Appendix D Cultural and Paleontological Resources Assessment for the Del Amo Circle Apartments Project, City of Torrance, Los Angeles County, California

Appendices

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PALEONTOLOGY - ARCHAEOLOGY - HISTORY

CULTURAL AND PALEONTOLOGICAL RESOURCES ASSESSMENT FOR THE DEL AMO CIRCLE APARTMENTS PROJECT, CITY OF TORRANCE, LOS ANGELES COUNTY, CALIFORNIA

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Principal Investigator:
John Gust, Ph.D, RPA
Kim Scott, M.S.

Date
Revised September 2022

Cogstone Project Number: 5624
Type of Study: Cultural and Paleontological Assessment
Sites: None within the Project Area
USGS Quadrangle: Torrance (1981)
Area: 2.83 acres
Key Words: City of Torrance, Los Angeles County, negative for archaeological resources, negative for paleontological resources, Gabrielino/Tongva territory

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Federal Certifications WOSB, EDWOSB, SDB
State Certifications DBE, WBE, SBE, UDBE

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SUMMARY OF FINDINGS

This study was conducted to determine the potential impacts to cultural and paleontological resources during the Del Amo Circle Apartments Project (Project), City of Torrance (City), California. The City is the lead agency for the Project under the California Environmental Quality Act (CEQA).

The Project Area is located on 2.83 acres within the City of Torrance (City), Los Angeles County, California. Specifically, it is located in Section 16 of Township 4 South, Range 14 West on the Torrance USGS 7.5-minute topographic quadrangle map, San Bernardino Baseline and Meridian.

The proposed Project would entail development of a 200-unit multifamily residential development in a single, 234,928-square-foot, 5-story building with on-site residential facilities and a separate, 169,946-square-foot, 6.5-story parking structure with 440 parking spaces and an amenity deck on the 2.83-acre Project site. The parking structure would include a partial subterranean level and on-site facilities/amenities.

An intensive cultural and paleontological resources survey of the entire Project Area was completed on July 27, 2022. No archaeological or paleontological resources were observed.

Maximum planned depth of ground disturbance is approximately up to eight feet for the apartment building and a minimum of two feet for the parking structure. Maximum depth of disturbance for utilities is currently unknown.

PALEONTOLOGICAL RESOURCES

The Project Area is mapped entirely as middle to late Pleistocene old eolian deposits, which were deposited between 774,000 to 11,799 years ago. The paleontological record search revealed no fossil localities from within the project or from within a one-mile radius. However, some fossil localities have been recorded from similar sediments near to the Project. Extinct late Pleistocene animal fossils of mammoth, mastodon, ground sloth, horse, tapir, pronghorn, camel, and bison have been recovered from within ten miles of the study area.

The paleontological records search revealed that all of the fossils previously recovered within a 10-mile radius were a minimum of five feet deep in deposits mapped as Pleistocene at the surface. Given this, the Project sediments less than five feet below the modern surface are assigned a low potential for fossils (PFYC 2) and deeper deposits are assigned a moderate potential for fossils (PFYC 3) due to similar deposits producing fossils at that depth near to the study area.

Based on fossils found in similar sediments nearby, full time monitoring is currently recommended for the mass excavations below a depth of five feet. Drilling or pile driving activities regardless of depth, have a low potential to produce fossils meeting significance criteria because any fossils brought up by the auger during drilling will not have information about formation, depth or context. If unanticipated fossil discoveries are made, all work must halt

within 50 feet until a qualified paleontologist can evaluate the find. Work may resume immediately outside of the 50-foot radius.

CULTURAL RESOURCES

Sandy Duarte completed a cultural records search at the South Central Coastal Information Center (SCCIC) on the campus of CSU Fullerton on September 7, 2022. Results of the record search indicate that three previous studies have been completed within the proposed Project Area and an additional four gave been completed within the one-half mile search radius.

The results of the records search also indicate that there are no previously recorded cultural resources within the Project Area or within the one-half mile search radius.
A Sacred Lands File (SLF) search was requested from the Native American Heritage Commission (NAHC) on July 1, 2022. On August 15, 2022, the NAHC responded that a search of the SLF was completed with negative results and provided a list of eight tribes that may have information about the Project Area (Appendix C). The City will be completing the Native American consultations in compliance with Assembly Bill (AB) 52.

Based on the results of the pedestrian survey, the cultural records search, and the negative sacred lands file search, the Project Area has low sensitivity for prehistoric cultural resources. Analysis of these data sources and historical USDA aerial photographs indicate that the Project Area also has low sensitivity for buried historical archaeological features such as foundations or trash pits.

In the event of an unanticipated discovery, all work must be suspended within 50 feet of the find until a qualified archaeologist evaluates it. In the unlikely event that human remains are encountered during project development, all work must cease near the find immediately.

In accordance with California Health and Safety Code Section 7050.5, the County Coroner must be notified if potentially human bone is discovered. The Coroner will then determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) by phone within 24 hours, in accordance with Public Resources Code Section 5097.98. The NAHC will then designate a Most Likely Descendant (MLD) with respect to the human remains. The MLD then has the opportunity to recommend to the property owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and associated grave goods. Work may not resume in the vicinity of the find until all requirements of the health and safety code have been met.

INTRODUCTION

PURPOSE OF STUDY

This study was conducted by Cogstone Resource Management, Inc. (Cogstone) to determine the potential impacts to cultural resources by the Del Amo Circle Apartments Project (Project) located in the City of Torrance (City), Los Angeles County, California (Figure 1). The City is the lead agency under the California Environmental Quality Act (CEQA).

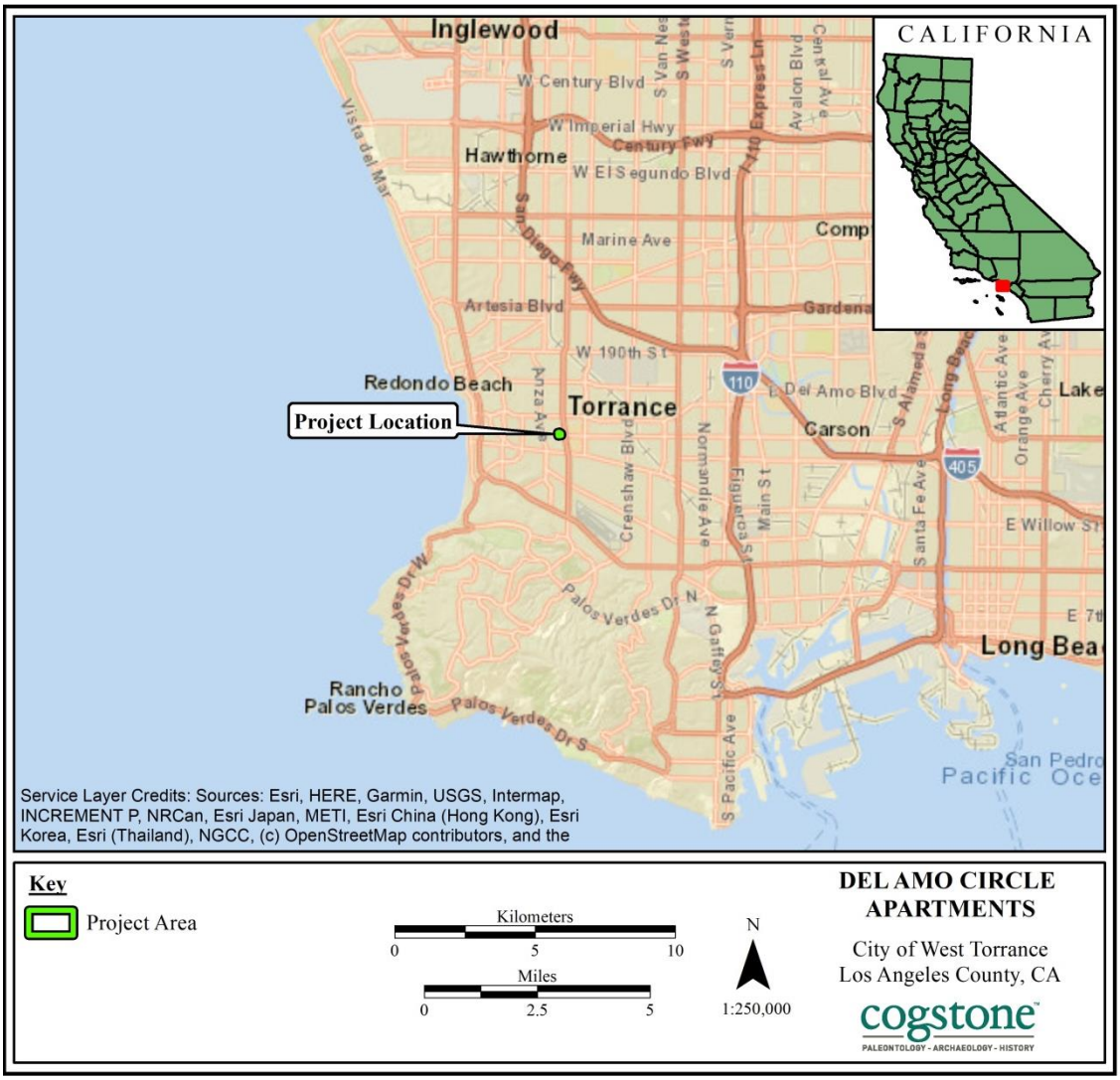


Figure 1. Project vicinity map

PROJECT LOCATION AND DESCRIPTION

The Project Area is located on 2.83 acres within the City of Torrance, Los Angeles County, California. Specifically, it is located in Section 16 of Township 4 South, Range 14 West on the Torrance USGS 7.5-minute topographic quadrangle map, San Bernardino Baseline and Meridian (Figures 2 and 3).

The proposed Project would entail development of a 200-unit multifamily residential development in a single, 234,928-square-foot, 5-story building with on-site residential facilities and a separate, 169,946-square-foot, 6.5-story parking structure with 440 parking spaces and an amenity deck on the 2.83-acre Project site. Table 1 shows the various components of the proposed Project, and more details are provided below.

Table 1. Project Summary

Proposed Uses	Units/Square Feet
Residential (studio, one bedroom, one bedroom + den, two bedrooms)	200 units/175,132 square feet
Residential On-Site Facilities (leasing office, lounge/lobby, co-working space, mail/lounge)	3,821 square feet
Parking	440 spaces/169,946 square feet
Roof Amenity Deck	12,326 square feet
Additional Usable Open Space (Landscape Areas, Courtyard 1, Courtyard 2)	32,068 square feet

The parking structure would include a partial subterranean level and on-site facilities/amenities, including a leasing office, a lounge/lobby, co-working space, mail/lounge, pool/spa, fitness center for residents, and courtyards. Based on the Project site's natural topography and the proposed Project design, the podium-style apartments "wrap" around the parking structure so it would not be visible from Carson Street or Del Amo Circle Way.

Maximum planned depth of ground disturbance is approximately up to eight feet for the apartment building and a minimum of two feet for the parking structure. Maximum depth of disturbance for utilities is currently unknown.

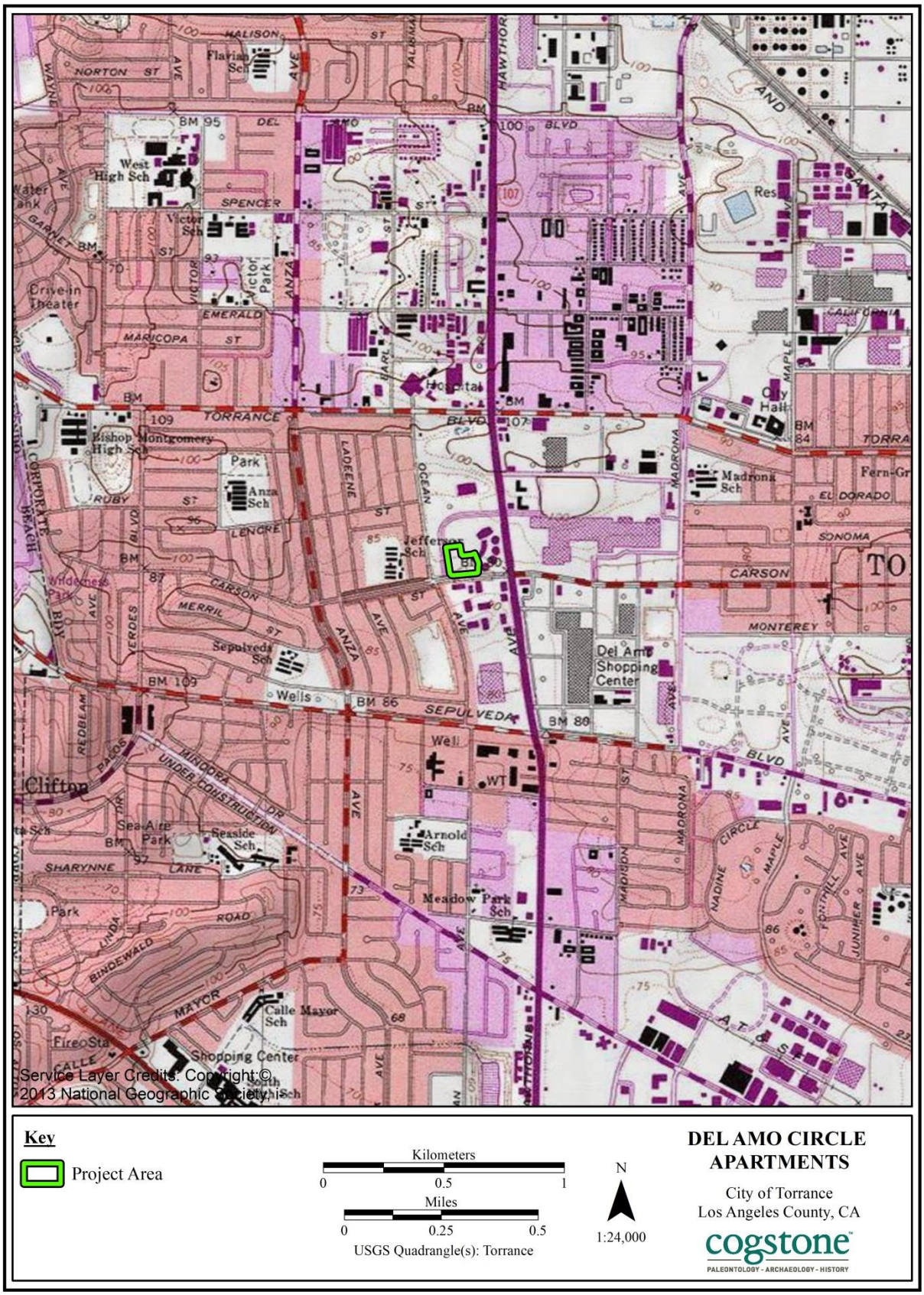
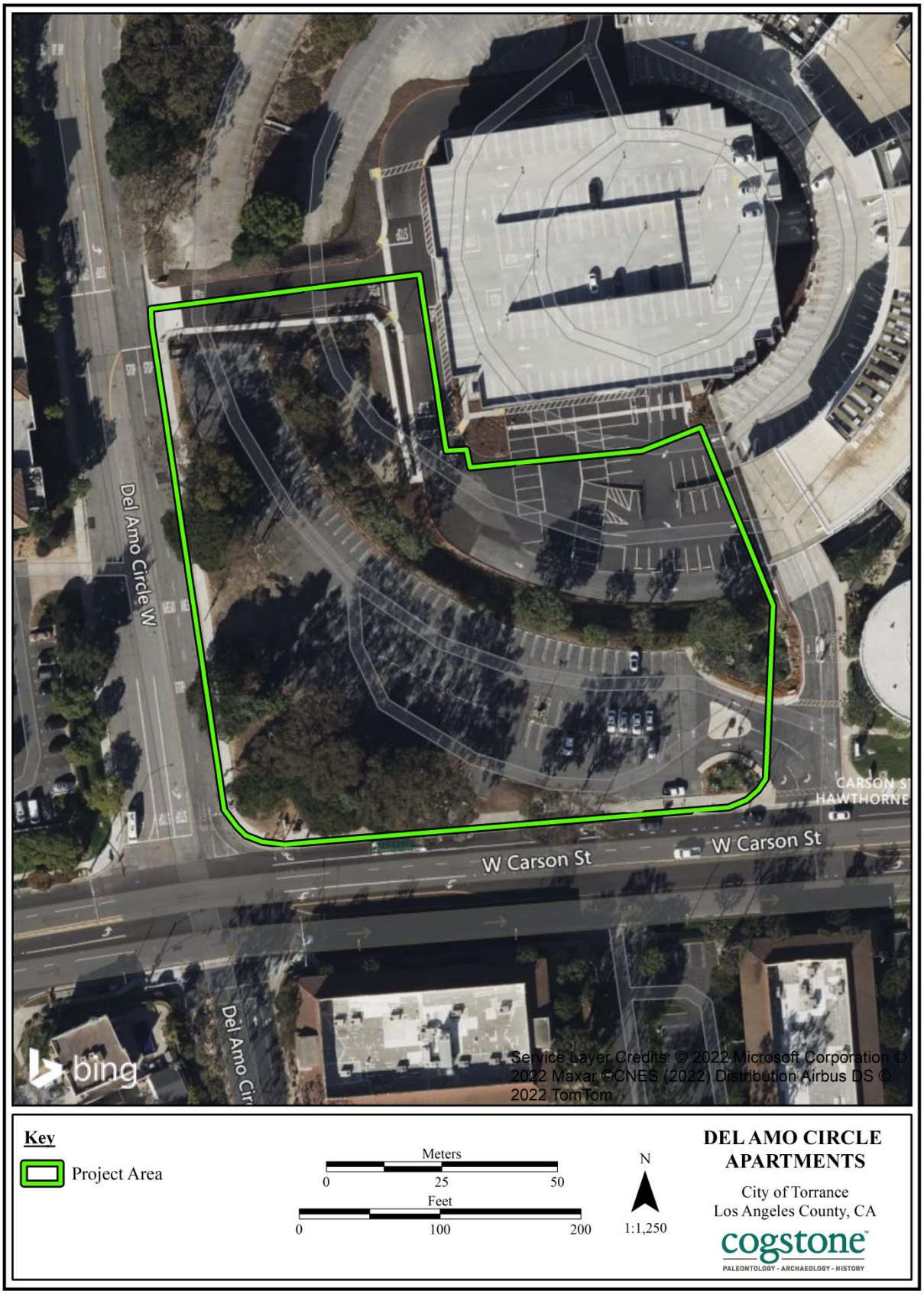


