

Appendix E
**Paleontological Resources
Assessment**

Paleontological Resources Assessment
for the
3822 South Figueroa Project
in the
City of Los Angeles
Los Angeles County, California



Expect More. Experience Better.

Prepared by:

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August 2024

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ACRONYMS AND ABBREVIATIONS

Bgs	Below ground surface
IP	Invertebrate Paleontology
KHA	Kimley-Horn and Associates, Inc.
LACM	Los Angeles County Museum
LACMNH	Los Angeles County Museum of Natural History
MM	Mitigation Measure
PRIMP	Paleontological Resources Impact Mitigation Program
Qa	Very late Pleistocene and recent young alluvium
Qae	Late Pleistocene-aged alluvium
USGS	United States Geological Survey
VP	Vertebrate Paleontology
WEAP	Worker Education and Awareness Program

1 INTRODUCTION

Kimley-Horn and Associates, Inc. (Kimley-Horn) conducted a Paleontological Resources Assessment of the 3800 Figueroa Project (Project) Site located within the City of Los Angeles in Los Angeles County, California. This study was completed to support the Lead Agency's review of potential impacts to paleontological resources as a result of the proposed Project. A literature review and record searches were conducted for the property to identify the likelihood of present unique paleontological resources or sites that would be directly or indirectly destroyed by the Project.

1.1 Project Description

The Project Site is located in a highly urbanized area located approximately two miles southwest of Downtown Los Angeles within the City's South Los Angeles Community Plan area (Figure 1). The Project Site is generally bounded by South Figueroa Street to the west, West 38th Street to the north, West 39th Street to the south, and South Flower Drive and the Interstate 110 (I-110) freeway to the east. The Project is located at 3822-3838 South Figueroa Street and 3801-3833 ½ South Flower Drive in the City of Los Angeles within Section 7 of Township 2 South and Range 13 West of the Hollywood 7.5-minute quadrangle (Figure 2). The Project Site consists of nine parcels (Assessor Parcel Numbers 5037-031-015, 5037-031-016, 5037-031-001, 5037-031-002, 5037-031-003, 5037-031-004, 5037-031-005, 5037-031-006, 5037-031-007) that encompass approximately 1.5 acres.

