermediate period (ca. A.D. 500–1000) is marked by the spread of the bow and arrow to the coast from the north and east. Sometime toward the end of the Intermediate period, the trade in obsidian mined in the Coso Formation decreased dramatically (Sutton et al. 2007:244), and Obsidian Butte obsidian increased in importance. Yuman ceramics, plus some local wares, were present. Major settlements continued to be occupied on a seasonal basis. Flexed burials continued, and cremation remained uncommon. As discussed above, Sutton (2009) argued that a major process beginning in the late Intermediate period was the diffusion of a Takic language, the mother of the Cupan languages, into Yuman-speaking areas located immediately to the south of the Los Angeles Basin.

### **Late Period**

The Late period, beginning in ca. cal A.D. 1000 and ending with European contact in A.D. 1542, witnessed extensive population growth along much of the southern California coast. There are more sites, and a greater

variety of sites with greater internal differentiation, from this period than from any other time in prehistory. Villages with complex site layouts and burial grounds with highly variable mortuary treatments appeared, suggesting the development of social differentiation (Douglass et al. 2016:44).

### **Protohistoric and Early Historical Periods**

The line between the Late and Protohistoric periods is admittedly arbitrary. The Protohistoric period in the Los Angeles Basin begins with initial European contact in A.D. 1542 and ends with the establishment of Mission San Gabriel Arcángel in 1771, after which direct and recurrent contact between the Gabrielino and the Spanish settlers in the Los Angeles Basin was established (King 1978:58). The early historical period (also known as the Mission period) runs from 1771 until the beginning of the era of secularization in 1834.

The Protohistoric period is possibly the least-well-documented period in the southern California occupational sequence. A distinct time bias against remains from this period is evident in the work of some early archaeologists who excavated in pursuit of the very earliest (Paleoindian period) deposits and disregarded later components. In addition, if sites were multicomponent and were occupied during the Protohistoric period as well as either the Late or Mission period, the Protohistoric period component may have been difficult to identify and distinguish from components of other periods.

### **The Gabrielino (Tongva/Kizh)**

The Project is located within the ethnographic territory of the Gabrielino, who occupied much of present-day Orange and Los Angeles Counties as well as Santa Catalina, San Clemente, and San Nicolas Islands and portions of Riverside and San Bernardino Counties (Blackburn 1963; Johnston 1962; Kroeber 1925; McCawley 1996). Their territory included “the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers, several smaller intermittent streams in the Santa Monica and Santa Ana Mountains, all of the Los Angeles Basin, [and] the coast from Aliso Creek to Topanga Creek in the north” (Bean and Smith 1978:538). As previously mentioned, early ancestors of the Gabrielino probably arrived in coastal southern California at the end of the Millingstone period (ca. 1500 B.C.) with the initial entry of Takic-language speakers into the region.

The Gabrielino people were so named by the Spanish because many of the tribe’s members were baptized and converted at Mission San Gabriel Arcángel. According to Mr. Robert Dorame (personal communication 2018), chair of the Gabrielino Tongva Indians of California Tribal Council, his ancestors chose to spell their name “Gabrielino” rather than the typical Spanish form “Gabrieleño” as a form of resistance to Spanish control. Historical accounts suggest that the people known as the Gabrielino did not have a singular name for themselves, although many records indicate that individuals referred to themselves as coming from or being affiliated with specific villages (Bryant Dakin 1939:222; Johnston 1962:10) rather than as part of a larger linguistic or cultural group. Researchers have identified the names Tongva and Kizh as possible Native names synonymous with Gabrielino (Hale 1846; Harrington 1986; Heizer 1968; Merriam 1955), although neither is considered a perfect fit. Today, the names Gabrielino, Gabrieleño, Tongva, and Kizh and are used variously by descendant groups to identify themselves and their heritage.

The Gabrielino generally lived in permanent villages (Bean and Smith 1978:538–539), but the locations and sizes of villages varied across environmental zones. Gabrielino villages (sometimes also called *rancherías*) generally maintained their own territories and were located in defensible locations adjacent to subsistence resources and water (Beals and Hester 1974; Bean and Shipek 1978). Coastal Gabrielino villages often contained more than 200 residents, and their houses could hold as many as 50 people each (Bean and Smith 1978:542; Costansó 1910; Johnston 1962). At the time of European contact, the Gabrielino occupied at least 50–100 villages (with an average population of 50–100 per village), for an estimated total population of roughly 5,000 people (Bean and Smith 1978:540; Kroeber 1925).

Gabrielino villages were often composed of several lineages, each with its own leader (Bean and Smith 1978:543–544). Each village had a hereditary chief who was the leader of the village’s dominant (or only) lineage (Bean and Smith 1978:544; Boscana 1933:43). The chief acted as both religious and political leader and was responsible for conducting ceremonial affairs, determining where and when to hunt and gather, collecting goods for communal use, arbitrating disputes, and leading war parties. The chief had a key assistant who counseled him on ceremonial matters, organized rituals, and ensured that proper protocol was

followed (Bean and Smith 1978:544). Each Gabrielino chief was also assisted by a treasurer, an announcer, a general assistant, and several messengers (Bean and Smith 1978:544).

Houses typically were dome-shaped, thatched structures set over shallow depressions (Bean and Smith 1978:542; Costansó 1910; Johnston 1962). Superstructures were constructed with reeds and brush and were often covered with earth. Houses ranged in diameter from 15 to 60 feet (5–18 m), depending on the number of people living inside. They were used primarily for sleeping and storage, because most daily activities took place outdoors, around the house or in the shade of a ramada (an unwalled roofed space). Each village also contained a sweathouse, which served as a gathering place (Bean and Smith 1978:542). Sweathouses were constructed in the same manner used for houses but typically were smaller and oval. For public ceremonial activities, the Gabrielino used an open-air, fenced enclosure (Bean and Smith 1978:542).

At the time of contact, Gabrielino subsistence was based on foraging. Agriculture was not practiced, although the Gabrielino probably burned native vegetation to enhance the productivity of edible wild plants (Bolton 1971; Davis 1990). Acorns provided a staple of the diet for the Gabrielino. Seeds, greens, roots, bulbs, fruits, berries, flowers, and fungi supplemented the plant-food diet for all groups (Bean and Smith 1978). Deer, pronghorn, rabbits, small rodents, and birds were available throughout much of Gabrielino territory (Bean and Smith 1978:538–539). Waterfowl were taken from marshes near the coast by the Gabrielino. Sharks, rays, other fishes, sea mammals, and shellfish were available on the coast, and tuna and swordfish could be accessed offshore by boat.

Large game was hunted primarily with the bow and arrow, whereas small game was taken with curved, flat sticks; snares; traps; and deadfalls. Fishing employed hooks, gorges, nets, basketry traps, spears, and the bow and arrow (Bean and Smith 1978:546). In places with suitable bedrock outcroppings, the Gabrielino used bedrock mortars to pound acorns (Bean and Smith 1978:542; Kroeber 1925:631–632). Where bedrock was not available, portable stone mortars and pestles were used. Hoppers were used on new, shallow mortars until they became deep enough (Kroeber 1925:653, 696–697). Smaller grass seeds were collected with basketry seed beaters and were processed with metates and manos.

Like most native California groups, the Gabrielino made a wide variety of utilitarian, ceremonial, and decorative basketry. Small, handheld baskets were used for gathering berries and bird eggs; large, round-bottomed baskets were used for carrying bulkier items; shallow trays were used for winnowing or parching seeds; large baskets were used for storage; and globular, flat-bottomed baskets were used for keeping utensils and trinkets (Bean and Smith 1978:542). The Gabrielino also made water jugs coated with asphaltum and urn-shaped ceremonial baskets for grave offerings (Bean and Smith 1978:542; Blackburn 1963; Kroeber 1925:629; Merriam 1955:84).

The Gabrielino did not use pottery until just before the arrival of the Spanish (Kroeber 1925:628), but they did have access to steatite (heat-treated soapstone) from Santa Catalina Island, which they used to create cooking and serving vessels (Kroeber 1925:629). In addition to utilitarian items, the Gabrielino carved pipes, ornaments, animal figurines, and ceremonial bowls out of steatite (Bean and Smith 1978:542; Blackburn 1963; Kroeber 1925:629). The Gabrielino also made needles, awls, scrapers, and flakers from bone or shell; projectile points, scrapers, drills, and knives from stone; and saws from deer scapulae (Bean and Smith 1978:542).

The Gabrielino were avid traders and exchanged food, utilitarian items, and ceremonial items among themselves and with their neighbors. Generally, obsidian, furs, hides, nuts, and seeds moved westward, and shell beads, tourmaline, steatite, asphaltum, sea otter pelts, and dried fish moved eastward. The Cocomaricopa Trail connected southern California with the present-day U.S. Southwest, bringing turquoise, southwestern pottery, grooved axes, and agricultural products to the region. In turn, Gabrielino shells and steatite traveled as far east as central Arizona (Bean and Smith 1978:547). The Gabrielino conducted trade with their coastal neighbors by boat but otherwise did not travel into the territories of others to trade (Bean and Smith 1978:545, 547; Kroeber 1925:629). *Olivella*-shell beads were used as a general medium of exchange throughout the region, but barter was also common (Bean and Smith 1978:547; Kroeber 1925:630). Clamshell disk beads replaced *Olivella*-shell beads as the standard currency for the Gabrielino during the historical period (Kroeber 1925:630).

By 1800, most of the surviving Gabrielino had become missionized, although many had died from violence, imported illness (e.g., smallpox), or illness associated with the poor living conditions at the mission (e.g., tuberculosis and dysentery). Those who did not submit to the mission system fled the area to live in remote refuges or to work on secular ranches and farms (Bean and Smith 1978:Table 1; Walker and

Johnson 1992:127). All Native American groups experienced dramatic population decline and loss of traditional territory as a result of colonization, but the effects were particularly dramatic among the Gabrielino, who were considered essentially wiped out by the turn of the last century. In an 1890 report on the “Mission Indians in the Counties of San Diego and Los Angeles, California,” the Gabrielino were not mentioned at all, even in the section discussing “Mission Indians off Reservation” (Foote 1894:214). Although many Gabrielino descendants and tribal organizations survive today, the Gabrielino have never been officially recognized or allotted tribal reservation lands by the U.S. government.

## Historical Period

In 1542, prior to the sustained colonization of California, Portuguese explorer Juan Rodriguez Cabrillo was the first to sail up the California coast. During his expedition, Cabrillo appears to have visited San Pedro Bay and named it the *Baya de los Fumos* (Bay of Smoke) because of the many inland fires visible from the coast. Some two centuries later, the historical period in this portion of the Los Angeles Basin began with the 1769 Spanish expedition of Gaspar de Portolá and Father Juan Crespi, whose party traversed the coastal route that was to become El Camino Real between San Diego and Monterey Bay. Mission San Gabriel Arcángel—the fourth mission to be established in Alta California—was founded in 1771, at an original location approximately 6 miles (10 km) north of the current City of Long Beach (Beck and Haase 1974:15; Sapphos Environmental, Inc. [Sapphos] 2009:25, 32). The community that would become Los Angeles was founded in 1781 approximately 25 miles (40 km) north of the area that would become Long Beach.

In 1784, Spanish Governor Pedro Fages granted retiring soldier Manuel Perez Nieto a vast landholding for his cattle and horses. The allotment stretched between the San Gabriel and Santa Ana Rivers and from the foothills to the ocean, encompassing the area that would become Long Beach (Beck and Haase 1974:37). Upon Nieto’s death in 1804, his land was divided into five ranchos for his heirs (Robinson 1948:48–50). Two of them, the Rancho Los Alamitos and the Rancho Los Cerritos, encompassed most of what has become the City of Long Beach. Today’s Alamitos Avenue marks the division between the two ranchos, with Los Cerritos to the west and Los Alamitos to the east (Sapphos 2009:32).

Rancho Los Cerritos (Ranch of the Little Hills) became the property of Nieto’s daughter, Manuela Cota, before being purchased by John Temple in 1844; he erected the two-story adobe headquarters that remains at the ranch today. In 1834, the Rancho Los Alamitos (Ranch of the Little Cottonwoods) was purchased by Governor José Figueroa; the land was transferred in 1842 to Abel Stearns (Sapphos 2009:26, 32–33). Both ranchos initially prospered during the American period (particularly by supplying cattle that were consumed by Gold Rush miners) but declined with drought and economic distress during the 1870s. By the late 1870s, both the Rancho Los Alamitos and the Rancho Los Cerritos were controlled by the Bixby family corporation, which developed a working sheep ranch and dairy farm, also producing beans, barley, and alfalfa. The Bixby outfit began selling acreage, as well.

Wilmington Harbor, on the west side of the Los Angeles River, was the first to serve all of southern California, the Southwest, and as far inland as Salt Lake. In 1870, the Los Angeles and Wilmington Railroad (later the Los Angeles and San Pedro Railroad) became the first rail line in southern California, linking Los Angeles and Wilmington. The earliest American map of the area was created in 1878 and showed the boundaries of the various ranchos around the Project and the largely then-unmodified San Pedro Harbor and Bay (Figure 4).

Long Beach was founded in 1881 as Willmore City, which was surveyed, platted, and developed during the southern California real-estate boom of the 1880s by William Erwin Willmore and the Bixby Company on land that had been part of the Rancho Los Cerritos. Willmore City was advertised as a “healthful seaside resort” promoting tourism, settlement, and the propagation of citrus, figs, olives, almonds, and walnuts on small family farms (Sapphos 2009:33–35). In 1882, a horse-car stage linked Willmore City with Wilmington across the Los Angeles River (Ray Gage, Inc. 1970).



Figure 4. 1878 U.S. General Land Office map of Township 5 South, Range 13 West, overlaid on modern USGS data, showing the Project location.

That city, renamed Long Beach in 1884, was incorporated in 1888 with a population of 800. Early development was associated with ranching, agriculture, and shipping activities at Long Beach Harbor (City 2009:1). A dispute regarding whether to remain a “dry” city led to reincorporation in 1897 (Sapphos 2009:26–27). By 1898, Long Beach had 2,000 residents during the winter season and 6,000 in the summer; in 1902, the City population was 4,000 (Sapphos 2009:27) (Figure 5).

Among the first residences built in Long Beach are the Victorian Queen Anne homes that are part of the Drake Park district, named for Colonel Charles Rivers Drake, who developed Long Beach’s beachfront resort (Long Beach Heritage 2019; Long Beach Planning 2019). The Willmore City/Drake Park Neighborhood Historic District, just two blocks west of the Project, contains these homes and was designated in 1998 (City 2009:12, 2012:24).

Beginning in 1899, the federal government dredged the combined Los Angeles–Long Beach Harbor to create what was, by its completion in 1949, the largest harbor in the world (Salitore and Salitore 1969:398). The U.S. Navy designated Long Beach its Pacific Fleet base in 1919 (Sapphos 2009:46).

The prosperous waterfront tourist industry led to increased construction of houses, courts, cottages, cabins, and tents to serve the influx of visitors. Multiple-family residential units—including duplexes, attached dwellings, and apartment buildings—occupied the City core. In addition to providing recreation, Long Beach Harbor developed as a municipal shipping node (Sapphos 2009:37, 41–44).

In 1902, an amusement venue known as The Pike was developed on the shoreline south of Ocean Boulevard. It contained a grand bathhouse, rides, food stands, curiosity shops, arcades, exhibits, theaters, dance pavilions, and sideshows (American Guide Series 1939:204).

In 1921, oil discovered on Signal Hill (some 2.5 miles [4.0 km] northeast of the Project) brought a new industry to the City, and population estimates rose to 135,000 in just 4 years. The discovery “created millionaires out of ordinary citizens and investors, and the effects were felt throughout the City” (Sapphos 2009:45) (Figure 6).

A disastrous earthquake on March 10, 1933, resulted in 120 fatalities and property damage amounting to \$50 million (in 1933 dollars) (State of California 2018). Because of the depressed economy, few small buildings carried earthquake insurance coverage (*Wilmington Daily Press Journal* 1933). Thousands of unemployed persons were hired by the City to clear away rubble (Beale 1933). Additional oil discoveries later that decade increased that local industry. Rebuilt under an organized program with more-rigid building standards, Long Beach had become the fifth-largest city in the state by 1939, characterized as “a seaside resort, a haven for elderly retired persons, and an industrial center drawing its income from oil, shipping, and manufacturing” (American Guide Series 1939:201–203).

Regional military installations provided additional economic stability, with Long Beach serving as one of the main bases of the U.S. Naval Pacific Fleet. Naval Air Facility Reeves Field was established in 1938 to support seaplanes associated with Pacific Fleet ships. Naval Station Long Beach (Roosevelt Base) began operations in 1940 (Coletta 1985:294–298). During World War II, aircraft and shipbuilding provided jobs for many local employees, most of whom were women (Sapphos 2009:48).

Following the war, Long Beach experienced rapid population growth and development, in part because of the influx of veterans and their families and thanks to the annexation of additional land by the City. New residential neighborhoods led to the need for increased commercial establishments. California State University, Long Beach, established in 1949, served many veterans taking advantage of the educational opportunity presented by the G. I. Bill. In the 1950s, as new residents moved to the suburbs and tourism declined as a local industry, the City core experienced decline. Some historical buildings were removed as part of urban-renewal projects (Sapphos 2009:49–51) (Figure 7).

Long Beach Harbor began hosting containerized ships in 1962, and by 1966, the combined Los Angeles–Long Beach Harbor ranked fifth in national shipping volume (Salitore and Salitore 1967:368, 370). By the late 1960s, two landscaped islands in Long Beach Harbor served to camouflage oil wells (Salitore and Salitore 1967:269, 288, 295).

Through the 1980s and 1990s, urban-renewal projects were offset by historic-preservation efforts, resulting in a city containing a mix of historical and modern built-environment elements. Successful industrial development and continued urbanization have resulted in a steady increase in City population (180,000 in 1940; 344,168 in 1960; 358,633 in 1970; 361,334 in 1980; and 429,433 in 1990) (Horner 1999:230; Los Angeles County Board of Supervisors 1940; Salitore and Salitore 1967:466).

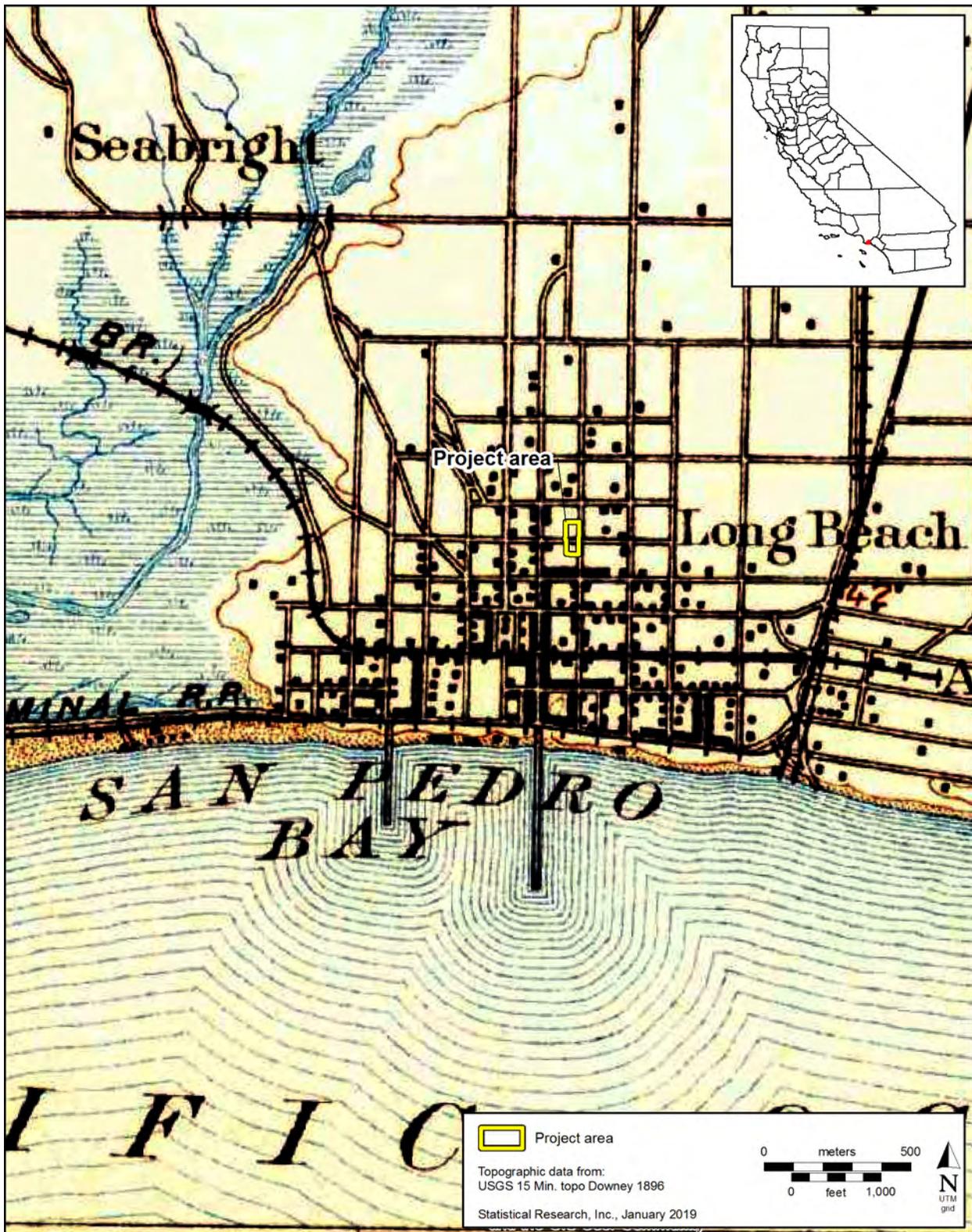


Figure 5. 1896 USGS map of Long Beach, showing the Project footprint.