Figure 2. Project location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DEL AMO CIRCLE APARTMENTS
City of Torrance
Los Angeles County, CA
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Figure 3. Project aerial view

PROJECT PERSONNEL

Cogstone Resource Management, Inc. (Cogstone) conducted the cultural and paleontological resources study. Resumes of key personnel are provided in Appendix A

- John Gust, RPA, served as the Task Manager, Principal Investigator for Archaeology, and co-authored this report. Dr. Gust has a Ph.D in Anthropology from the University of California (UC), Riverside and more than 10 years of experience in archaeology.
- Kim Scott served as the Principal Investigator for Paleontology for the Project and wrote the geology, paleontology, environmental, and geoarchaeological sections of this report. Ms. Scott holds an M.S. in Biology with an emphasis in paleontology from California State University (CSU), San Bernardino. She is a qualified vertebrate paleontologist and sedimentary geologist with more than 27 years of experience in California paleontology and sedimentary geology.
- Sandy Duarte co-authored this report and conducted the pedestrian survey. Mrs. Duarte holds a B.A. in Anthropology from the UC Santa Barbara, and has more than 18 years of experience in California archaeology.
- Shannon Lopez conducted historic society consultation letters for this Project. Ms. Lopez holds an M.A. from CSU Fullerton and has more than four years of experience as an architectural historian.
- Kelly Vreeland assisted with the geological and paleontological portions of this report. Ms. Vreeland has an M.S. and B.S. in Geology with an emphasis in paleontology from CSU Fullerton, as well as 11 years of experience in California paleontology and geology.
- Logan Freeberg conducted the archaeological and paleontological record searches and prepared the maps for the report. Mr. Freeberg has a certificate in Geographic Information Systems (GIS) from CSU Fullerton and a B.A. in Anthropology from UC Santa Barbara and has more than 19 years of experience in southern California archaeology.
- Debbie Webster provided technical editing. Ms. Webster has more than 21 years of experience in technical writing.
- Molly Valasik provided overall QA/QC for the Project. Ms. Valasik has an M.A. in Anthropology from Kent State University in Ohio and 13 years of experience in southern California archaeology.
- Eric Scott provided QA/QC of the paleontology and geology sections of this report. Mr. Scott has an M.A. in Anthropology with an emphasis in biological paleoanthropology from UCLA, and more than 38 years of experience in California paleontology.

REGULATORY ENVIRONMENT

STATE LAWS AND REGULATIONS

CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA states that: It is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required are intended to assist public agencies in systematically identifying both the significant effects of proposed project and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects.

CEQA declares that it is state policy to: "take all action necessary to provide the people of this state with...historic environmental qualities." It further states that public or private projects financed or approved by the state are subject to environmental review by the state. All such projects, unless entitled to an exemption, may proceed only after this requirement has been satisfied. CEQA requires detailed studies that analyze the environmental effects of a proposed project. In the event that a project is determined to have a potential significant environmental effect, the act requires that alternative plans and mitigation measures be considered.

TRIBAL CULTURAL RESOURCES

As of 2015, CEQA established that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (Public Resources Code, § 21084.2). In order to be considered a "tribal cultural resource," a resource must be either:

(1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or
(2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource.

To help determine whether a project may have such an effect, the lead agency must consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Public Resources Code §20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources.

PUBLIC RESOURCES CODE

Section 5097.5: No person shall knowingly and willfully excavate upon, or remove, destroy,

injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands (lands under state, county, city, district or public authority jurisdiction, or the jurisdiction of a public corporation), except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor. As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES

The California Register of Historical Resources (CRHR) is a listing of all properties considered to be significant historical resources in the state. The California Register includes all properties listed or determined eligible for listing on the National Register, including properties evaluated under Section 106, and State Historical Landmarks No. 770 and above. The California Register statute specifically provides that historical resources listed, determined eligible for listing on the California Register by the State Historical Resources Commission, or resources that meet the California Register criteria are resources which must be given consideration under CEQA (see above). Other resources, such as resources listed on local registers of historic resources or in local surveys, may be listed if they are determined by the State Historic Resources Commission to be significant in accordance with criteria and procedures to be adopted by the Commission and are nominated; their listing in the California Register is not automatic.

Resources eligible for listing include buildings, sites, structures, objects, or historic districts that retain historical integrity and are historically significant at the local, state or national level under one or more of the following four criteria:

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

In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired, or significant individuals made their important contributions. Integrity is the authenticity of a historical resource's physical identity as evidenced by the survival of characteristics or historic fabric that existed during the resource's period of significance.

Alterations to a resource or changes in its use over time may have historical, cultural, or architectural significance. Simply, resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the California Register, if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data.

NATIVE AMERICAN HUMAN REMAINS

Sites that may contain human remains important to Native Americans must be identified and treated in a sensitive manner, consistent with state law (i.e., Health and Safety Code §7050.5 and Public Resources Code §5097.98), as reviewed below:

In the event that human remains are encountered during project development and in accordance with the Health and Safety Code Section 7050.5, the County Coroner must be notified if potentially human bone is discovered. The Coroner will then determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) by phone within 24 hours, in accordance with Public Resources Code Section 5097.98. The NAHC will then designate a Most Likely Descendant (MLD) with respect to the human remains. The MLD then has the opportunity to recommend to the property owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and associated grave goods.

CALIFORNIA ADMINISTRATIVE CODE, TITLE 14, SECTION 4307

This section states that "No person shall remove, injure, deface or destroy any object of paleontological, archeological or historical interest or value."

DEFINITION OF SIGNIFICANCE FOR PALEONTOLOGICAL RESOURCES

Only qualified, trained paleontologists with specific expertise in the type of fossils being evaluated can determine the scientific significance of paleontological resources. Fossils are considered to be significant if one or more of the following criteria apply:

1. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;

4. The fossils demonstrate unusual or spectacular circumstances in the history of life;
5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

As so defined, significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important. Significant fossils can include remains of large to very small aquatic and terrestrial vertebrates or remains of plants and animals previously not represented in certain portions of the stratigraphy. Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, and paleoclimatology are also critically important (Scott and Springer 2003; Scott et al. 2004).

CITY OF TORRANCE GENERAL PLAN

OBJECTIVE CR.12: PRESERVATION OF SITES OF LOCAL HISTORICAL OR CULTURAL IMPORTANCE POLICY

- CR.12.1: Encourage the preservation of public and private buildings which are of local, historical, or cultural importance.
- Policy CR.12.2: Support the work of local historic groups to identify and preserve local structures and sites of historical interest and importance.
- Policy CR.12.3: Balance historic preservation goals with the interests of private property owners.
- Policy CR.12.4: Work toward the establishment of a citywide historic policy and programs for recognition of historical assets within the City.

BACKGROUND

The geologic, paleontological, and environmental sections below provide information on the environmental factors that affect archaeological and paleontological resources, while the prehistoric and historical settings provide information on the history of land use in the general Project region.

GEOLOGICAL SETTING

The Project lies within the Los Angeles Basin, a sedimentary basin which includes the coastal plains of Los Angeles and Orange counties and extends west to Catalina Island, California. This region is bounded by the Santa Ana Mountains to the east, the Santa Monica Mountains to the north, and the San Joaquin Hills to the south. The Los Angeles Basin began to develop in the early Miocene, about 23 million years ago, initially in a marine setting. Through time the basin transitioned to terrestrial deposition by the middle Pleistocene, about 1 million years ago.

The Los Angeles Basin is part of the coastal section of the northernmost Peninsular Range Geomorphic Province, and is characterized by elongated northwest-trending mountain ridges separated by sediment-floored valleys. Subparallel faults branching off from the San Andreas Fault to the east create the local mountains and hills. The Peninsular Ranges Geomorphic Province is located in the southwestern corner of California and is bounded by the Transverse Ranges Geomorphic Province to the north and the Colorado Desert Geomorphic Province to the east (Wagner 2002).

The Project is mapped as middle to late Pleistocene (774,000 – 11,700 years ago) old eolian deposits (Saucedo et al. 2016). These wind-deposited sediments consist of well sorted, fine to coarse grained silty sand to sand. The upper surfaces of the older eolian deposits are capped by moderate to well-developed pedogenic soils (Saucedo et al. 2016).

PALEONTOLOGICAL SETTING

During the past 100,000 years or so, southern California's climate has shifted from the cooler and damper conditions of the last glacial period to the warmer and dryer conditions of the Holocene interglacial which began approximately 11,000 years ago. While continental ice sheets covered the interior of northern North America, southern California was ice free.

Fossils of Monterey cypress (*Hesperocyparis macrocarpa*), Monterey pine (*Pinus radiata*), and Torrey pine (*Pinus* sp. cf. *P. torreyana*) have been found in middle to late Pleistocene deposits in the Wilshire District of Los Angeles (Scott et al. 2014). Fossils of Monterey cypress are also known from middle to late Pleistocene deposits in Costa Mesa, California, as well as from the late Pleistocene Rancho La Brea asphalt seeps of the Wilshire District of Los Angeles (Axelrod

and Govean 1996; Stock and Harris 1992). Today, the most restricted conifers (Monterey cypress and Torrey pine) only inhabit locations on the coasts with cool, moist summers characterized by abundant sea fog. These locations experience a mean summer high temperature of 70ºF - 83ºF (21.1ºC - 28.3ºC). Winters are cool and damp with average precipitation of 10.59 - 32.41 inches (26.90 - 82.32 cm; Intellicast 2022; The Weather Channel 2022). Cold water upwellings due to submarine canyons adjacent to the shore near the relict populations create these conditions.

Pleistocene sediments in the Los Angeles Basin and throughout much of southern California have consistently proven to be abundantly fossiliferous. Fossils of mammoths, mastodons, ground sloths, horses, bison, sabre-toothed cats, dire wolves, and other Ice Age megafauna are not infrequently encountered in Pleistocene deposits in this region, along with microfossil remains of rodents, lizards, snakes, amphibians, and invertebrates (Stock and Harris 1992, Scott 2010).

ENVIRONMENTAL SETTING

Located in Los Angeles County, the Project is situated approximately 15 miles south-southwest of downtown Los Angeles. The Los Angeles River lays approximately 8 miles to the east, Compton Creek is 7 miles east-northeast, and the Pacific Ocean is approximately 2 miles to the west.

The current Mediterranean-like climate is characterized by warm, dry summers and cool, moist winters, with rainfall predominantly falling between November and May. Mild breezes reach the area from the Pacific Ocean, located west of the Project Area.

Prior to development, the native vegetation of the Project Area consisted of California coastal sage scrub. Typical species include California sagebrush (*Artemisia californica*), coyote brush (*Baccharis pilularis* var. *consanguinea*), California buckwheat (*Eriogonum fasciculatum*), lemonade berry (*Rhus integrifolia*), poison oak (*Toxicodendron diversiloba*), purple sage (*Salvia leucophylla*), and black sage (*Salvia mellifera*; Ornduff et al. 2003). Additional common species include brittlebush (*Encelia californica*), chamise (*Adenostoma fasciculatum*), white sage (*Salvia apiana*), Our Lord's candle (*Hesperoyucca whipplei*), and prickly pear cactus (*Opuntia*; Hall 2007).

Large native land mammals of the region included mule deer (*Odocoileus hemionus*), bighorn sheep ([1]‡*Ovis canadensis*), tule elk (‡*Cervus canadensis nannodes*), pronghorn (‡*Antilocapra americana*), bison (‡*Bison bison*), bobcat (‡*Lynx rufus*), mountain lion (‡*Felis concolor*), jaguar (‡*Panthera onca*), coyote (*Canis latrans*), grey wolf (‡*Canis lupus*), black and grizzly bears

[1] ‡ - indicates that the species has been extirpated from Southern California.