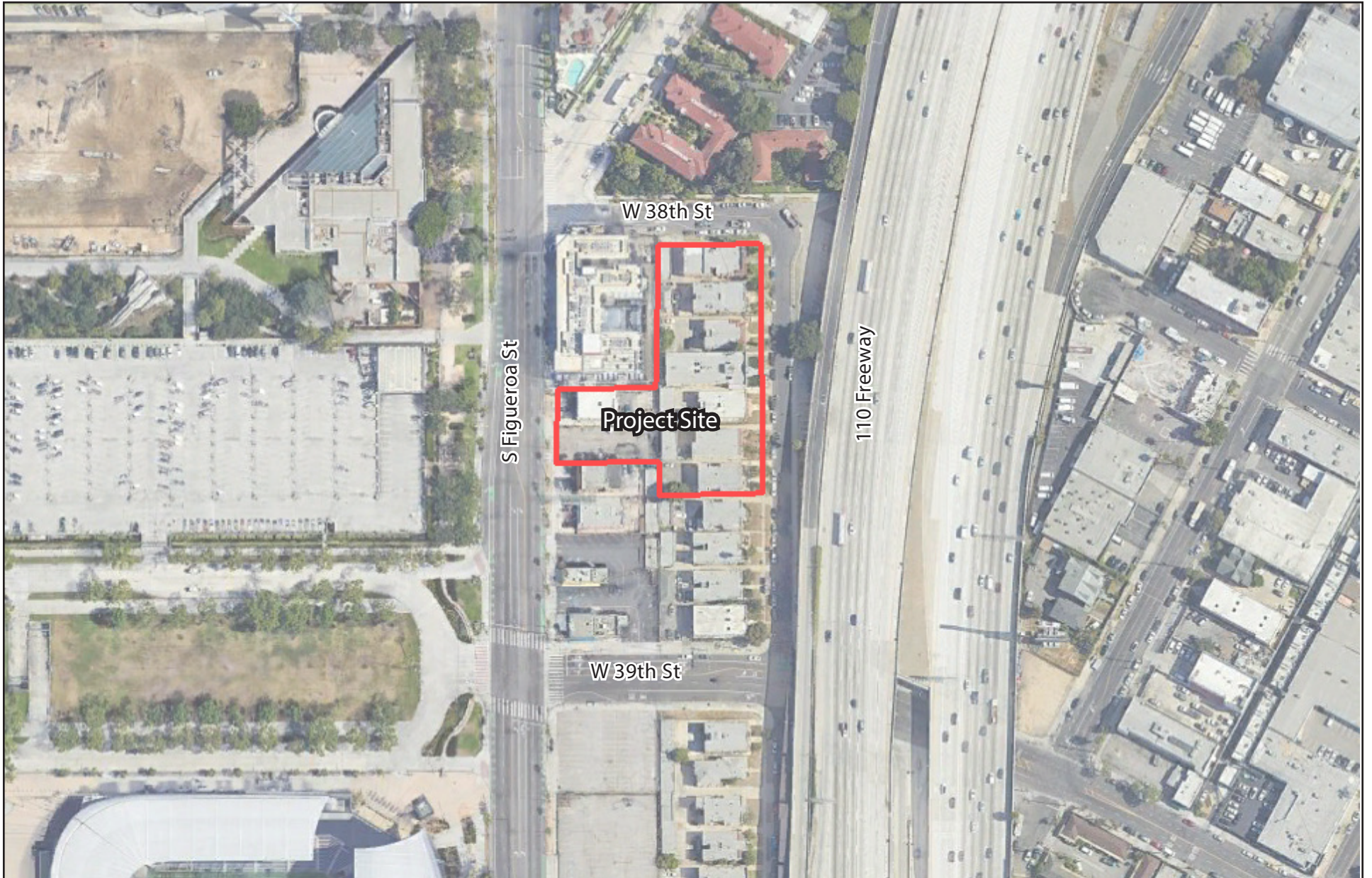
The Project involves the development of a seven-story student and multi-family affordable housing development that includes 209 multi-family housing units, inclusive of 42 covenanted affordable multi-family housing units, 2,705 square feet (sf) of ground level commercial uses, and interior ground level wrapped parking. The Project Site is irregular in shape and is currently occupied by residential apartment buildings. Existing uses on the Project Site include seven two-story apartments along South Flower Drive and a two-story apartment and surface parking lot along South Figueroa Street. The Project would remove the existing multi-family dwelling units and surface parking lot to construct the Project. The Project would include 22,840 sf of code defined open space in addition to 287 sf of additional non-code defined open space throughout the Project. The Project would include 34 residential parking stalls and 6 commercial parking stalls on the ground level in a wrapped, fully enclosed garage.

1.2 Regulatory Setting

Paleontological resources are limited, nonrenewable resources of scientific, cultural, and educational value and are afforded protection under federal and state laws and regulations. This study satisfies project requirements in accordance with state regulations, as well as guidelines and criteria specified by the Society of Vertebrate Paleontology (1995, 2010).

California Environmental Quality Act (CEQA)

CEQA is the principal statute governing environmental review of projects occurring in the state and is codified at Public Resources Code (PRC) Section 21000 *et seq.* CEQA requires lead agencies to determine if a proposed project would have any significant effect on the environment, including significant effects



SOURCE: Nearmap, 2024



N.T.S.

FIGURE 2: Aerial of Project Site

3822 SOUTH FIGUEROA PROJECT

on paleontological resources. Guidelines for the Implementation of CEQA, as amended December 28, 2018 (Title 14, Division 6, Chapter 3, California Code of Regulations 15000 *et seq.*), define procedures, types of activities, persons, and public agencies required to comply with CEQA.