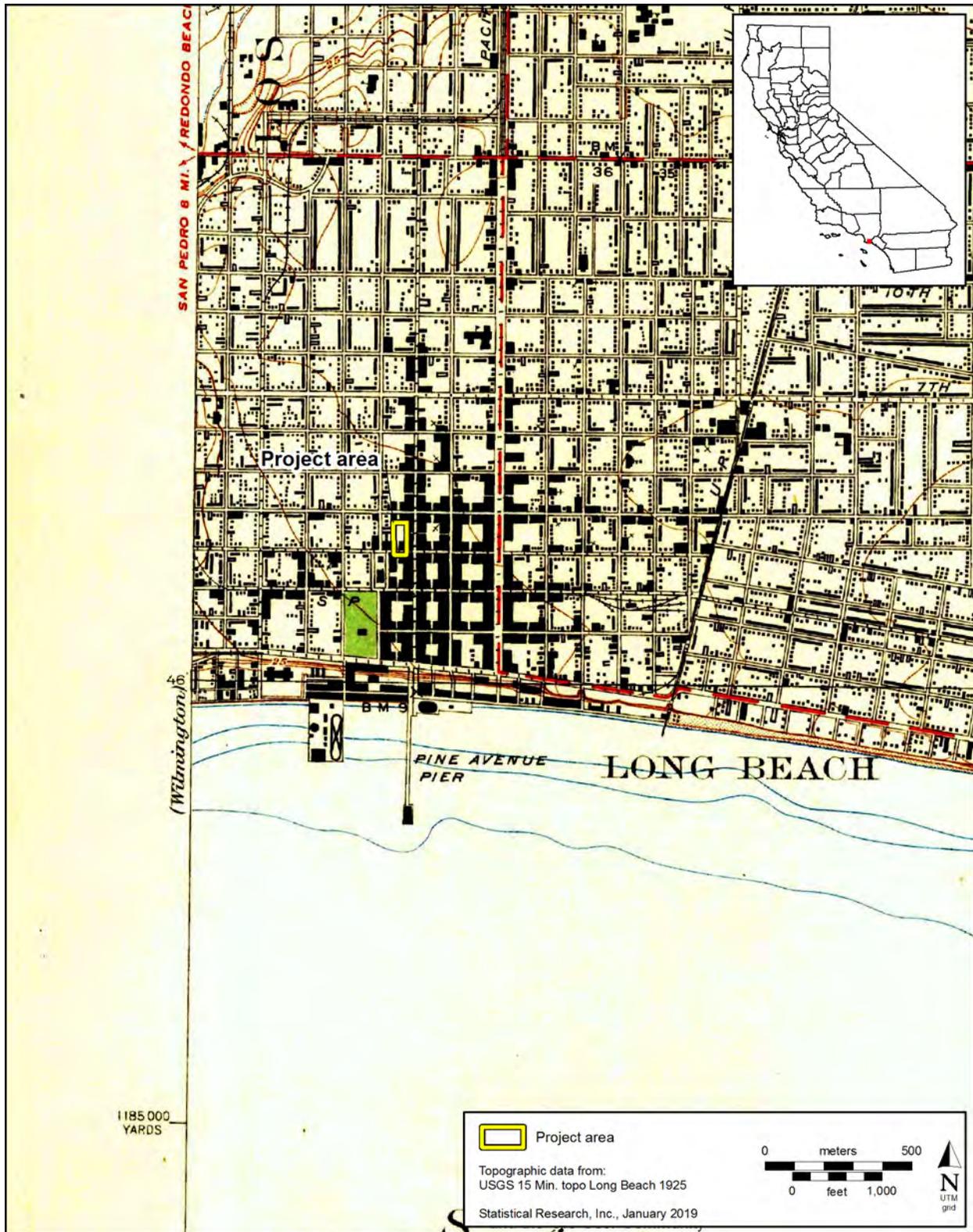


Figure 6. 1925 USGS map of Long Beach, showing the Project footprint.

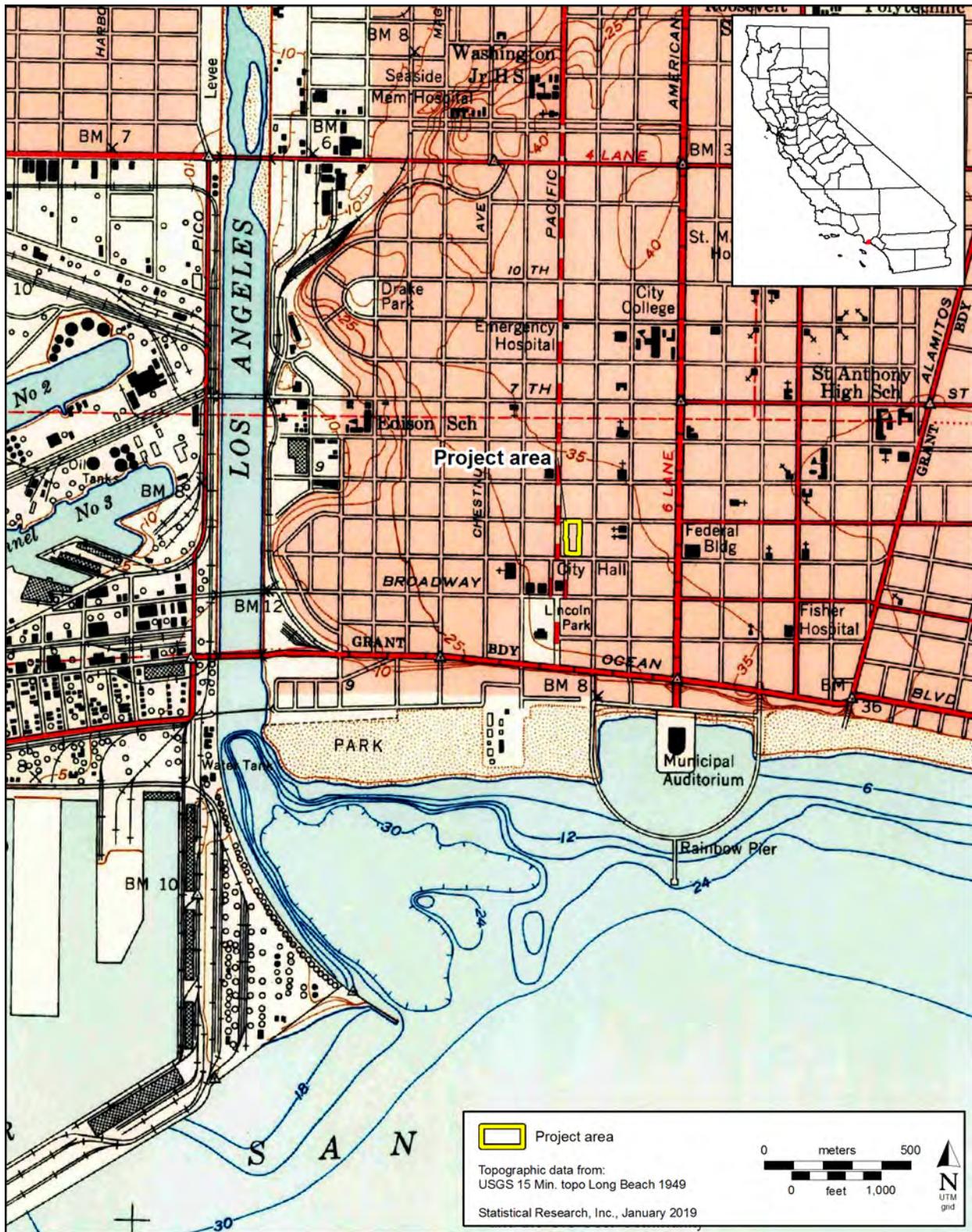


Figure 7. 1949 USGS map of Long Beach, showing the Project footprint.

## Methods

### Archaeological Records Search

SRI conducted a records search for the Project with the South Central Coastal Information Center (SCCIC), a regional repository of the California Historical Resources Information System (CHRIS). The purpose of the records search was to identify all relevant reports of the Project and the surrounding 1-mile radius, as well as all archaeological sites and any National Register of Historic Places– (NRHP-) or CRHR-eligible or Long Beach Landmark properties within 1 mile of the Project. The reviewed records included all investigation reports and resource records from the following sources: the NRHP, the CRHR, the California Historical Landmarks list, the California Points of Historical Interest list, the California Office of Historic Preservation (OHP) State Historic Resources Inventory, and the LBHL list.

### Archival and Historical Research

The goal of the archival research was to identify, through gathered primary and secondary sources, the chronology of occupation and historical uses of the property, so as to develop a historic context by which to evaluate the historical significance of cultural resources that might be encountered on the property. SRI consulted the institutions and repositories shown in Table 1 to collect relevant information on the Project. Primary historical source materials afforded information specific to the Project; in particular, maps, newspaper articles, and aerial photographs were compiled to produce the historical context and overview presented above. Maps and aerial photographs of the Project were collected and reviewed and were used primarily to better understand and describe land-use changes over time. Secondary source materials provided contextual history for the development of Long Beach. In particular, the City’s 2009 Historic Context Statement (Sapphos 2009) provided important information regarding the historical development of the City and the surrounding region.

**Table 1. Repositories Consulted during the Archival Research**

| <b>Repository</b>  | <b>Collection(s)/Document Type(s)</b>   |
|--|---|
| California Department of Conservation                      | digital data commemorating the 75th anniversary of the 1933 Long Beach Earthquake, Oil & Gas Well Finder  |
| City of Long Beach   | various digital publications  |
| City of Long Beach Development Services, Planning          | digital data on Drake Park/Willmore City Historic District  |
| Environmental Data Resources, Inc.                         | historical topographic maps, certified Sanborn Fire Insurance Company maps, historical aerial photographs, historical city directories, radius map report |
| Google Earth   | historical imagery  |
| Historical Society of Long Beach                           | various digital collections   |
| Long Beach Heritage  | digital information regarding Long Beach Historic Districts   |
| Long Beach Heritage Museum                                 | digital photograph collection   |
| Long Beach Public Library                                  | digital archive   |
| Newspapers.com   | newspaper articles  |
| Online Archive of California                               | various digital collections   |
| Rancho Los Alamitos  | online collections database   |
| Rancho Los Cerritos  | various digital resources   |
| U.S. Department of the Interior Bureau of Land Management  | U.S. General Land Office records (plat maps, land-patent records, and land-status records)  |
| U.S. Geological Survey Historical Topographic Map Explorer | U.S. Geological Survey topographic maps   |
| University of California Calisphere                        | various digital collections   |

## **Ethnohistoric Research**

SRI conducted limited ethnohistoric research focused on identification of Native American resources within and in the vicinity of the Project. Of particular importance was the review of ethnohistoric maps of Native American habitation locales and activity. These materials were reviewed to identify previously documented Native American resources—including named villages, use areas, trade and travel routes, archaeological sites, and critical natural features such as springs and streams—in the Project vicinity. This material was collected to provide a broader context for the assessment of materials developed through tribal contact and consultation.

## **Native American Resource Search and Native American Contact Program**

To determine whether previously recorded Native American resources were present in the vicinity of the Project, SRI requested a Sacred Lands File (SLF) search for the Project from the NAHC. The NAHC reviewed their records of traditional-use areas and sacred sites to identify any resources within or near the Project, and they provided contact lists for California Native American tribes culturally affiliated with the Project who might have further information concerning resources. In their response letter, the NAHC recommended “contacting all those on the list” to “locate areas of potential adverse impact” within the Project. SRI contacted each individual or group provided by the NAHC and supplied them with information about the proposed Project, maps of the Project location, and results from our CHRIS records search. We requested input regarding the presence of Native American resources or other cultural sensitivity in or near the Project. SRI’s SLF search and contact program were performed as a standard component of a cultural resource assessment of the Project. SRI’s work was conducted separately from the formal tribal consultation undertaken by the City as the lead agency for this Project under CEQA.

## **Historical-Period Built-Environment Assessment**

No standing structures or buildings remain within the Project footprint that might be directly impacted by the construction of the Project. Direct impacts would include demolition, relocation, or alteration of existing buildings, structures, or elements of those. Therefore, no standing built-environment resources will be directly impacted by the construction of the Project. Nonetheless, the Project is located in one of the oldest sections of Long Beach, and numerous historical-period built-environment resources (buildings and structures 45 years of age or older) exist in the vicinity of the Project. The historical-period built-environment resources identified by SRI to be in the vicinity of the Project included those identified and evaluated for the Downtown Plan (City 2010; ICF Jones and Stokes 2009) and resources recorded at the SCCIC and/or listed as LBHL properties. SRI conducted a limited assessment of possible indirect impacts of the construction of the Project on historical-period built-environment resources immediately surrounding the Project area.

Assessments of potential impacts to historical resources weigh whether a project may affect the integrity of a property and thereby alter any of the characteristics that qualify it for listing at the local, state, or national level. The integrity of a historical resource is defined as the retention of seven critical factors: location, design, setting, materials, workmanship, feeling, and association (OHP 2011:19).

## **Paleontological Resource Assessment**

To assess the potential for significant paleontological finds in the Project, SRI requested a review of the paleontological-specimen and locality records held by the Vertebrate Paleontology Department of the Natural History Museum of Los Angeles County (NHMLA). The search was conducted by Dr. Samuel McLeod, collections manager, who provided a written report of his findings. SRI also collected USGS geologic maps and soils maps of the area, to assess the potential for paleontological resources within the Project footprint.

Dr. Joseph El Adli, a qualified paleontologist with experience in southern California, reviewed the materials and provided an assessment of the paleontological sensitivity of the Project footprint.

Currently, no specific guidelines exist for the assessment of paleontological resource potential or sensitivity under CEQA. Therefore, most professional paleontologists in California use one of three established classification schemes to determine fossil sensitivity. The California Department of Transportation (2012) suggests a tripartite classification to characterize paleontological sensitivity: no sensitivity, low sensitivity, and high sensitivity. The U.S. Department of the Interior Bureau of Land Management (BLM) developed a multilevel ranking system termed the Potential Fossil Yield Classification (PFYC) (BLM 2007, 2016). Under the PFYC system, geologic formations are ranked on a scale of 1–5 for paleontological sensitivity based on the relative abundance of known vertebrate fossils and scientifically significant invertebrate or plant fossils. The final classification scheme was developed by the SVP in 2010. Of the three classification systems, the SVP (2010) system is favored by professional paleontologists, because it includes more detailed protocols for the assessment of paleontological resource potential.

For this report, SRI follows the SVP (2010) procedures for paleontological resource assessment. Under the SVP (2010) guidelines, geologic units may be classified as one of four categories of paleontological resource sensitivity: no potential, low potential, undetermined potential, and high potential. The criteria for each of these sensitivity categories are presented in Table 2.

**Table 2. Paleontological Resource Sensitivity**

| <b>Paleontological Potential</b> | <b>Criteria</b>   | <b>Recommendations</b>   |
|----------------------------------|---|--|
| High potential                   | Geologic formations that are known to yield vertebrate or significant invertebrate, plant, or trace fossils. Highly sensitive formations may also be those that are likely to produce new vertebrate materials, traces, or trackways.   | A field survey is required, as well as on-site construction monitoring. Any significant specimens discovered will require preparation, identification, and curation as well as eventual accession into an appropriate museum collection. A final report documenting the significance of any finds is required. |
| Low potential                    | Geologic formations that have yielded few fossils in the past, based upon review of available literature and museum collections records. Low potential may also include formations that yield fossils only under unusual circumstances. This also includes formations that, based on their relative youthful age or high-energy depositional history, are unlikely to produce important fossil remains. | Mitigation is not typically required.  |
| No potential                     | Geologic formations that are formed under or exposed to immense heat and pressure, such as high-grade metamorphic rocks and plutonic igneous rocks. Artificial fill materials are also assigned a zero potential because of loss of stratigraphic context of any contained organic remains.   | No mitigation is required.   |
| Undetermined potential           | Geologic formations for which available literature on paleontological resources is scarce, making it difficult to determine whether or not it is potentially fossiliferous. Under these circumstances, further study is needed to determine the unit's paleontological resource potential (i.e., field survey).   | A field survey is required to further assess the unit's paleontological potential. If the paleontological potential of the unit cannot be determined during subsequent field survey, then construction monitoring will be required during project-related excavations.   |

*Note:* Table modified from guidelines provided by the Society of Vertebrate Paleontology (2010).

## **Paleontological Resources: Significance and Criteria**

Paleontological resources (fossils) are the remains or trace remains (both physical and chemical) of prehistoric organisms (i.e., animals, plants, and microorganisms). These resources can be preserved as body fossils, such as bones, teeth, shells, and plant matter, or as trace fossils, such as burrows and footprints. Geologic deposits make up the context in which fossil remains were originally buried and provide information about the environment in which an organism lived. In the broadest sense, a fossil can be defined as any remains documenting past life. Typically, fossils must be at least 10,000 years in age (i.e., dating from around the Pleistocene-Holocene boundary or older). However, some early Holocene remains are also considered of paleontological interest, such as the specimens of the late-surviving woolly mammoths from Wrangel Island, which went extinct approximately 4,000 years before the present. Alteration or replacement (e.g., permineralization or petrification) of the original organic material is not required for determination of whether an object is a fossil or not.

In general, paleontological resources are preserved in sedimentary rocks; however, they can occasionally be preserved in low-grade metamorphic rocks and can, on rare occasions, be preserved in volcanic rocks. Beyond acting as a vessel for the preservation of fossil remains, sedimentary strata record telltale information reflecting the environment in which they were deposited (e.g., sedimentary structures, maturity, and lithology). For example, fossil remains found within the fine-grained sediments of a floodplain deposit represent organisms that died and were later buried on an ancient floodplain. Because of the interwoven relationship between fossil remains and their geologic contexts, for the purpose of this report, paleontological resources can be thought of as also including fossil-collecting localities and the geological formations containing those localities.

Significant paleontological resources are defined by the SVP as identifiable vertebrate, invertebrate, plant, and trace fossils that provide taphonomic, taxonomic, phylogenetic, paleoecological, stratigraphic, or biochronological data (SVP 2010). These data are important for a multitude of scientific purposes, including examination of evolutionary relationships, understanding the development of biological communities and the interactions between organisms within them, and establishing chronologies for geologic units (Scott and Springer 2003). Fossils are considered important scientific and educational resources because they serve as direct and indirect evidence of prehistoric life and are used to understand the history of life on Earth, the nature of past environments and climates, the membership and structure of ancient ecosystems, and the pattern and process of organic evolution and extinction. Fossils are considered to be limited, nonrenewable resources, because they typically represent organisms that are now extinct or life in a context that no longer exists. Therefore, if destroyed, a particular fossil can never be replaced, and the information associated with it is forever lost.

