

**PRE-CONSTRUCTION PALEONTOLOGICAL ASSESSMENT OF THE 13.23 SCHEU  
BUSINESS CENTER PROJECT SITE (APN 209-211-024) LOCATED IMMEDIATELY  
NORTHEAST OF THE INTERSECTION OF ARCHIBALD AVENUE AND 7<sup>th</sup> STREET  
IN THE CITY OF RANCHO CUCAMONGA, SAN BERNARDINO COUNTY**

***Prepared by***

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***Prepared for***

Scheu Management Corporation  
c/o  
Mr. Michael Morris  
RedRed Development Inc.  
4340 Von Karman Avenue, Ste. 140  
Newport Beach, CA 92660

APN 209-211-024

USGS Topographic Quadrangle: 7.5' *Guasti*, California.  
Northwest ¼ of the Northwest ¼ of Township 1 South, Range 7 West, SBBM

***Revised***

May 1, 2019

The undersigned certifies that the attached report is a true and accurate description of the results of a PALEONTOLOGICAL assessment described herein.



A handwritten signature in blue ink, appearing to read "John A. Minch".

John A. Minch PhD.  
California Professional Geologist #3269

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## **EXECUTIVE SUMMARY**

This Pre-construction Paleontological Survey Report documents the findings of a paleontological site investigation conducted by Archeological Associates for the 13.23 acre Scheu Business Center project identified as APN 209-211-024. The property is located immediately northeast of the intersection of Archibald Avenue and 7<sup>th</sup> Street in the City of Rancho Cucamonga, San Bernardino County. Presently, it is desired to develop a four building, business park within the study area.

The survey investigation included a records search, literature review, a field reconnaissance, and report. The survey was completed using currently accepted paleontologic methods that satisfy mitigation requirements for paleontological resources. The on-site field reconnaissance conducted on September 8, 2018 was performed in order to: 1) evaluate existing paleontological resources, 2) determine the impact to identified and/or anticipated paleontological resources resulting from the proposed undertaking, and 3) to determine appropriate mitigation measures necessary to minimize anticipated adverse impacts to paleontological resources resulting from construction (if any).

The parcel is underlain by Younger (Recent) and Older Quaternary Alluvium. The Older Alluvium is considered to have a moderate to high potential for the discovery of significant fossils. No recorded fossil localities are known from the project site and the field study failed to identify any exposed fossils. However, present site conditions indicate paleontological monitoring is warranted below depths of 5-feet. The monitoring can be part-time during over-excavation of the building pads below 5-feet in the Older Quaternary Alluvium, increasing to full-time during excavation of the deeper utilities (e.g. deeper removals, storm drain and sewers) in the Older Quaternary Alluvium.

## **I. INTRODUCTION**

The following report was written for RedRock Development Inc. on behalf of Scheu Management Corporation by Archaeological Associates. It details the results of a Pre-Construction Paleontological Assessment of the 13.23-acre Scheu Business Center project site identified as APN 209-211-024. The study area is located at the northeast corner of Archibald Avenue and 7<sup>th</sup> Street in the City of Rancho Cucamonga, San Bernardino County. Presently it is desired to construct a business park on the property.