(‡*Ursus americanus*, ‡*Ursus arctos*). Smaller native fauna included rabbits (‡*Lepus californicus, Sylvilagus audubonii*, ‡*Sylvilagus bachmani*), desert tortoise (‡*Gopherus agassizii*), and numerous other species (California Department of Fish and Game 2020).

Today, after approximately a century of urban and suburban development, the vegetation of the area is instead typified by imported species. Grasses such as slender wild oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), and giant reed (*Arundo donax*); shrubs and trees including blackwood acacia (*Acacia melanoxylon*), saltcedar (*Tamarix ramosissima*), eucalyptus (*Eucalyptus* spp.), and Brazilian pepper (*Schinus terebinthifolius*) are common (Cal-IPC 2006). In recent history, urban development has driven most animals from the area, although mule deer, bobcat, and coyotes still occur in the surrounding hills.

PREHISTORIC SETTING

Approaches to prehistoric frameworks have changed over the past half century from being based on material attributes to radiocarbon chronologies to association with cultural traditions. Archaeologists defined a material complex consisting of an abundance of milling stones (for grinding food items) with few projectile points or vertebrate faunal remains dating from about 7 to 3 thousand years before the present as the "Millingstone Horizon" (Wallace 1955). Later, the "Millingstone Horizon" was redefined as a cultural tradition named the Encinitas Tradition (Warren 1968) with various regional expressions including Topanga and La Jolla. Use by archaeologists varied as some adopted a generalized Encinitas Tradition without regional variations, some continued to use "Millingstone Horizon" and some used Middle Holocene (the time period) to indicate this observed pattern (Sutton and Gardner 2010:1-2).

Recently, it was recognized that generalized terminology is suppressing the identification of cultural, spatial, and temporal variation and the movement of peoples throughout space and time. These factors are critical to understanding adaptation and change (Sutton and Gardner 2010:1-2). The Encinitas Tradition characteristics are abundant metates and manos, crudely made core and flake tools, bone tools, shell ornaments, very few projectile points with subsistence focusing on collecting (plants, shellfish, etc.; Sutton and Gardner 2010:7). Faunal remains vary by location but include shellfish, land animals, marine mammals, and fish.

The Encinitas Tradition is currently redefined as comprising four geographical patterns (Sutton and Gardner 2010:8-25). These are (1) Topanga in coastal Los Angeles and Orange counties, (2) La Jolla in coastal San Diego County, (3) Greven Knoll in inland San Bernardino, Riverside, Orange, and Los Angeles counties, and (4) Pauma in inland San Diego County.

About 3,500 years before present the Encinitas Tradition was replaced in the greater Los Angeles Basin by the Del Rey Tradition (Sutton 2010). This tradition has been generally assigned to the Intermediate and Late Prehistoric periods. The changes that initiated the beginning of the

Intermediate Period include new settlement patterns, economic foci, and artifact types that coincided with the arrival of a biologically distinctive population. The Intermediate and Late Prehistoric periods have not been well-defined. Many archaeologists have proposed, however, that the beginning of the Intermediate marked the arrival of Takic-speaking groups (from the Mojave Desert, southern Sierra Nevada, and San Joaquin Valley) and that the Late Prehistoric Period reflected Shoshonean groups (from the Great Basin). Related cultural and biological changes occurred on the southern Channel Islands about 300 years later.

As defined by Sutton (2010), the Del Rey Tradition replaces usage of the Intermediate and Late Prehistoric designations for both the southern California mainland and the southern Channel Islands. Within the Del Rey Tradition are two regional patterns named Angeles and Island. The Del Rey Tradition represents the arrival, divergence, and development of the Gabrielino in southern California.

PREHISTORIC CHRONOLOGY

The latest cultural revisions for the Project Area define traits for time phases of the Topanga pattern of the Encinitas Tradition applicable to coastal Los Angeles and Orange counties (Sutton and Gardner 2010; Table 2). This pattern is replaced in the Project Area by the Angeles pattern of the Del Rey Tradition later in time (Sutton 2010).

Table 2. Cultural Patterns and Phases

Phase	Dates BP	Material Culture	Other Traits
Topanga I	8,500 to 5,000	Abundant manos and metates, many core tools and scrapers, few but large points, charmstones, cogged stones, early discoidals, faunal remains rare	Shellfish and hunting important, secondary burials under metate cairns (some with long bones only), some extended inhumations, no cremations
Topanga II	5,000 to 3,500	Abundant but decreasing manos and metates, adoption of mortars and pestles, smaller points, cogged stones, late discoidals, fewer scraper planes and core tools, some stone balls and charmstones	Shellfish important, addition of acorns, reburial of long bones only, addition of flexed inhumations (some beneath metate cairns), cremations rare
Topanga III	3,500 to 1,000	Abundant but decreasing manos and metates, increasing use of mortars and pestles, wider variety of small projectile points, stone-lined ovens	Hunting and gathering important, flexed inhumations (some under rock cairns), cremations rare, possible subsistence focus on yucca/agave
Angeles IV	1,000 to 800	Cottonwood arrow points for arrows appear, Olivella cupped beads and Mytilus shell disks appear, some imported pottery appears, possible appearance of ceramic pipes	Changes in settlement pattern to fewer but larger permanent villages, flexed primary inhumations, cremations uncommon
Angeles V	800 to 450	Artifact abundance and size increases, steatite trade from islands increases, larger and more elaborate effigies	Development of mainland dialect of Gabrielino, settlement in open grasslands, exploitation of marine resources declined and use of small seeds increased, flexed primary inhumations, cremations uncommon

Phase	Dates BP	Material Culture	Other Traits
Angeles VI	450 to 150	Addition of locally made pottery, metal needle-drilled Olivella beads, addition of Euro-American material culture (glass beads and metal tools)	Use of domesticated animals, flexed primary inhumations continue, some cremations

Topanga Pattern groups were relatively small and highly mobile. Sites known are temporary campsites, not villages and tend to be along the coast in wetlands, bays, coastal plains, near-coastal valleys, marine terraces, and mountains. The Topanga toolkit is dominated by manos and metates with projectile points scarce (Sutton and Gardner 2010:9).

In Topanga Phase I other typical characteristics were a few mortars and pestles, abundant core tools (scraper planes, choppers, and hammerstones), relatively few large, leaf-shaped projectile points, cogged stones, and early discoidals. Secondary inhumation under cairns was the common mortuary practice. In Orange County as many as 600 flexed burials were present at one site and dated 6,435 radiocarbon years before present (Sutton and Gardner 2010:9, 13).

In Topanga Phase II, flexed burials and secondary burial under cairns continued. Adoption of the mortar and pestle is a marker of this phase. Other typical artifacts include manos, metates, scrapers, core tools, discoidals, charmstones, cogged stones and an increase in the number of projectile points. In Orange County stabilization of sea level during this time period resulted in increased use of estuary, near shore, and local terrestrial food sources (Sutton and Gardner 2010:14-16).

In Topanga Phase III, there was continuing abundance of metates, manos, and core tools plus increasing amounts of mortars and pestles. More numerous and varied types of projectile points are observed along with the introduction of stone-line earthen ovens. Cooking features such as these were possibly used to bake yucca or agave. Both flexed and extended burials are known (Sutton and Gardner 2010:17).

The Angeles pattern generally is restricted to the mainland and appears to have been less technologically conservative and more ecologically diverse, with a largely terrestrial focus and greater emphases on hunting and nearshore fishing (Sutton 2010).

The Angeles IV phase is marked by new material items including Cottonwood points for arrows, Olivella cupped beads, Mytilus shell disks, birdstones (zoomorphic effigies with magico-religious properties), and trade items from the Southwest including pottery. It appears that populations increased and that there was a change in the settlement pattern to fewer but larger, permanent villages. Presence and utility of steatite vessels may have impeded the diffusion of pottery into the Los Angeles Basin. The settlement pattern altered to one of fewer and larger permanent villages. Smaller special-purpose sites continued to be used (Sutton 2010).

Angeles V components contain more and larger steatite artifacts, including larger vessels, more elaborate effigies, and comals. Settlement locations shifted from woodland to open grasslands. The exploitation of marine resources seems to have declined and use of small seeds increased. Many Gabrielino inhumations contained grave goods while cremations did not (Sutton 2010).

The Angeles VI phase reflects the ethnographic mainland Gabrielino of the post-contact period (i.e., after A.D. 1542; Sutton 2010). One of the first changes in Gabrielino culture after contact was undoubtedly population loss due to disease, coupled with resulting social and political disruption. Angeles VI material culture is essentially Angeles V augmented by a number of Euro-American tools and materials, including glass beads and metal tools such as knives and needles (used in bead manufacture). The frequency of Euro-American material culture increased through time until it constituted the vast majority of materials used. Locally produced brownware pottery appears along with metal needle-drilled Olivella disk beads.

The ethnographic mainland Gabrielino subsistence system was based primarily on terrestrial hunting and gathering, although nearshore fish and shellfish played important roles. Sea mammals, especially whales (likely from beached carcasses), were prized. In addition, a number of European plant and animal domesticates were obtained and exploited. Ethnographically, the mainland Gabrielino practiced interment and some cremation.

ETHNOGRAPHY

Early Native American peoples of the Project Area are poorly understood. They were replaced about 1,000 years ago by the Gabrielino (Tongva) who semi-sedentary hunters and gatherers were. The Gabrielino speak a language that is part of the Takic language family. Their territory encompassed a vast area stretching from Topanga Canyon in the northwest, to the base of Mount Wilson in the north, to San Bernardino in the east, Aliso Creek in the southeast and the Southern Channel Islands, in all an area of more than 2,500 square miles (Bean and Smith 1978; McCawley 1996; Figure 5). At European contact, the tribe consisted of more than 5,000 people living in various settlements throughout the area. Some of the villages could be quite large, housing up to 150 people.

The Gabrielino are considered to have been one of the wealthiest tribes and to have greatly influenced tribes they traded with (Kroeber 1976:621). Houses were domed, circular structures thatched with tule or similar materials (Bean and Smith 1978:542). The best known artifacts were made of steatite and were highly prized. Many common everyday items were decorated with inlaid shell or carvings reflecting an elaborately developed artisanship (Bean and Smith 1978:542).

The main food zones utilized were marine, woodland and grassland (Bean and Smith 1978). Plant foods were, by far, the greatest part of the traditional diet at contact. Acorns were the most

important single food source. Villages were located near water sources necessary for the leaching of acorns, which was a daily occurrence. Grass seeds were the next most abundant plant food used along with chia. Seeds were parched, ground, and cooked as mush in various combinations according to taste and availability. Greens and fruits were eaten raw or cooked or sometimes dried for storage. Bulbs, roots, and tubers were dug in the spring and summer and usually eaten fresh. Mushrooms and tree fungus were prized as delicacies. Various teas were made from flowers, fruits, stems, and roots for medicinal cures as well as beverages (Bean and Smith 1978:538-540).

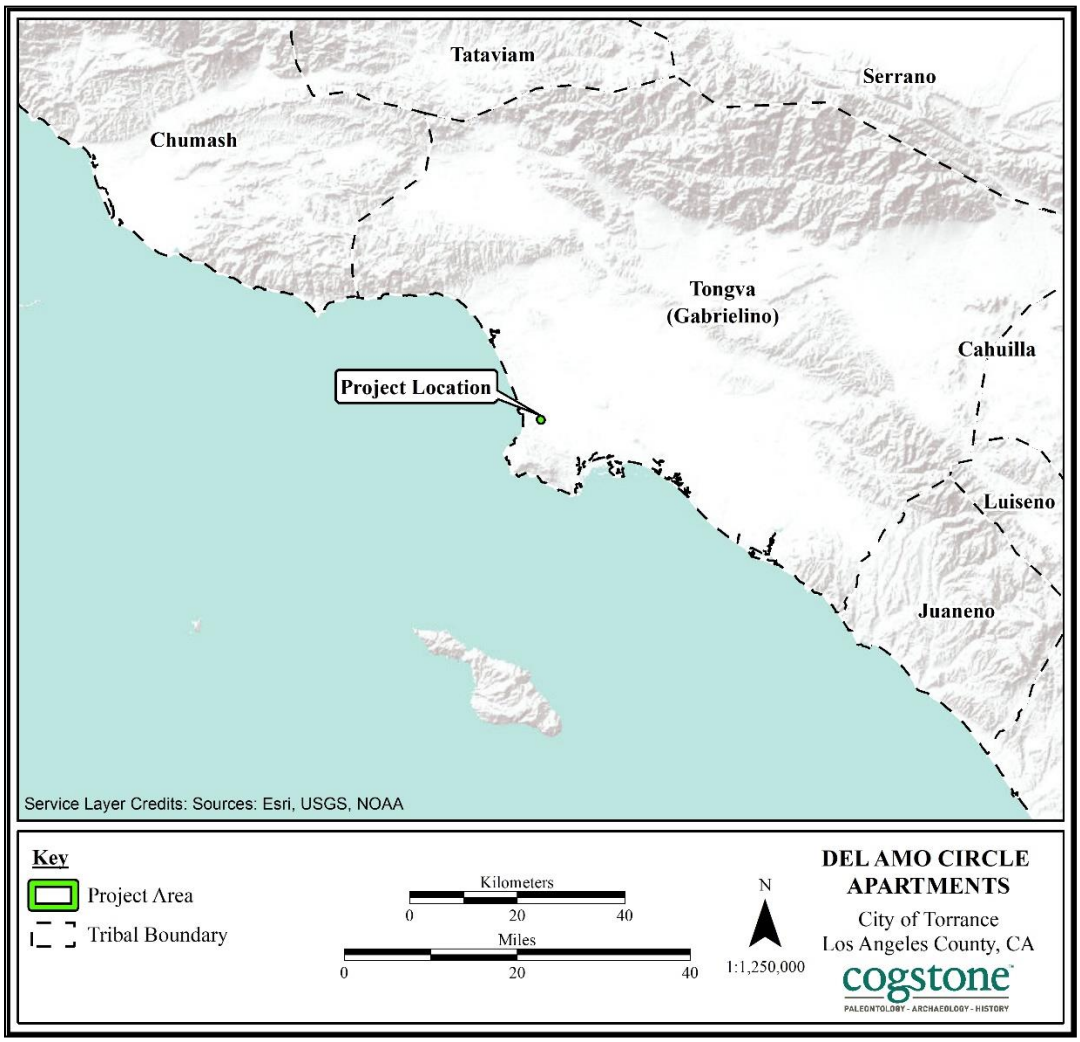

Figure 4. Tribal boundary map

The principal game animals were deer, rabbit, jackrabbit, woodrat, mice, ground squirrels, antelope, quail, dove, ducks, and other birds. Most predators were avoided as food, as were tree squirrels and most reptiles. Trout and other fish were caught in the streams, while salmon were available when they ran in the larger creeks. Marine foods were extensively utilized. Sea mammals, fish, and crustaceans were hunted and gathered from both the shoreline and the open

ocean, using reed and dugout canoes. Shellfish were the most common resource, including abalone, turbans, mussels, clams, scallops, bubble shells, and others (Bean and Smith 1978:538-540).

The Project Area was not home to any known major villages. However, smaller villages and seasonal camps may have been present.

HISTORIC SETTING

EARLY CALIFORNIA HISTORY

Juan Cabrillo was the first European to sail along the coast of California in 1542 and was followed in 1602 by Sebastian Vizcaino. Between 1769 and 1822 the Spanish had colonized California and established missions, presidios and pueblos (Bean and Rawls 1993).