## **Results**

### **Archaeological Records Search**

On November 28, 2018, SRI archaeologist Joy Vyhmeister conducted an archaeological records search at the SCCIC. Within a 1-mile radius of the Project footprint, 37 cultural resource investigations have been completed (Table 3; Figure 8). These include a wide variety of investigations ranging from focused studies of small, low-impact projects, such as cellular-tower installations (e.g., Bonner 2012; Duke 2002; Supernowicz 2011), to broad overviews of historical complexes and neighborhoods (e.g., Carmack and Hunt 2015; Weinman 1978). One report, LA-08485 (Tibbet and Jacquemain 2005), a historical-period-building survey of several parcels in downtown and central Long Beach, included the Project as one of several survey blocks (see Figure 8). The report was completed in 2005, and by that time, all standing historical-period buildings that might have been assessed had been removed from the Project parcels.

**Table 3. Previously Conducted Cultural Resource Investigations in the Project and the Surrounding 1-Mile Radius**

| <b>Report No.</b>     | <b>Year</b> | <b>Author(s)</b>   | <b>Title</b>  | <b>Affiliation</b>                             |
|-----------------------|-------------|--|---|--|
| LA-00503              | 1974        | Dixon, Keith A.  | <i>Archaeological Resources and Policy Recommendations of Long Beach</i>  |  |
| LA-02233              | 1990        | Mason, Roger D.  | <i>Ocean Promenade (Job #11426) Cultural Resources Records Search</i>   | The Keith Companies                            |
| LA-02399 <sup>a</sup> | 1978        | Weinman, Lois J. and E. Gary Stickel                                   | <i>Los Angeles–Long Beach Harbor Areas Cultural Resource Survey</i>   |  |
| LA-02665              | 1985        | Cottrell, Marie G., James N. Hill, Stephen Van Wormer, and John Cooper | <i>Cultural Resource Overview and Survey for the Los Angeles County Drainage Area Review Study</i>  | Archaeological Resource Management Corporation |
| LA-02900              | 1993        | Demcak, Carol R.   | <i>Report on Limited Test Investigations at 408 Elm Avenue, City of Long Beach, California</i>  | Archaeological Resource Management Corporation |
| LA-02910              | 1981        | Stickel, Gary E.   | <i>A Literature Search for Shipwrecks in the Los Angeles–Long Beach Harbors and at the US Naval Facility at Terminal Island</i>   | Environmental Research Archaeologists          |
| LA-03102              | 1994        | McCawley, William, John Romani, and Dana Slawson                       | <i>The Los Angeles County Drainage Area Subsequent Environmental Impact Report</i>  | Greenwood and Associates                       |
| LA-03508              | 1985        | Van Wormer, Stephen R.   | <i>Historical Resource Overview and Survey for the Los Angeles County Drainage Area Review Study</i>  | Archaeological Resource Management Corporation |
| LA-04101              | 1994        | Demcak, Carol R.   | <i>Report of Archaeological Monitoring at Casa Corazon, 4th Street and Elm Avenue, Long Beach, California</i>   | Archaeological Resource Management Corporation |
| LA-04625              | 1994        | Starzak, Richard   | <i>Historic Property Survey Report for the Proposed Alameda Corridor From the Ports of Long Beach and Los Angeles to Downtown Los Angeles in Los Angeles County, California</i> | Myra L. Frank & Associates, Inc.               |
| LA-05886              | 2002        | Duke, Curt   | <i>Cultural Resource Assessment AT&amp;T Wireless Services Facility No. 05084a, Los Angeles County, California</i>  | LSA Associates                                 |
| LA-06065              | 2000        | Bryceson, Douglas  | <i>Draft Inventory and Evaluation of NRHP Eligibility of California Army National Guard Armories</i>  | Jones & Stokes Associates, Inc.                |
| LA-07427 <sup>a</sup> | 2004        | McMorris, Christopher  | <i>Caltrans Historic Bridge Inventory Update: Metal Truss, Movable, and Steel Arch Bridges</i>  | JRP Historical Consulting, LLC                 |
| LA-07984              | 2005        | Michalsky, Jay and Deborah McLean                                      | <i>Cultural Resource Assessment Seaside Park, City of Long Beach, Los Angeles County, California</i>  | LSA Associates                                 |
| LA-08150              | 2005        | Bonner, Wayne H. and Kathleen A. Crawford                              | <i>Cultural Resources Records Search Results, Site Visit, and Direct APE Historic Architectural Assessment for Sprint Candidate La70xc701a</i>                                  | Michael Brandman Associates                    |
| LA-08255              | 2006        | Arrington, Cindy and Nancy Sikes                                       | <i>Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California: Volumes I and II</i>                             | SWCA Environmental Consultants, Inc.           |

| <b>Report No.</b> | <b>Year</b> | <b>Author(s)</b>                          | <b>Title</b>  | <b>Affiliation</b>              |
|-------------------|-------------|---|---|---------------------------------|
| LA-08469          | 2005        | Bonner, Wayne H.                          | <i>Cultural Resources Records Search Results and Site Visit for Cingular Wireless EI-082-02 (Long Beach Senior Center), 1150 East 4th Street, Long Beach, Los Angeles County, California</i>  | Michael Brandman Associates     |
| LA-08475          | 2004        | Bonner, Wayne H.                          | <i>Cultural Resources Survey and Direct APE and Indirect APE Historic Architectural Assessments for Sprint Telecommunications Facility Candidate La60xc351a (CA Refrigerated Services), 625 West Anaheim Street, Long Beach, Los Angeles County, California</i> | Michael Brandman Associates     |
| LA-08485          | 2005        | Tibbet, Casey and Terri Jacquemain        | <i>Historic-Period Building Survey: Downtown and Central Long Beach Redevelopment Plans Master EIR Project</i>  | CRM Tech                        |
| LA-08488          | 2005        | Tibbet, Casey and Terri Jacquemain        | <i>Historic Building Survey: Shoreline Gateway Project in the City of Long Beach, Los Angeles County, California</i>  | CRM Tech                        |
| LA-08729          | 2006        | Bonner, Wayne H. and Kathleen A. Crawford | <i>Cultural Resources Records Search and Site Visit Results for Royal Street Communications, LLC, Candidate La0668c (First Baptist Church), 1000 Pine Avenue, Long Beach, Los Angeles County, California</i>  | Michael Brandman Associates     |
| LA-09129          | 2007        | Strudwick, Ivan                           | <i>Cultural Resources Analysis for the Shoemaker Street Bridge Project in the City of Long Beach, Los Angeles County, California</i>  | LSA Associates                  |
| LA-10404          | 2001        | Mason, Roger                              | <i>Cultural Resources Record Search and Literature Review Report for an AT&amp;T Telecommunications Facility: Number D189, Ocean Center Building in the City of Long Beach, Los Angeles, California</i>   | Chambers Group, Inc.            |
| LA-10527          | 1978        | Weinman, Lois J.                          | <i>Los Angeles–Long Beach Harbor Areas Regional Cultural History, Los Angeles County, California</i>  |                                 |
| LA-10587          | 2010        | Hatoff, Brian                             | <i>Verizon Cellular Communications Tower Site–LTE Long Beach Convention Center, 110 W. Ocean Blvd., Long Beach, CA 90802</i>  | URS Corporation                 |
| LA-11047          | 2002        | unknown                                   | <i>Draft Historic Preservation Treatment Plan for Six Pre-World War II National Register of Historic Places–Eligible California Army National Guard Armories</i>  | Jones & Stokes Associates, Inc. |
| LA-11392          | 2011        | Wlodarski, Robert                         | <i>Long Beach Senior Center–EL0082, 1150 East 4th Street, Long Beach, CA 90802</i>  | ATC                             |
| LA-11466          | 2011        | Supernowicz, Dana                         | <i>Cultural Resources Study of the AT&amp;T Mobility Site No. LAD189, 101 Seaside Way, Long Beach, Los Angeles County, California 90802</i>   | Historic Resource Associates    |
| LA-11570          | 2011        | Supernowicz, Dana                         | <i>Cultural Resources Study of the Downtown Project, AT&amp;T Mobility Site No. LAC473, 200 Pine Avenue, Long Beach, Los Angeles County, California 90802</i>   | Historic Resource Associates    |

*continued on next page*

| <b>Report No.</b> | <b>Year</b> | <b>Author(s)</b>  | <b>Title</b>   | <b>Affiliation</b>                   |
|-------------------|-------------|---|--|--------------------------------------|
| LA-11993          | 2012        | O'Neill, Laura  | <i>Finding of No Adverse Effect for the Proposed Interstate 710 Corridor Project Between Ocean Boulevard and the State Route 60 Interchange</i>  | Galvin Preservation Associates, Inc. |
| LA-12001          | 2012        | Bonner, Wayne   | <i>Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate LA03621D (LA3621 Store N Save) 755 East 3rd Street, Long Beach, Los Angeles County, California</i>                  | Michael Brandman Associates          |
| LA-12029          | 2002        | Lassell, Susan  | <i>Final Inventory and Evaluation of National Register of Historic Places Eligibility of California Army National Guard Armories</i>   | Jones & Stokes Associates, Inc.      |
| LA-12225          | 2013        | Bonner, Wayne, Sarah Williams, and Kathleen Crawford              | <i>Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate LA03061D (TM061 Scottish Rite Rt) 855 Elm Avenue, Long Beach, California</i>  | Michael Brandman Associates          |
| LA-12329          | 2013        | Gibson, Heather, Linda Kry, and Adela Amaral                      | <i>Archaeological Assessment for the New Long Beach Courthouse Project, City of Long Beach, California</i>   | AECOM                                |
| LA-12389          | 2012        | Chasteen, Carrie  | <i>Identification and Evaluation of Smokehouses, Port of Long Beach, Long Beach, Los Angeles County, California</i>  | Parsons                              |
| LA-12808          | 2014        | Chasteen, Carrie, Tiffany Clark, Richard Hanes, and Michael Mirro | <i>Cultural Resources Study of the Wilmington Oil and Gas Field, Los Angeles County, California, in Support of Analysis of Oil and Gas Well Stimulation Treatments in California Environmental Impact Report</i> | Applied EarthWorks, Inc.             |
| LA-12959          | 2015        | Carmack, Shannon and Kevin Hunt                                   | <i>City of Long Beach Civic Center Project, Cultural Resources Study</i>   | Rincon Consultants, Inc.             |

<sup>a</sup>This overview was too large to show on the Figure 8 map.



## Previously Recorded Archaeological Resources

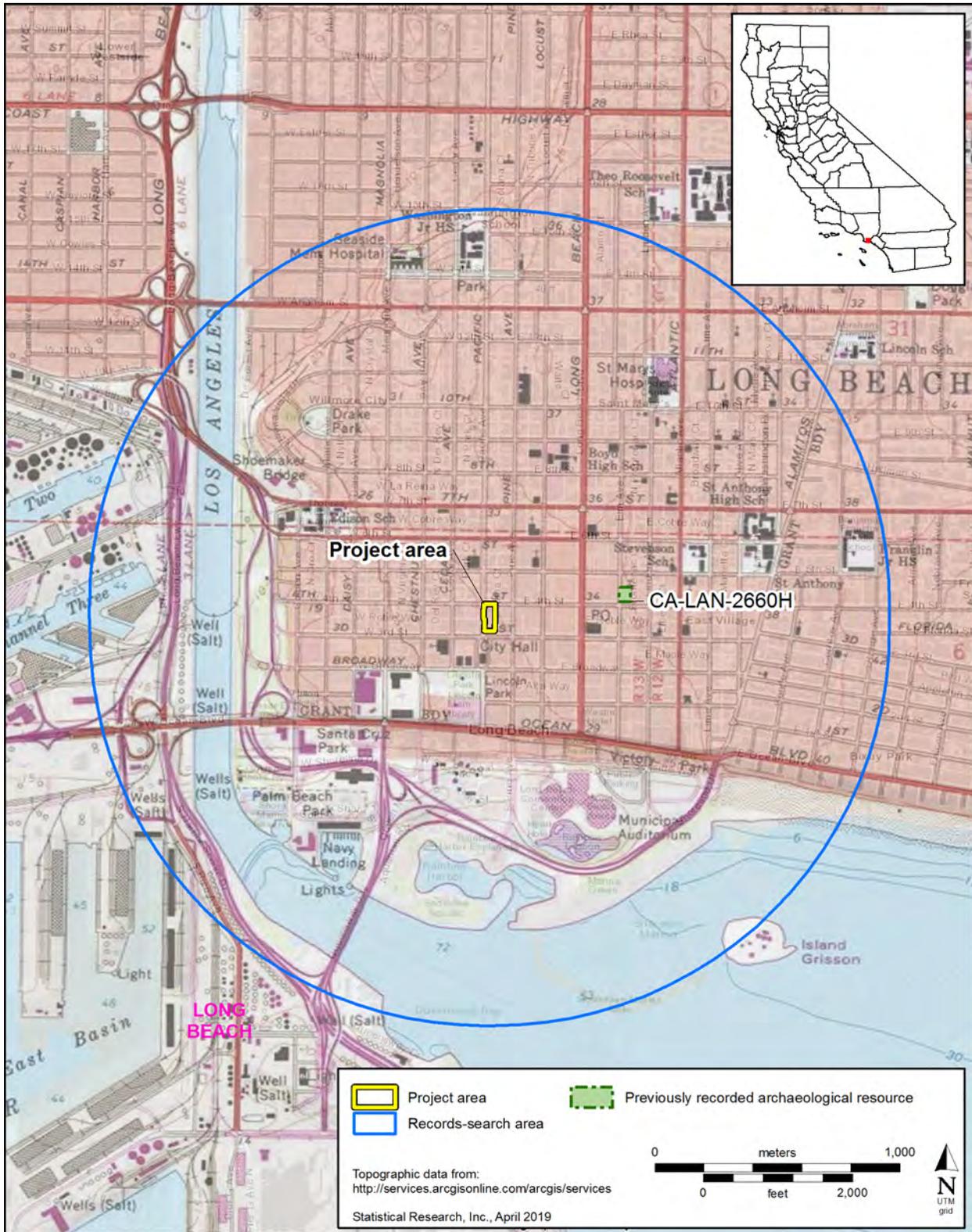
Within a 1-mile radius of the Project footprint, there are four previously recorded archaeological sites, two prehistoric and two historical period in age (Table 4; Figure 9). The two prehistoric archaeological sites were originally recorded decades ago and have been disturbed to some degree by the construction of Long Beach. They are both probable habitation sites with midden (culturally modified soil indicating intensive use) deposits, shell, and stone tools. The more significant of the two is CA-LAN-693, a disturbed midden site with numerous burials encountered in 1906 and recorded in 1927 northwest of the Project (Dixon 1974a). The other site is CA-LAN-694, a disturbed possible midden site with shell and lithics that was recorded in 1944 along a grassy street median north of the Project (Dixon 1974b).

The two historical-period sites within 1 mile of the Project are remnants of historical-period buildings and refuse deposits found during the construction of new developments. The Casa Corazon site (CA-LAN-2660H) was recorded in 1994 during the construction of the Casa Corazon Apartments. The historical-period site consisted of portions of foundations, water pipes, and brick and concrete rubble, all of which were likely the remains of three single-family dwellings built in the early 1900s and recorded on Sanborn Fire Insurance Company maps (Hayden 1994). The New Long Beach Courthouse site (CA-LAN-4313H) was recorded in 2011 during the construction of the current Long Beach Courthouse complex. The site consisted of privies (pit toilets) filled with trash, along with other refuse deposits containing a wide variety of household artifacts from food remains and dishes to shoes and toys. Similar to the Casa Corazon Apartments site, the CA-LAN-4313H features appeared to be associated with single-family dwellings built in the early 1900s and documented on Sanborn Fire Insurance Company maps. Prior to the commencement of the new courthouse construction, the area was an asphalt-paved parking lot with no visible indication of the features preserved below. Of the eight features recorded at CA-LAN-4313H, two were recommended eligible for listing in the CRHR, and an additional two were considered significant, and one feature was preserved in place (Kry and Gibson 2012).

**Table 4. Previously Recorded Archaeological Sites within the 1-Mile Radius Surrounding the Project**

| Primary No. | Trinomial    | Resource Description                     | Recorder, Date                                     | Affiliation                             |
|-------------|--------------|--|--|---|
| P-19-000693 | CA-LAN-693   | prehistoric habitation site with burials | Dixon, 1974<br>(from notes dated 1927)             |   |
| P-19-000694 | CA-LAN-694   | prehistoric habitation site              | Dixon, 1974<br>(from notes dated 1944)             |   |
| P-19-002660 | CA-LAN-2660H | Casa Corazon Apartments location         | William Hayden, 1994                               | Archaeological Resource Management Corp |
| P-19-004313 | CA-LAN-4313H | New Long Beach Courthouse location       | Linda Kry, James Wallace, and Heather Gibson, 2011 | AECOM                                   |

*Note:* No archaeological sites were found within the Project footprint. The locations of the two prehistoric sites, CA-LAN-693 and CA-LAN-694, and one historical-period site, CA-LAN-4313H, are not shown in Figure 9, because the locations of extant archaeological sites are protected as a matter of law (California *Government Code* § 6254.10).



**Figure 9. Map showing the locations of previously identified archaeological sites mapped at the SCCIC within 1 mile of the Project.**

## Previously Recorded Built-Environment Resources

SRI also collected information concerning significant historical-period built-environment resources in the vicinity of the Project. The Project is located in the heart of the historical-period core of Long Beach, just one block west of Pine Street, which was a major commercial thoroughfare by the late 1800s (City 2009). Substantial changes have occurred since the founding of the City more than a century ago, but many historical-period buildings and structures of historical significance have been preserved.

In association with the creation of the City Downtown Plan (City 2012) and the attendant PEIR (City 2010), under which this Project is being developed, a survey of known historical-period properties was conducted (ICF Jones and Stokes 2009). The study surveyed and evaluated 343 properties within the Downtown Plan footprint. Of those properties, 102 were identified as either previously designated LBHLs or eligible for nomination as LBHLs (City 2010:Table 4.3-4). Of those resources, 4 appeared eligible for listing in the NRHP and 6 appeared eligible for listing in the CRHR. The remaining 241 properties were determined not eligible for listing at any level (ICF Jones and Stokes 2009:23). Within  $\frac{1}{4}$  mile of the Project, the 2009 study identified 4 properties that appeared eligible for nomination to the LBHL list on the basis of survey-level data (ICF Jones and Stokes 2009:Results Map) (Table 5). Since that time, none of the 4 nearby properties identified in the 2009 study has been nominated as an LBHL property. In the interim, though, numerous other nearby properties have been added to the list of LBHL properties, as described below. These properties are located in the vicinity of the Project, not within the Project footprint. No structures are currently standing within the Project footprint.

Within a 1-mile radius of the Project footprint, 85 historical-period built-environment resources have been designated as LBHL properties or have been listed in or recommended eligible for listing in the NRHP or the CRHR (Table 6; Figures 10 and 11). These built-environment resources include private single-family residences, apartment complexes, hotels, stores and other commercial buildings, federal and City government buildings, theaters, and churches. Of the 85 resources, 75 are listed as LBHL properties, some of which are eligible for listing in or are listed in either the NRHP or the CRHR. An additional 10 resources are not registered as LBHL properties but have been determined eligible for listing in or are listed in either the NRHP or the CRHR. In total, 14 of the resources within 1 mile of the Project are listed in the NRHP or the CRHR, or both. In the immediate vicinity of the Project, the two closest listed properties are the Willmore/Stillwell Apartments, an 11-story luxury apartment building at 315 West 3rd Street that is listed in the NRHP and the CRHR, and the Rowan/Bradley Building, an art deco commercial building with elaborately molded and painted terracotta decorations on the second story at 201–209 Pine Avenue, which is listed in the CRHR (see Figure 11).

**Table 5. Historic Properties Identified within  $\frac{1}{4}$  Mile of the Project for the Downtown Plan**

| Resource Description | Address             | Date Built | Architectural Style | Status Code                              |
|----------------------|---------------------|------------|---------------------|--|
| Apartment building   | 405 West 3rd Street | 1920       | Moderne             | appears eligible for local listing (5S3) |
| The Arts Building    | 230 East 3rd Street | 1930       | Art Deco            | appears eligible for local listing (5S3) |
| Fourplex             | 234 West 4th Street | 1906       | Colonial Revival    | appears eligible for local listing (5S3) |
| Edison Theatre       | 213 East Broadway   | 1917       | Vernacular Prairie  | appears eligible for local listing (5S3) |

*Note:* Data from ICF Jones & Stokes (2009:Appendix C).