Public Resources Code (PRC) Section 5097.5

Requirements for paleontological resource management are included in the PRC Division 5, Chapter 1.7, Section 5097.5. This statute prohibits persons from knowingly and willfully excavating upon, removing, destroying, injuring, or defacing paleontological sites or paleontological features within lands under the jurisdiction of the state or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, local agencies are required to comply with PRC Section 5097.5 for their own activities, including when approving permits for actions taken by others (e.g., encroachment permits). PRC Section 5097.5 also establishes the unauthorized removal of paleontological resources as a misdemeanor and requires reasonable mitigation of adverse impacts to paleontological resources from developments on public (state, county, city, and district) lands.

City of Los Angeles General Plan

The Conservation Element of the City of Los Angeles General Plan recognizes paleontological resources in Section 3: “Archeological and Paleontological” and contains an objective to protect the city’s archaeological and paleontological resources for historical, cultural, research and/or educational purposes. The General Plan also states:

Pursuant to CEQA, if a land development project is within a potentially significant paleontological area, the developer is required to contact a bona fide paleontologist to arrange for assessment of the potential impact and mitigation of potential disruption of or damage to the site. If significant paleontological resources are uncovered during project execution, authorities are to be notified and the designated paleontologist may order excavations stopped, within reasonable time limits, to enable assessment, removal or protection of the resources (City of Los Angeles 2001: II-5).

1.3 Natural Setting

The Project Site is located within the western central portion of Los Angeles County within the Los Angeles Basin. The Los Angeles Basin is a structural depression that is approximately 50 miles long and 20 miles wide that developed as a result of tectonic forces and the San Andreas Fault zone (Ingersoll and Rumelhart 1999; Critelli et al. 1995). Sediments have eroded into the Basin from the surrounding mountains since the middle Miocene (13 million years ago), resulting in thousands of feet of sediment accumulation within the Basin. When the sea level dropped during the Pleistocene (2.58 million to 11,700 years ago), the uppermost layers of the Basin then became composed of alluvial sediments (Yerkes et al. 1965). In the present day, the Project Site is underlain by young alluvium (Qa) made up of clay, sand, and gravel and includes the gravel and sand of minor stream channels, which is evident by the geotechnical study prepared for the proposed Project (Campbell et al. 2016; Dibblee and Ehrenspeck 1991; Leighton and Associates 2024). The Project site is now entirely developed and graded with no native vegetation on site.

2 RESEARCH

2.1 Literature Review

A review of available geologic maps and reports was conducted for the Project Site and surrounding area. United States Geological Survey (USGS) geologic maps show that the Project Site is underlain by young alluvium (Qa) made up of clay, sand, and gravel and includes the gravel and sand of minor stream channels (Campbell et al. 2016; Dibblee and Ehrenspeck 1991). The geotechnical investigation conducted for the Project indicated that artificial fill is compacted under the existing paved surface to a depth of four feet (Leighton and Associates 2024). Young alluvial native soils are present at the Project Site from 4-25 feet below ground surface and were deposited by the ancestral course of the Los Angeles River. Pleistocene-age (11,700 years to 1.8 million years old) nonmarine alluvium was encountered at depths generally below 25 to 30 feet. Though the Holocene-aged alluvium immediately underlying the Project Site have low sensitivity for paleontological resources, the geologic units identified 25 feet and deeper below surface, which would not be impacted by the Project, have relatively high potential for paleontological resources.

Paleontological records searches were conducted for the Project Site and surrounding region. Kimley-Horn staff requested a search by the Los Angeles County Museum of Natural History (LACMNH), and the results for the Project Site and approximately 5-mile radius were provided on June 23, 2024 (Attachment 1). The results of the record search were negative for known specimens within the Project Site. Staff also requested a records search through the Western Science Center (WSC), and the repository responded on July 6, 2024 (Attachment 2). The WSC indicated that it does not have specimen localities within the Project Site or within a 1-mile radius. However, while there are no specimen localities that lie directly within the proposed Project Site, the LACMNH repository cited positive findings for the vicinity in nearby sediments of the same composition. **Table 1: Records Search Findings**, below, summarizes the closest known findings within LACMNH records:

Locality Number	Location	Formation	Taxa	Depth	Distance from Project
LACM IP 34956	Car park on northwest corner of the Natural History Museum of Los Angeles County	Unknown Formation (Pleistocene)	Invertebrates (unspecified)	Unknown (collected during car park excavations)	0.5 mile west
LACM VP 7758	South Region Middle School No. 6; S. Western Ave & 46th St	Unknown Formation (Pleistocene)	Three-spined stickleback (<i>Gasterosteus</i>); rodents (<i>Perognathus</i> , <i>Thomomys</i> , <i>Microtus</i>)	16 feet bgs	2 miles southwest
LACM VP 1755	Near 12th & Hill Sts, Los Angeles	Unknown Formation (Pleistocene)	Horse (<i>Equus</i>)	43 ft bgs	2.5 miles northeast

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Table 1: Records Search Findings					
Locality Number	Location	Formation	Taxa	Depth	Distance from Project
LACM VP 1893	Between Gramercy and Western Ave in Santa Monica Freeway cut	Unknown Formation (Pleistocene, sands & gravel)	Bison (<i>Bison antiquus</i>), Mammoth (<i>Mammuthus</i>)	Unrecorded	3 miles northwest
LACM VP 3252	3140 Hyde Park Blvd, Hyde Park School	Unknown Formation (Pleistocene)	Bison (<i>Bison</i>), Camel (<i>Camelops</i>)	Unknown	4.5 miles southwest

*VP = vertebrate paleontology; IP = invertebrate paleontology; bgs = below ground surface

It is important to note that that management of paleontological records is not delineated based on geographical region and, as such, there is no single repository or specific group of repositories responsible for the management of paleontological records within Los Angeles County. As such, it is possible that additional records exist for the general vicinity of the Project Site that are not included in the records provided by LACMNH and WSC. However, given the close proximity of the LACMNH repository to the Project Site, as well as their long operating history in the region and emphasis on paleontological resource management, it is possible that all relevant or at least a higher percentage of records for the vicinity of the Project Site are held at LACMNH than at any other source. As such, the above results are generally considered a strong sample of specimen localities for the region that includes the Project Site.