In 1821 Mexico won its independence from Spain and worked to lessen the wealth and power held by the missions. The Secularization Act was passed in 1833, giving the vast mission lands to the Mexican governor and downgrading the missions' status to that of parish churches. The governor then redistributed the former mission lands in the form of grants, to private owners. Ranchos in California numbered over 500 by 1846, all but approximately 30 of which resulted from land grants (Bean and Rawls 1993). The Project Area is within the former San Pedro (Dominguez) land grant (Figure 5).

Following the signing of the Treaty of Guadalupe Hidalgo on February 2, 1848, which ceased American/Mexican hostilities, the region transitioned to the American Period of California. In 1850, California was granted statehood and although the United States promised to honor the land grants, the process of defining rancho boundaries and proving legal ownership became time consuming and expensive. Legal debts led to bankruptcies followed by the rise in prices of beef, hide, and tallow. This combined with flooding and drought was detrimental to the cattle industry. Ranchos were divided up and sold inexpensively (Robinson 1948).

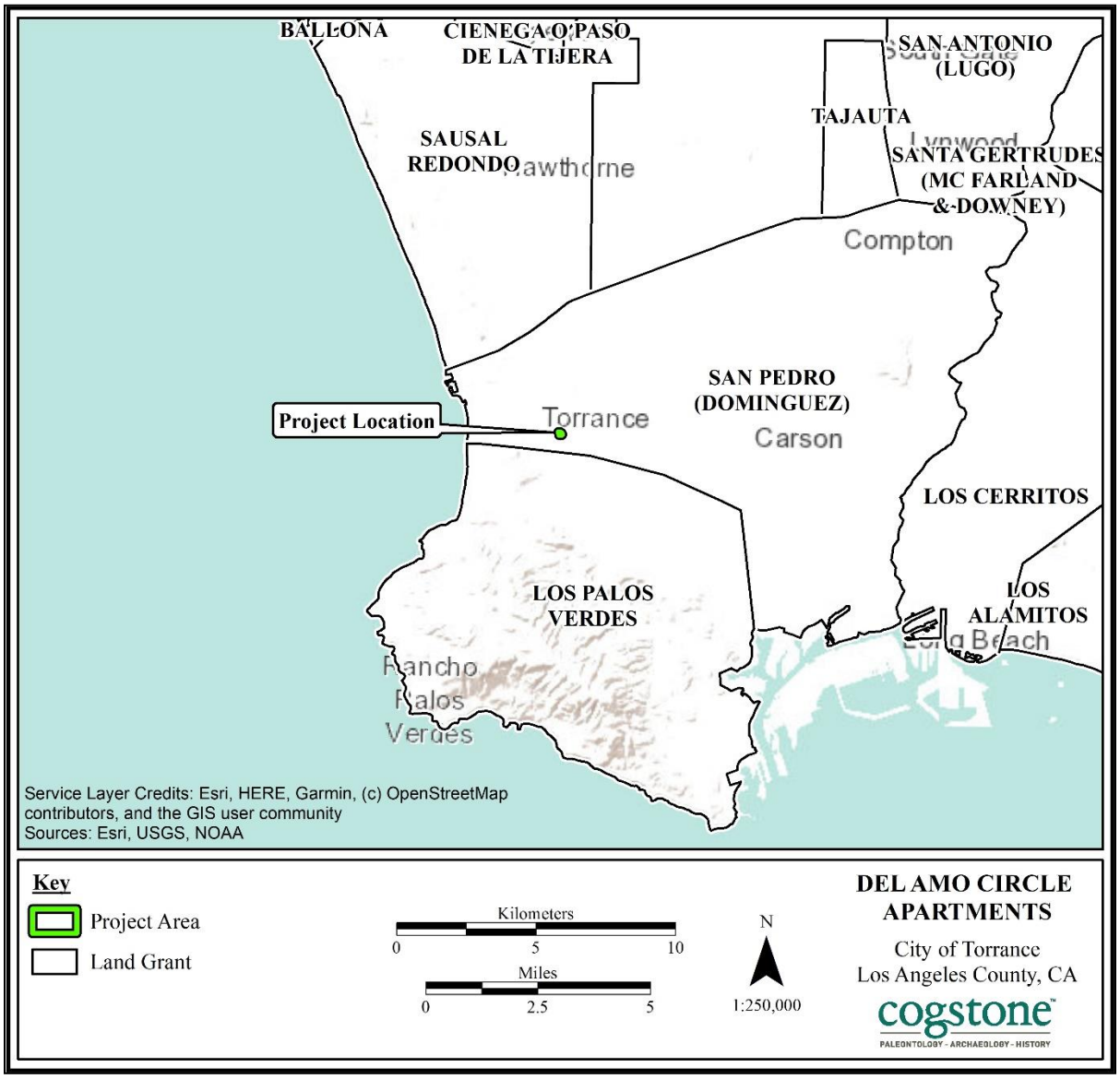

Figure 5. Land grant map

CITY OF TORRANCE HISTORY

The origins of the City of Torrance began with the Spanish and Mexican ranchos of California in the late 1700s through the mid-1800s. Parts of Torrance belonged to Rancho San Pedro, which was granted to Juan Jose Dominguez by the Spanish Crown in 1784. Ownership of California transferred from Mexico to the United States following the end of the Mexican-American War. Under the California Land Settlement Act of 1851, Mexican rancho owners were required to provide proof of land ownership to be confirmed by the United States government. Years of expensive lawsuits and the decline of the California cattle industry incurred massive debt upon the rancho owners who were forced to sell much of their land. (Gerber 2008).

In 1847, just prior to the California Land Settlement Act of 1851, American Benjamin Stone Weston purchased 3,000 acres of Rancho San Pedro from the Sepulveda family. Weston used the land for both ranching and farming; due to a lack of water the practice of "dry farming" was necessary. Throughout the latter half of the 19th century, the area of Torrance as well as the rest of the South Bay region successfully reared sheep, horses, cattle, barley, hay, lima beans, strawberries, and celery. In the early 20th century, poultry farming rose to become an important industry in the South Bay (Gerber 2008).

During the 1910s, successful real estate developer Jared Sidney Torrance along with a group of investors began drafting ideas for a "Planned Modern Industrial City" which incorporated both industrial and residential use. Torrance and his fellow investors formed the Dominguez Land Company and purchased 3,500 acres of land from the Dominguez family. The Dominguez Land Company then hired the Olmstead Brother's firm to design the planned community. Ground was officially broken in 1912 and the future city was named after Jared Torrance. The city of Torrance was held as a private city from 1912 to 1921. By 1921, the population of Torrance consisted of 1,800 people. A vote was passed to incorporate in May of that same year, and a Board of Trustees was installed to serve as the city's governing body.

In 1927, General Petroleum purchased a large swath of land in the northern part of the city for the purpose of constructing a refinery to process oil from Kern County. The refinery opened in 1929 and eventually became the Torrance Refining Company. During the Great Depression, Torrance experienced a substantial decrease in industrial production and a decline in employment. However, due to the diversity of the city's economics, Torrance's agricultural industry and oil refinery provided income to local farmers and workers.

After World War II, during the latter half of the 1940s, Torrance maintained its agricultural and dairy farms. With the surge of southern California's population growth in the 1950s, large tracts of land in Torrance were transformed into housing developments to keep pace with the increasing demand for housing. During this period, the city population grew from 20,000 to 100,000, making it one of the fastest growing cities in the United States (Gerber 2008).

TORRANCE FINANCIAL CENTER

The Torrance Financial Center (now the Del Amo Crossing) consists of APNs 7525-023-030, 031, 032, 033, 034, 035, and 036.

In the 1960s, the City of Torrance continued a period of residential and commercial growth. At the beginning of the decade, Torrance was the third largest city in Los Angeles County and with the completion of a new mall and developments along Hawthorne Boulevard, it became the shopping destination of region. In 1967, construction began on the Torrance Financial Center currently located at Carson Street and Hawthorne Boulevard. The first phase of the project included a 12-story building, and several smaller towers and single story buildings. At the time

of its completion, the 12-story Union Bank tower was the tallest building in the South Bay. Future plans for the project included two additional 12-story towers and associated smaller buildings, but this design was never completed (City of Torrance 2018; Figures 6 and 7).

In 2015, the Torrance Financial Center was sold by Jamison Properties, a Los Angeles commercial property landlord, to Muller Co. (an Irvine based real estate investment company) and GreenOak Real Estate (real estate private equity investment firm). It was then renamed Del Amo Crossing. Between 2018 and 2021, a fitness center (24 Hours Fitness) and a one story commercial building were constructed within the northeast boundary of Del Amo Crossing. In 2016, an Environmental Checklist Form (ECF) was completed for a project titled "Del Amo Financial Plaza Redevelopment." The project proposed to construct and operate a new fitness center (with subterranean parking), a new restaurant, and convert an existing professional office building to medical offices, on a site located on the southeast corner of Hawthorne Boulevard and Del Amo Circle Drive. The report states:

"The project site is located within an urbanized area and no historical resources exist on the project site or in the immediate vicinity. The *Community Resources Element of the City of Torrance General Plan* does not list the project site as a location of historic interest to the City. In addition, the project site is not registered under the State or National Register of Historic Places. Therefore, no impacts to historical resources would occur, and no mitigation measures would be required."

The *Community Resources Element of the City of Torrance General Plan* referenced in the 2016 report was adopted on April 6, 2010 and at that time the Torrance Financial Center was 43 years old and, therefore, would not have been assessed for historic significance as it did not yet meet the minimum threshold of 45 years or older to be considered historic in age (City of Torrance 2010). At the time of the 2016 ECF report, the Torrance Financial Center was 49 years old and review of the California Register of Historical Resources (CRHR) or the National Register of Historic Places (NRHP) would have been premature, as it is unlikely The Center would have been fully assessed and listed (if found eligible) on any State or National register at that time.

The Project Area consists of a large section of the Torrance Financial Center's parking lot and landscaping which is directly associated with the design and use of The Center as a whole. No evidence showing that the Torrance Financial Center has been fully evaluated under CEQA for potential historical significance can be found. Recent construction on, and adjacent to, the Torrance Financial Center property has resulted in a notable loss of integrity of feeling and integrity of setting. This current Project redevelops a portion of the parking lot but does not directly affect the Center buildings, and its visual impact will be largely screened by the previously developed parking structure. As the Center buildings have not been directly affected by development it is unlikely the Center has been impacted to the degree that it has caused a substantial adverse effect.

Figure 6. Concept design for the Torrance Financial Center

Figure 7. Completed Financial Center (date of photo not known)

PROJECT AREA HISTORY

The earliest USDA aerial photograph (1954) shows the Project Area as farmland with an unimproved dirt access road traversing west/east through its center (NETROnline 1954). Between 1963 and 1972 the Project Area was developed into a paved parking lot with associated landscaping as part of the Torrance Financial Center immediately to the north and east

(NETROnline 1963, 1972). There was no change within the Project Area through 2018 except for the natural growth of trees within the landscaped area (NETROnline 1972 to 2018). A driveway on the northwest side of the Project Area was constructed in ca. 2022, which allows traffic to and from Del Amo Circle West (Google Maps 2022).

RECORDS SEARCHES

PALEONTOLOGICAL RECORD SEARCH

A paleontological record search of the Project was obtained from the Natural History Museum of Los Angeles County (Bell 2022; Appendix B). Additional records from the University of California Museum of Paleontology database (UCMP 2022), the PaleoBiology Database (PBDB 2022), and print sources were searched for fossil records.

No recorded paleontological localities producing vertebrate fossils were found within one mile of the Project Area. Five localities are known from Pleistocene deposits between one and five miles and another 19 localities were found between six and ten miles from the Project. Extinct megafauna from these sites include mammoth (†*Mammuthus* sp. cf. *M. columbi*, †*Mammuthus* sp.), mastodon (†*Mammut* sp.), ground sloth (†*Megalonyx*), horse (†*Equus* sp.), tapir (†*Tapirus* sp.), pronghorn (†*Breameryx* sp.), camel (†Camelidae), and bison (†*Bison* sp. cf. *B. antiquus*, †*Bison* sp.; Table 3). All of the fossils were a minimum of five feet deep in deposits mapped as late Pleistocene at the surface, while sediments with a Holocene component produced fossils starting at 24 feet deep.

Table 3. Fossil localities from near to the Project Area

Common Name	Taxon	Depth below original surface	Formation mapped at surface	Age/ dates	Locality	Location	Reference
mastodon	†*Mammut* sp.	unknown	Palos Verdes sand San Pedro sand	Pleistocene	LACM 3265	Chandler Company west gravel pit,	Bell 2022
whale	Cetacea						
mastodon	†*Mammut* sp.	unknown	unknown	Pleistocene	LACM 3249		Bell 2022
bison	†*Bison* sp.						
camel	†*Camelops* sp.						
ground sloth	†*Megalonyx*						
horse	†*Equus* sp.						
tapir	†*Tapirus* sp.						
Stellar's sea lion	*Eumetopias*						
camel	†Camelidae	24 feet	younger alluvial fan (Qya)	Pleistocene-Holocene	LACM 4129	Carson: Alameda or 223rd St	Bell 2022
Columbian mammoth	†*Mammuthus* sp. cf. *M. columbi*	unknown	older marine (Qom)	late Pleistocene	LACM 1005	Long Beach: Bixby Park	McLeod 2017a
Aves	Unknown	Unknown	Palos Verdes Sand	Pleistocene	LACM 1809	Harbor City – Gaffey St and Anaheim Ave	Jefferson 1991
bison	†*Bison* sp.	5 feet	older alluvium (Qoa)	late Pleistocene	LACM 1163	Wilmington: west of SR 103, near the Anaheim St or Henry Ford Ave	McLeod 2019
bison	†*Bison* sp.	unknown	younger alluvial fan (Qyf)	Pleistocene-Holocene	LACM 1165	Carson: Alameda St or Sepulveda Blvd	McLeod 2019
sea lion	*Zalophus* sp.	less than 48 feet	older marine (Qom)	late Pleistocene	LACM 1144	Long Beach: south of Anaheim St; near the Loma Vista Dr or Crystal Court intersection	McLeod 2019
camel	†Camelidae						
bison	†*Bison* sp.						
same as LACM 1144	same as LACM 1144	less than 48 feet	older marine (Qom)	Pleistocene	LACM 3550	Long Beach: near 12th St and Pine Ave intersection	McLeod 2019
whale	Cetacea	less than 100 feet	older marine (Qom)	Pleistocene	LACM 6896	Long Beach: near the Magnolia Ave or Ocean Blvd intersection	McLeod 2017a
mammoth	†*Mammuthus* sp.	10 feet	older alluvium (Qoa)	Pleistocene	LACM 1919	Dominguez Hills: west of Wilmington Ave., south of 223rd St	McLeod 2017b
mammoth	†*Mammuthus* sp.	unknown	older marine (Qom)	Pleistocene	LACM 1021	Long Beach: south of I-405; near the Spring St or Cherry Ave intersection	Jefferson 1991, McLeod 2017b
bird	Aves						
mammoth	†*Mammuthus* sp.	unknown	older marine (Qom)	Pleistocene	LACM 1932	Long Beach: near the Spring St or Cherry Ave intersection	Jefferson 1991, McLeod 2017a
mammoth	†*Mammuthus* sp.	19 feet	older marine (Qom)	Pleistocene	LACM 3660	Lakewood: south of Carson St; along Cover St between Pixie Ave or Paramount Blvd	McLeod 2017a

