

MEMORANDUM

DATE: September 14, 2010

TO: Nicole Dubois

FROM: Deborah McLean

SUBJECT: Results of the Cultural Resources Records Search for the 4201 East Willow Street Car Wash Project in Long Beach, California

Records Search

On August 31, 2010, the South Central Coastal Information Center of the California Historical Resources Information System, located at California State University, Fullerton, completed a cultural resources records search for the 4201 East Willow Street Car Wash Project in Long Beach, California. This memorandum summarizes the results of the records search and provides recommendations based on those results.

The records search included a review of all recorded archaeological sites within a 0.5-mile (mi) radius of the project area, as well as a review of cultural resource reports on file for that same area. Additionally, the following were reviewed: the California Points of Historical Interest, the California Historical Landmarks, the California Register of Historical Resources, the National Register of Historic Places, and the California State Historic Resources Inventory.

While no archaeological sites or isolates have been recorded within the project area, the project area has never been archaeologically surveyed. Two previous studies included Willow Street and Lakewood Boulevard, and may have included the very south and/or east edge(s) of the project area, respectively. No resources were recorded within the project area as a result of either of those studies. No archaeological sites or isolates have been recorded within the 0.5 mi radius.

No historic resources are recorded within the project area. One historic resource, Schroeder Hall at the United States Army Reserve Center (19-187956), was identified approximately 0.25 mi to the west of the project area. While this resource has been recommended as eligible for listing in the National Register of Historic Places, it is well outside of the project area, and the project area is not within the viewshed of this building. Therefore, this building need not be considered during project planning.

Three historic maps were included in the records search. They are the Downey, California 1:62,500; United States Geological Survey 1896, 1942, and 1943. All three maps show that the project area was undeveloped.

Summary

Results of the records search indicate that there are no recorded archaeological sites or historic resources within the project area; however, the project area has never been archaeologically surveyed.

There are no recorded historic resources whose viewshed would be impacted by the proposed project. Historic maps indicate that as recently as 1943 there was no development within the project area. Although the results of the cultural resources records search are inconclusive as to the potential for buried cultural resources within the project area, based on the results of the paleontological records search, which identifies the project area as within either younger Quaternary Alluvium or older Quaternary deposits, there is little likelihood that buried cultural deposits will be encountered during project-related ground-disturbing construction activities.

Recommendations

Based on the results of the cultural resources records search and the paleontological records search, there is little likelihood of encountering buried cultural resources. Therefore, no cultural resources monitoring is recommended. However, in the event that archaeological resources are encountered during construction, a qualified archaeologist should be contacted to assess the find and advise as to the proper treatment of the find.

If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

MEMORANDUM

DATE: October 28, 2010

TO: Nicole Dubois

FROM: Meredith Rivin and Brooks Smith

SUBJECT: Results of the Paleontological Locality Search for the 4201 East Willow Street Car Wash Project in Long Beach, California

LSA Associates, Inc. (LSA) researched the area geology and conducted a paleontological locality search for the proposed Car Wash Project located at 4201 East Willow Street in the City of Long Beach, County of Los Angeles, California. This memorandum summarizes the results of this research and provides recommendations based on those results.

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

Geology

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

Specifically, the project area is located in a coastal area of the LA Basin. The LA Basin is a broad almost level alluvial plain (gradient of 0.5 to 1 percent). It is bound on the north and northeast by hills and mountains of the Northern Peninsular and Transverse Ranges and on the south and west by the Pacific Ocean. The sediment source for the LA Basin is several rivers that flow into it. These include the Los Angeles, the San Gabriel, and the Santa Ana Rivers. As the gradient of the LA Basin is quite shallow, these rivers have not always flowed in their current channels; rather they have flowed across the entire basin, depositing sediment evenly across the plain. Early reports, including Captain Gaspar Portola's expedition in 1769, indicate that much of the LA Basin was a swamp. In fact, the Portola expedition had to detour around the LA Basin via the foothills of the Santa Ana and San Gabriel Mountains because of these swampy conditions. Further evidence of marshy conditions comes from place names. For example, "La Cienega" translates to "swamp" in Spanish. The project is located just to the east of the Newport-Inglewood fault zone. Movement along this fault has caused uplift of areas in the vicinity, such as Signal Hill to the northwest and the Mesas of Newport and Huntington to the south.

An examination of the geology map of the area (Saucedo et al., 2003) indicates that the entire parcel is underlain by Old Paralic Deposits that were deposited during the late to middle Pleistocene (10,000 to 300,000 years). As described by Saucedo et al. (2003), Old Paralic Deposits are mostly poorly sorted, moderately permeable, reddish-brown, interfingering strandline, beach, estuarine and colluvial deposits that locally may include older alluvium. These deposits can be composed of siltstone, sandstone, and conglomerate; however within the project they are mapped as being primarily silty. These deposits rest on the now emergent wave-cut abrasion platforms preserved by regional uplift. Paralic deposits can essentially be thought of as an interfingering of Pleistocene marine terrace deposits and older alluvium.

According to the geotechnical report prepared for the project (Western Laboratories, 2010), there is approximately 2 to 3 feet (ft). of artificial fill capping the project area. Beneath the fill, native sediments of alluvium were encountered. The geotechnical report recommended that in the areas of the proposed building pad that sediment be removed to a depth of 5 ft below the existing surface or 3 ft below the proposed depth at the bottom of the building foundations, whichever is deeper. In addition, they recommended that soils in the parking areas be removed to a depth of 2 ft below the proposed sub-grade, or the thickness of the existing fill, whichever is deeper. This will mean that at least 2 to 3 ft of native sediment will likely be encountered beneath the fill during excavation within the building footprint. It seems unlikely that native sediment will be encountered during excavation for the parking lots.