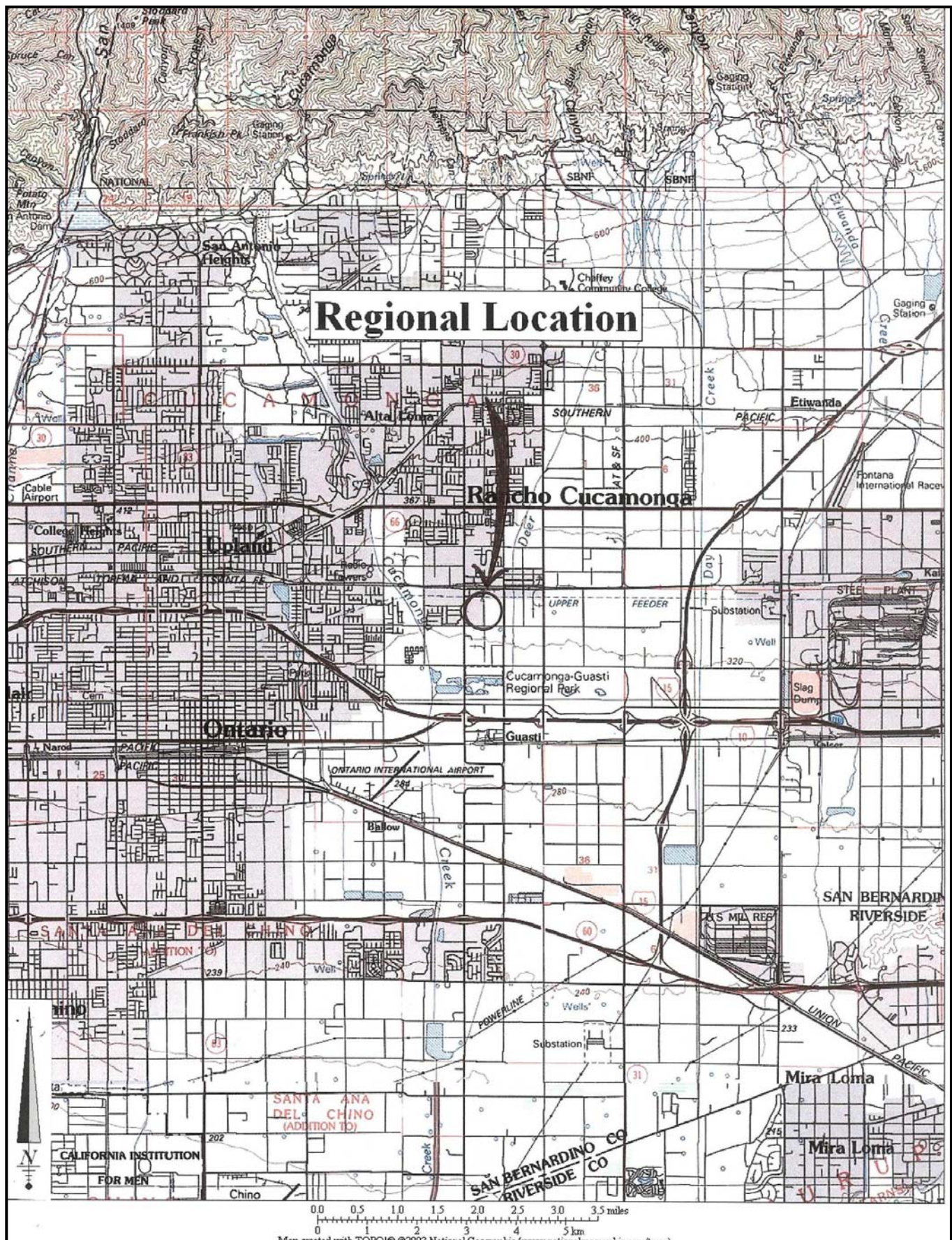
The survey was performed in order to: (1) evaluate existing paleontological resources at the site and surrounding area, (2) determine if the proposed development poses any significant adverse impact to existing paleontological resources, and (3) to outline appropriate mitigation measures in order to minimize adverse impacts to the paleontological resources (if any).