Common Name	Taxon	Depth below original surface	Formation mapped at surface	Age/ dates	Locality	Location	Reference
indeterminate vertebrates	Vertebrata	unknown	older marine (Qom)	Pleistocene	LACM 6802	Lakewood: near Bixby Rd between Atlantic Ave or Orange Ave	McLeod 2017a
horse	†*Equus sp.*	unknown	older alluvium (Qoa)	Pleistocene	UCMP V65109	Long Beach: Signal Hill	UCMP 2022
bony fish	Osteichthyes	unknown	older marine (Qom)	Pleistocene	UCMP A1483	Long Beach: Signal Hill	UCMP 2022
tapir	†*Tapirus* sp.	unknown	older marine (Qom)	late Pleistocene	LACM 2031	Long Beach: Belmont Pier	Jefferson 1991
bison	†*Bison* sp. cf. *B. antiquus*						
mammoth	†*Mammuthus* sp.	19 feet	older marine (Qom)	Pleistocene	LACM 3660	Lakewood: south of Carson St; along Cover St between Pixie Ave or Paramount Blvd	McLeod 2017a
mammoth	†*Mammuthus* sp.	unknown	older alluvium (Qoa)	Pleistocene	LACM 6746	Long Beach: 7th St west of Pacific Coast Highway; Long Beach	McLeod 2011
mammoth	†*Mammuthus* sp.	8-10 feet	older alluvium (Qoa)	Pleistocene	LACM 1643	Dominguez Hills: near 190th or Annalee Ave.	Jefferson 1991, McLeod 2017a
mammoth	†*Mammuthus* sp.	5 feet	older alluvium (Qoa)	Pleistocene	LACM 3382	Compton: west of the I-710, east of Wilmington Ave., north of Artesia Blvd.	Jefferson 1991, McLeod 2017a
elephant relative	†Proboscidea	30 feet	older alluvium (Qoa)	late Pleistocene	LACM 3319	Long Beach: east of Wilmington Ave north of Artesia Blvd	Jefferson 1991, McLeod 2017a
bison	†*Bison* sp.	unknown					
mammoth	†*Mammuthus* sp.	15 to 20 feet	older alluvium (Qoa)	late Pleistocene	LACM 1344, 3266, 3365	South Los Angeles: near I-110 and Athens on the Hill	McLeod 2017a
squirrel	Sciuridae						
horse	†*Equus* sp.						
pronghorn	†*Breameryx* sp.						

CALIFORNIA HISTORIC RESOURCES INFORMATION SYSTEM

Sandy Duarte completed a cultural records search at the South Central Coastal Information Center (SCCIC) on the campus of CSU Fullerton on September 7, 2022. Results of the record search indicate that three previous studies have been completed within the proposed Project Area and an additional four gave been completed within the one-half mile search radius (Table 4).

Table 4. Previous studies within one-half mile of Project Area

Report No.	Author(s)	Title	Year	Distance (miles) from Project Area
LA-00927	Van Horn, David M.	Ultrasystems Project #4296: Archaeological Report	1977	0.25-0.50
LA-04998	Lapin, Philippe	Cultural Resource Assessment for Pacific Bell Wireless Facility Sm 010-01, County of Los Angeles, California	2000	0.25-0.50
LA-05584	Wallock, Nicole	Cultural Resource Assessment: Cingular Wireless Facility No. Sm 010-03 Los Angeles County, California	2001	0.25-0.50
LA-10333	McKenna, Jeanette M.	A Brief Historic Context Statement Prepared for the General Plan Update: The City of Torrance, Los Angeles County, California	2009	Within PA
LA-10567	Hogan, Michael, Bai "Tom" Tang, Josh Smallwood, Laura Hensley Shaker, and Casey Tibbitt	Identification and Evaluation of Historic Properties - West Basin Municipal Water District Harbor- South Bay Water Recycling Project Proposed Project Laterals	2005	Within PA
LA-11150	Maxwell, Pamela	West Basin Municipal Water District Harbor/ South Bay Water Recycling Project	2003	Within PA
LA-12313	Bonner, Wayne and Crawford, Kathleen	Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate LA02608A (LA608 Del Amo Mall) 3812 Sepulveda Boulevard, Torrance, Los Angeles County, California	2012	0.5

The results of the records search also indicate that there are no previously recorded cultural resources within the Project Area or within the one-half mile search radius.

In addition to the SCCIC records search, a variety of sources were consulted in July 2022 to obtain information regarding the cultural context of the Project vicinity (Table 5). Sources included the NRHP, CRHR, Built Environment Resource Directory (BERD), California Historical Landmarks (CHL), and California Points of Historical Interest (CPHI). Specific information about the Project Area, obtained from historic-era maps and aerial photographs, is presented in the Project Area History section.

Table 5. Additional Sources Consulted

Source	Results
National Register of Historic Places (NRHP)	Negative
Historic USGS Topographic Maps	see Project Area History section
Historic US Department of Agriculture Aerial Photographs	see Project Area History section
California Register of Historical Resources (CRHR)	Negative
Built Environment Resource Directory (BERD)	Negative
California Historical Landmarks (CHL)	Negative
California Points of Historical Interest (CPHI)	Negative
Bureau of Land Management (BLM) General Land Office Records	Positive; See Table 6
Local Registers (Historical Societies/Archives)	Negative

Table 6. Land Patents

Name(s)	Year	Accession Number	Type	T; R; Section
Jose Aquina Andres Dominguez Esteban Dominguez Feliciana Dominguez Jose Dominguez Madalina Dominguez Manuel Dominguez Maria Dominguez Maria Jesus Dominguez Pedro Dominguez	1858	CACAAA 084909	Grant-Spanish/Mexican	T4S; R14W; Sec16
Jose Lorebo Sepulveda	1880	CACAAA 084938	Grant-Spanish/Mexican	T4S; R14W; Sec16
USA	1870	CACAAA 003913 02	Indemnity List Base-Valid Lie	T4S; R14W; Sec16

NATIVE AMERICAN CONSULTATION

A Sacred Lands File (SLF) search was requested from the Native American Heritage Commission (NAHC) on July 1, 2022. On August 15, 2022, the NAHC responded that a search of the SLF was completed with negative results and provided a list of eight tribes that may have information about the Project Area (Appendix C). The City will be completing the Native American consultations in compliance with Assembly Bill (AB) 52.

HISTORICAL SOCIETY CONSULTATION

On July 1, July 21, and July 29, 2022, three separate attempts were made via USPS to contact the Torrance Historical Society. No response has yet been received. On July 29, 2022, a request for information regarding the Project was sent via email to Erik Van Breen of the Los Angeles Conservancy. On July 29, 2022, Mr. Van Breene responded via email stating that the

Conservancy has no comments at this time. He also asked to confirm that none of the adjacent historic age buildings will be demolished as part of this Project. Cogstone responded that the existing buildings will not be demolished as part of this Project (Appendix D).

SURVEY

METHODS

The survey stage is important in a Project's environmental assessment phase to verify the exact location of each identified cultural resource, the condition or integrity of the resource, and the proximity of the resource to areas of cultural resources sensitivity. All undeveloped ground surface areas within the ground disturbance portion of the Project Area were examined. Existing ground disturbances (e.g., cutbanks, ditches, animal burrows, etc.) were visually inspected. Photographs of the Project Area, including ground surface visibility and items of interest, were taken with a digital camera.

For paleontological resources, the purpose is to confirm that field observations conform to the geological maps of the Project Area. Sediments were assessed for their potential to contain fossils. Additionally, if there are known paleontological resources the survey will verify the exact location of those resources, the condition or integrity of each resource, and the proximity of the resource to the Project Area.

For cultural resources, the purpose is to verify the exact location of each identified resource, the condition or integrity of the resource, and the proximity of the resource to areas of cultural resources sensitivity, if any. The surveyor searched for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), or historic-era debris (e.g., metal, glass, ceramics).

RESULTS

Cogstone archaeologist and cross-trained paleontologist Sandy Duarte surveyed the Project Area on July 27, 2022. Due to the heavily developed Project Area, the pedestrian survey consisted of 10-meter wide transects. Ground visibility within the Project Area was very poor (less than 2 percent) due to hardscaping and landscaping (Figure 8). Where not landscaped, much of the area was covered in dry grass, weeds, duff, eucalyptus trees, and pine trees (Figure 9). All exposed areas with old eolian deposits had been hardscaped and landscaped. No cultural or paleontological resources were observed within the Project Area during the survey.

Figure 8. South to southeast boundary, facing west

Figure 9. southwest corner of Project Area, facing east

STUDY FINDINGS AND CONCLUSIONS

PALEONTOLOGICAL SENSITIVITY

A multilevel ranking system was developed by professional resource managers within the Bureau of Land Management (BLM) as a practical tool to assess the sensitivity of sediments for fossils. The Potential Fossil Yield Classification (PFYC) system (BLM 2016; Appendix E) has a multi-level scale based on demonstrated yield of fossils. The PFYC system provides additional guidance regarding assessment and management for different fossil yield rankings.

Fossil resources occur in geologic units (e.g., formations or members). The probability for finding significant fossils in a Project Area can be broadly predicted from previous records of fossils recovered from the geologic units present in and/or adjacent to the study area. The geological setting and the number of known fossil localities help determine the paleontological sensitivity according to PFYC criteria

All alluvial deposits may increase or decrease in fossiliferous potential depending on how coarse the sediments are. Sediments that are close to their basement rock source are typically coarse; those farther from the basement rock source are finer. The chance of fossils being preserved greatly increases once the average size of the sediment particles is reduced to 5 mm or less in diameter. Moreover, fossil preservation also greatly increases with rapid burial in flood-plains, rivers, lakes, oceans, etc. Remains left on the ground surface become weathered by the sun or consumed by scavengers and bacterial activity, usually within 20 years or less. So the sands, silts, and clays of flood-plains, rivers, lakes, and oceans are the most likely sediments to contain fossils.

Using the PFYC system, geologic units are classified according to the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts within the known extent of the geological unit. Although significant localities may occasionally occur in a geologic unit, a few widely scattered important fossils or localities do not necessarily indicate a higher PFYC value; instead, the relative abundance of localities is intended to be the major determinant for the value assignment.

The Project is mapped entirely as middle to late Pleistocene old eolian deposits. A records search revealed that all of the fossils previously recovered within a 10-mile radius were a minimum of five feet deep in deposits mapped as Pleistocene at the surface. As such the Project sediments less than five feet below the modern surface are assigned a low potential for fossils (PFYC 2) due to the lack of fossils in these deposits. Sediments more than five feet below the modern surface are assigned a moderate potential for fossils (PFYC 3) due to similar deposits producing fossils at that depth near to the study area.

CULTURAL RESOURCES SENSITIVITY

Based on the results of the pedestrian survey, the cultural records search, and the negative sacred lands file search, the Project Area has low sensitivity for prehistoric cultural resources. Analysis of these data sources and historical USDA aerial photographs indicate that the Project Area also has low sensitivity for buried historical archaeological features such as foundations or trash pits.

RECOMMENDATIONS

PALEONTOLOGY

The Project Area is mapped entirely as entirely as middle to late Pleistocene old eolian deposits. The record search revealed no fossil localities from within the Project or immediate vicinity; however, localities are known from similar sediments as found within the study area near to the Project.

Middle to late Pleistocene old eolian deposits less than five feet below the modern surface are assigned a low potential for fossils (PFYC 2) due to the lack of fossils in these deposits. More than five feet below the modern surface these sediments are assigned a moderate potential for fossils (PFYC 3) due to similar deposits producing fossils at that depth near to the study area.

Based on fossils found in similar sediments nearby, full time monitoring is currently recommended for the mass excavations below a depth of five feet. Drilling or pile driving activities regardless of depth, have a low potential to produce fossils meeting significance criteria because any fossils brought up by the auger during drilling will not have information about formation, depth or context.

If unanticipated fossil discoveries are made, all work must halt within 50 feet until a qualified paleontologist can evaluate the find. Work may resume immediately outside of the 50 foot radius.

CULTURAL RESOURCES

As the Project Area has low sensitivity for buried cultural resources, no further cultural resources work is recommended,

In the event of an unanticipated discovery, all work must be suspended within 50 feet of the find until a qualified archaeologist evaluates it. In the unlikely event that human remains are encountered during project development, all work must cease near the find immediately.

In accordance with California Health and Safety Code Section 7050.5, the County Coroner must be notified if potentially human bone is discovered. The Coroner will then determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) by phone within 24 hours, in accordance with Public Resources Code Section 5097.98. The NAHC will then designate a Most Likely Descendant (MLD) with respect to the human remains. The MLD then has the opportunity to recommend to the property owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and associated grave goods. Work may not resume in the vicinity of the find until all requirements of the health and safety code have been met.

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APPENDIX A. QUALIFICATIONS

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

MOLLY VALASIK
Overall QAQC

EDUCATION

2009 M.A., Anthropology, Kent State University, Kent, Ohio
2006 B.A., Anthropology, Ohio State University, Columbus, Ohio

SUMMARY OF QUALIFICATIONS

Ms. Valasik is a Registered Professional Archaeologist (RPA) with more than 13 years of experience. She is a skilled professional who is well-versed in the compliance procedures of the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA) and regularly prepares cultural resources assessment reports for a variety of federal, state, and local agencies throughout California. Ms. Valasik has managed a variety of projects at Cogstone in the water, transportation, energy, development, and federal sectors. She meets the qualifications required by the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation*. She is accepted as a principal investigator for prehistoric archaeology by the State Office of Historic Preservation.