**Table 6. Historical-Period Built-Environment Resources Designated as City of Long Beach Historic Landmarks and/or Listed in or Eligible for Listing in the NRHP or CRHR within 1 Mile of the Project**

| <b>Resource Description</b>           | <b>Address</b>                | <b>Date Built</b> | <b>Primary No.</b> | <b>OHP No.</b> | <b>OHP Determination of Eligibility (Code*)</b> | <b>City of Long Beach Landmark?</b> |
|---------------------------------------|-------------------------------|-------------------|--------------------|----------------|---|-------------------------------------|
| Acres of Books                        | 240 Long Beach Blvd.          | 1924              | 19-187097          | 86046          | eligible for local listing (5S2)                | yes                                 |
| Adelaide M. Tichenor Residence        | 852 E. Ocean Blvd.            | 1904              | 19-178969          | 29656          | needs reevaluation (7N)                         | yes                                 |
| Ambassador Apartments                 | 35 Alboni Place               | 1925              | 19-178895          | 29581          | needs reevaluation (7N)                         | yes                                 |
| American Hotel                        | 224-230 E. Broadway           | 1905              | 19-187096          | 86050          | eligible for local listing (5S2)                | yes                                 |
| Anna R. Brown Residence               | 1205 E. Ocean Blvd.           | 1901              | 19-178947          | 29661          | needs reevaluation (7N)                         | yes                                 |
| Apartment Complex                     | 628 Magnolia Ave.             | 1905              | 19-178959          | 29645          | appears eligible for listing in the NRHP (3S)   | no                                  |
| Art Deco Building                     | 312-316 Elm Ave.              | 1930              |                    | 86070          | eligible for local listing (5S2)                | yes                                 |
| Artaban Apartments                    | 10 Atlantic Ave.              | 1921              |                    | 86052          | eligible for local listing (5S2)                | yes                                 |
| Atlantic Studio/Sun Ripe Date Company | 226 Atlantic Ave.             | 1933              | 19-178896          | 29582          | needs reevaluation (7N1)                        | yes                                 |
| Baker Building                        | 112 E. 7th St.                | 1924              |                    |                |   | yes                                 |
| Barker Brothers (Demolished)          | 141 E. Broadway/215 Promenade | 1929              |                    | 86054          | needs reevaluation (7N1)                        | yes                                 |
| Bembridge House                       | 953 Park Circle Dr.           | 1906              | 19-178699          | 29380          | listed in the NRHP, listed in the CRHR (1S)     | yes                                 |
| Blackstone Hotel                      | 330 W. Ocean Blvd.            | 1923              |                    |                | needs reevaluation (7N1)                        | yes                                 |
| The Breakers Hotel                    | 200 E. Ocean Blvd.            | 1925              | 19-178690          | 29370          | appears eligible for listing in the NRHP (3S)   | yes                                 |
| Broadlind Hotel                       | 149 Linden Ave.               | 1933              | 19-178943          | 29629          | appears eligible for listing in the NRHP (3S)   | yes                                 |
| Buffums Autoport                      | 119-121 W. 1st St.            | 1941              |                    |                | eligible for local listing (5S2)                | yes                                 |
| Californian Apartments                | 325 W. 3rd St.                | 1923              | 19-179092          | 29780          | appears eligible for listing in the NRHP (3S)   | yes                                 |
| Casa Aitken                           | 725 E. 8th St.                | 1932              |                    |                |   | yes                                 |
| Casa De La Cultura                    | 626 Atlantic Ave.             | 1906              | 19-178897          | 29583          | not evaluated (7R)                              | yes                                 |
| Chancellor Apartments                 | 1037 E. 1st St.               | 1922              |                    |                |   | yes                                 |

*continued on next page*

| <b>Resource Description</b>               | <b>Address</b>                                | <b>Date Built</b> | <b>Primary No.</b> | <b>OHP No.</b> | <b>OHP Determination of Eligibility (Code<sup>a</sup>)</b>                                  | <b>City of Long Beach Landmark?</b> |
|---|---|-------------------|--------------------|----------------|---|-------------------------------------|
| Christian Outreach Appeal                 | 503–515 E. 3rd St.                            | 1924              |                    |                |   | yes                                 |
| City Hall Library Complex                 | 333 W. Ocean Boulevard and 101 Pacific Avenue | 1977              | 19-192393          |                | appears eligible for listing in the CRHR (3CS)  | no                                  |
| Coffee Pot Café                           | 955 E. 4th St.                                | 1932              |                    |                |   | yes                                 |
| Contenary Methodist Church                | 503 W. 3rd St.                                | 1925              | 19-179093          | 29781          | appears eligible for listing in the NRHP (3S)   | no                                  |
| Cooper Arms Apartments                    | 455 E. Ocean Blvd.                            | 1923              | 19-178967          | 29653          | listed in the NRHP, listed in the CRHR (1S)   | yes                                 |
| Craftsman Fourplex                        | 1169–1175 Appleton St.                        | 1913              |                    |                |   | yes                                 |
| Crest Apartments                          | 321 Chestnut Ave.                             | 1922-23           | 19-178916          | 29602          | appears eligible for listing in the NRHP (3S)   | yes                                 |
| Del Mar Apartments                        | 43 Long Beach Blvd.                           | 1927              | 19-178697          | 29378          | appears eligible for listing in the NRHP (3S)   | no                                  |
| Delker House                              | 153 E. 12th St.                               | 1904              | 19-179125          | 29813          | needs reevaluation (7N)   | yes                                 |
| Dolly Varden Rooftop Sign (Hotel)         | 335 Pacific Ave.                              | 1933              | 19-179009          | 29696          | eligible for local listing (5S2)  | yes                                 |
| Ebell Club                                | 290 Cerritos Ave.                             | 1924              |                    |                |   | yes                                 |
| Ebell Theater                             | 1100 E. 3rd St.                               | 1924              |                    |                |   | yes                                 |
| Enloe Building/First National Bank        | 101–125 Pine Ave.                             | 1906              | 19-178702          | 29383          | listed in the NRHP, listed in the CRHR (1S)   | yes                                 |
| Esser House                               | 1001 E. 1st St.                               | 1929              | 19-179015          | 29703          | eligible for local listing (5S2)  | yes                                 |
| Famous Department Store                   | 601–609 Pine Ave.                             | 1928-1929         |                    |                |   | yes                                 |
| Farmers & Merchants Bank Tower            | 320 Pine Avenue                               | 1925              |                    |                |   | yes                                 |
| First Congregational Church of Long Beach | 241 Cedar Avenue                              | 1914              | 19-178682          |                | under evaluation by the California Office of Historic Preservation (7J)                     | yes                                 |
| First United Presbyterian Church          | 600 E. 5th St. / 604 E. 5th St.               | 1939              |                    | 86088          | eligible for local listing (5S2)  | yes                                 |
| Flossie Lewis House                       | 628 W. 10th St.                               | 1905              |                    | 103357         | determined not eligible for listing in the NRHP, not evaluated for listing in the CRHR (6Y) | yes                                 |
| Foster and Kleiser Building               | 1429 Magnolia Ave.                            | 1923              |                    |                |   | yes                                 |
| Hancock Motors                            | 500 E. Anaheim St.                            | 1928              |                    |                |   | yes                                 |

| <b>Resource Description</b>                  | <b>Address</b>             | <b>Date Built</b> | <b>Primary No.</b> | <b>OHP No.</b> | <b>OHP Determination of Eligibility (Code<sup>a</sup>)</b> | <b>City of Long Beach Landmark?</b> |
|--|----------------------------|-------------------|--------------------|----------------|--|-------------------------------------|
| Heartwell Building                           | 1 Pine Ave.                | 1925              | 19-178700          | 29381          | appears eligible for listing in the NRHP (3S)              | no                                  |
| Home Market Building                         | 942-948 Daisy Ave.         | 1925              |                    |                |  | yes                                 |
| James E. Porter Residence                    | 351 Magnolia Ave.          | 1903              | 19-178956          | 29642          | needs reevaluation (7N)                                    | yes                                 |
| Jergens Trust Building (Demolished)          | 120 E. Ocean Blvd.         | 1917              |                    |                | eligible for listing in the NRHP (no code)                 | yes                                 |
| Kale House                                   | 853 Linden Ave.            | 1907              |                    |                |  | yes                                 |
| Kelly House                                  | 705 E. Broadway            | 1915              |                    |                |  | yes                                 |
| Kress Building                               | 445-455 Pine Ave.          | 1923              |                    | 86302          | eligible for local listing (5S2)                           | yes                                 |
| Lafayette Complex                            | 130-140 Linden Ave.        | 1926              | 19-178942          | 29628          | appears eligible for listing in the NRHP (3S)              | yes                                 |
| Le Grande Apartments                         | 635 E. 9th St.             | 1926              | 19-179119          | 29807          | appears eligible for listing in the NRHP (3S)              | yes                                 |
| Linden House                                 | 874 Linden Ave.            | 1907              | 19-178946          | 29632          | appears eligible for listing in the NRHP (3S)              | yes                                 |
| Long Beach Armory                            | 854 E. 7th St.             | 1930              | 19-190112          | 154823         | eligible for listing in the NRHP, listed in the CRHR (2S2) | no                                  |
| Long Beach First Church of Christ            | 440 Elm Ave.               | 1913              | 19-178934          | 29620          | needs reevaluation (7N1)                                   | yes                                 |
| Long Beach Municipal Auditorium Mural        | 3rd St. and Promenade      | 1936              |                    |                |  | yes                                 |
| Long Beach Professional Building             | 117 E. 8th St.             | 1929              | 19-187005          | 122929         | listed in the NRHP, listed in the CRHR (1S)                | yes                                 |
| Long Beach Second Church of Christ Scientist | 302 7th St./655 Cedar Ave. | 1924              | 19-178683          | 29363          | listed in the NRHP, listed in the CRHR (1S)                | yes                                 |
| Long Beach Skating Palace                    | 278 Alamitos Ave.          | 1930              |                    |                |  | yes                                 |
| Lord Mayor's Inn/Windham House               | 435 Cedar Ave.             | 1906              | 19-178904          | 29590          | appears eligible for listing in the NRHP (3S)              | yes                                 |
| Masonic Temple                               | 230 Pine Ave.              | 1903              |                    | 73668          | appears eligible for listing in the NRHP (3S)              | yes                                 |

*continued on next page*

| <b>Resource Description</b>                   | <b>Address</b>           | <b>Date Built</b> | <b>Primary No.</b> | <b>OHP No.</b> | <b>OHP Determination of Eligibility (Code<sup>a</sup>)</b>                                  | <b>City of Long Beach Landmark?</b> |
|---|--------------------------|-------------------|--------------------|----------------|---|-------------------------------------|
| Merrill Building                              | 810-812 Long Beach Blvd. | 1922              |                    |                |   | yes                                 |
| Middough Brothers Insurance Exchange Building | 201-205 E. Broadway      | 1924-25           | P-19-190040        | 86089          | listed in the NRHP, listed in the CRHR (1S)   | yes                                 |
| Ocean Center Building                         | 110 W. Ocean Blvd.       | 1929              | 19-178703          | 29386          | eligible for listing in the NRHP, listed in the CRHR (2S2)                                  | no                                  |
| Pacific Coast Club                            | 850 E. Ocean Blvd.       | 1924              | 19-178694          | 29374          | removed from the NRHP by the Keeper (6W)  | yes                                 |
| Pacific Tower                                 | 205-215 Long Beach Blvd. | 1923              |                    | 86093          | needs reevaluation (7N1)  | yes                                 |
| Packard Motors Building                       | 205 E. Anaheim St.       | 1926              |                    |                |   | yes                                 |
| Parsonage                                     | 640 Pacific Ave.         | 1887              |                    | 86224          | determined not eligible for listing in the NRHP, not evaluated for listing in the CRHR (6Y) | yes                                 |
| Residential Home No. 1                        | 453 Cedar Ave.           | 1905              | 19-178905          | 29591          | appears eligible for listing in the NRHP (3S)   | yes                                 |
| Rothbart's Jewelry                            | 201 Pine Ave.            | 1930              |                    | 86059          | appears eligible for listing in the NRHP (3S)   | no                                  |
| Rowan/Bradley Building                        | 201-209 Pine Ave.        | 1930              | 19-178701          | 29382          | eligible for listing in the NRHP, listed in the CRHR (2S2)                                  | yes                                 |
| Saint Anthony's Church                        | 540 Olive Avenue         | 1933, 1953        |                    |                |   | yes                                 |
| Saint John Missionary Baptist Church          | 741 E. 10th St.          | 1923              |                    |                |   | yes                                 |
| Saint Luke's Episcopal Church                 | 703 Atlantic Ave.        | 1917, 1934        |                    |                |   | yes                                 |
| Saint Regis                                   | 1030 E. Ocean Blvd.      | 1926              |                    |                |   | yes                                 |
| Scottish Rite Cathedral of Long Beach         | 855 Elm Ave.             | 1926              |                    | 170505         | eligible for listing in the NRHP, listed in the CRHR (2S2)                                  | yes                                 |
| Security Trust & Savings Bank                 | 102-110 Pine Ave.        | 1924              | 19-179011          | 29699          | eligible for listing in the NRHP, listed in the CRHR (2S)                                   | yes                                 |
| Silver Bow Apartments                         | 330 Cedar Ave.           | 1915              |                    |                | determined not eligible for listing in the NRHP, not evaluated for listing in the CRHR (6Y) | yes                                 |
| The Sovereign                                 | 354-360 W. Ocean Blvd.   | 1922              |                    | 86096          | needs reevaluation (7N1)  | yes                                 |

| Resource Description          | Address              | Date Built | Primary No. | OHP No. | OHP Determination of Eligibility (Code <sup>a</sup> ) | City of Long Beach Landmark? |
|-------------------------------|----------------------|------------|-------------|---------|---|------------------------------|
| Tolbert House                 | 1105 Linden Ave.     | 1911       |             |         |   | yes                          |
| Unity Church                  | 935 E. Broadway      | 1941       |             |         |   | yes                          |
| U.S. Post Office              | 300 Long Beach Blvd. | 1932       | 19-178955   | 29641   | listed in the NRHP, listed in the CRHR (1S)           | no                           |
| Victorian Cottage             | 1163 E. Appleton St. | 1895       |             |         |   | yes                          |
| Villa Riviera                 | 800 E. Ocean Blvd    | 1929       | 19-178693   | 29373   | listed in the NRHP, listed in the CRHR (1S)           | yes                          |
| Walk of a Thousand Lights     | 444 W. Ocean Blvd.   | 1902       | 19-178704   | 29387   | appears eligible for listing in the NRHP (3S)         | no                           |
| Walkers Department Store      | 401-423 Pine Ave.    | 1929       |             | 73796   | eligible for local listing (5S2)                      | yes                          |
| Willmore/Stillwell Apartments | 315 W. 3rd St.       | 1924       | 19-187005   | 86099   | listed in the NRHP, listed in the CRHR (1S)           | yes                          |

*Note:* Data concerning Long Beach Historic Landmarks from the City of Long Beach Planning Department Historic Landmarks Web site, available at [http://www.lbds.info/planning/historic\\_preservation/historic\\_landmarks.asp](http://www.lbds.info/planning/historic_preservation/historic_landmarks.asp), accessed December 12, 2018. All other resource data from the Office of Historic Preservation Directory of Properties in the Historic Property Data File for Los Angeles County, available from the South Central Coastal Information Center, California State University, Fullerton, California.

*Key:* CRHR = California Register of Historical Resources; NRHP = National Register of Historic Places; OHP = California Office of Historic Preservation.

<sup>a</sup> Applicable California Historical Resource Status Codes:

1S = Individual property listed in the NRHP by the Keeper; listed in the CRHR.

2S = Individual property determined eligible for listing the NRHP by the Keeper; listed in the CRHR.

2S2 = Individual property determined eligible for listing in the NRHP by consensus through the Section 106 process; listed in the CRHR.

3S = Appears eligible for listing in the NRHP as an individual property through survey evaluation.

3CS = Appears eligible for listing in the CRHR as an individual property through survey evaluation.

5S2 = Individual property that is eligible for local listing or designation.

6W = Removed from the NRHP by the Keeper.

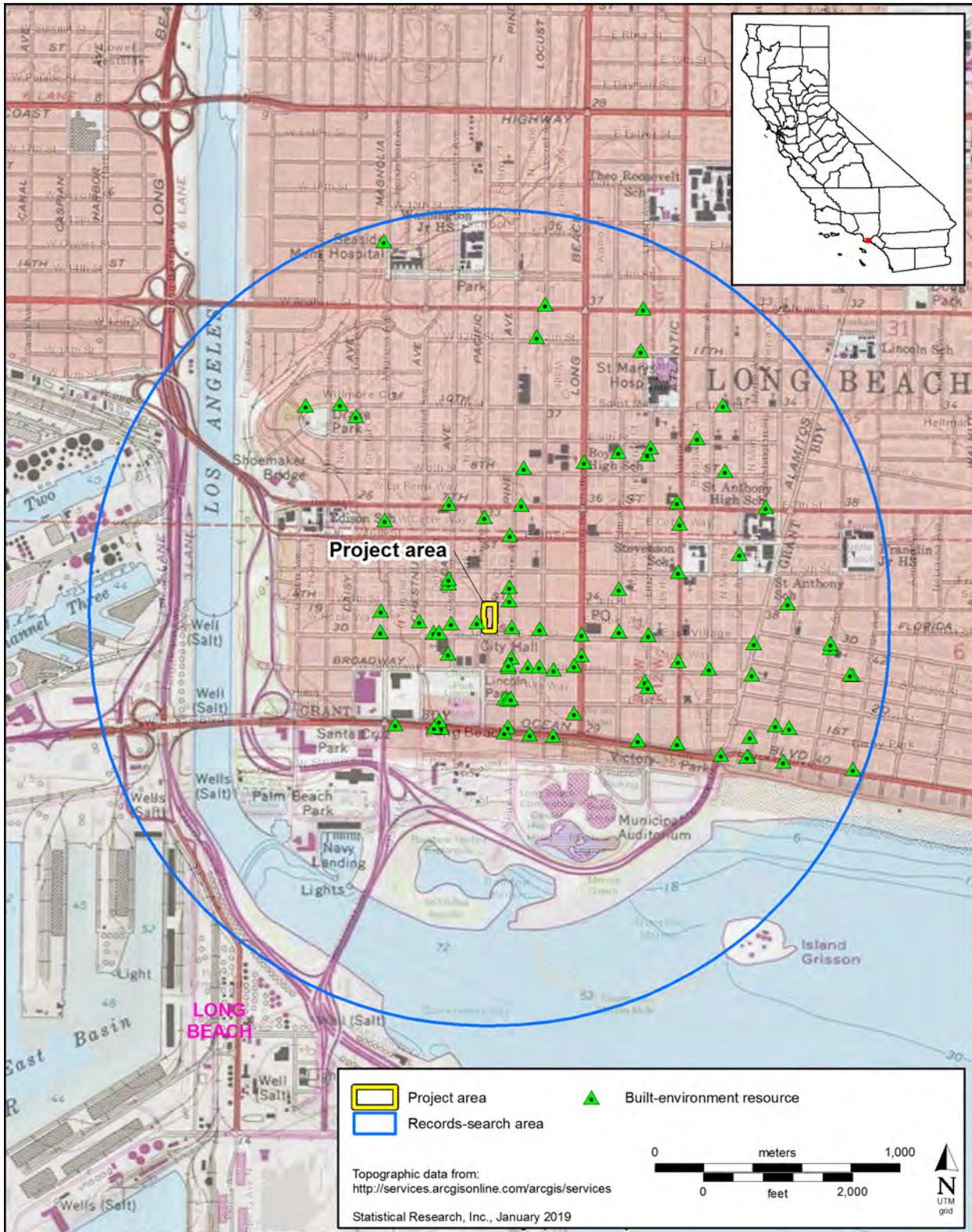
6Y = Determined not eligible for listing in the NRHP by consensus through the Section 106 process; not evaluated for listing in the CRHR or local listing.

7J = Received by the OHP for evaluation or action but not yet evaluated.