Paleontology

Old Paralic Deposits. Paralic Deposits were deposited during the middle Pleistocene (10,000 to 300,000 years ago). This is sufficient time for most animal and plant remains to become fossilized. Fossils are known in similar deposits from excavations for roads, housing developments, and quarries within the LA Basin, and California (Jefferson, 1991a and 1991b; Miller, 1971). Within the older alluvial portions of the Paralic Deposits remains, terrestrial animals, such as elephants, horses, bison, camels, antelope, saber-toothed cats, dire-wolves, bears, deer, and sloths, are known; however occasionally these terrestrial animal remains are also found within the marine portion of the Paralic Deposits. Within the marine portion of these deposits, it is more common to find invertebrate and vertebrate fossils such as bivalves, gastropods, wood, leaf impressions, echinoderms, crabs, sharks, fish, seals, dolphins, and whales. There is a potential for these types of fossils in all Paralic Deposits.

Locality Search

On September 30, 2010, the Natural History Museum of Los Angeles County (LACM) completed a paleontological locality search for the project. The locality search included a review of all known paleontological sites within the vicinity of the project area and within similar sediments that will be exposed during excavation.

According to the LACM, there are no known vertebrate fossil localities within the project area itself. However, there are fossil localities nearby within the same units that occur within the project area. According to the LACM, “the entire proposed project area has surficial deposits composed of either young alluvial deposits or older alluvial deposits, including the Palos Verdes Sand [the Palos Verdes Sand is the same as the old Paralic Deposits described above]. The younger alluvial deposits are typically too young to contain fossils, but the older alluvial deposits and Palos Verdes Sand have produced fossils in the vicinity of the project area.”

The paleontological locality search identified six vertebrate fossil localities in the vicinity of the project area. The closest, LACM 7393, is located approximately 1 mi to the south and west of the project area and produced a camel at a depth of 8.5 ft. To the west-northwest of the project area, LACM 1021 produced bird and mammoth at an unknown depth. At 37 ft below the surface, LACM 3245 produced numerous fish and invertebrate fossils through the screen washing of sediments. LACM 1022 produced a bird fossil. Northwest of the project area, LACM 3660 produced mammoth at 19 ft below the surface, and LACM 6802 produced undetermined vertebrate fossils at 16 ft below the surface.

Summary

There are no recorded vertebrate fossil localities within the project area. However, the Paralic Deposits that are mapped within the project area are known to contain paleontological resources, and the LACM knows of six vertebrate fossil localities in the vicinity of the project area from these sediments at depths of between 8–37 ft below the surface.

Recommendations

The results of the geological analysis and the paleontological locality search indicate that the potential exists for significant fossil remains to be impacted within the project area. Based on the geotechnical report prepared for the project, the sediments that have the potential to contain paleontological resources will not be encountered until a depth of approximately 2 to 3 ft below the surface has been reached. Therefore, LSA recommends that a paleontologist be contacted to develop a Paleontological Mitigation Plan (PMP) whenever old Paralic Deposits will be encountered. The PMP should include, but not be limited to:

- Attendance at the pregrade meeting by a qualified paleontologist or representative. At this meeting, the paleontologist will explain the likelihood for encountering paleontological resources, what resources may be discovered, and the methods of recovery that will be employed.
- Monitoring of excavation activities should be conducted by a qualified paleontological monitor in areas identified as likely to contain paleontological resources. The monitor should be equipped to salvage fossils and/or matrix samples as they are unearthed in order to avoid construction delays. The monitor must be empowered to temporarily halt or divert equipment in the area of the find in order to allow removal of abundant or large specimens. Monitoring should initially occur on a full-time basis in areas identified as likely to have paleontological resources. Monitoring may be reduced to a part-time basis if no resources are being discovered (monitoring reductions and when they occur will be determined by a qualified paleontologist).
- Localized concentrations of small (or micro-) vertebrates may be found in on-site deposits. Therefore, it is recommended that these sediments occasionally be spot-screened through 1/8- to 1/20-inch mesh screens to determine whether microfossils are present. If microfossils are encountered, additional sediment samples (up to 6,000 pounds, or 3 cubic yards) shall be collected and processed through 1/20-inch mesh screens to recover additional fossils.
- Recovered specimens shall be prepared to a point of identification and permanent preservation. This includes the washing and picking of mass samples to recover small invertebrate and vertebrate fossils, the removal of surplus sediment from around larger specimens to reduce the volume of storage for the repository and the storage cost, and the addition of approved chemical hardeners/stabilizers to fragile specimens.

- Specimens shall be identified and curated in a museum repository with permanent, retrievable storage. The repository institutions usually charge a one-time fee based on volume, so removing surplus sediment is important. The repository institution may be a local museum or university with a curator who can retrieve the specimens on request. A curation agreement with the repository facility needs to be initiated prior to the beginning of grading activities.
- A report of findings shall be prepared with an appended, itemized inventory of specimens. When submitted to the Lead Agency, the report and inventory will signify completion of the program to mitigate impacts to paleontological resources.

References

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Western Laboratories

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