SELECTED EXPERIENCE

La Verne General Plan Update, City of La Verne, Los Angeles County, CA. Cogstone reviewed and summarized available information regarding known paleontological, archaeological, and historical resources within the boundaries of the City of La Verne to support an update of the City's General Plan. Cogstone conducted archaeological and paleontological record searches, extensive historical research at City Hall, a Sacred Lands File (SLF) search was requested from the Native American Heritage Commission (NAHC), and a general analysis of impacts of future projects within the city that may adversely affect paleontological, archaeological, or historic resources was provided along with mitigation recommendations. Sub to De Novo. Principal Investigator for Archaeology. 2018

Whittier Boulevard/Three Intersection Improvements, City of Whittier, Los Angeles County, CA. Cogstone conducted intensive-level cultural resources surveys and prepared technical studies for improvements proposed for three intersections at Colima Road, Santa Fe Springs Road and Painter Avenue in a disturbed urban environment. Managed records search, SLF search, NAHC consultation, and APE mapping. Sub to Michael Baker. Principal Investigator for Archaeology. 2016-2018

Los Angeles Sanitation District On-Call, Los Angeles Department of Public Works (LADPW), Los Angeles, CA. Cogstone provided cultural support services to district staff as needed for various wastewater and solid waste projects. Services delivered include archaeological, historical, and paleontological record searches, SLF searches, Native American consultation, surveys in accordance with California BLM Guidelines for a Cultural Resources Inventory, and technical reports. The tasks at hand throughout this on-call contract were all in compliance with the cultural requirements for a State Revolving Fund loan. This contract had a total of 10 task orders. Sub to Michael Baker. Principal Investigator for Archaeology. 2014-2017

Reseda Skate Facility Project, City of Los Angeles, Los Angeles County, CA. Cogstone was retained to conduct an archaeological assessment to determine the potential effects to archaeological resources resulting from construction of an ice rink, roller rink, and associated parking lot. Services included a records search, intensive-level pedestrian survey, and archaeological assessment report that determined the potential of disturbance to archaeological resources was low. *This project was a task order from an on-call contract with Los Angeles Bureau of Engineering.* Sub to ICF. Principal Investigator. 2017

Little Tujunga Canyon Road Bridge Replacement Project, Angeles National Forest, Los Angeles County, CA. The County of Los Angeles Department of Public Works (LADPW) proposed a bridge replacement over Buck Canyon Creek in order to meet current bridge design and seismic safety standards, and improve the safety for pedestrians, bicyclists, and vehicle users in the project area. Cogstone was retained to complete a cultural resources assessment which included a review of existing literature and historic maps, a record search, and an intensive-level pedestrian survey of the 1.74-acre project area under an Archaeological Resources Protection Act (ARPA) permit. Sub to Michael Baker. Principal Investigator for Archaeology. 2017

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PALEONTOLOGY - ARCHAEOLOGY - HISTORY

ERIC SCOTT
Paleontology QA/QC

EDUCATION

1990 M.A., Anthropology (Biological), University of California, Los Angeles
1985 B.A., Anthropology (Physical), California State University, Northridge

SUMMARY OF QUALIFICATIONS

Mr. Scott is a professional vertebrate paleontologist with over four decades of experience in paleontological mitigation, fieldwork, curation, and research. He is an emeritus paleontology curator at the San Bernardino County Museum, an adjunct instructor at California State University, San Bernardino, and a research associate of the Natural History Museum of Los Angeles County and the La Brea Tar Pits and Museum. He is a 30+ year member of the Society of Vertebrate Paleontology, an international society of professional scientists where he currently serves on the Government Affairs Committee and also holds membership in the Geological Society of America and other professional societies. Eric has published over 40 research articles in professional scientific journals.

SELECTED EXPERIENCE

Purple Line Extension (Westside Subway), Sections 1 and 2, Metropolitan Transit Authority (METRO), Los Angeles, CA. The project involves construction of seven stations from the existing Purple Line at Wilshire/Western Avenue along Wilshire Boulevard to the Veterans Administration Hospital in Westwood for 8.6 miles. Cogstone supervises paleontological monitoring, fossil recovery, and fossil preparation in the lab. Sub to JV West (Section 1) and AECOM (Section 2). Principal Paleontologist. 2017-ongoing

Deep Soil Mixing Pilot Project, Community of Pacific Palisades, Los Angeles County, CA. As part of an on-call contract with the Los Angeles Bureau of Engineering (LABOE), Cogstone provided cultural and paleontological resources monitoring as well as managed Native American monitoring during ground-disturbing activities. The City of Los Angeles was the lead agency under the California Environmental Quality Act (CEQA). Monitoring for the Project was conducted in compliance with the Contingency Plan conditions for the Coastal Development Permit (CDP) from the California Coastal Commission (CCC). No cultural or paleontological resources were identified. No further work was necessary. Sub to ICF. Principal Investigator for Paleontology. 2020

Gates Canyon Stormwater Capture Project, unincorporated area of Calabasas, Los Angeles County, CA. Cogstone conducted cultural and paleontological resources monitoring for 31 days during proposed improvements to Gates Canyon Park that would allow the capture and storage of stormwater runoff from an adjacent 105-acre residential area. Monitoring complied with program mitigation measures and as defined by the County of Los Angeles, Department of Public Works (LACDPW). LACDPW was the project proponent and acted as the lead agency under CEQA. Sub to Aspen Environmental. Task Manager. 2019

Irvine General Plan Update – Phase II, City of Irvine, Orange County, CA. Cogstone conducted a study to review and summarize available information regarding known paleontological, archaeological, and historical resources within the boundaries of the City of Irvine to support the Phase II update of the City's General Plan. A general analysis of impacts of future projects within the City of Irvine that may adversely affect paleontological, archaeological, or historic resources was provided along with mitigation recommendations. Sub to PlaceWorks. Paleontology QA/QC. 2018-2019

Camino de la Cumbre Project, City of Sherman Oaks, Los Angeles County, CA. Cogstone conducted a paleontological resources assessment to determine the potential for impacting fossil resources during excavations of the Camino de la Cumbre residential development project. Services included a records search, background research, pedestrian survey, and report preparation. Sub to Ridge, Inc. Task Manager. 2018

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PALEONTOLOGY - ARCHAEOLOGY - HISTORY

JOHN GUST
Task Manager and Principal Investigator for Archaeology

EDUCATION

2016 Ph.D., Anthropology, University of California, Riverside (UCR)
2011 M.A., Anthropology, UCR
2007 M.A., Applied Geography, University of Colorado, Colorado Springs (UCCS)
2002 B.A., Anthropology, minor in Geography/Environmental Studies, UCCS

SUMMARY OF QUALIFICATIONS

Dr. Gust is a Registered Professional Archaeologist (RPA) with over 10 years of experience in field archaeology. He meets the qualifications required by the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* and his field expertise includes pedestrian surveys, excavation monitoring, resource recording, and historic artifact analysis. He has managed cultural resources projects for both public and private sector clients. Dr. Gust is a member of the Society for California Archaeology, Society for American Archaeology, and the American Anthropological Association.

SELECTED EXPERIENCE

Deep Soil Mixing Pilot Project, Community of Pacific Palisades, Los Angeles County, CA. As part of an on-call contract with the Los Angeles Bureau of Engineering (LABOE), Cogstone provided cultural and paleontological resources monitoring as well as managed Native American monitoring during ground-disturbing activities. The City of Los Angeles was the lead agency under the California Environmental Quality Act (CEQA). Monitoring for the Project was conducted in compliance with the Contingency Plan conditions for the Coastal Development Permit (CDP) from the California Coastal Commission (CCC). No cultural or paleontological resources were identified. No further work was necessary. Sub to ICF. Principal Investigator for Archaeology. 2020

Bell Gardens Water Reservoir Project, City of Bell Gardens, Los Angeles County, CA. Cogstone conducted a cultural and paleontological resources assessment to determine the potential impacts to cultural and paleontological resources during improvements which included a new two-million-gallon reservoir, booster pump station, well to be drilled, and other components. Services included record searches, Sacred Lands File search from the Native American Heritage Commission, and an intensive-pedestrian survey of the 1.7-acre project area. Sub to Infrastructure Engineers. Principal Investigator for Archaeology. 2019-2020

Los Angeles World Airports (LAWA) Terminal 1.5 Project, City of Los Angeles, Los Angeles County, CA. Cogstone conducted cultural and paleontological resources monitoring during the excavations for the construction of a new airport terminal at LAX that included the construction of a five-story structure with four above-grade levels and one basement level. Cogstone also conducted archaeological and paleontological Worker Environmental Awareness Program (WEAP) training for all construction personnel. The City of Los Angeles was the lead agency for the project. Sub to CDM. Archaeology Supervisor and Report Author. 2018-2019

Heathercliff Malibu Development Project, City of Malibu, Los Angeles County, CA. Cogstone conducted a study to determine the potential impacts to cultural resources resulting from the construction of a single residence bounded by Heathercliff Road to the southeast and the Pacific Coast Highway to the northwest. This study included all information required by the City of Malibu Archaeology Guidelines. Cogstone conducted a record search, Sacred Lands File Search, pedestrian survey, and produced an assessment. Sub to ACS Construction. Principal Investigator for Archaeology and Report Author. 2019

Florence Mills Apartments Project, City of Los Angeles, Los Angeles County, CA. This project was for the development of affordable and subsidized multi-family apartment buildings along the Historic Central Avenue Corridor in Southeast LA. Cogstone conducted monitoring of construction activities associated with excavation

of historic-age and modern-age fill, as well as native soils, functions to ensure archaeological materials not previously exposed would be identified, assessed and impacts mitigated in order to preserve and/or extract the maximum scientific value of the resource. Archaeology Supervisor and Report Author. 2019

KIM SCOTT
Principal Investigator for Paleontology

EDUCATION

2013 M.S., Biology with a paleontology emphasis, California State University, San Bernardino
2000 B.S., Geology with paleontology emphasis, University of California, Los Angeles

SUMMARY QUALIFICATIONS

Ms. Scott has more than 26 years of experience in California paleontology. She is a sedimentary geologist and qualified paleontologist with extensive experience. She is a skilled professional who is well-versed in the compliance procedures of the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), and the Paleontological Resources Preservation Act (PRPA). Ms. Scott regularly prepares reports for paleontological assessments, mitigation and monitoring plans and measures, and monitoring reports for a variety of federal, state, and local agencies throughout California. In addition, she has prepared paleontological resources reports for CEQA/EIR compliance documents for Project-level and program-level Specific Plans, General Plans, Master Plans, and Zoning Amendments for mixed-use, residential, commercial and industrial developments. Ms. Scott serves as company safety officer.

SELECTED PROJECTS

Purple Line Extension (Westside Subway), Metro/FTA, Los Angeles, CA. The Project involves extension of the subway from Wilshire/Western to the VA Facility in Westwood for 9 miles. Cogstone prepared the supplemental Archaeology and Architectural History Reports and the cultural and paleontological sections of the FEIS/FEIR. Cogstone subsequently prepared the cultural and paleontological mitigation and monitoring plans for the entire Project. Currently providing monitoring and all other cultural and paleontological services for Section One of the Project. Paleontological Field and Lab Director, Report Co-author. 2011-present

Barren Ridge Transmission Line, Los Angeles Department of Water and Power (LADWP), Saugus to Mojave, Los Angeles and Kern Counties, CA. Over 75 miles of LADWP electrical lines were installed on Angeles National Forest, Bureau of Land Management (BLM) and private lands. Supervised paleontological monitoring and lab work and prepared a Paleontological Monitoring Report to CEQA, BLM, and PRPA standards. Sub to Aspen Environmental Group. Principal Paleontologist. 2015-present

City of La Verne General Plan, Los Angeles County, CA. The Project was for an update to the City's General Plan, a 5,446-acre area. Provided a Paleontological and Cultural Assessment Report for the City. Sub to De Novo Planning Group. Principal Paleontologist. 2018

Interstate 405 Paleontological Resources Mitigation Plan, Los Angeles and Orange Counties, CA. Improvements to a 6-miles of Interstate 405 (I-405) between State Route 73 and Interstate 605. Provided a Paleontological Mitigation and Monitoring Plan. Principal Paleontologist. Sub to OC 405 Partners. 2018

Little Tujunga Canyon Bridge, Angeles National Forest, Los Angeles County, CA. The Project was to replace the Little Tujunga Canyon Road Bridge along Little Tujunga Canyon Road. Provided a Paleontological Assessment Report. Sub to Michael Baker International. Principal Paleontologist. 2017

Park Place Extension Project, City of El Segundo, Los Angeles County, CA. The City proposed to extend Park Place from Allied Way to Nash Street with a railroad grade separation to implement a critical Project improving traffic and circulation in the Project Area. Provided a combined Paleontological Identification and Evaluation Report (PIR/PER). Sub to Michael Baker International. Principal Paleontologist. 2017

Coto de Caza EIR Subdivision, Coto de Caza, Orange County, CA. The project proposed the subdivision of an existing large estate for development of 28 new residential lots on approximately 50-57 acres of land. Proposed residential lots were a minimum of one acre in size. Prepared a Paleontological Assessment Report. Contracted to Bill Lyon. Co-Principal Paleontologist/Report Co-author. 2015

SANDY DUARTE
Archaeologist and Co-Author

EDUCATION

2002 B.A., Cultural Anthropology, University of California, Santa Barbara

TRAINING AND CERTIFICATIONS

HAZWOPER Certified – Certified American Red Cross CPR; Certified American Red Cross Standard First Aid
Applied Archaeology of Southern California, USDA Forest Service, San Bernardino National Forest
Railroad Security Certified

SUMMARY OF QUALIFICATIONS

Mrs. Duarte is a skilled archaeologist with 18 years of experience in monitoring, surveying, and excavation in California. She has experience with Native American consultation as required by Section 106 of the National Historic Preservation Act (NHPA) and under Senate Bill 18 for the protection and management of cultural resources. Beginning in 2006, Mrs. Duarte worked for the U.S. Forest Service in the Biology, Timber, and Geology Department as an archaeologist, including serving as a trained wild-land firefighter to preserve archaeological sites in forest fires. Additional skills include paleontological identification, fossil preparation, artifact identification and preparation, and final report preparation.

SELECTED EXPERIENCE

Newport Village Project, City of Newport Beach, Orange County, CA. Cogstone conducted a cultural and paleontological resources assessment to determine the potential impacts to cultural and paleontological resources during proposed construction of 14 residential condominium units, 108 apartment units, and 121,370 square feet of mixed-use development. The project would also have publicly accessible waterfront promenade with 844 parking spaces in surface-level and subterranean parking. Services included records searches, pedestrian survey, Sacred Lands File search from the Native American Heritage Commission (NAHC), background research, and reporting. The City of Newport Beach acted as the lead agency under the California Environmental Quality Act (CEQA). Sub to Cox, Castle & Nicholson LLP. Archaeologist. 2019-2020

Prologis Vermont Avenue and Redondo Beach Industrial Project, City of Los Angeles, Los Angeles County, CA. Cogstone conducted a cultural and paleontological resources assessment to determine the potential impacts to cultural and paleontological resources during proposed construction of an industrial center, 223 automobile parking spaces, 32 bicycle parking spaces, 36 high truck loading positions, and parking stalls for truck trailers. Services included records searches, pedestrian survey, Sacred Lands File search from the NAHC, background research, and reporting. The City of Los Angeles acted as the lead agency under CEQA. Sub to PlaceWorks. Archaeologist. 2019-2020

Bell Gardens Water Reservoir Project, City of Bell Gardens, Los Angeles County, CA. Cogstone conducted a cultural and paleontological resources assessment to determine the potential impacts to cultural and paleontological resources during improvements which included a new two-million-gallon reservoir, booster pump station, well to be drilled, and other components. Services included record searches, Sacred Lands File search from the NAHC, and an intensive-pedestrian survey of the 1.7-acre project area. Sub to Infrastructure Engineers. Archaeologist/Co-Author. 2019-2020

Firestone Phoenix, City of Los Angeles, Los Angeles County, CA. Cogstone provided cultural resources monitoring during ground-disturbing construction activities. Excavation activities included grubbing, mechanical excavation, and grading. Cogstone also conducted Worker Environmental Awareness Program (WEAP) training for construction personnel. Two artifacts were collected during monitoring and returned to the property owner. All work was completed in compliance with NEPA, CEQA, PRC, and project specific

requirements from the Los Angeles County Development Authority (LACDA). A cultural resources monitoring compliance report was submitted upon completion of monitoring. Sub to A Community of Friends. Archaeologist. 2019-2020

KELLY VREELAND
Paleontologist and Co-Author

EDUCATION

2014 M.S., Geology, California State University, Fullerton (CSUF)
2010 B.S., Geology, CSUF

SUMMARY OF QUALIFICATIONS

Ms. Vreeland is a Paleontologist with over 10 years of experience in field paleontology. Her field and laboratory experience includes fieldwork and research projects throughout California and Nevada, as well as conducting fieldwork and surficial geologic mapping in Montana. Ms. Vreeland has expertise in invertebrate paleontology and paleoecology. Ms. Vreeland is a member of the Geological Society of America, the Paleontological Society, the Society for Sedimentary Geology, and the Association for Women in Geoscience.