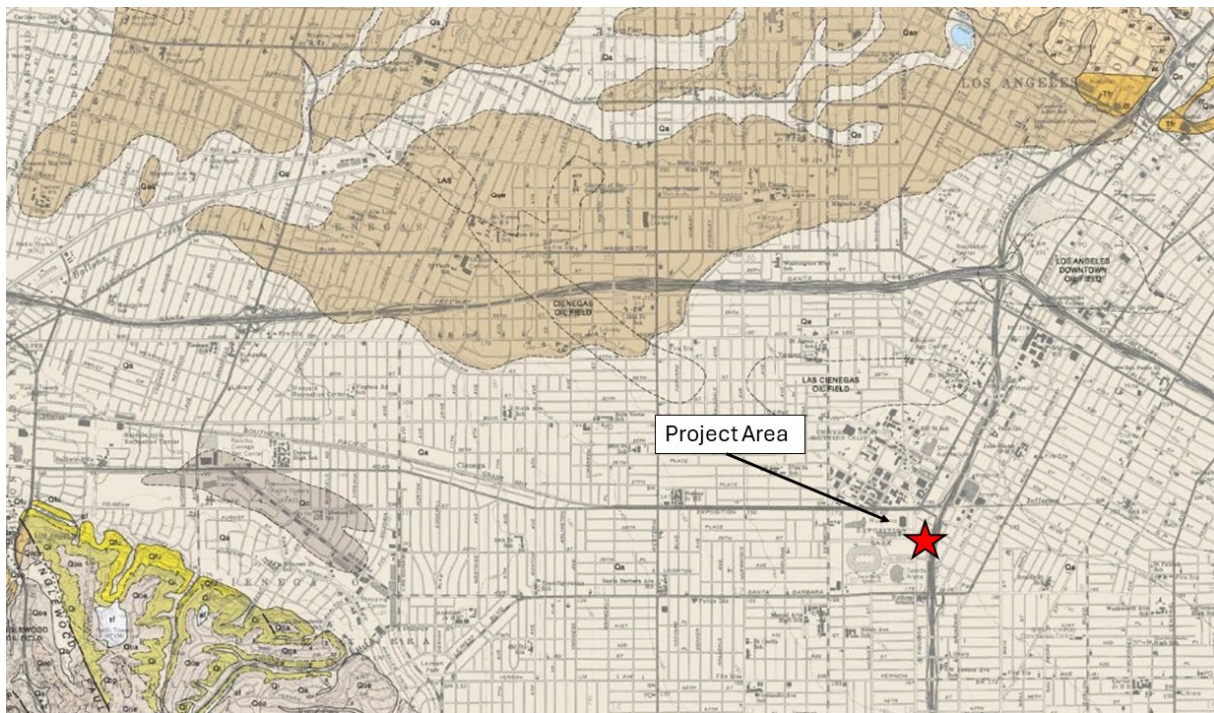


Figure 3: Location of Project Site within USGS Geological Map

3 RECOMMENDATIONS

No known paleontological resources were identified within the Project Site as a part of the current study. There is a low paleontological sensitivity for soils 0-25 feet below ground surface in the fill layer (0-4 feet bgs) and Holocene layer (4-25 feet bgs). The Project Site has been developed in the past, and it is unlikely that any fossil-bearing soils would be encountered at these layers.

This study concludes that there is a moderate-to-high sensitivity for paleontological resources within soils at depths of 25 feet or deeper below the ground surface in the Pleistocene layer. The moderate-to-high paleontological sensitivity of soils at 25 feet or deeper in the Pleistocene layer is evident by the age and composition of soils and sediments in the Project Site and the knowledge of paleontological resources identified within similar sediment deposits nearby. The presence of any intact paleontological resources within deeper sediments would be considered scientifically significant if discovered.

Excavation for the proposed Project will reach a maximum depth of 10 feet below ground surface. Therefore, excavation for the proposed Project will not reach the sediment deposit most likely to contain paleontological resources, which is the Pleistocene layer (25 feet bgs and deeper). Should proposed excavation depth substantially increase (e.g. a 10–15-foot increase in the depth of proposed excavation), paleontological resources could be encountered and the conclusions of this analysis may need to be revisited. In summary, it is unlikely that paleontological resources could be inadvertently impacted during Project implementation with the current proposed excavation depth of 10 feet and, for this reason, development of the Project would be unlikely to directly or indirectly destroy a unique paleontological resource or site.

The City has established a standard condition of approval to address inadvertent discovery of paleontological resources. Should paleontological resources be inadvertently encountered, this condition of approval provides for temporary halting of construction activities near the encounter so the find can be evaluated:

If paleontological materials are encountered, a paleontologist shall temporarily divert or redirect grading and excavation activities in the area of the exposed material to facilitate evaluation and, if necessary, salvage. The paleontologist shall then assess the discovered material(s) and prepare a survey, study or report evaluating the impact. The Applicant shall then comply with the recommendations of the evaluating paleontologist, and a copy of the survey report shall be submitted to the Los Angeles County Natural History Museum. Ground disturbing activities may resume once the paleontologist's recommendations have been implemented.

4 REFERENCES

- Campbell, R.H., Wills, C.J., Irvine, P.J., and Swanson, B.J. 2016. Preliminary geologic map of the Los Angeles 30' x 60' quadrangle, California: Version 2.1. California Geological Survey. Preliminary Geologic Maps PGM-13-06.2016.
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- Ingersoll, R. V. and P. E. Rumelhart. 1999. Three-stage basin evolution of the Los Angeles basin, southern California. *Geology* 27: 593-596.
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- Society of Vertebrate Paleontology (SVP). 1995. Assessment and mitigation of adverse impacts to nonrenewable paleontologic resources: standard guidelines. *Society of Vertebrate Paleontology News Bulletin* 163:22–27.
- Society of Vertebrate Paleontology (SVP). 2010. Standard procedures for the assessment and mitigation of adverse impacts to paleontologic resources. *Society of Vertebrate Paleontology News Bulletin*.
- Yerkes, R.F., T.H. McCulloh, J.E. Schollhamer, and J.G. Vedder. 1965. Geology of the Los Angeles Basin: an introduction. Geological Survey Professional Paper 420-A.