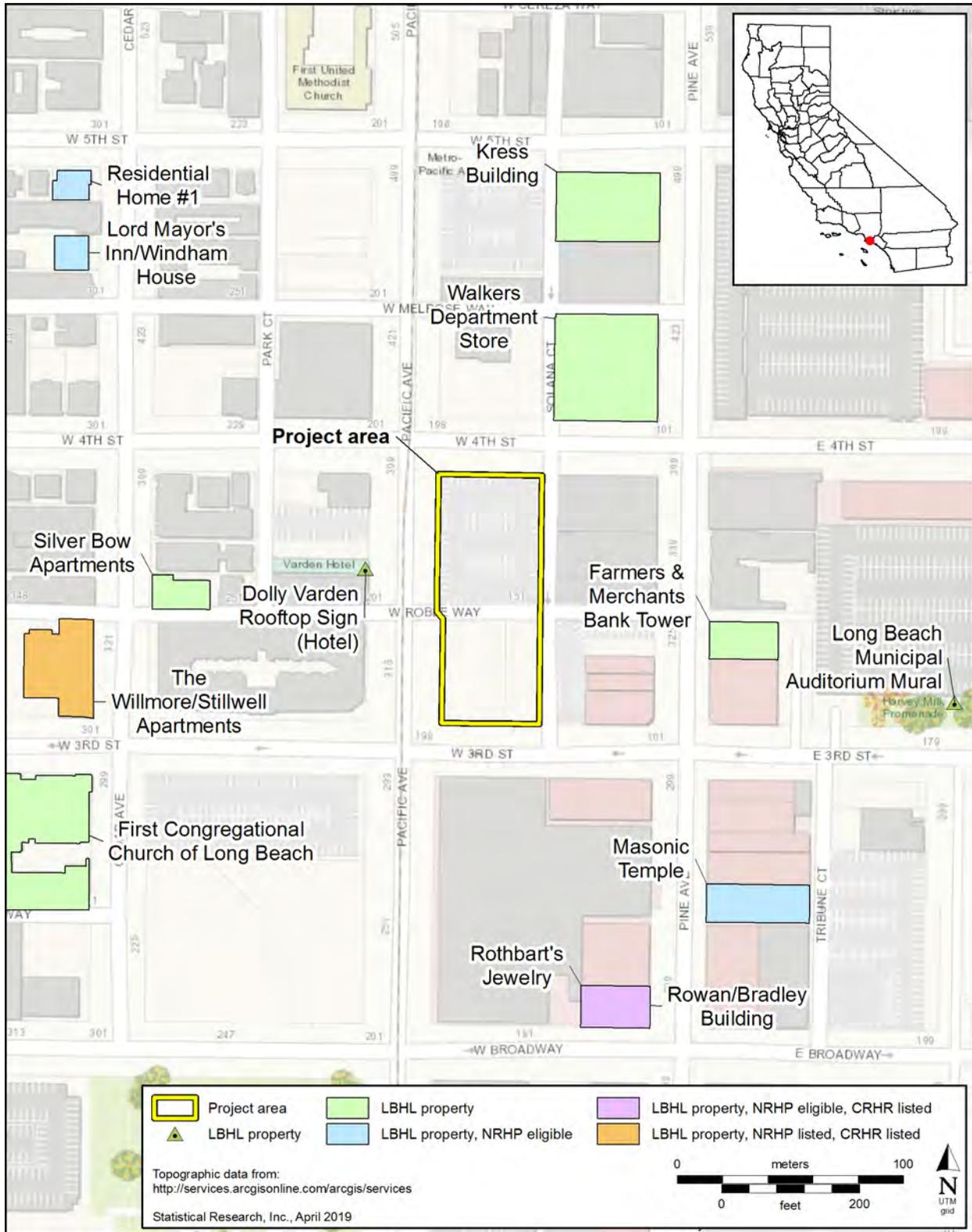
7N = Needs to be reevaluated.

7N1 = Needs to be reevaluated; may become eligible for listing in the NRHP with restoration or when it meets other specific conditions.

7R = Identified in reconnaissance-level survey but not evaluated.



**Figure 10. Map showing the locations of historical-period built-environment resources within 1 mile of the Project that are designated LBHLs and/or listed in or eligible for listing in the NRHP or CRHR.**



**Figure 11. Close-up map showing the locations of historical-period built-environment resources in the vicinity of the Project that are designated LBHLs and/or listed in or eligible for listing in the NRHP or CRHR.**

## Archival and Historical Background Research

Secondary published materials were reviewed in regard to the history of Long Beach, in general, and the Project site, specifically. The review of historical topographic maps, historical City maps and drawings, historical Sanborn Fire Insurance Company maps, and historical aerial photographs resulted in a compilation of the history of land use for the Project parcels (presented in the historical-context and -overview sections). In addition to providing spatial information, such as the layout of buildings and structures, the maps provided information about known or potential archaeological features related to residential and commercial activities on the block. A compilation of Sanborn Fire Insurance Company maps (Environmental Data Resources, Inc. [EDR] 2018a), historical topographic maps (EDR 2018b), and historical aerial photographs (EDR 2018c) provided valuable insights into land development in the Project over time (Table 7).

The compiled historical documentation indicated that the Project parcels have likely been subjected to varying amounts of subsurface disturbance, such as grading, trenching, fill, and paving. However, that disturbance is all directly related to historical-period activity; virtually no subsurface disturbance has taken place since historical-period buildings were removed. The potential exists for subsurface archaeological remains related to residences, commercial establishments, and neighborhood infrastructure.

**Table 7. Consulted Historical Maps and Aerial Photographs**

| Resource                           | Map                    | Date |
|------------------------------------|------------------------|------|
|                                    | <b>Historical Maps</b> |      |
| Sanborn Fire Insurance Company Map | Long Beach             | 1888 |
| Sanborn Fire Insurance Company Map | Long Beach             | 1891 |
| Sanborn Fire Insurance Company Map | Long Beach             | 1895 |
| Sanborn Fire Insurance Company Map | Long Beach             | 1898 |
| Sanborn Fire Insurance Company Map | Long Beach             | 1902 |
| Sanborn Fire Insurance Company Map | Long Beach             | 1905 |
| Sanborn Fire Insurance Company Map | Long Beach             | 1908 |
| Sanborn Fire Insurance Company Map | Long Beach             | 1914 |
| Sanborn Fire Insurance Company Map | Long Beach             | 1949 |
| Sanborn Fire Insurance Company Map | Long Beach             | 1950 |
| Sanborn Fire Insurance Company Map | Long Beach             | 1969 |
| USGS Topographic Map               | Las Bolsas 1:62,500    | 1896 |
| USGS Topographic Map               | Downey 1:62,500        | 1896 |
| USGS Topographic Map               | Downey 1:62,500        | 1899 |
| USGS Topographic Map               | Downey 1:62,500        | 1902 |
| USGS Topographic Map               | Wilmington 1:24,000    | 1923 |
| USGS Topographic Map               | Long Beach 1:24,000    | 1925 |
| USGS Topographic Map               | Wilmington 1:24,000    | 1925 |
| USGS Topographic Map               | Las Bolsas 1:62,500    | 1941 |
| USGS Topographic Map               | Downey 1:62,500        | 1942 |
| USGS Topographic Map               | Las Bolsas 1:62,500    | 1943 |
| USGS Topographic Map               | Downey 1:62,500        | 1943 |
| USGS Topographic Map               | Downey 1:62,500        | 1947 |

*continued on next page*

| <b>Resource</b>   | <b>Map</b>          | <b>Date</b>   |
|---|---------------------|---------------|
| USGS Topographic Map  | Long Beach 1:24,000 | 1949          |
| USGS Topographic Map  | Long Beach 1:24,000 | 1964          |
| USGS Topographic Map  | Long Beach 1:24,000 | 1964, pr 1972 |
| USGS Topographic Map  | Long Beach 1:24,000 | 1964, pr 1978 |
| USGS Topographic Map  | Long Beach 1:24,000 | 2012          |
| Nathan Nirenstein Business Real Estate Map                      | Long Beach 1:320    | 1929          |
| <b>Historical Aerial Photographs</b>                            |                     |               |
| Fairchild Aerial Surveys  | 1 inch = 500 feet   | 1923          |
| Fairchild Aerial Surveys  | 1 inch = 500 feet   | 1928          |
| Fairchild Aerial Surveys  | 1 inch = 500 feet   | 1947          |
| USDA  | 1 inch = 500 feet   | 1953          |
| USGS  | 1 inch = 500 feet   | 1963          |
| EDR Proprietary Brewster Pacific                                | 1 inch = 500 feet   | 1977          |
| EDR Proprietary Brewster Pacific                                | 1 inch = 500 feet   | 1981          |
| USDA  | 1 inch = 500 feet   | 1989          |
| USGS Digital Orthophoto Quarter-Quadrangle                      | 1 inch = 500 feet   | 1994          |
| USDA  | 1 inch = 500 feet   | 2002          |
| USDA, Farm Service Agency, National Agriculture Imagery Program | 1 inch = 500 feet   | 2005          |
| USDA, Farm Service Agency, National Agriculture Imagery Program | 1 inch = 500 feet   | 2009          |
| USDA, Farm Service Agency, National Agriculture Imagery Program | 1 inch = 500 feet   | 2012          |
| USDA, Farm Service Agency, National Agriculture Imagery Program | 1 inch = 500 feet   | 2016          |

Key: pr = photorevised; USDA = U.S. Department of Agriculture; USGS = U.S. Geological Survey.

## **Historical Overview of the Project**

### **1878–1891**

U.S. General Land Office plat maps for Township 5 South, Range 13 West, San Bernardino Base and Meridian, dated 1878, 1880, and 1890 do not depict any detail in the vicinity of the Project. In 1888, the San Pedro Lumber Company occupied the southern portion of the block, with an office and yards for storage of lime, cement, lumber, and moldings (Figure 12). West Roble Way bisected the Project east to west by that time. Although the fire-insurance evaluator noted that year that the yard was “to be removed” (EDR 2018a:15–16), it remained until at least 1891, by which time a stable had been added in the northern part of the block, fronting on North Solana Court.

### **1895 to 1905**

By 1895, the block had begun a transition to residential use. Two dwellings faced Pacific Avenue in the northern half of the Project, and each had two outbuildings. A corral had been added to one side of the stable. Three years later, two more dwellings had been built along Pacific Avenue, on the northern part of the block. One very small dwelling faced West 3rd Street; it was accompanied by an outhouse nearly as large as the home itself. By 1902, homes had been built on every lot on the block. Seven faced Pacific Avenue, and two of those had outbuildings. Three homes fronted on West 3rd Street, one of which replaced the tiny dwelling previously located there. The southeastern portion of the block contained a crowded assemblage of four houses, two sets of “rooms,” and three outbuildings. A single house was located in the northeastern corner of the Project, fronting on North Solana Court. An 8-inch water pipe ran east–west along West Roble Way, bisecting the block. Three years later, in 1905, four new dwellings had been added to the densely populated block (Figure 13). One residence in the southern portion of the Project had been divided into a duplex.

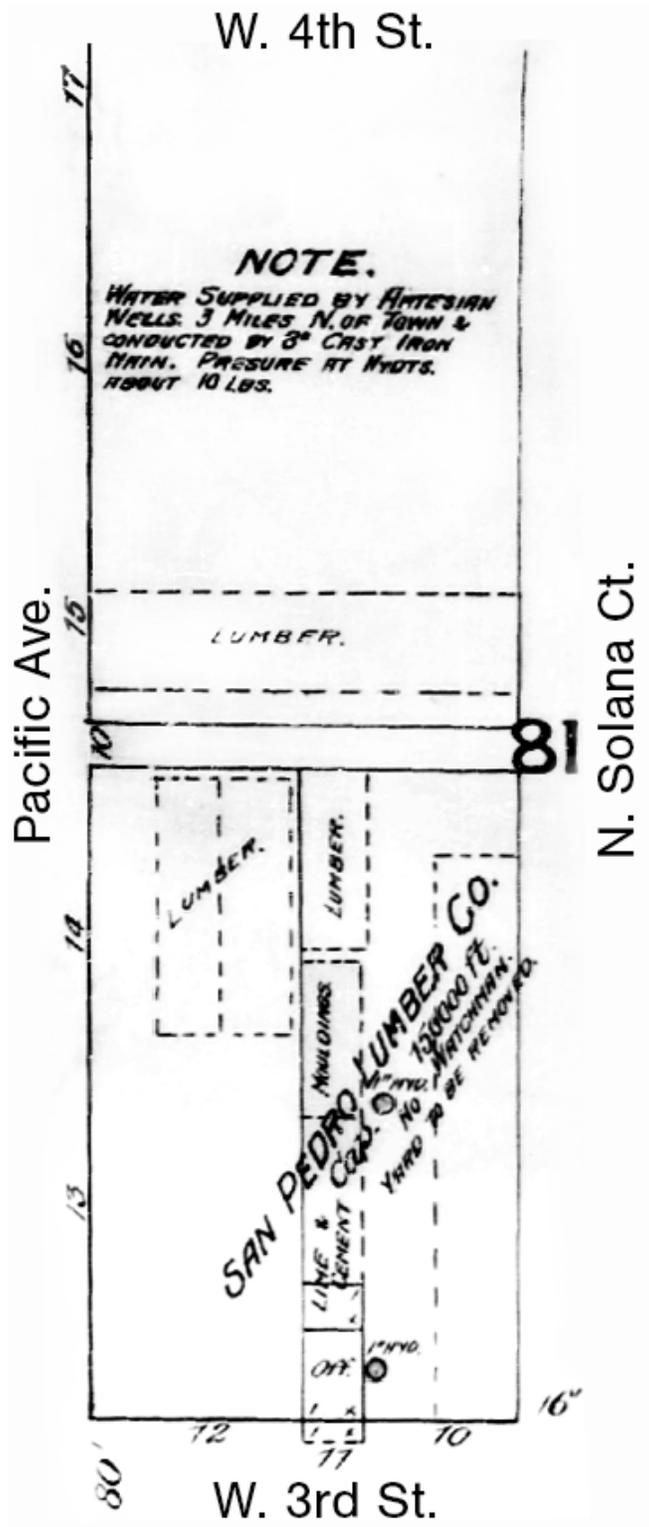


Figure 12. Portion of a Sanborn Fire Insurance Company map dated 1888, showing the location of the Project (EDR 2018a:16) (not to be reproduced).

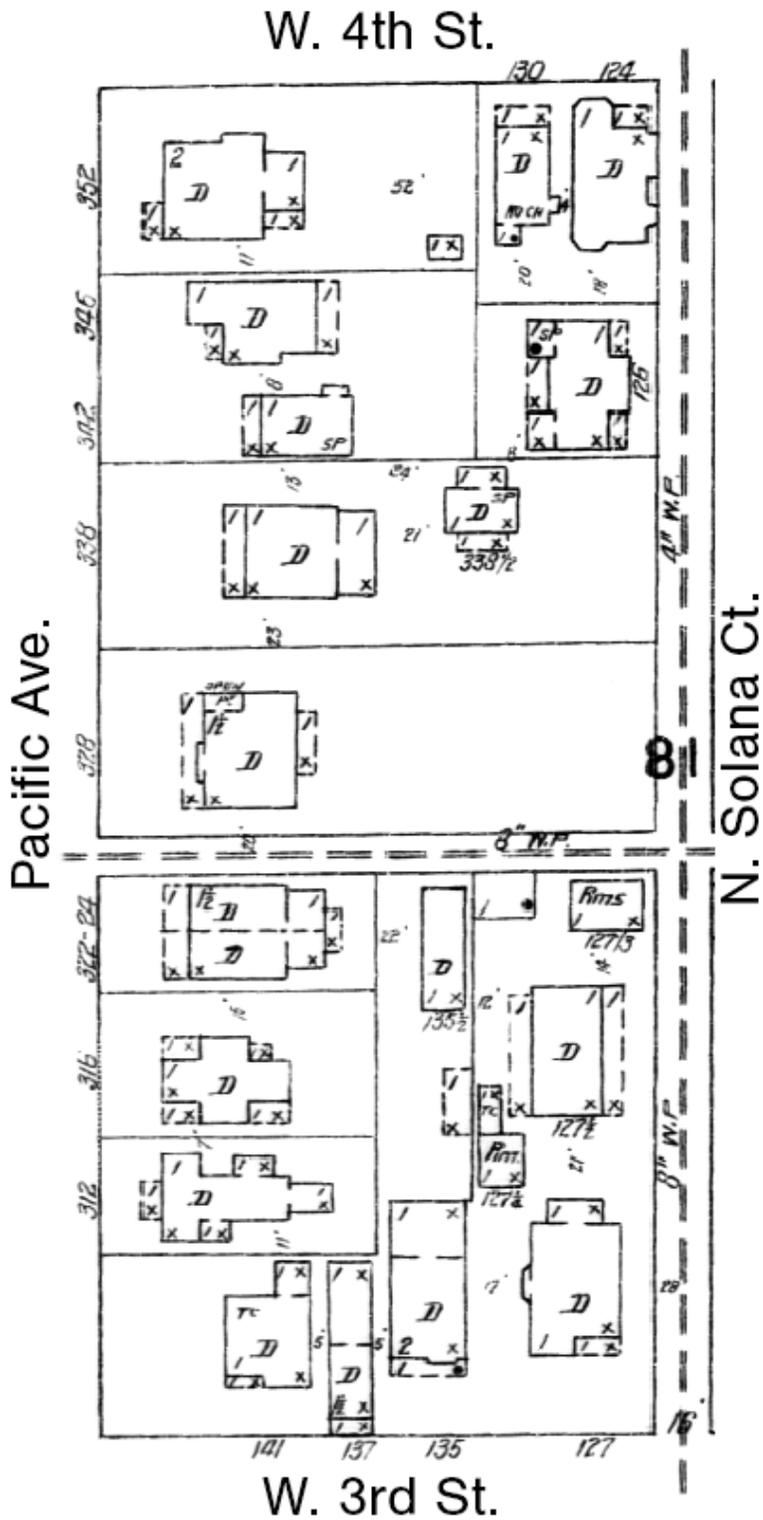


Figure 13. Portion of a Sanborn Fire Insurance Company map dated 1905, showing the location of the Project (EDR 2018a:11) (not to be reproduced).

### **1905 to 1929**

Between 1905 and 1908, the neighborhood began to shift from a solely residential one to mixed residential and commercial uses. Although one small, new house had been built on North Solana Court, in the northern portion of the Project, a dwelling and a set of rooms in the southern portion of the block had been demolished and replaced with a furniture store selling new and used items. Three more dwellings had been demolished by 1914, yet one small, new house was added fronting on North Solana Court (Figure 14). Two more previously existing homes had been divided into duplexes. Three new stores replaced the dwelling on the southwestern corner of the Project, and a three-story store building was built on the southeastern corner. Two large, two- and three-story apartment buildings were constructed in the middle of the block facing Pacific Avenue, where previously two dwellings had been located. Aerial photographs dated 1925 and 1928 showed the same general configuration of buildings. The USGS Long Beach 7.5-minute quadrangle dated 1925 (drawn from 1923 survey data) indicated that nine additional houses on the eastern and southwestern portions of the block had been demolished and replaced with large buildings. A 1929 real-estate map of the City revealed the names of businesses and landowners in the Project. Along West 3rd Street were Deals Grocery, Colonial Bakery, a barber shop, a tailor shop, Eastern Hat Works, Bartlett Insurance Company, and a shoeshine parlor. Along West 4th Street, in the northeastern portion of the Project, were Bonton Cleaners, Ol Pal Café, Bate Electric Company, and Home Millinery.

### **1933 to 1950**

Research did not disclose specific information regarding how buildings in the Project fared during the 6.4-magnitude earthquake that struck Long Beach on March 10, 1933. Official maps of the event, however, showed that the Project is in a section of the City that suffered great losses, including slight damage to well-built structures and major damage to poorly built structures (State of California 2018). Unreinforced brick buildings received major damage, but citywide, large numbers of frame dwellings were destroyed when they collapsed or were knocked from their foundations.

By 1942, USGS topographic maps had stopped depicting individual buildings in this portion of Long Beach, using color to designate that the area was entirely urbanized. A 1947 aerial photograph showed a large automobile-service complex in the northwestern part of the Project that had replaced the dwellings previously located there. The next available Sanborn Fire Insurance Company map is dated 1949 (Figure 15). By that time, the Project had seen significant changes. The residential element was represented by just two houses fronting North Solana Court and the two large apartment buildings on Pacific Avenue. Nearly all the former buildings in the southern part of the block had been demolished, and a large automobile park (parking lot) fronted Pacific Avenue in this area. Three stores faced West 3rd Street, on the southwestern corner of the block. Previous residences in the northern part of the block had been replaced with a store, a candy factory, and a restaurant. The automobile-service complex included a gas and oil yard, an automobile-service area, an automobile-greasing area, and a battery shop. One year later, in 1950, the only changes to the block were that the automobile-service area was out of business, with a store and storage rooms using most of its buildings, and the battery shop had been demolished. Undeveloped land on the northwestern corner of the block was being used as a parking lot.