SELECTED EXPERIENCE

Jack Ranch Tract, unincorporated area of San Luis Obispo County, CA. Cogstone prepared a Paleontological Mitigation Plan (PMP) to propose effective mitigation of potential adverse impacts to paleontological resources resulting from proposed construction of 13 residential lots as well as a Conditional Use Permit to allow for a Major Agricultural Cluster project. Cogstone is providing archaeological and paleontological monitoring during construction for residential development of a 299-acre parcel. The County of San Luis Obispo is the lead agency for this project under the California Environmental Quality Act. Sub to Kirk Consulting. Paleontology Supervisor. 2020-*present*

Five Point Community Development – various projects, City of Irvine, Orange County, CA. LSA Associates conducted paleontological and archaeological resources monitoring for various Five Point Community Development projects in Irvine as well as preparation of environmental documents. Paleontologist. 2015-2020

Alameda Corridor East Grade Separation Projects, various cities, Los Angeles County, CA. LSA Associates conducted on-call paleontological resource monitoring for various railway grade separation projects and preparation of Paleontological Mitigation Plans. Paleontologist. 2019-2020

South Campus Student Housing Project, City of Sacramento, Sacramento County, CA. LSA Associates prepared a Paleontological Resources Monitoring and Mitigation Plan as well as developed and conducted a Workers Environmental Awareness Program (WEAP) training. The project involved construction and operation of student housing facilities for upper-division university students adjacent to the California State University, Sacramento campus. Paleontologist. 2020

American Kings Solar Project, Kings County, CA. LSA Associates prepared a Paleontological Analysis for the proposed construction, operation, maintenance, and decommissioning of an up to 128-megawatt alternating current photovoltaic solar power-generating facility. Paleontologist. 2019

Teresina Project, City of Lake Forest, Orange County, CA. LSA Associates conducted paleontological and archaeological resources monitoring during grading for the development of a new residential community. Upon completion of the project, a Paleontological Resources Monitoring Report was prepared. Paleontologist. 2018

NBC Universal Project, City of Los Angeles, Los Angeles County, CA. LSA Associates prepared and conducted WEAP training for all personnel on the project, as well as archaeological and paleontological resource monitoring for additional developments and improvements to the NBC Universal lot and associated roads.

Paleontologist. 2018-2020

LOGAN FREEBERG
GIS Supervisor

EDUCATION

2018 Geographic Information Systems (GIS) Certificate, California State University, Fullerton
2003 B.A., Anthropology, University of California, Santa Barbara

SUMMARY QUALIFICATIONS

Mr. Freeberg has over 19 years of experience in cultural resource management and has extensive experience in field surveying, data recovery, monitoring, and excavation of archaeological and paleontological resources associated with land development projects in the private and public sectors. He has conducted all phases of archaeological work, including fieldwork, laboratory analysis, research, and reporting. Mr. Freeberg also has a strong grounding in conventional field and laboratory methods and is skilled in the use of ArcGIS.

SELECTED PROJECTS

Southern California Edison (SCE) Environmental Clearance On-Call Program, Statewide, CA. Cogstone was contracted to provide on-call cultural resource monitoring services for various SCE projects throughout California. Cogstone has conducted archaeological monitoring, GIS mapping, and prepared technical reports for over 80 task orders. Sub to Cardno. GIS Supervisor. 2019-*ongoing*

Pacific Gas and Electric (PG&E) Master Services Agreement, Statewide, CA. Cogstone was contracted to provide on-call cultural resource monitoring services for various PG&E projects throughout California. Cogstone conducted archaeological monitoring for over 20 task orders. Sub to Cardno. GIS Supervisor. 2019-*ongoing*

Goddard School Project, City of Chino Hills, San Bernardino County, CA. Cogstone produced a paleontological resources mitigation and monitoring program for a proposed 59,129 square foot development consisting of a one-story, 10,587-square foot pre-school/daycare with nine classrooms, fenced play yards and play structures, and a parking lot with 40 stalls. Cogstone put forward mitigation measures that included monitoring for all ground-breaking activities, paleontological resource awareness training for construction personnel, and the completion of a final mitigation report. GIS Supervisor. 2019-2020

Roosevelt Park Regional Stormwater Capture Project, unincorporated area of Florence-Firestone, Los Angeles County, CA. Conducted cultural and paleontological monitoring during all ground disturbing activities in native sediments. This project included the construction of three diversion structures and pipelines. Sub to Environmental Advisors. GIS Supervisor. 2019

Euclid Fueling Station Project, City of Santa Ana, Orange County, CA. This study was conducted to determine the potential impacts to archaeological and paleontological resources during construction activities for a proposed 7-Eleven gas station and convenience store. The proposed project entailed the construction of the convenience store, associated parking, gas station, and underground fuel storage tank. Planned vertical impacts included approximately three to four feet of fill removal over at least some of the site, a trench approximately eight feet deep for utilities, and approximately 12 feet for the new fuel storage tanks. Sub to Sagecrest Environmental. GIS Supervisor and report co-author. 2019

Bell Gardens Water Reservoir Project, City of Bell Gardens, Los Angeles County, CA. Cogstone conducted a cultural and paleontological resources assessment to determine the potential impacts to cultural and paleontological resources during improvements which included a new two-million-gallon reservoir, booster pump station, well to be drilled, and other components. Services included record searches, Sacred Lands File

search from the Native American Heritage Commission, and an intensive-pedestrian survey of the 1.7-acre project area. Sub to Infrastructure Engineers. GIS Supervisor. 2019-2020

APPENDIX B. PALEONTOLOGICAL RECORD SEARCH

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

tel 213.763.DINO
www.nhm.org

Research & Collections

e-mail: paleorecords@nhm.org

July 17, 2022

Cogstone Resource Management
Attn: Logan Freeberg

re: Paleontological resources for the Del Amo Circle Apartments Project (#5624)

Dear Logan:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for proposed development at the Del Amo Circle Apartments project area as outlined on the portion of the Torrance USGS topographic quadrangle map that you sent to me via e-mail on July 1, 2022. We do not have any fossil localities that lie directly within the proposed project area, but we do have fossil localities nearby from the same sedimentary deposits that occur in the proposed project area, either at the surface or at depth.

The following table shows the closest known localities in the collection of the Natural History Museum of Los Angeles County (NHMLA).

Locality Number	Location	Formation	Taxa	Depth
LACM IP 21125	Just N of the intersection of Western Ave & Torrance Blvd	Unrecorded (Pleistocene)	Invertebrates (uncatalogued)	Unrecorded
LACM IP 147	Road cut on Vermont Avenue; 200 feet south of corner of Sepulveda Blvd.; San Pedro	Palos Verdes Sand	Invertebrates (uncatalogued)	Unknown
LACM VP 3265	Gravel pit located in Torrance south of Winlock; west of Crenshaw & east of Hawthorne Blvd.	Palos Verdes Sand, San Pedro Sand (terrace deposits)	Vertebrates: marine & terrestrial	Unknown
LACM VP 3249; LACM IP 31443, 31444, 23773	Lomita, general locality number for specimens without locality data from the area	Unknown formation (Pleistocene)	Mastodon (*Mammut*), Bison (*Bison*), Camel (*Camelops*, *Tanupolama*), sea lion (*Eumetopias*), ground sloth (*Megalonyx*), horse (*Equus*), tapir (Tapirus); Loon (*Gavia*), grebe (*Achmophorous*), sea	Unknown (many collected from sand pit operations)

			duck (*Chendytes*), teleost fish, and other unspecified vertebrates; ; invertebrate rich sand lenses common	
LACM VP 4129	South of 223rd St. & west of Alameda Street	undetermined (Pleistocene sand)	Elephant family (Proboscidea); camel family (Camelidae)	24 feet bgs

VP, Vertebrate Paleontology; IP, Invertebrate Paleontology; bgs, below ground surface

This records search covers only the records of the NHMLA. It is not intended as a paleontological assessment of the project area for the purposes of CEQA or NEPA. Potentially fossil-bearing units are present in the project area, either at the surface or in the subsurface. As such, NHMLA recommends that a full paleontological assessment of the project area be conducted by a paleontologist meeting Bureau of Land Management or Society of Vertebrate Paleontology standards.

Sincerely,

Alyssa Bell

Alyssa Bell, Ph.D.
Natural History Museum of Los Angeles County

enclosure: invoice

APPENDIX C. NATIVE AMERICAN CONSULTATION

Sacred Lands File & Native American Contacts List Request

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Del Amo Circle Apartments
County: Los Angeles

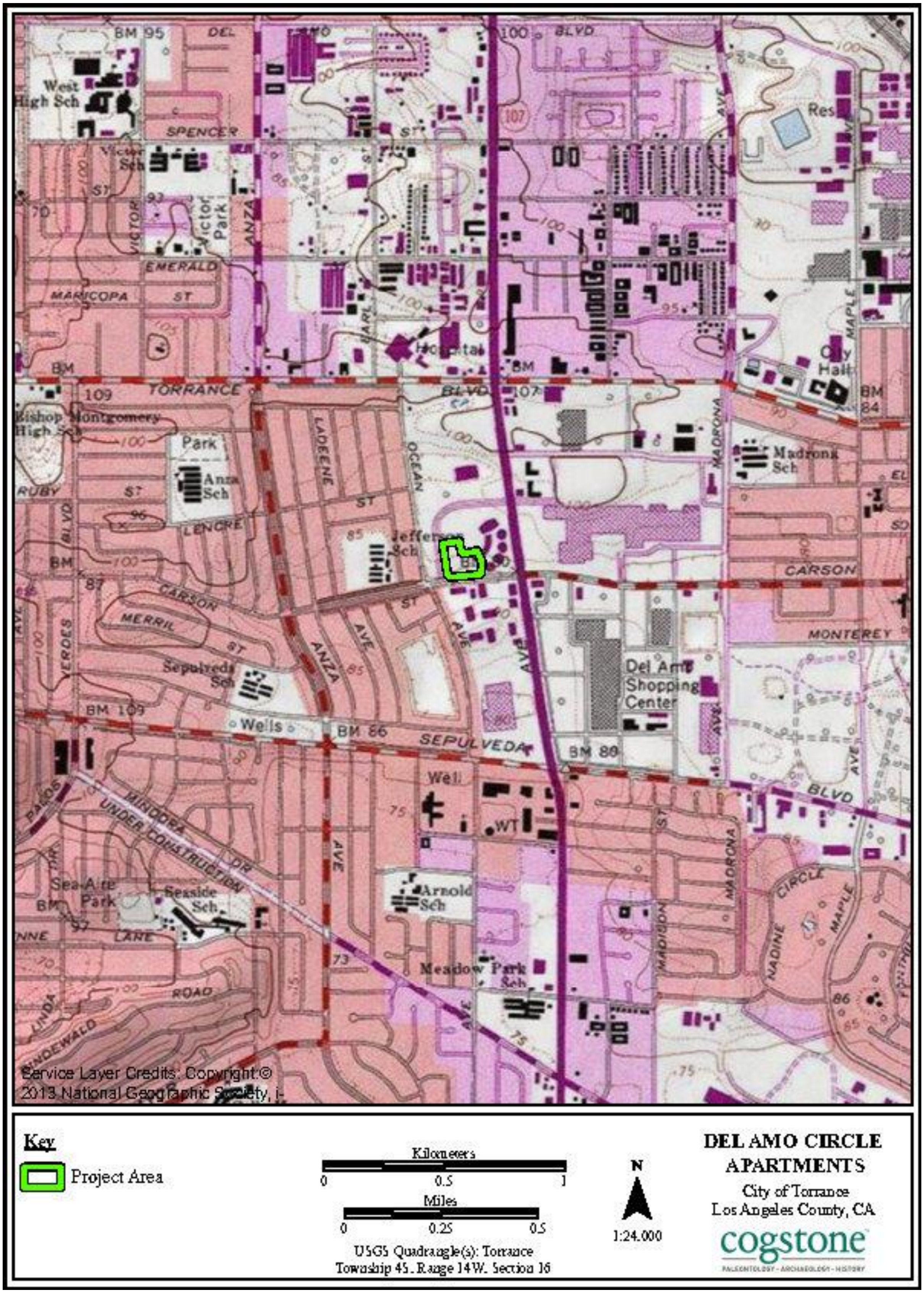
USGS Quadrangle
Name: Torrance
Township: 4S Range: 14W Section(s): 16

Company/Firm/Agency:
Cogstone Resource Management
Contact Person:
Street Address: 1518 W. Taft Avenue
City: Orange Zip: 92865
Phone: (714) 974-8300 Extension:
Fax: (714) 974-8303
Email: cogstoneconsult@cogstone.com

Project Description:
The Project involves the construction of a new five-story 200-unit apartment complex development.

☑ Project Location Map is attached

SLF&Contactsform: rev: 05/07/14


Service Layer Credits: Copyright:© 2013 National Geographic Society, i-
Key
Project Area
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0.5
1
Miles
0
0.25
0.5
USGS Quadrangle(s): Torrance
Township 4S, Range 14W, Section 16
N
1:24,000
DEL AMO CIRCLE APARTMENTS
City of Torrance
Los Angeles County, CA
cogstone
TORRANCE
BLVD
CARSON
SEPULVEDA
Del Amo Shopping Center
Hospital
City Hall

STATE OF CALIFORNIA — Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

August 15, 2022

Cogstone Resource Management

Via Email to: cogstoneconsult@cogstone.com

Re: Del Amo Circle Apartments Project, Los Angeles County

To Whom it May Concern:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

APPENDIX D. HISTORICAL SOCIETY CONSULTATION

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

July 29, 2022

The Los Angeles Conservancy
523 W. Sixth St., Suite 826
Los Angeles, CA 90014

RE: Request for Information regarding the Cultural and Paleontological Resources Assessment for the Del Amo Circle Apartments Project, City of Torrance, Los Angeles County, California

To Whom It May Concern:

As a sub-consultant to Placeworks, Cogstone Resource Management, Inc. (Cogstone) is conducting a conduct a cultural and paleontological resources assessment for the Del Amo Circle Apartments Project (Project) located at the northeast corner of Del Amo Circle West and West Carson Street in the City of Torrance, Los Angeles County, California.

The Project involves the construction of a new five-story 200-unit apartment complex development. The Project area is currently almost entirely hardscaped except for landscaping between the sidewalk and parking lot and in between parking areas. The Project is located within the boundaries of the Torrance Financial Center (now known as Del Amo Crossing) which was constructed in 1967. The buildings which comprise the old financial center are historic in age but it does not appear that they have been previously evaluated for historic significance or listing at the local, state, or national level.