## **II. DESCRIPTION OF THE SITE**

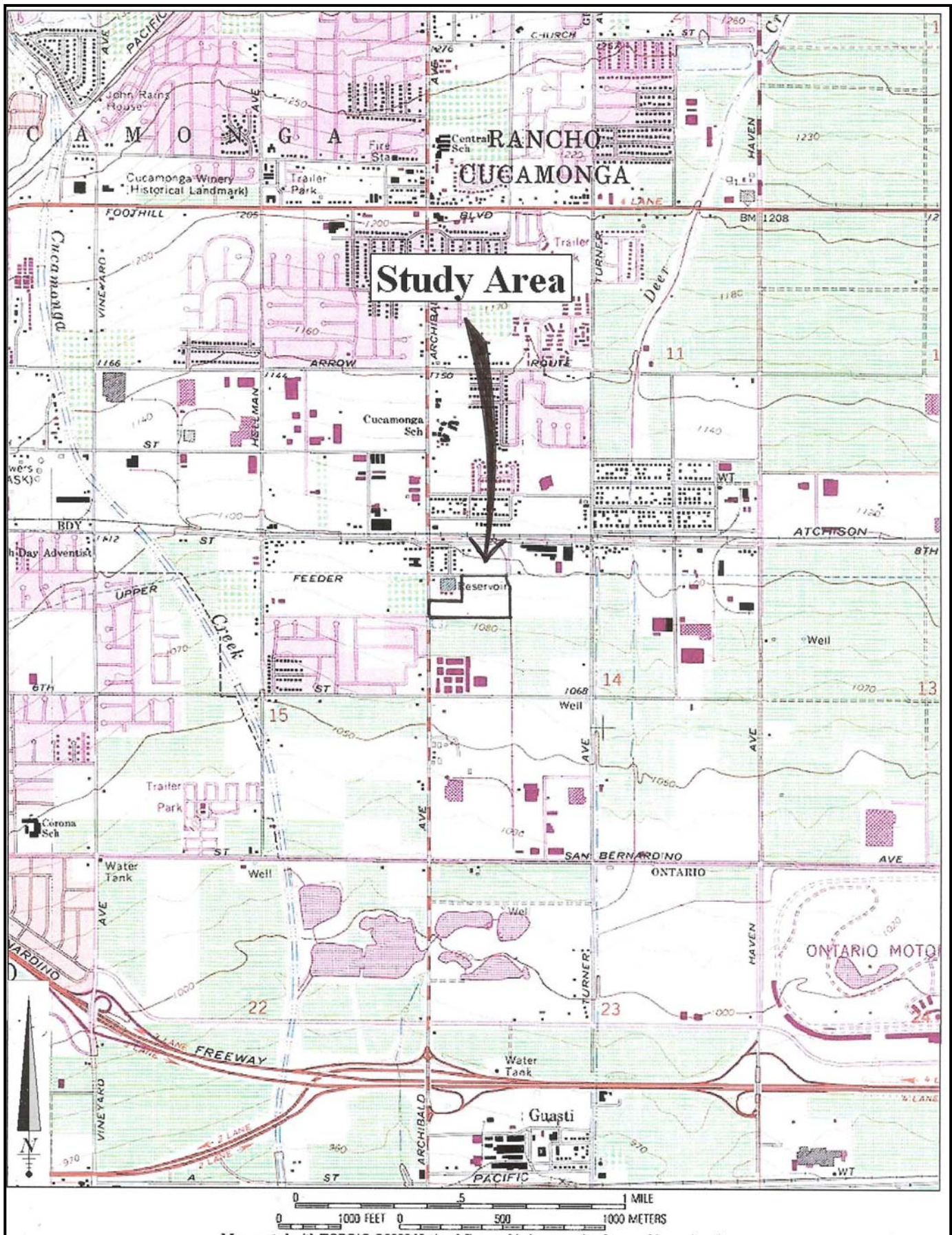
The study area lies east of Cucamonga Creek, north of Interstate 10, and south of Foothill Boulevard in the City of Rancho Cucamonga, San Bernardino County (fig. 1). More specifically, it is located adjacent to the east side of Archibald Avenue and the north side of 7<sup>th</sup> Street immediately south/southeast of a CVWD water storage facility (9029 Archibald Ave.). A portion of Acacia Street abuts the property on the north, a railroad spur line on the east. Legally, the subject property lies within the Northwest ¼ of the Northwest ¼ of Section 14, Township 1 South, Range 7 West, SBBM as shown on a portion of the *Guasti*. USGS 7.5' Topographic Quadrangle (fig. 2).

Geographically, the site is situated on an alluvial fan emanating from the San Gabriel Mountains to the north (McLeod 2018). Topographically, the property is flat and devoid of significant relief. Elevations range from a maximum of 1095 feet above mean sea level along the northern project boundary to a minimum of approximately 1085 feet along the southern boundary (fig. 4). The parcel is largely devoid of vegetation due to weed abatement although a sparse cover of exotic weeds and forbes exists. There are no standing structures within the project boundaries although numerous piles of soil have been placed along the southern project boundary.









### III. RECORDS SEARCH AND LITERATURE REVIEW

All available literature considered pertinent to the site, including previously recorded lists of fossils and paleontological fossil localities recorded for the general site vicinity, was reviewed. The purpose of the literature search was to determine: (1) pertinent geologic and paleontologic site information, and (2) the paleontologic sensitivity of identified and/or anticipated geologic units underlying the site.