Based on the results of a previous survey of historical-period properties in Downtown Long Beach (ICF Jones and Stokes 2009:19), it appears that the Project area, along with other parts of downtown west of Pine Avenue, may have been populated by African-American, Mexican-American, and Mexican residents.

### **1953 to 2019**

An aerial photograph dated 1953 showed that much of the southern part of the Project was in use as a parking lot by that time, as well. In 1969, the entire southern half and the northwestern corner of the Project were occupied by parking lots. The two remaining houses that had fronted on North Solana Court had been removed, although the two apartment buildings remained. The buildings that had once been used for automobile service had been demolished, but two stores and a restaurant remained in the northeastern portion of the Project. By 1977, the only buildings remaining in the Project were the two large apartment buildings. All commercial buildings had been removed, and parking lots covered the remainder of the block. The two apartment buildings were demolished in 2004 or 2005. A 2009 aerial photograph showed that the entire Project had been paved for parking use, as it remains at present.

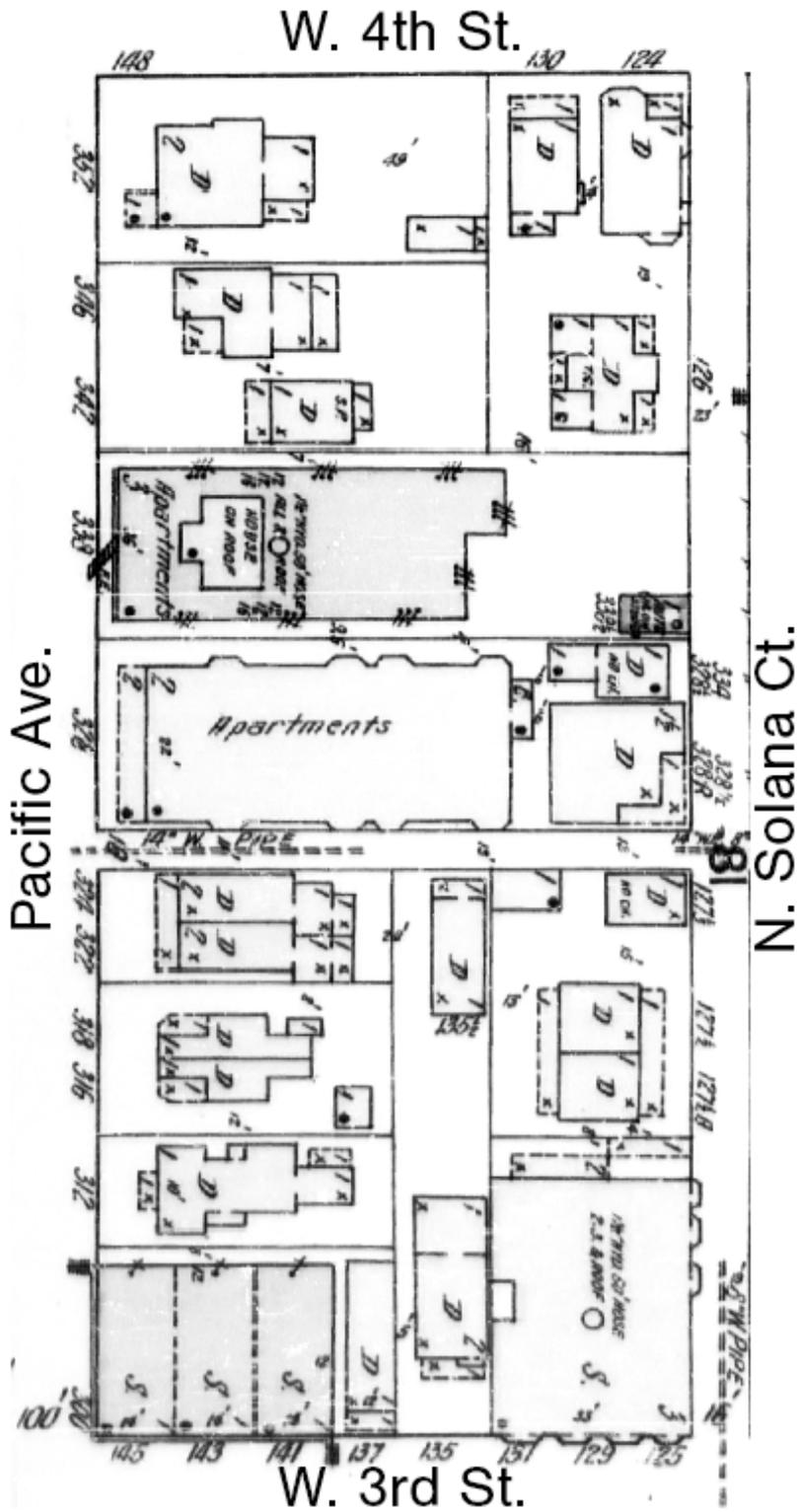


Figure 14. Portion of a Sanborn Fire Insurance Company map dated 1914, showing the location of the Project (EDR 2018a:9) (not to be reproduced).



## Ethnohistoric Research

A review of ethnographic sources, including Kroeber's (1925) seminal volume on California Indians, Hugo Reid's firsthand accounts (Bryant Dakin 1939), and Johnston's (1962) and McCawley's (1996) overviews of the Gabrielino, identified several named villages in the vicinity of the Project. From ethnohistoric sources, the nearest documented Gabrielino villages were Ahaungna, possibly located in the South Wrigley neighborhood of Long Beach, at least 1.6 miles (2.6 km) north of the Project; Suangna, overlooking the inner San Pedro Bay, approximately 4 miles (6.4 km) west-northwest of the Project; Tibahangna, located near the historic Casa del Rancho Los Cerritos, 4.7 miles (7.6 km) north of the Project; and Puvungna, located near the old Bixby Ranch, roughly 4.8 miles (7.7 km) northeast of the Project (Figure 16). The location of Ahaungna is uncertain, and it is often mapped several miles north of the Project location.

At the time of contact, the largest of these nearby sites was Puvungna, a major village associated with significant archaeological deposits. Two archaeological sites (CA-LAN-234 and CA-LAN-235) associated with the village of Puvungna have been listed in the NRHP (Altschul 1994). Puvungna was also understood to be the birthplace of the Gabrielino culture hero Chinigchinich. A semi-mythical figure, Chinigchinich was known as the "lawgiver" whose life and teachings inspired a religious revival that spread through Gabrielino society in the Protohistoric and historical periods and strongly influenced their neighbors, particularly the Luiseño and Juaneño to the south (Boscana 1933; Johnston 1962:85). The Chinigchinich cult involved a set of cultural norms and laws as well as religious rites, including an initiation rite for pubescent boys involving the ingestion of the hallucinogenic *Datura innoxia* plant, also known as toloache or, more commonly today, moonflower. Periodic ingestion of *D. innoxia* by adult males was also part of the Chinigchinich observances (Boscana 1933; Hudson and Blackburn 1978).

In addition to Puvungna, two other villages were frequently mentioned in the baptismal records from Missions San Gabriel Arcángel and San Juan Capistrano: Ahaungna, in north Long Beach (Johnston 1962:85), and Suangna, north of San Pedro Harbor. These villages were two of more than a dozen encampments and villages that previously dotted the coastline and wrapped around the Palos Verdes Peninsula. The density of these settlements attests to an equally dense population in the greater Long Beach area at the time of Spanish contact (McCawley 1996:66–72). These coastal communities generally focused on fishing, shellfish collection, and sea-mammal hunting (Altschul 1994; McCawley 1996:66). With a large, protected bay fed by reliable rivers and expansive estuaries, the greater Long Beach area was an ecological paradise. It was also a strategic spot from which the Gabrielino controlled trade with the southern Channel Islands of Santa Catalina, San Clemente, and San Nicolas. Eventually, that trade and communication network allowed the local cult of Chinigchinich to spread well beyond the Gabrielino homeland.

During the Mission period, when a majority of Gabrielino people were forcibly resettled to Mission San Gabriel Arcángel, many of the inhabitants of Puvungna and the surrounding Long Beach area were brought south to Mission San Juan Capistrano, where they were converted alongside Luiseño and Juaneño people, with whom they already had close relations (Johnston 1962:85).

Historical maps showing the probable locations of former Gabrielino villages variously include the nearby villages discussed above, as shown in Figures 17–19, which depict the Project location in relation to the named villages. Note the varying village names and locations, which reflect the differing source materials used in the creation of these maps. Generally speaking, Gabrielino village place names ended with the suffix "-gna," as in Ahaungna, as reflected on Bernice Johnston's (1962) map (see Figure 16). Alfred Kroeber's (1925) map (see Figure 17) omitted the suffix (e.g., "Aha" rather than "Ahaungna"). The place names on Chester King's (2004) map (see Figure 18) were based on Spanish mission records in which the village affiliations of Gabrielino and other local groups were recorded with a "-bit" or "-vit" ending, used when describing a person's village of origin (e.g., people from Ahaungna are Ahaubit, much as people from Los Angeles are Los Angelinos). On the Kirkman-Harriman (Kirkman 1937) map (see Figure 19), modern place names predominated, and the emphasis was on depicting travel routes and battlefields. Note that the village generally known as Suangna was so labeled on the Johnston (1962) map (see Figure 16), but it was labeled "Shua" on the Kroeber (1925) map (see Figure 17) and "Juyuabit" on the King (2004) map (see Figure 18).

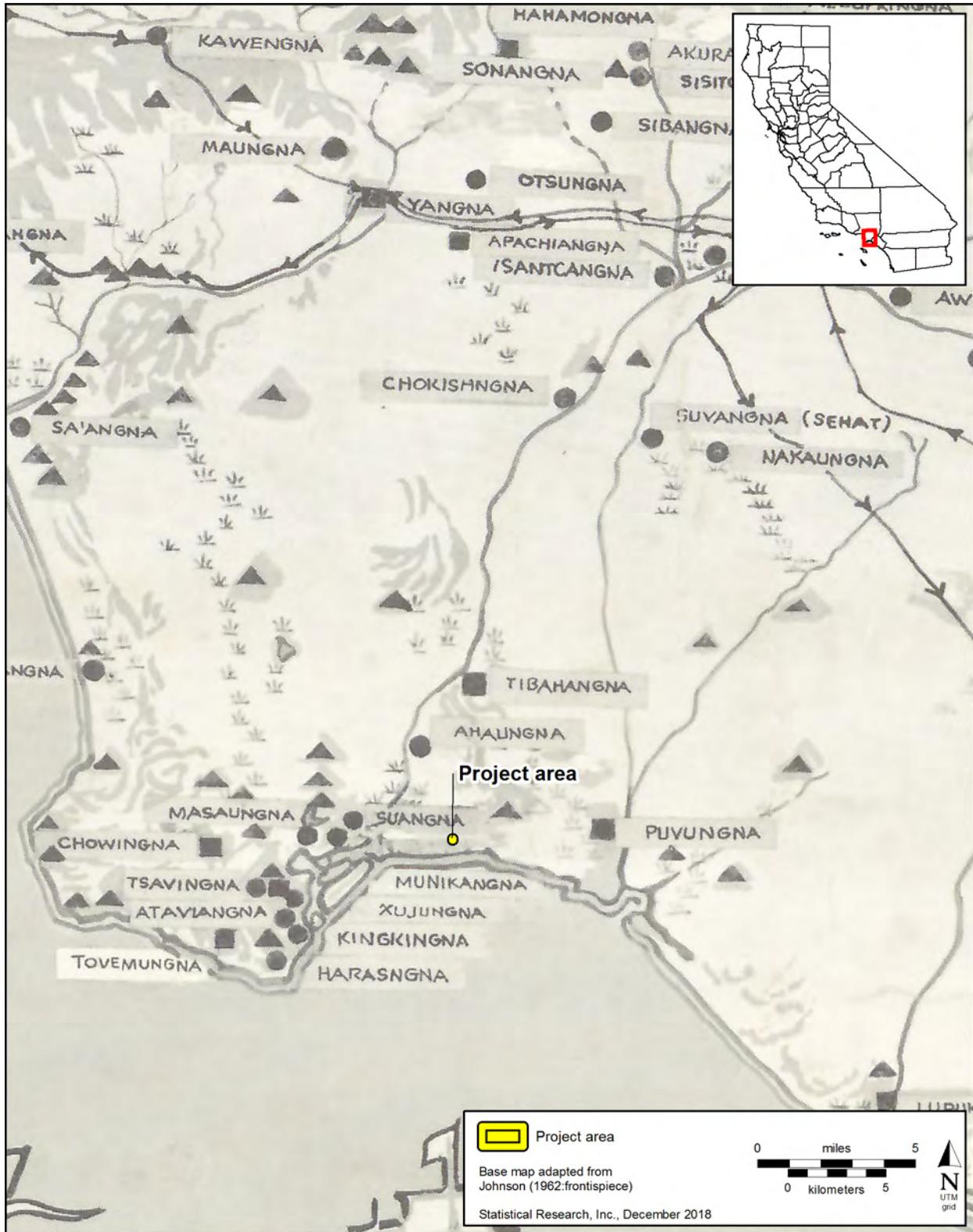


Figure 16. Map of Gabrielino settlements at the time of the Portolá expedition (from Johnston 1962:frontispiece).



Figure 17. Map of Native American sites in part of southern California (from Kroeber 1925:Plate 57).

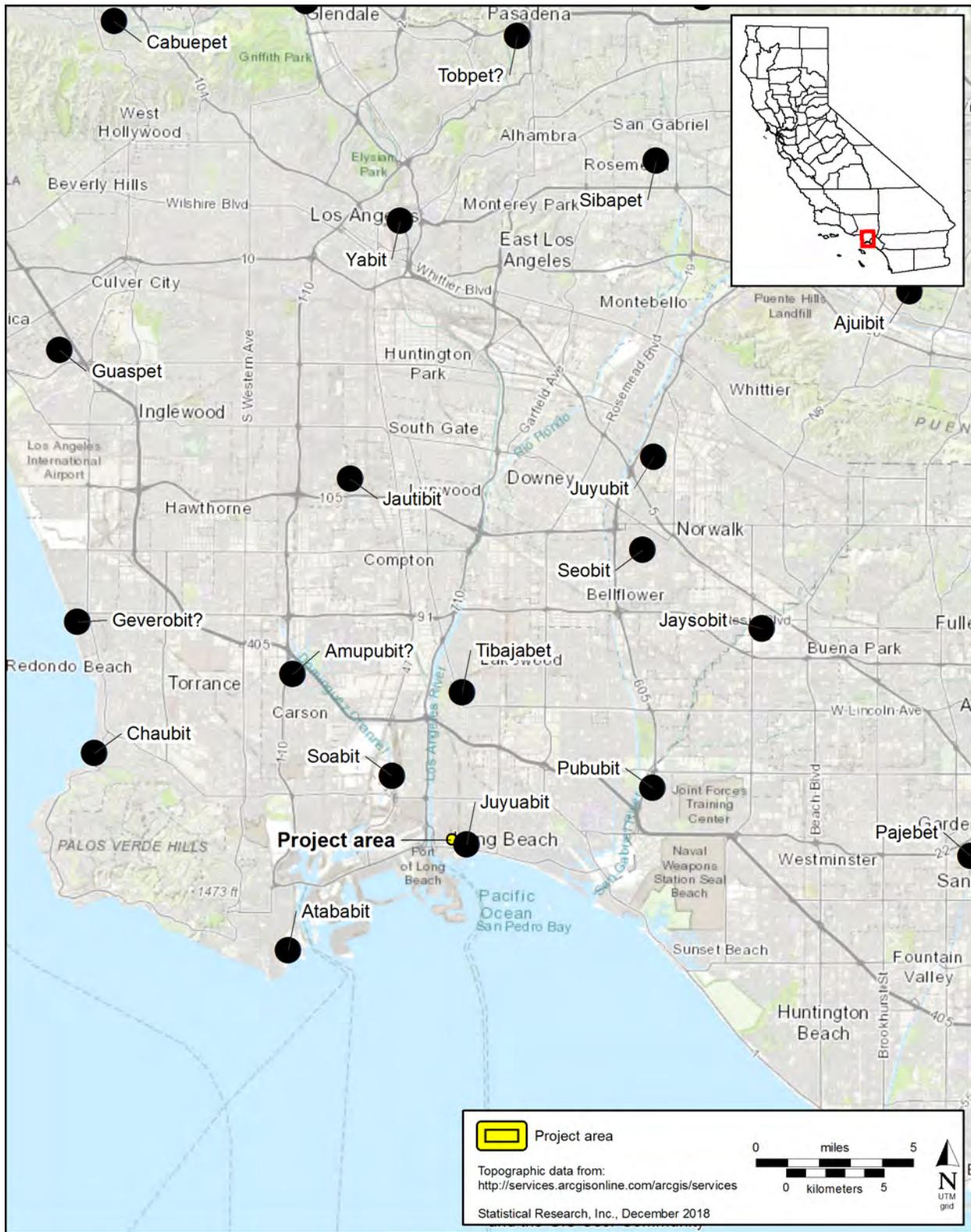


Figure 18. Locations of Gabrielino villages, reconstructed from Mission records and overlaid on modern imagery (redrawn from King 2004:Figure 2).



Figure 19. Map showing the locations of historic sites, old highways, and battlefields in old Los Angeles County, ca. 1860 (from Kirkman 1937).

## **Native American Resource Search and Native American Contact Program**

The results of SRI's Native American resource search and Native American contact program are summarized below. Confidential Appendix A includes copies of the NAHC request letter, the NAHC response letter, an example of the follow-up letter sent to Native American contacts, and copies of any further correspondence as of the writing of this report.

On November 28, 2018, a letter describing the proposed Project was sent via E-mail to the NAHC, and a map depicting the Project location was provided. The letter requested a search of the SLF and a list of Native American contacts appropriate for the Project. The NAHC responded in a letter E-mailed on January 3, 2019, which stated that their search of the SLF revealed no known Native American cultural resources within the Project or its vicinity. Contact information was provided for six individuals representing five California Native American tribes culturally affiliated with the Project.

On January 11, 2019, consultation letters were sent via E-mail and registered U.S. Mail to the contacts listed in the NAHC letter. On January 15, 2019, SRI received an E-mail message with a letter attachment from Mr. Andrew Salas, chairperson of the Gabrieleño Band of Mission Indians–Kizh Nation. In the attached letter, Chairperson Salas stated that the “project lies within our ancestral tribal territory” and requested consultation with the lead agency to provide “a more complete understanding of the prehistoric use(s) of the project area and the potential risks for causing a substantial adverse change to the significance of our tribal cultural resources” (see Confidential Appendix A). No other written responses have been received as of the writing of this report.

## **Historical-Period Built-Environment Assessment**

This Project is being developed in accordance with the design guidelines of the Downtown Plan (City 2012) and the associated PEIR (City 2010, 2011). Currently, the Project vicinity is developed as a mixed-use commercial and residential downtown hub with historical-period built-environment resources interspersed with more-recent construction (City 2012). The current setting of the Project is a multiperiod, multiuse, urban space with no one time period or land use predominating. Numerous residential, commercial, and industrial buildings and structures were erected on the Project site historically (see the Archival and Historical Background Research section, above); however, no standing buildings or structures of any age exist within the Project footprint at this time. The last standing buildings were removed between 2004 and 2005, and the entire site was paved over for parking.

Several historical resources included in the LBHL list or listed in or determined eligible for listing in the NRHP and/or the CRHR exist in the vicinity of the Project (see Figure 11). Two historical resources are in the immediate surroundings of the Project and directly overlook it: (1) the Dolly Varden Hotel rooftop sign, which sits atop a three-story building directly across Pacific Avenue to the west, and (2) the 4–6-story Walkers Department Store building across West 4th Street, to the northeast (see Figure 11). These properties will have direct and unimpeded views of the Project, which includes a 23-story high-rise tower. To assess potential impacts to these two historical resources, SRI evaluated whether the Project may affect the characteristics that qualify them for listing or diminish their integrity by altering their location, design, setting, materials, workmanship, feeling, or association (OHP 2011:19).

The Dolly Varden rooftop sign consists of two panels of neon lettering. Constructed in 1933, it sits atop a 1929 apartment hotel building. *City of Long Beach Municipal Code* § 16.52.920 states

the building is not architecturally significant, nor does it have an identifiable architectural style. However, the rooftop sign is a vintage historical object, notable for its period design and for the charming and nostalgic message displayed. It is a visual landmark in the downtown. . . This [the Dolly Varden rooftop sign] is a vintage neon sign, exemplifying the commercial benefits of colorful, illuminated signage. Neon became a very popular sign material in the ‘thirties. The Dolly Varden has been a prominent visual feature of downtown Long Beach for sixty (60) years and is regarded affectionately by many residents and

visitors. Its distinctive visual qualities and charming message enhance the ambience of the downtown streetscape.