We are contacting you because we would like to invite members of the Los Angeles Conservancy to provide input regarding the redevelopment of the Project area. We appreciate any information regarding the history of the Torrance Financial Center that you may have as well as any comments, issues, and/or concerns relating to the history of the Project area. Please contact me at slopez@cogstone.com or at (714) 974-8300. Thank you for your attention to this matter.

Sincerely,

Shannon Lopez

Shannon Lopez, M.A.
Architectural Historian
(714) 974-8300 x.108
slopez@cogstone.com

1518 West Taft Avenue
Orange, CA 92865
Office (714) 974-8300

Branch Offices
San Diego - Riverside - Morro Bay - Sacramento - Arizona

cogstone.com
Toll free (888) 333-3212

Federal Certifications EDWOSB, SDB
State Certifications DBE, WBE, SBE, UDBE

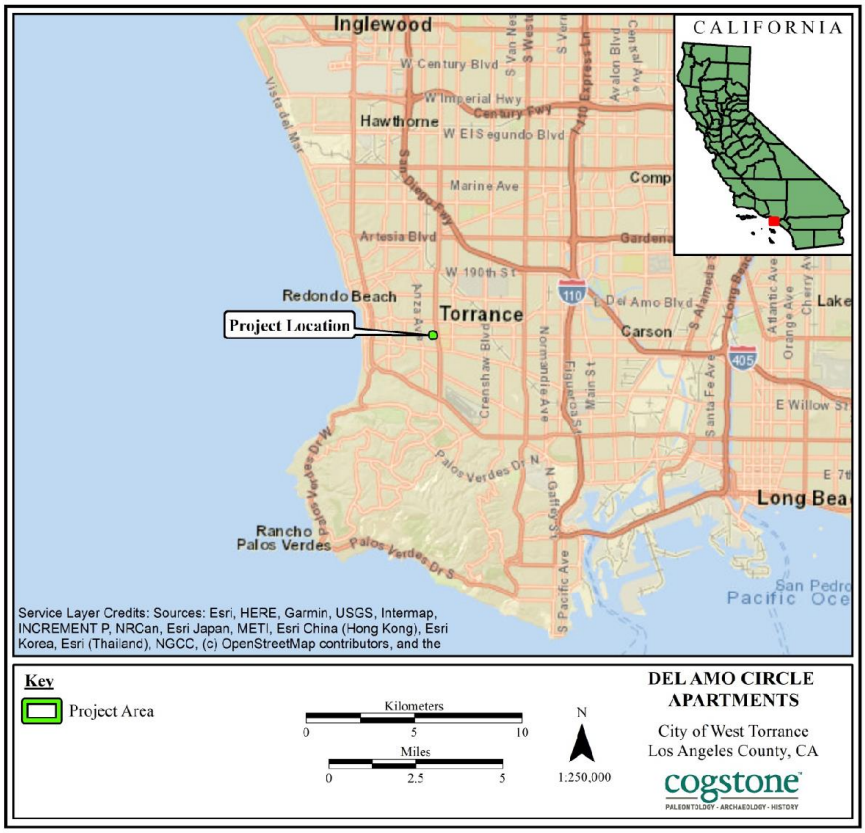

Figure 1. Project Vicinity Map

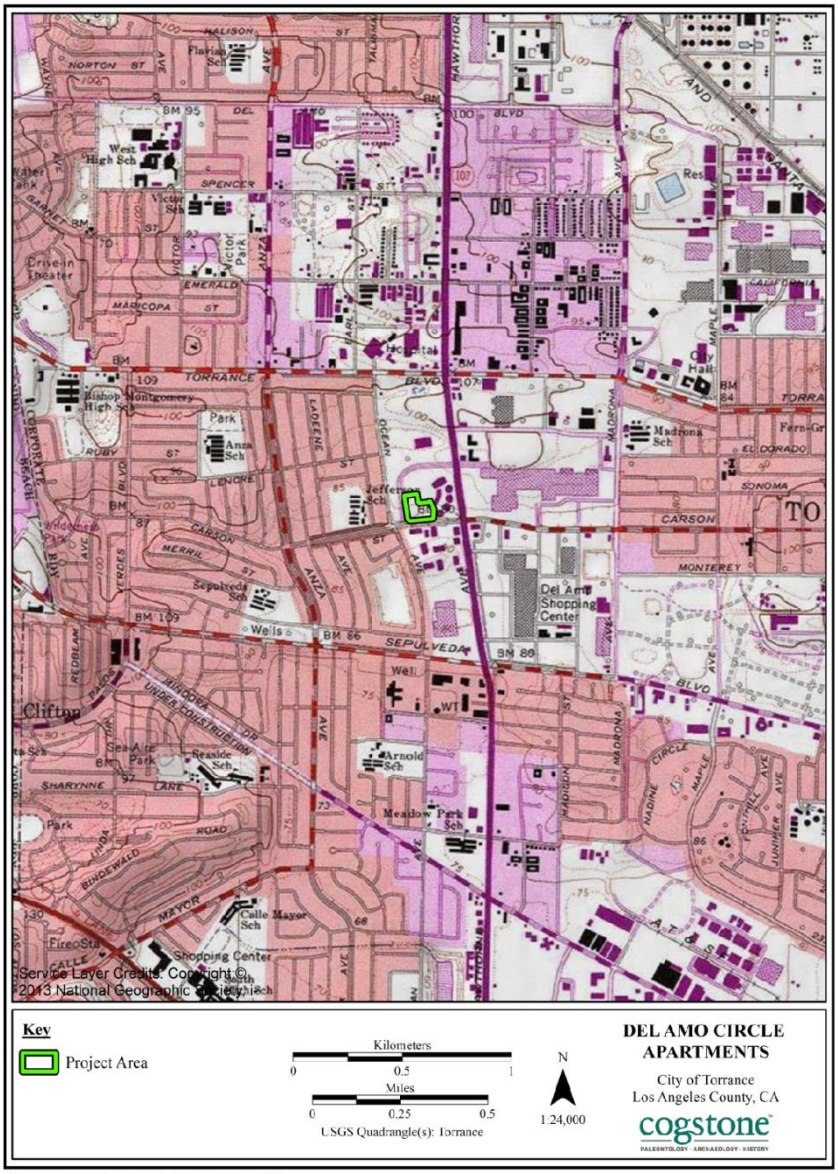

Figure 2. Project Location Map

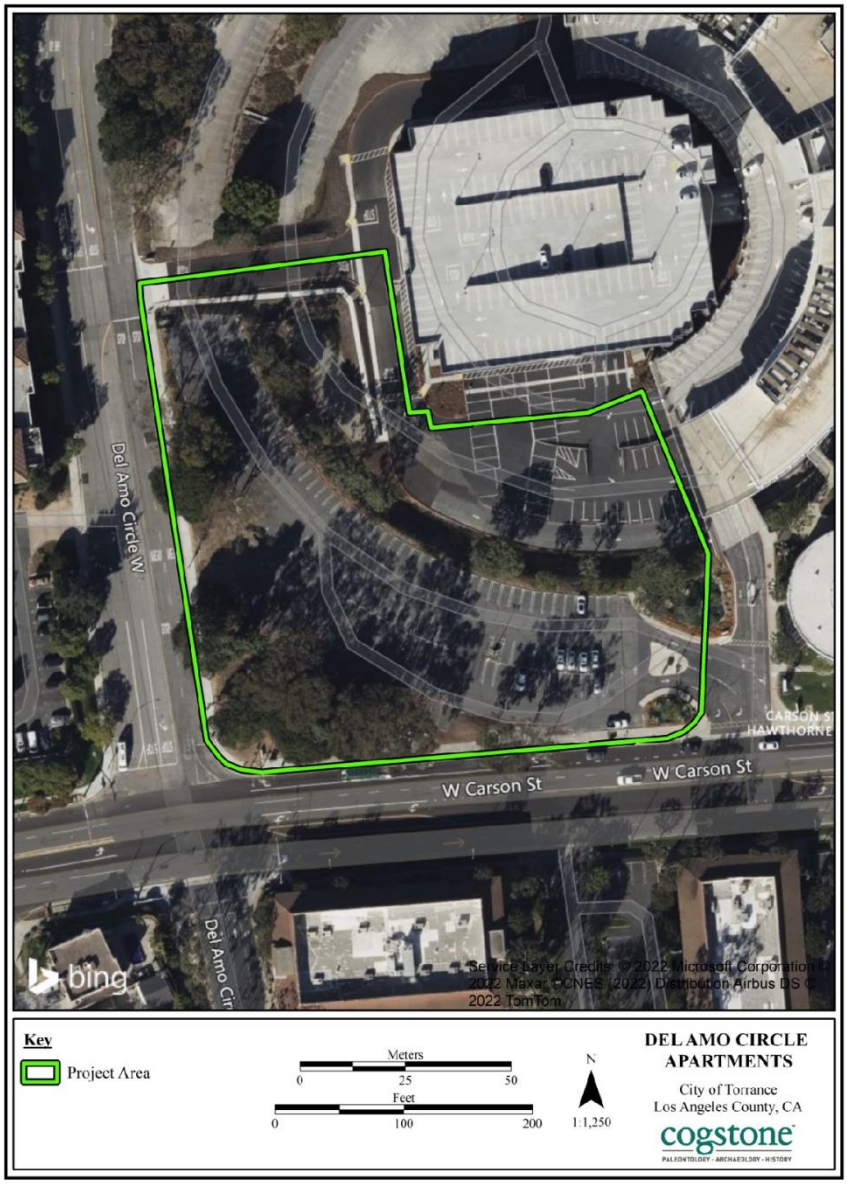

Figure 3. Project Aerial Map

cogstone.com

Re: Request for Information regarding the Cultural Resources Assessment for the Del Amo Circle Apartments Project, City of Torrance, Los Angeles County, California

Shannon Lopez <SLopez@cogstone.com>
Mon 8/1/2022 7:11 AM
To: Erik Van Breene <vanbreene@laconservancy.org>

Good Morning Erik,

Thank you for your response!

Correct. From what I understand, only the parking lot adjacent to the buildings will be effected by the Project. The existing buildings will not be demolished.

All the best,
Shannon

Shannon Lopez
Architectural Historian

Cogstone Resource Management
1518 W Taft Ave Orange, Ca 92865
714-974-8300 office
slopez@cogstone.com www.cogstone.com
Field Offices in San Diego, Riverside, Morro Bay,
Sacramento, Arizona

We tell the stories of ancient life and human cultures both to promote an appreciation of the past and relevance to the future.™

From: Erik Van Breene <vanbreene@laconservancy.org>
Sent: Friday, July 29, 2022 2:03 PM
To: Shannon Lopez <SLopez@cogstone.com>
Subject: RE: Request for Information regarding the Cultural Resources Assessment for the Del Amo Circle Apartments Project, City of Torrance, Los Angeles County, California

Hi Shannon,

Thanks for reaching out, I don't think we have any comments at this time. None of the buildings from 1967 are being demolished correct?

Best,
Erik

From: Shannon Lopez <SLopez@cogstone.com>
Sent: Friday, July 29, 2022 9:22 AM
To: Erik Van Breene <vanbreene@laconservancy.org>
Subject: Request for Information regarding the Cultural Resources Assessment for the Del Amo Circle

Apartments Project, City of Torrance, Los Angeles County, California

Good morning Erik,

Please see the attached for further information regarding our request for information.

The Project involves the construction of a new five-story 200-unit apartment complex development in the City of Torrance. The Project area is currently almost entirely hardscaped except for landscaping between the sidewalk and parking lot and in between parking areas. The Project is located within the boundaries of the Torrance Financial Center (now known as Del Amo Crossing) which was constructed in 1967. The buildings which comprise the old financial center are historic in age but it does not appear that they have been previously evaluated for historic significance or listing at the local, state, or national level.

Please let us know if the Conservancy has any questions, comments, or concerns, regarding the Project.

All the best,
Shannon

Shannon Lopez
Architectural Historian

Cogstone Resource Management
1518 W Taft Ave Orange, Ca 92865
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slopez@cogstone.com www.cogstone.com
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Sacramento, Arizona

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APPENDIX E. PALEONTOLOGICAL SENSITIVITY RANKING CRITERIA

PFYC Description Summary (BLM 2016)	PFYC Rank
Very Low. The occurrence of significant fossils is non-existent or extremely rare. Includes igneous (excluding air-fall and reworked volcanic ash units), metamorphic, or Precambrian rocks. Assessment or mitigation of paleontological resources is usually unnecessary except in very rare or isolated circumstances that result in the unanticipated presence of fossils.	1
Low. Sedimentary geologic units that are unlikely to contain vertebrate or scientifically significant nonvertebrate fossils. Includes rock units less than 10,000 years old and sediments with significant physical and chemical changes (e.g., diagenetic alteration) which decrease the potential for fossil preservation. Assessment or mitigation of paleontological resources is not likely to be necessary.	2
Moderate. Units are known to contain vertebrate or scientifically significant nonvertebrate fossils, but these occurrences are widely scattered and/or of low abundance. Common invertebrate or plant fossils may be found, and opportunities may exist for casual collecting. Paleontological mitigation strategies will be based on the nature of the proposed activity. Management considerations cover a broad range of options that may include record searches, pre-disturbance surveys, monitoring, mitigation, or avoidance. Surface-disturbing activities may require assessment by a qualified paleontologist to determine whether significant paleontological resources occur in the area of a proposed action, and whether the action could affect the paleontological resources.	3
High. Geologic units containing a high occurrence of significant fossils. Fossils must be abundant per locality. Vertebrates or scientifically significant invertebrate or plant fossils are known to occur and have been documented but may vary in occurrence and predictability. Mitigation plans must consider the nature of the proposed disturbance, such as removal or penetration of protective surface alluvium or soils, potential for future accelerated erosion, or increased ease of access that could result in looting. Detailed field assessment is normally required, and on-site monitoring or spot-checking may be necessary during land disturbing activities. In some cases, avoidance of known paleontological resources may be necessary.	4
Very High. Highly fossiliferous geologic units that consistently and predictably produce vertebrate or scientifically significant invertebrate or plant fossils. Vertebrate fossils or scientifically significant invertebrate fossils are known or can reasonably be expected to occur in the impacted area. Paleontological resources are highly susceptible to adverse impacts from surface disturbing activities. Paleontological mitigation may be necessary before or during surface disturbing activities. The area should be assessed prior to land tenure adjustments. Pre-work surveys are usually needed, and on-site monitoring may be necessary during land use activities. Avoidance or resource preservation through controlled access, designation of areas of avoidance, or special management designations should be considered.	5
Unknown. An assignment of "Unknown" may indicate the unit or area is poorly studied and field studies are needed to verify the presence or absence of paleontological resources. The unit may exhibit features or preservational conditions that suggest significant fossils could be present, but little information about the actual unit or area is known. Literature searches or consultation with professional colleagues may allow an unknown unit to be provisionally assigned to another Class, but the geological unit should be formally assigned to a Class after adequate survey and research is performed to make an informed determination.	U
Water or Ice. Typically used only for areas which have been covered thus preventing an examination of the underlying geology.	W, I