A records search for the project conducted by the Natural History Museum of Los Angeles County (LACM) shows no fossil localities mapped within the boundaries of the study area (McLeod 2018). LACM's closest fossil vertebrate locality in the older Quaternary deposits is LACM 7811. Located to the south of the study area and west of Mira Loma along Sumner Avenue a fossil specimen of whipsnake, *Masticophis* was recovered. Located further to the south, the next closest locality is LACM 1207 which yielded a fossil specimen of deer, *Odocoileus* (ibid., Appendix A).

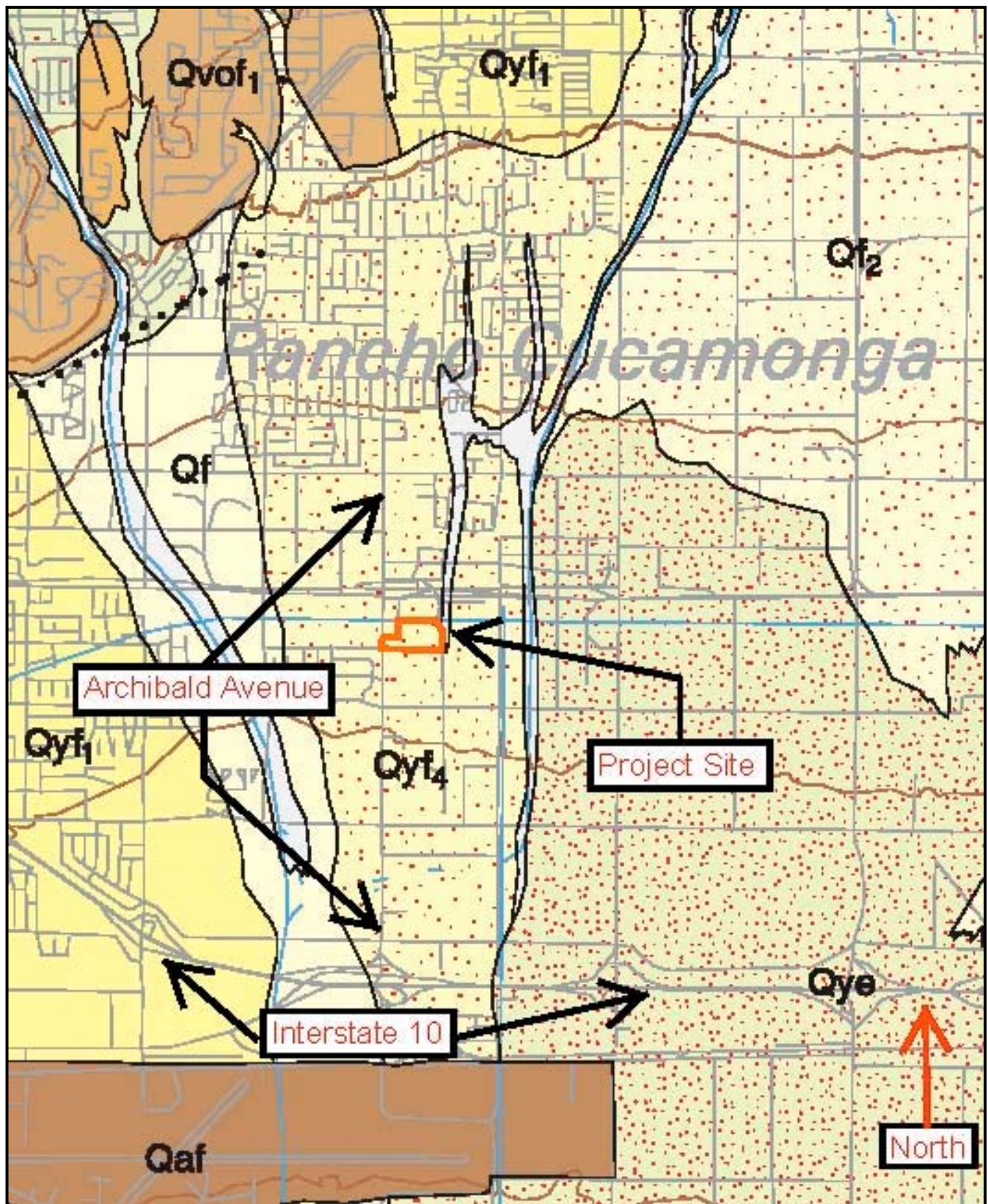
A review of other unpublished documents relating to regional and/or detailed geologic studies was also conducted. These were supplemented with an examination of the regional geologic map delineating the geology of the rock formations underlying the project site (fig. 3: Morton & Miller 2003). No additional recorded fossil localities, fossil lists, published or unpublished literature within the boundaries of the project site were discovered during the additional research.