Significant characteristics of the Dolly Varden rooftop sign are its design, workmanship, materials, message content, location in a downtown commercial setting, and visibility from Pacific Avenue. This Project will not alter the significant characteristics of the Dolly Varden rooftop sign or diminish its integrity of setting or feeling.

The Walkers Department Store building dates to 1929. Designed by prominent Los Angeles architects Meyer and Holler, it opened as Marti Stores and became Walkers Department Store in 1933. The building is significant for its architecture, which blends Art Deco and Renaissance Revival. In ca. 1990, the building was converted into 39 loft condominiums, and two setback stories were added to the roof of the building for penthouse units. *City of Long Beach Municipal Code* § 16.52.510 states

Walkers Department Store exemplifies the burst of retail development that occurred in the twenties as part of an economic boom in Long Beach. Several local department stores were established around that time (i.e., Famous, now Thrifty Drugs, Buffums, Barker Brothers), most of which are today out of business. Pine Street was then the primary shopping district of Long Beach. This building is associated with Long Beach's tremendous economic growth in the twenties, and the flourishing of local retail business.

Significant characteristics of Walkers Department Store are its architects, design, transitional architectural style, association with commercial activities of the 1920s, and location in a downtown commercial setting. This Project will not alter the significant characteristics of the Walkers Department Store building or diminish its integrity of setting or feeling.

In summary, the Project does not result in physical demolition, destruction, or relocation of a historical resource. Additionally, the Project does not alter the two historical resources in the immediate surroundings such that their significance would be materially impaired. Therefore, the Project does not result in a substantial adverse change in the significance of historical resources.

### **Paleontological Resource Assessment**

To assess the potential for significant paleontological finds in the Project, SRI requested a review of the paleontological-specimen and locality records held by the Vertebrate Paleontology Department of the NHMLA. The search was conducted by Dr. Samuel McLeod, collections manager, who provided a written report of his findings. The purpose of the records search was to identify all previously recorded paleontological remains and fossil localities discovered within the Project footprint and the surrounding area. Records of paleontological remains found in proximity to the Project and in the same geologic setting help to inform the paleontological potential of the Project site.

SRI conducted limited archival and background research that focused on the geologic setting and history of the Project vicinity and the identification of paleontological resources within and around the Project, with the intent of identifying the subsurface paleontological potential of the Project parcel. Of particular importance to that effort was the review of topographic maps, geologic maps, published scientific literature, and published and unpublished technical literature. The results of a geotechnical-engineering investigation of the immediate Project also were reviewed. The geotechnical report was produced by Geocon West (2017) and was provided to SRI by Ensemble Investments, LLC. These materials were reviewed to identify the nature, extent, and potential significance of possible paleontological resources within the Project parcels and to determine the potential for Project elements to affect known or expected subsurface paleontological resources. Dr. Joseph El Adli reviewed all materials and provided an assessment of the paleontological sensitivity of the Project footprint.

## Literature Review

The current California Geological Survey geologic map of the region (Saucedo et al. 2016) shows the Project resting on a sedimentary unit identified as middle to late Pleistocene shallow marine deposits (see Figure 3). A preliminary geotechnical investigation conducted for this Project (Geocon West 2017) suggested that these deposits are likely overlain by a thin veneer of artificial fill left by past construction.

The following section provides a general overview of the types of geologic deposits located within the Project (in order from oldest to youngest) and discusses their paleontological significance and potential (as summarized in Table 8).

**Table 8. Geologic Units within the Project and Their Paleontological Potential**

| Unit                        | Map Abbreviation | Age                        | Paleontological Potential |
|-----------------------------|------------------|----------------------------|---------------------------|
| Old shallow marine deposits | Qom, Qops, Qt    | middle to late Pleistocene | high                      |
| Artificial fill             | af               | recent                     | no                        |

### Old Shallow Marine Deposits (Qom)

Coastal areas along and adjacent to marine shorelines (both seaward and landward) can contain a multitude of environments where sediments may be deposited, such as alluvial fans, deltas, estuaries, lagoons, dunes, tidal flats, and beaches. Because of the potential proximity of these environments to one another, changes in local or global sea level, tectonic activity, and sediment influx can result in shifts in the depositional environment over relatively short periods of geologic time, especially where seaward and landward topography are shallowly sloped and/or relatively flat. The interfingering strata resulting from such marine and terrestrial inputs are often described as “paralic deposits” in geologic literature.

Paralic deposits and shallow marine deposits are extensively exposed throughout the coastal portions of the Los Angeles Basin. These deposits have been scientifically studied across Long Beach, San Pedro, and the Palos Verdes Peninsula and have received several names from various authors. Arnold and Arnold (1902) first described similar sediments in San Pedro, which they termed the “San Pedro Series” (also referred to as the San Pedro Sands or San Pedro Formation by other authors) and correlated to sediments in the Long Beach area. DeLong (1939) and Woodring et al. (1946) split the upper and lower portions of the series described by Arnold and Arnold (1902) into the upper Palos Verdes Sands and lower San Pedro Sands and noted the occurrence of both units in the vicinity of Signal Hill. Jennings (1962) mapped the sediments in the vicinity of Signal Hill (including the sediments underlying the Project) as “Quaternary nonmarine terrace deposits” but noted some marine deposits scattered throughout the area. Later, Saucedo et al. (2003) mapped and described these same sediments as undivided old paralic deposits of middle to late Pleistocene age. The old paralic deposits of Saucedo et al. (2003) were eventually re-termed “old shallow marine deposits on wave-cut surface” by Saucedo et al. (2016), although the reason for the change in nomenclature was not discussed by the authors. Based on the Saucedo et al. (2016) geologic map, the Project is completely underlain by these middle to late Pleistocene shallow marine deposits.

The geotechnical report produced for the Project (Geocon West 2017) identified old paralic deposits (old shallow marine deposits, *sensu* Saucedo et al. [2016]) below artificial fill in all the borings that were conducted. These deposits were observed extending below the base of each boring and extended to depths of at least 60 feet in Boring 6. Geocon West (2017) described these sediments as interbedded shallow marine-terrace and alluvial sediments consisting of light-brown to reddish brown sands and silts. In general, the term “shallow marine deposits” refers to a broad group of depositional settings encompassing all near-shore marine environments. These environments vary from higher-energy environments nearshore (where wave action can disturb the seabed) to lower-energy environments offshore. Some authors have restricted this definition to comprise the region from the shoreline seaward to depths of 600 feet (Heckel 1972). How-

ever, this quantified definition is less useful geologically because of the unavoidable uncertainty in determining the precise water depth at which a sedimentary unit was deposited. Instead, sedimentary units are typically inferred to have been deposited in ancient shallow marine environments based on the composition of their fossil assemblages and/or by analysis of lithology and depositional features.

The sediments underlying the Project (whether referred to as Palos Verdes Sands [sensu DeLong 1939; Woodring et al. 1946], old paralic deposits [sensu Saucedo et al. 2003], or old shallow marine deposits [sensu Saucedo et al. 2016]) have been repeatedly noted for their exceptionally diverse assemblage of invertebrate fossils and for significant finds of well-preserved terrestrial and marine mammals (Arnold and Arnold 1902; DeLong 1939; McLeod 2018; Miller 1971; Woodring et al. 1946). Fitch (1970) documented 102 fossil fish taxa from similar deposits in Los Angeles County, and Long (1993) identified 41 fossil fish taxa, 1 species of turtle, 4 bird taxa, 3 marine-mammal taxa, and 4 terrestrial-mammal taxa from similar deposits in Orange County. A paleontological records search of NHMLA fossil localities within the vicinity of the Project (see the Paleontological Records Search section below) revealed several significant fossil vertebrate finds from the old shallow marine deposits. Finally, the geotechnical report produced by Geocon West (2017) reported shell fragments within two of its borings (Borings 3 and 7), at depths between 25 and 30 feet (7.6–9.1 m) below grade. Although these invertebrate taxa were not taxonomically identified in the report, the presence of fossil materials from these borings speaks to the increased paleontological resource potential of the sediments underlying the Project. Based on these regional and proximate discoveries of important paleontological resources, the old shallow marine deposits underlying the Project have a high paleontological resource potential, as defined by the SVP (2010).

#### **Artificial Fill**

Artificial fill materials discovered at the site by Geocon West (2017) were dark brown to olive brown in color and were loosely consolidated. These sediments ranged in grain size from silt to medium sand and contained construction debris. Such deposits are presumably derived from prior construction activities and are thus not naturally forming. These disturbed fill sediments could potentially contain fossil materials that were unintentionally introduced during earlier excavations. However, such fossil materials would have been removed from their original geologic and stratigraphic contexts and thus would not be of paleontological interest or significance. Artificial fill materials are thus assigned zero paleontological resource sensitivity.

#### **Paleontological Records Search**

A records search at the NHMLA was conducted on December 24, 2018, by Vertebrate Paleontology Collections Manager Dr. Samuel A. McLeod. His report is summarized in Table 9 and is provided in full in Appendix B. The search found no previously recorded vertebrate fossil locality directly underlying the Project site. However, four vertebrate fossil localities (LACM 1005, 1144, 6896, and 7739) containing both marine and terrestrial vertebrates were found in the vicinity of the Project footprint. All of these localities were found within the old shallow marine deposits, as mapped by Saucedo et al. (2016). However, McLeod (2018) referred to these deposits as “older Quaternary Alluvium, derived primarily as fluvial deposits from the Los Angeles River that flows immediately to the west, but possibly including estuarine or beach deposits.” Despite the nomenclatural difference between Saucedo et al. (2016) and McLeod (2018), the sediments discussed by these authors are the same.

LACM 1005 was discovered south of Bixby Park (approximately 1.5 miles [2.4 km] east-southeast of the Project area) at a depth of approximately 60 feet below the ground surface and produced fossil remains of Columbian mammoth (*Mammuthus columbi*) and Shasta ground sloth (*Nothrotheriops shastensis*). LACM 1144 was found near the intersection of Loma Vista Drive and Crystal Court (approximately 0.8 miles [1.3 km] north-northwest of the Project area), where fossil specimens of sea lion, camel, and bison were encountered at depths of less than 48 feet below grade. A fossil whale specimen was discovered at LACM 6896, near Magnolia Avenue and Ocean Boulevard (approximately 0.3 miles [0.5 km] southwest of the Project area), at a depth of less than 100 feet below grade. Finally, LACM 7739 was found near the parking lot of Bluff Park (approximately 1.6 miles [2.6 km] east-southeast of the project area) and produced a large assemblage of vertebrate and invertebrate fossils from a depth of 25 feet, including fossil fish, sharks, rays, snails, clams, crabs, and sea urchins.

**Table 9. Vertebrate Fossil Taxa Discovered from Sediments Similar to Those Underlying the Project**

| Locality  | Higher-Level Taxon     | Family               | Most-Specific Scientific Name    | Common Name           | Depth (feet) |
|-----------|------------------------|----------------------|----------------------------------|-----------------------|--------------|
| LACM 1005 | Proboscidea            | Elephantidae         | <i>Mammuthus columbi</i>         | Columbian mammoth     | ~60          |
| LACM 1005 | Xenarthra              | Nothrotheriidae      | <i>Nothrotheriops shastensis</i> | Shasta ground sloth   | ~60          |
| LACM 1144 | Carnivora              | Otariidae            | <i>Zalophus</i>                  | sea lion              | <48          |
| LACM 1144 | Artiodactyla           | Camelidae            | <i>Camelops</i>                  | camel                 | <48          |
| LACM 1144 | Artiodactyla           | Bovidae              | <i>Bison</i>                     | bison                 | <48          |
| LACM 6896 | Artiodactyla (Cetacea) | family indeterminate | genus and species indeterminate  | whale                 | <100         |
| LACM 7739 | Chondrichthyes         | Carcharhinidae       | <i>Carcharhinus</i>              | requiem shark         | 25           |
| LACM 7739 | Chondrichthyes         | Carcharhinidae       | <i>Galeorhinus galeus</i>        | tope shark            | 25           |
| LACM 7739 | Chondrichthyes         | Sphyrnidae           | <i>Sphyrna</i>                   | hammerhead shark      | 25           |
| LACM 7739 | Chondrichthyes         | Triakidae            | <i>Triakis semifasciata</i>      | leopard shark         | 25           |
| LACM 7739 | Chondrichthyes         | Heterodontidae       | <i>Heterodontus francisci</i>    | horn shark            | 25           |
| LACM 7739 | Chondrichthyes         | Dasyatidae           | <i>Dasyatis</i>                  | stingray              | 25           |
| LACM 7739 | Chondrichthyes         | Myliobatidae         | <i>Myliobatis californica</i>    | bat ray               | 25           |
| LACM 7739 | Chondrichthyes         | Rajidae              | <i>Raja</i>                      | skate                 | 25           |
| LACM 7739 | Chondrichthyes         | Rhinobatidae         | <i>Rhinobatos productus</i>      | shovelnose guitarfish | 25           |
| LACM 7739 | Chondrichthyes         | Squalidae            | <i>Squalus acanthias</i>         | spiny dogfish         | 25           |
| LACM 7739 | Chondrichthyes         | Squatinae            | <i>Squatina californica</i>      | Pacific angel shark   | 25           |
| LACM 7739 | Osteichthyes           | Batrachoididae       | <i>Porichthys notatus</i>        | plainfin midshipman   | 25           |
| LACM 7739 | Osteichthyes           | Clupeidae            | genus and species indeterminate  | herring               | 25           |
| LACM 7739 | Osteichthyes           | Ophidiidae           | <i>Chilara taylori</i>           | spotted cusk-eel      | 25           |
| LACM 7739 | Osteichthyes           | Embiotocidae         | <i>Cymatogaster aggregata</i>    | shiner perch          | 25           |
| LACM 7739 | Osteichthyes           | Embiotocidae         | <i>Damalichthys vacca</i>        | pile perch            | 25           |
| LACM 7739 | Osteichthyes           | Embiotocidae         | <i>Embiotoca jacksoni</i>        | black perch           | 25           |
| LACM 7739 | Osteichthyes           | Embiotocidae         | <i>Hyperprosopon argenteum</i>   | walleye surfperch     | 25           |
| LACM 7739 | Osteichthyes           | Embiotocidae         | <i>Micrometrus aurora</i>        | reef perch            | 25           |
| LACM 7739 | Osteichthyes           | Embiotocidae         | <i>Phanerodon furcatus</i>       | white seaperch        | 25           |
| LACM 7739 | Osteichthyes           | Gobiidae             | genus and species indeterminate  | gobie                 | 25           |
| LACM 7739 | Osteichthyes           | Sciaenidae           | <i>Genyonemus lineatus</i>       | white croaker         | 25           |
| LACM 7739 | Osteichthyes           | Sciaenidae           | <i>Seriphus politus</i>          | queenfish             | 25           |
| LACM 7739 | Osteichthyes           | Sphyracidae          | <i>Sphyracna argentea</i>        | Pacific barracuda     | 25           |
| LACM 7739 | Osteichthyes           | Citharidae           | <i>Citharichthys sordidus</i>    | Pacific sanddab       | 25           |
| LACM 7739 | Osteichthyes           | Citharidae           | <i>Citharichthys stigmaeus</i>   | speckled sanddab      | 25           |
| LACM 7739 | Osteichthyes           | Pleuronectidae       | <i>Glyptocephalus zachirus</i>   | rex sole              | 25           |
| LACM 7739 | Osteichthyes           | Pleuronectidae       | <i>Lyopsetta exilis</i>          | slender sole          | 25           |
| LACM 7739 | Osteichthyes           | Cottidae             | genus and species indeterminate  | sculpin               | 25           |
| LACM 7739 | Osteichthyes           | Scorpaenidae         | <i>Sebastes goodei</i>           | rock fish             | 25           |

## Conclusions

We have prepared the following conclusions based on the results of archival research and records searches. These lines of inquiry resulted in an understanding of the geologic and cultural setting, land use, and development of the Project and vicinity. Throughout the Project, there is potential for the presence of intact, subsurface historical-period archaeological remains related to past residential and commercial land uses. The preservation of intact prehistoric remains within the Project footprint, though possible, is unlikely in light of the extensive historical-period construction and demolition activities from the 1880s forward. Below roughly 3 feet (0.9 m), potential exists for the discovery of significant vertebrate paleontological resources in the native sediments below the artificial fill.

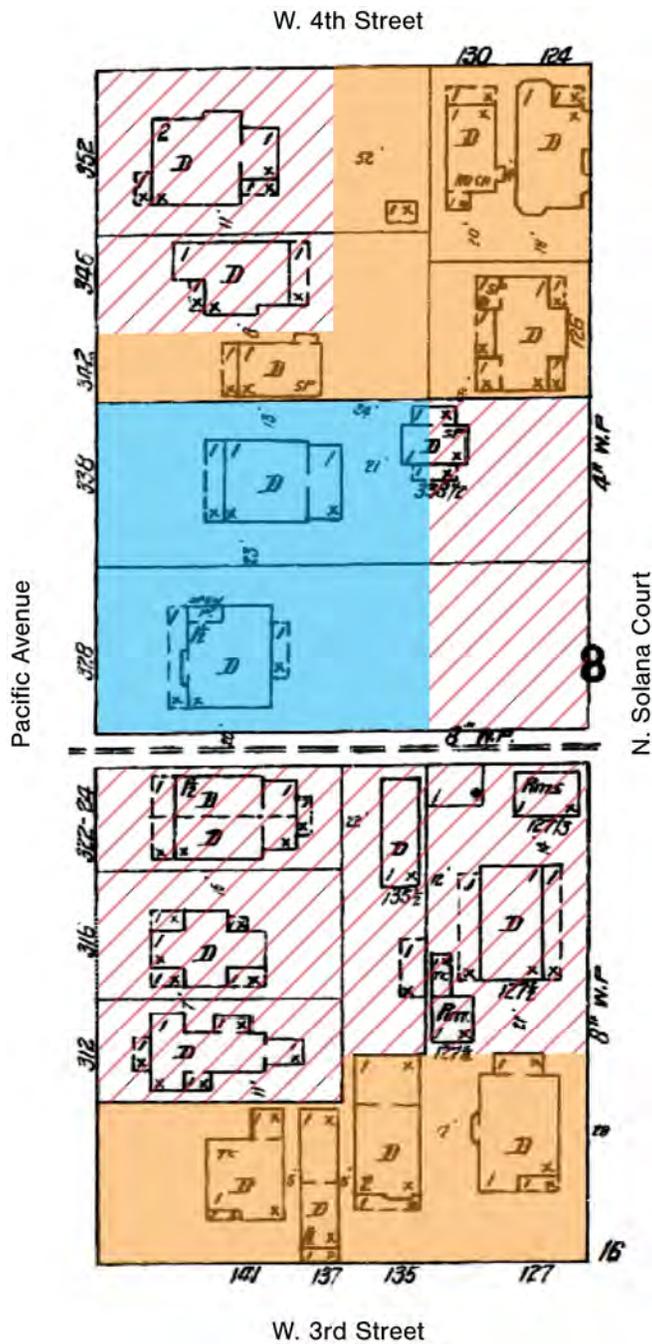
### Historical-Period Archaeological Resources

Little, if any, archaeological evidence related to the earliest historical-period use of the block—the San Pedro Lumber Company—is expected to remain extant. The material-storage areas were likely open sheds, and later buildings covered the area where the company office was located. As shown in Figure 20, there is high potential for intact historical-period archaeological remains related to residential and commercial activities throughout the Project. The geotechnical report produced for this project (Geocon West 2017:3, 10) indicates that artificial fill, likely resulting from previous grading and construction activities, is present in depths of less than 3 feet (0.9 m) in most parts of the project area. One boring near the northwest corner, however, encountered fill up to 6.5 feet (2 m) deep, underlain by concrete 4 feet (1.2 m) deep. Based on information in the Environmental Site Assessment (ESA; Partner Engineering and Science, Inc. 2017a, 2017b), this fill relates to the automobile-service facility once located on that corner. Excavations during project construction are expected to continue beneath the fill and, therefore, could encounter intact archaeological deposits from the historical period.

The geotechnical report produced for this project (Geocon West 2017:8–9) reported that the Project area is within the Long Beach Downtown Oil Field, although no known oil wells were ever located in the immediate vicinity. That report, however, stated that improperly located wells could be encountered during construction, requiring proper abandonment in accordance with current regulations.