Attachment 1

Records Search Results from the Los Angeles County Museum of Natural History (LACMNH)

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

June 23, 2024

Kimley-Horn
Attn: Jamie Nord

re: Paleontological resources for the 3800 Figueroa Project

Dear Jamie:

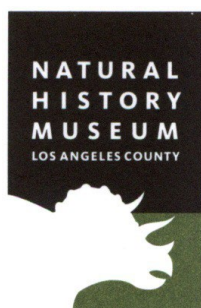
I have conducted a thorough search of our paleontology collection records for the locality and specimen data for proposed development at the 3800 Figueroa project area as outlined on the portion of the Hollywood USGS topographic quadrangle map that you sent to me via e-mail on June 17, 2024. We do not 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 may 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 34956	Car park on northwest corner of the Natural History Museum of Los Angeles County	Unknown Formation (Pleistocene)	Invertebrates (unspecified)	Unknown (collected during car park excavations)
LACM VP 7758	South Region Middle School No. 6; S. Western Ave & 46 th St	Unknown Formation (Pleistocene)	Three-spined stickleback (<i>Gasterosteus</i>); rodents (<i>Perognathus</i> , <i>Thomomys</i> , <i>Microtus</i>)	16 feet bgs
LACM VP 3252	3140 Hyde Park Blvd, Hyde Park School	Unknown Formation (Pleistocene)	Bison (<i>Bison</i>), Camel (<i>Camelops</i>)	Unknown
LACM VP 1893	Between Gramercy and Western Ave in Santa Monica Freeway cut	Unknown Formation (Pleistocene, sands & gravel)	Bison (<i>Bison antiquus</i>), Mammoth (<i>Mammuthus</i>)	Unrecorded
LACM VP 1755	Near 12th & Hill Sts, Los Angeles	Unknown Formation (Pleistocene)	Horse (<i>Equus</i>)	43 ft 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 Federal (43 Code of Federal Regulations Part 49.110) or Society of Vertebrate Paleontology standards.

Sincerely,

A handwritten signature in black ink that reads "Alyssa Bell". The signature is written in a cursive style and is placed on a light yellow rectangular background.

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

enclosure: invoice

Attachment 2

Records Search Results from the Western Science Center (WSC)

July 6th, 2024

Kimley-Horn
Jamie Nord
3801 University Ave Ste. 300
Riverside, CA 92501

Hello,

This letter presents the results of a record search conducted for the 3800 Figueroa Project located in the City of Los Angeles, Los Angeles County, CA. The project lies north of W 39th Street, south of W 38th Street, and east of S Figueroa Street on Township 2 South, Range 13 West, Section 7 on the *Hollywood, CA* USGS 7.5 minute quadrangle.

The geologic units underlying the project area is mapped as alluvial deposits of sand and gravel from the Holocene epoch (Dibblee and Ehrenspeck, 1991). Holocene alluvial units are considered to be of high preservation value, but material found is unlikely to be fossil material due to the relatively modern associated dates of the deposits. However, if development requires any substantial depth of disturbance, the likelihood of reaching Pleistocene alluvial sediments would increase. The Western Science Center does not have localities within the project area or within a 1 mile radius; however, this may be due in part to the project's distance from the museum, and other repositories may have localities in the area.

While the presence of any fossil material is unlikely, if excavation activity disturbs deeper sediment dating to the earliest parts of the Holocene or Late Pleistocene periods, the material would be scientifically significant. Excavation activity associated with the development of the project area is unlikely to be paleontologically sensitive, but caution during development should be observed.

If you have any questions, or would like further information, please feel free to contact me at bstoneburg@westerncentermuseum.org.

Sincerely,



Brittney Elizabeth Stoneburg, MSc
Collections Manager