### IV. GEOLOGY/BIOSTRATIGRAPHY

The study area is underlain by sediments that have been mapped as Quaternary Alluvium (fig. 3). The Quaternary Alluvium is variously mapped as Younger (Recent) and Older Quaternary Alluvium. The Older Quaternary Alluvium and Recent Alluvium are all deposited in the same alluvial fan environment and consist of unconsolidated to slightly consolidated silt, sand, and coarse-grained sand to bouldery alluvial-fan deposits having slightly to moderately dissected surfaces.

As a result of the low rates of sedimentation in broad flat valleys the sediments in areas mapped as Quaternary Alluvium are typically as old as Pleistocene in age. The Older Alluvium and some younger alluvium are known to contain significant fossil localities. The Quaternary Alluvium in this area is considered to be of low paleontologic sensitivity at the surface. This sensitivity increases to moderate to high with depth (McLeod 2018).





**Legend:** Qyf<sub>4</sub> Young alluvial-fan deposits, Unit 4 (late Holocene), Qaf Artificial fill (late Holocene), Qf Very young alluvial-fan deposits (late Holocene), Qyf<sub>1</sub> Young alluvial-fan deposits, Unit 1 (early Holocene and late Pleistocene), Qf<sub>2</sub> Very young alluvial-fan deposits, Unit 2, Qvof<sub>1</sub> Very old alluvial-fan deposits, Unit 1 (early Pleistocene), Qye Young eolian deposits (Holocene and late Pleistocene)

**Figure 3.** Geologic map of study area (Morton & Miller 2003 ) *San Bernardino* 30' x 60' USGS Topographic Quadrangle.





Many to most geologic maps indicate the broad valley areas as Quaternary Alluvium (Holocene to latest Pleistocene) when in fact these surfaces were largely formed sometime in the Pleistocene and were probably formed before the latest Pleistocene. The sediments in the active channels are Holocene while the surrounded surfaces are older. Many of these channels are incised into the surface indicating a lowering of base level, probably related to lowering of sea level. The deeper alluvium in these channels often contains a Pleistocene vertebrate fauna.

## **V. FIELD RECONNAISSANCE**

A pedestrian survey of the study area was conducted by Dr. John A. Minch, Robert S. White and Susan Klein on September 8, 2018. Dr. Minch is a Certified Vertebrate Paleontologist and a State of California Professional Geologist (No. 3269). The field survey was conducted to investigate and make visual observations of each geologic unit present on the surface of the site. No paleontologic resources were encountered during the field reconnaissance.

## **VI. CONCLUSIONS AND RECOMMENDATIONS**

No published fossil localities are known to exist on the site. No fossil remains were encountered on the site during the field reconnaissance. The older alluvium was deposited by streams flowing across the study area during the Pleistocene Epoch. Fossils of land animals are known from the surrounding region. A geotechnical investigation of the study area was undertaken by Sladden Engineering in 2013. The logs for the 10 bore holes that were excavated across the site indicated that artificial fill soil was present to a depth of 3 feet with native alluvium below (Cohrt & Anderson 2013)

### **A. Potential Environmental Impacts**

1. The Older Quaternary Alluvium Deposits are considered to have a moderate to high potential for the discovery of significant fossils.
2. The Younger (Recent) Quaternary Alluvium Deposits are considered to have a low potential for the discovery of significant fossils.



## B. Mitigation Recommendations

- Present site conditions indicate paleontological monitoring is warranted. The monitoring can be part-time during over-excavation of the building pads below 5-feet in the Older Quaternary Alluvium, increasing to full-time during excavation of the deeper utilities (e.g. deeper removals, storm drain and sewers) in the Older Quaternary Alluvium. Supervision by AA's paleontologist will be maintained during paleontologic grading observations when grading in the on-site geologic units. In the event that fossils are exposed, the paleontologist shall be allowed to divert or direct grading in the area of exposure to facilitate evaluation, and (if identified as potentially significant) to salvage significant fossils.
- All fossils collected shall be prepared and identified by a qualified paleontologist. Excavated significant fossil finds shall be offered to the City or its designee, on a first-refusal basis. These actions, as well as, final mitigation and disposition of the resources, shall be subject to City/County guidelines and regulations.