Potential archaeological remains related to residential occupation of the Project include foundations, basements, and evidence of outlying features, including outbuildings, sheds, garages, incinerators, animal enclosures, landscaping features (e.g. tree pits, flower beds, walkways, steps, retaining walls, fences, and driveways), sheet refuse, and hollow-filled features, such as trash pits, privies, or wells. Potential archaeological remains related to the commercial establishments located in the Project include industry-specific features, such as automobile grease pits and refuse deposits. Additionally, possible archaeological features related to neighborhood and civic infrastructures include utility-conveyance elements, sidewalks, curbs, and pavements.

High potential exists for intact historical archaeological remains related to the residential period. Specifically, the area where two dwellings once stood in the northwestern corner of the block (fronting on Pacific Avenue) has served only as a parking lot since their demolition between 1914 and 1947 (perhaps at the time of the 1933 earthquake). Archaeological remains may exist of three houses that fronted on North Solano Court, east of the two apartment buildings constructed between 1908 and 1914. In the southern part of the Project, three dwellings facing Pacific Avenue were demolished between 1923 and 1928; that area has been used for automobile parking since that time. A dense concentration of dwellings, rooms, and outbuildings existed beginning in 1902 along North Solana Court, north of the area where later stores would be built. That area, too, has served as a parking lot since their demolition between 1923 and 1928. The two historical-period apartment buildings were demolished in 2004 or 2005, with only a parking area in that location since then.



| Archaeologically Sensitive Areas |   |
|----------------------------------|---|
|                                  | Residential (houses, rooms, outbuildings) |
|                                  | Residential (apartments)                  |
|                                  | Commercial                                |

**Figure 20. Portion of a Sanborn Fire Insurance Company map dated 1905, showing areas of historical-period archaeological sensitivity within the Project footprint (EDR 2018a:11) (not to be reproduced).**

In the remaining portions of the Project, there is high potential for intact historical archaeological remains related to the commercial period. Specifically, these areas are in the northeastern corner of the Project, on a small strip north of the former apartment buildings fronting on Pacific Avenue, and in the southern part of the block, fronting on West 3rd Avenue. As commercial buildings were demolished, parking lots took their places. The ESA prepared for the Project did not identify any underground storage tanks related to the automobile-service complex but stated that hazardous substances or petroleum products associated with that industry may be present. Other commercial establishments, including the cleaners once located in the northeast part of the Project area were “not expected to represent a significant environmental concern” (Partner Engineering and Science, Inc. 2017a:iii–iv). The Phase II Subsurface Investigation Report confirmed that no underground storage tanks remain in the northwestern Project area and recommended no further investigation with regard to the automobile-service facility (Partner Engineering and Science, Inc. 2017b:4-5, 9).

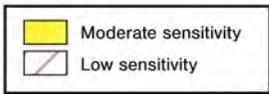
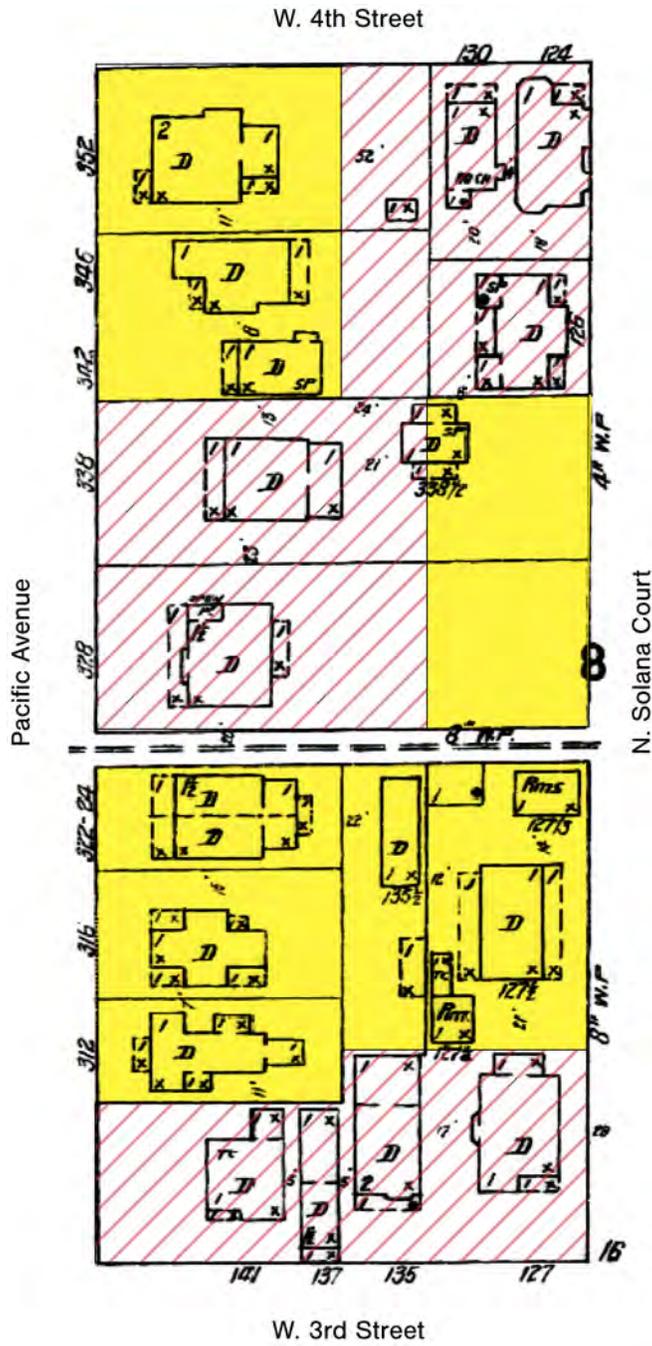
If intact, buried historical-period archaeological deposits remain within the Project, they could provide important information about early residential development and land use in Long Beach, the daily lives and activities of City residents, ethnic enclaves in the Downtown area, the nature of the transition from single-family dwellings to duplex and apartment life, the impact of the 1933 earthquake on this part of the City, and the transition from residential to commercial use of the City core. If intact, buried historical-period archaeological deposits in the Project do provide such information, it appears that they would be potentially eligible for listing in the CRHR under Criterion 4, for resources that “may be likely to yield information important in history,” and possibly under other criteria, as well. Recommendations for archaeological treatment both preconstruction and during construction are provided below.

### **Prehistoric Archaeological Resources**

The likelihood that intact prehistoric remains are preserved within the Project is low, considering the extensive historical-period construction and demolition that have occurred across the entire property from the 1800s forward. Although not expected, prehistoric deposits would be more likely to be preserved in areas that were maintained as yards and open spaces around the structures that previously stood on the Project property, as shown in Figure 21. These potentially less-disturbed areas are associated with one-story residential structures and outbuildings that were never converted to commercial buildings or multistory apartment structures. The presence of several named Gabrielino village sites, such as Puvungna, Ahaungna, Suangna, and Tibahangna, within 5 miles (8 km) of the Project suggests that the area was a significant hub of occupation and activity in the Late and Protohistoric periods and into the historical period. In the unlikely event that prehistoric materials or deposits are preserved within the Project, those items may provide information concerning the prehistoric or ethnographic use of the Long Beach area. If they do provide such information, it appears that they would be potentially eligible for listing in the CRHR under Criterion 4, for resources that “may be likely to yield information important in history,” and possibly under other criteria, as well.

### **Native American Resources**

SRI’s Native American resource search and Native American contact program did not identify any resources. A search of the SLF maintained by the NAHC and limited correspondence with affiliated California Native American tribal representatives have revealed no specific Native American resources within the Project footprint or in the immediate vicinity. Formal consultation with representatives of California Native American tribes, initiated independently by the City, may reveal resources that may be affected by the Project.



**Figure 21. Portion of a Sanborn Fire Insurance Company map dated 1905, showing areas of prehistoric archaeological sensitivity within the Project footprint (EDR 2018a:11) (not to be reproduced).**

## Paleontological Resources

The background research, including analysis of geologic and topographic maps, aerial photographs, and recent published and unpublished literature, resulted in an understanding of the Project footprint and the areas within it where subsurface paleontological resources might remain undisturbed. The Project site (at the depths associated with the proposed construction) is underlain by two primary geologic units: artificial fill and the underlying middle to late Pleistocene old shallow marine deposits. Artificial fill deposits are considered to have no paleontological resource potential because of the lack of stratigraphic context for any fossil remains that may be buried within them. The old shallow marine deposits, however, are assigned a high paleontological resource potential because of the numerous vertebrate fossil remains that have previously been discovered within them at other sites throughout the region. Furthermore, locality records from the NHMLA have documented significant fossil finds in similar deposits in close proximity to the Project site.

Paleontological sensitivity within the Project footprint is high in all areas where excavations will extend below the fill into the underlying old alluvial fan deposits. Geotechnical boring suggested that the base of the fill is roughly 2 feet (0.6 m) below grade, although one boring in the northwestern corner of the Project site encountered 6½ feet (2 m) of fill and construction debris. SRI recommends that the proponent implement the mitigation measures from the PEIR and retain a qualified professional paleontologist to write and implement a paleontological treatment and mitigation program, in order to reduce any impacts to paleontological resources to a less-than-significant level (see Mitigation Measures section, below).

The results of our research indicate that the Project has a high sensitivity for the presence of buried paleontological resources at depth. Sediments associated with middle to late Pleistocene old shallow marine deposits are known to produce important fossil discoveries, and thus, proposed construction activities associated with the Project have great potential to negatively impact paleontological resources. Fossil remains found in the Project could provide important information about the prehistory of the region.

The Project is underlain by shallow marine deposits that are sensitive for buried paleontological remains dating to the middle to late Pleistocene (ca. 781,000–11,700 years ago) (see Figure 3). The preliminary geotechnical report (Geocon West 2017) and the NHMLA records search (McLeod 2018) conducted for the Project suggested that artificial fill deposits are likely found at shallow depths (generally 3 feet [0.9 m]) below the existing grade and that they overlie undisturbed middle to late Pleistocene old shallow marine deposits. Therefore, proposed Project excavations of greater than 3 feet (0.9 m) below the ground surface will likely impact middle to late Pleistocene old shallow marine deposits and the paleontological resources that they may contain. Older Pleistocene, Pliocene, or Miocene deposits that may underlie the middle to late Pleistocene old shallow marine deposits in the area are present at much greater depths than the planned Project excavations and are not expected to be impacted.

The collected data indicate that there is the potential to encounter paleontologically significant remains during Project construction, particularly at depths greater than a few feet below grade, where middle to late Pleistocene old shallow marine deposits may be encountered. The established mitigation measures and recommended plan regarding paleontological resources that are described in the following section were developed in accordance with SVP (2010) guidelines to satisfy the requirements for mitigating damage to paleontological remains under CEQA.

## Established Mitigation Measures and Recommended Plans

Project construction plans call for excavations at least 42 feet (12.8 m) deep in some areas, which would likely destroy any cultural or paleontological resources present at those depths. The following mitigation measures would reduce the potential impact to such resources to a less-than-significant level under CEQA. These mitigation measures are in addition to any City standard conditions of approval, which may include protocols for the treatment of unanticipated archaeological deposits, Native American resources, paleontological resources, and human remains.

## **Applicable Mitigation Measures included in the Downtown Plan PEIR**

The Downtown Plan PEIR (City 2010, 2011) included several mitigation measures to address potential impacts to historical built-environment properties; archaeological resources, including human remains; and paleontological resources, as described in the Applicable Regulations section of the City Downtown Plan described above. Of those mitigation measures, the five measures that concern the protection and treatment of archaeological and paleontological resources are applicable to this Project and are included here as established mitigation measures. To reduce potential Project impacts to cultural resources to a less-than-significant level, the following PEIR mitigation measures for the protection of cultural resources (City 2010:4.3-14) shall be enforced for this Project:

- Mitigation Measure CR-2(a), which requires archaeological monitoring of any ground-disturbing activity;
- Mitigation Measure CR-2(b), which requires appropriate final reporting of any archaeological find(s); and
- Mitigation Measure CR-2(c), which specifies the protocol to follow in the event that human remains are encountered during Project construction.

In addition, to reduce potential Project impacts to paleontological resources to a less-than-significant level, the following PEIR mitigation measures for the protection of paleontological resources (City 2010:4.3-15) shall be enforced for this Project:

- Mitigation Measure CR-3(a), which requires paleontological monitoring of any ground-disturbing activity; and
- Mitigation Measure CR-3(b), which allows for redirection of ground-disturbing activity, salvage of significant fossils, and curation of fossils with an appropriate public, nonprofit research institution.

## **Recommended Mitigation Measure 1: Archaeological Resources and Human Remains**

In addition to the requirements set forth in PEIR Mitigation Measures CR-2(a), CR-2(b), and CR-2(c) (City 2010:4.3-14), SRI recommends the following actions to ensure efficient identification and treatment of unanticipated archaeological resources, including human remains. Prior to the start of Project ground disturbance, including pavement removal, a qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for Historical Archeology shall be retained, to prepare and implement a written Cultural Resource Monitoring and Treatment Plan (CRMTP) to reduce potential Project effects on unanticipated archaeological resources to a less-than-significant level under CEQA. This plan will include the professional qualifications required of key staff, monitoring protocols relative to the varying archaeological-sensitivity areas across the Project site, provisions for evaluating and treating unanticipated cultural materials discovered during ground-disturbing activities, situations under which monitoring may be reduced or discontinued, and reporting requirements.

At the discretion of the Project proponent, the City, and other interested parties, prior to the initiation of ground-disturbing activities, the qualified archaeologist shall conduct a brief cultural resource awareness-training session for all on-site personnel, including construction workers and supervisors. The training shall include a description of archaeological resources expected at the Project site and an explanation of the legal basis for the protection of significant archaeological resources. Each worker will be instructed in the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground-disturbing activities. Minimally, these procedures will include stopping work in the immediate area of the find and contacting a supervisor and the archaeological monitor.

The CRMTP shall also include a section describing the protocol in the event that unanticipated human remains are discovered during Project implementation. If unanticipated human remains are encountered, HSC § 7050.5 states that no further disturbance shall occur until the Los Angeles County Coroner has made a determination of origin and disposition pursuant to PRC § 5097.98. The Los Angeles County Coroner must be notified of the find immediately. If the human remains are determined to be Native American, the coroner will notify the NAHC, which will identify and notify a most likely descendant. The most likely descendant shall complete the inspection and provide recommendations for treatment and disposition of the remains and any associated items within 48 hours of being provided access to the site.

## **Recommended Mitigation Measure 2: Paleontological Resources**

In addition to the requirements set forth in PEIR Mitigation Measures CR-3(a) and CR-3(b) (City 2010:4.3-15), SRI recommends the following actions to ensure efficient identification and treatment of unanticipated paleontological resources. The services of a qualified paleontologist meeting the SVP criteria for a Project Paleontologist/Principal Investigator and having experience in southern California paleontology shall be retained prior to earthmoving activities associated with the Project, in order to develop a site-specific Paleontological Resource Mitigation and Treatment Plan (PRMTP) to reduce potential Project effects on unanticipated paleontological resources to a less-than-significant level under CEQA. The PRMTP shall specify the levels and types of mitigation efforts based on the types and depths of earthmoving activities and the geologic and paleontological sensitivity of the Project area. Minimally, a trained paleontology monitor, under the supervision of the project paleontologist, shall be present during all initial ground disturbance of sediments identified as having high paleontological resource potential. Geotechnical borings indicate that within the Project footprint, undisturbed sediments with high paleontological resource potential exist below artificial fill, roughly 2–6½ feet (0.6–2.0 m) below the current grade. If artificial fill, significantly disturbed deposits, or younger deposits too recent to contain paleontological resources are encountered during construction, the Project paleontologist may reduce or curtail monitoring in the affected areas, after consultation with the Project proponent and the City. The PRMTP shall also include a description of the professional qualifications required of key staff, communication protocols to be followed during construction, fossil-recovery protocols, sampling protocols for microfossils (if required), laboratory procedures, reporting requirements, and curation provisions for any collected fossil specimens.

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**Natural History Museum of Los Angeles County  
Paleontological-Specimen and Locality-Records Search**



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24 December 2018

Statistical Research, Inc.  
21 West Stuart Avenue  
Redlands, CA 92374

Attn: Joseph J. El Adli, PhD, Director, Paleontology Program

re: Vertebrate Paleontology Records Check for paleontological resources for the proposed  
3rd Street and Pacific Avenue Project, in the City of Long Beach, Los Angeles  
County, project area

Dear Joseph:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed 3rd Street and Pacific Avenue Project, 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 12 December 2018. We do not have any vertebrate fossil localities that lie directly within the proposed project area boundaries, but we do have localities nearby from the same sedimentary deposits that occur in the proposed project area, either at the surface or at depth.

The surficial sediments in the proposed project area consist of older Quaternary Alluvium, derived primarily as fluvial deposits from the Los Angeles River that flows immediately to the west, but possibly including estuarine or beach deposits. These deposits may well contain significant vertebrate fossils, as they are known in the area to be fossiliferous.

Our closest vertebrate fossil locality from older Quaternary deposits is LACM 6896, southwest of the proposed project area near the intersection of Magnolia Avenue and Ocean Boulevard, that produced a specimen of fossil whale, Cetacea, from pile driving activities at a depth of less than 100 feet. Our next closest vertebrate fossil locality from older Quaternary

deposits is LACM 1144, north-northwest of the proposed project area near the intersection of Loma Vista Drive and Crystal Court, that produced fossil specimens of sea lion, *Zalophus*, camel, *Camelops*, and bison, *Bison*, from a depth of less than 48 feet below the surface. To the east-southeast of the proposed project area, south of Ocean Boulevard across from Bixby Park at approximately 17<sup>th</sup> Place, our older Quaternary locality LACM 1005 produced fossil specimens of mammoth, *Mammuthus columbi*, and ground sloth, *Nothrotheriops shastensis*, at approximately 60 feet from the surface. Just southeast of locality LACM 1005, situated along the beach between the parking lot of Bluff Park and the shoreline, our vertebrate fossil locality LACM 7739, at a depth of 25 feet produced a rich suite of fossil marine vertebrates (see appendix for faunal list) in addition to associated fossil invertebrates including snails, clams, tusk shells, barnacles, crabs, and sea urchins, probably from the marine older Quaternary San Pedro Sand.

Very shallow excavations in the Quaternary Alluvium exposed throughout the proposed project area probably will not uncover any significant vertebrate fossils. Deeper excavations, however, may well encounter significant fossil vertebrate remains. Any substantial excavations below the uppermost layers in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered. Also, sediment samples should be collected and processed to determine the small fossil potential in the proposed project area. 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

enclosures: appendix, invoice

Fossil fish fauna from locality LACM 7739

Chondrichthyes

Carcharhiniformes

Carcharhinidae - requiem sharks

*Carcharhinus*

*Galeorhinus galeus*

Sphyrnidae - hammerhead sharks

*Sphyrna*

Triakidae - smoothhounds

*Triakis semifasciata*

Heterodontiformes

Heterodontidae - horn sharks

*Heterodontus francisci*

Myliobatiformes

Dasyatidae - stingrays

*Dasyatis*

Myliobatidae - eagle rays

*Myliobatis californica*

Rajiformes

Rajidae - skates

*Raja*

Rhinobatidae - guitarfish

*Rhinobatos productus*

Squaliformes

Squalidae - dogfish sharks

*Squalus acanthias*

Squatiniiformes

Squatinae - angel sharks

*Squatina californica*

Osteichthyes

Batrachoidiformes

Batrachoididae - toadfishes

*Porichthys notatus*

Clupeiformes

Clupeidae - herring

Ophidiiformes

Ophidiidae - cusk-eels

*Chilara taylori*

Perciformes

Embiotocidae - surfperches

*Cymatogaster aggregata*

*Damalichthys vacca*

*Embiotoca jacksoni*

*Hyperprosopon argenteum*

*Micrometrus aurora*

*Phanerodon furcatus*

Gobiidae - gobies

Sciaenidae - croakers

*Genyonemus lineatus*

*Seriphus politus*

Sphyraenidae - barracudas

*Sphyraena argentea*

Pleuronectiformes

Citharidae - sanddabs

*Citharichthys sordidus*

*Citharichthys stigmaeus*

Pleuronectidae - flounders

*Glyptocephalus zachirus*

*Lyopsetta exilis*

Scorpaeniformes

Cottidae - sculpins

Scorpaenidae - rockfish

*Sebastes goodei*