## REFERENCES

COHRT, MATTHEW J. & BRETT L. ANDERSON

- 2013 Geotechnical Investigation: Proposed Industrial/Warehouse Building, NEC Archibald Avenue & Seventh Street, APN 0209-211-24, Rancho Cucamonga, California. Sladden Engineering, Buena Park. Project No. 644-13016, 13-05-023.

McLEOD, SAMUEL A.

- 2018 Paleontological Records Search for the proposed Scheu Business Center Site Project, in the City of Rancho Cucamonga, San Bernardino County. Natural History Museum of Los Angeles County. Unpublished letter report on file with Archaeological Associates, Sun City.

MORTON, DOUGLAS M. & FRED K MILLER

- 2003 Preliminary Geologic Map of the San Bernardino 30' x 60' quadrangle, California: U.S. Geological Survey Open-File report 03-293, U.S. Geological Survey, Menlo Park, California.





**Plate I. Top:** Looking east across study area from Archibald Avenue.  
**Bottom:** Looking north along Acacia Street (portion of northern boundary).



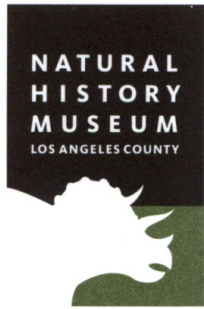
**Plate II. Top:** Looking west across northern margin of property from the northeast corner.  
**Bottom:** Southerly view along railroad spur line from the northeast property corner.



## **APPENDIX A**

Natural History Museum  
of Los Angeles County  
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28 September 2018

Archaeological Associates  
P.O. Box 180  
Sun City, CA 92586

Attn: Robert S. White, Principal

re: Paleontological resources for the proposed Scheu Business Center Site Project, in the City of Rancho Cucamonga, San Bernardino County, project area

Dear Robert:

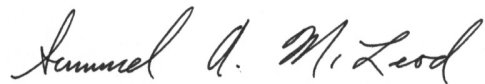
I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed Scheu Business Center Site Project, in the City of Rancho Cucamonga, San Bernardino County, project area as outlined on the portion of the Guasti USGS topographic quadrangle map that you sent to me via e-mail on 14 September 2018. We do not have any vertebrate fossil localities that lie directly within the proposed project area, but we do have localities farther afield from sedimentary deposits similar to those that may occur subsurface in the proposed project area.

The entire proposed project area has surficial sediments composed of soil on top of younger Quaternary Alluvium, derived as alluvial fan deposits from the San Gabriel Mountains to the north, partly via Deer Creek that currently flows just to the east and via Cucamonga Creek that currently flows just to the west. These deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers, but they may be underlain at relatively shallow depth by older sedimentary deposits that do contain significant fossil vertebrate remains. Our closest fossil vertebrate locality from similar older Quaternary deposits is LACM 7811, due south of the proposed project area west of Mira Loma along Sumner Avenue north of Cloverdale Road, that produced a fossil specimen of whipsnake, *Masticophis*, at a depth of 9 to 11 feet below the surface. Further to the south between Corona and Norco our vertebrate fossil locality LACM 1207 produced a fossil specimen of deer, *Odocoileus*.

Shallow excavations in the younger Quaternary Alluvium exposed in the proposed project area are unlikely to encounter significant fossil vertebrate remains. Deeper excavations that extend down into older Quaternary deposits, however, may well encounter significant remains of vertebrate fossils. Any substantial excavations below the uppermost layers in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains while not impeding development. Also, sediment samples should be collected and processed to determine the small fossil potential in the proposed project area. Any fossils collected should be placed in an accredited scientific institution for the benefit of current and future generations.

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

Sincerely,

A handwritten signature in cursive script, reading "Samuel A. McLeod". The signature is written in black ink and is positioned above the printed name.

Samuel A. McLeod, Ph.D.  
Vertebrate Paleontology

enclosure: invoice