ATTACHMENT E

Paleontological Resources Assessment Report

PALEONTOLOGICAL RESOURCES ASSESSMENT REPORT

MAGNOLIA CROSSING PROJECT

Assessor's Parcel Nos. 234-140-018, -019 and 234-150-046
City of Riverside, Riverside County, California

For Submittal to:

Planning Division – Riverside City Hall
3900 Main Street – 3rd Floor
Riverside, CA 92522

Prepared for:

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March 19, 2024

Approximately 6.5 acres
USGS Riverside West, Calif., 7.5' (1:24,000) quadrangle
Section 18, T3S R5W, San Bernardino Baseline and Meridian
CRM TECH Project No. 4092P

EXECUTIVE SUMMARY

Between January and March 2024, at the request of HANA Resources, CRM TECH performed a paleontological resource assessment on approximately 6.5 acres of vacant land in the City of Riverside, Riverside County, California. The subject property consists of Assessor's Parcel Nos. 234-140-018, -019 and 234-150-046, located north of California State Route 91 and southwest of Van Buren Boulevard, in Section 18, Township 3 South, Range 5 West, San Bernardino Baseline and Meridian, as depicted in the United States Geological Survey Riverside West, California, 7.5' quadrangle.

The study is part of the environmental review process for the proposed Magnolia Crossing Project, establishing a mixed-use development that includes commercial, retail, and residential apartment complexes on the property. The City of Riverside, as the lead agency, required the study in compliance with the California Environmental Quality Act (CEQA). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would adversely affect any significant, nonrenewable paleontological resources, as required by CEQA, and to design a paleontological mitigation program, if necessary.

In order to identify any paleontological resource localities that may exist in or near the project area and to assess the probability for such resources to be encountered during the project, CRM TECH initiated a paleontological records search, conducted a literature review, and carried out a systematic field survey of the project area in accordance with the guidelines of the Society of Vertebrate Paleontology. The results of these research procedures indicate that the project area is situated upon alluvial fan deposits of sand and gravel dating from the Holocene and Pleistocene epochs. The surface and near-surface soils (and deeper is some locations) appear to date to Recent times and to have been previously disturbed. These soils are not paleontologically sensitive. These surficial and near-surface soils, however, may be underlain by older, potentially fossiliferous sediments. Therefore, CRM TECH recommends that a paleontological resource impact mitigation program be implemented during the project to prevent impacts on such resources or reduce the impacts to a level less than significant.

The mitigation program should consist of a qualified paleontological monitor periodically visiting the project site during ground-disturbing operations to determine if potentially fossil-bearing sediments are being impacted. If such sediments are being disturbed, then full-time paleontological monitoring should be initiated. Any fossils recovered from the project area would be scientifically significant. Samples of potentially fossiliferous sediments should be collected and processed and inspected for small fossils. All recovered fossil remains should be identified to the lowest taxonomic level possible and curated at a repository with permanent retrievable storage. Under these conditions, CRM TECH further recommends that the project may be cleared to proceed in compliance with CEQA provisions on paleontological resources.

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INTRODUCTION

Between January and March 2024, at the request of HANA Resources, CRM TECH performed a paleontological resource assessment on approximately 6.5 acres of vacant land in the City of Riverside, Riverside County, California (Figure 1). The subject property, consisting of Assessor's Parcel Nos. 234-140-018, -019 and 234-150-046, is located north-northwest of California State Route 91 (the Riverside Freeway) and southwest of Van Buren Boulevard, in Section 18, Township 3 South, Range 5 West, San Bernardino Baseline and Meridian, as depicted in the United States Geological Survey Riverside West, California, 7.5' quadrangle (Figures 2, 3).

The study is part of the environmental review process for the proposed Magnolia Crossing Project, establishing a mixed-use development that includes commercial, retail, and residential apartment complexes on the property. The City of Riverside, as the lead agency, required the study in compliance with the California Environmental Quality Act (CEQA, PRC §21000, et seq.). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would adversely affect any significant, nonrenewable paleontological resources, as required by CEQA, and to design a paleontological mitigation program, if necessary.

In order to identify any paleontological resource localities that may exist in or near the project area and to assess the probability for such resources to be encountered during the project, CRM TECH initiated a paleontological records search, conducted a literature review, and carried out a field survey of the project area. The following report is a complete account of the methods, results, and final conclusion of this study. Personnel who participated in the study are named in the appropriate sections below, and their qualifications are provided in Appendix 1.

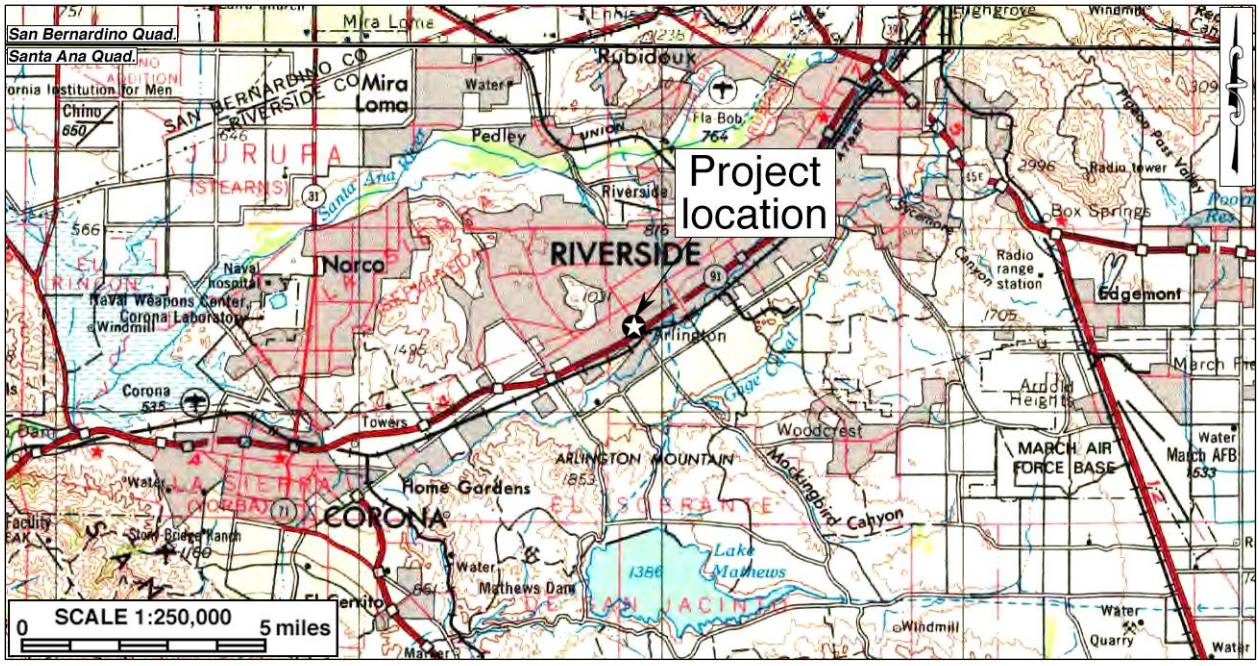

Figure 1. The project vicinity. (Based on USGS San Bernardino and Santa Ana, Calif., 120' x 60' quadrangles [USGS 1969; 1979])

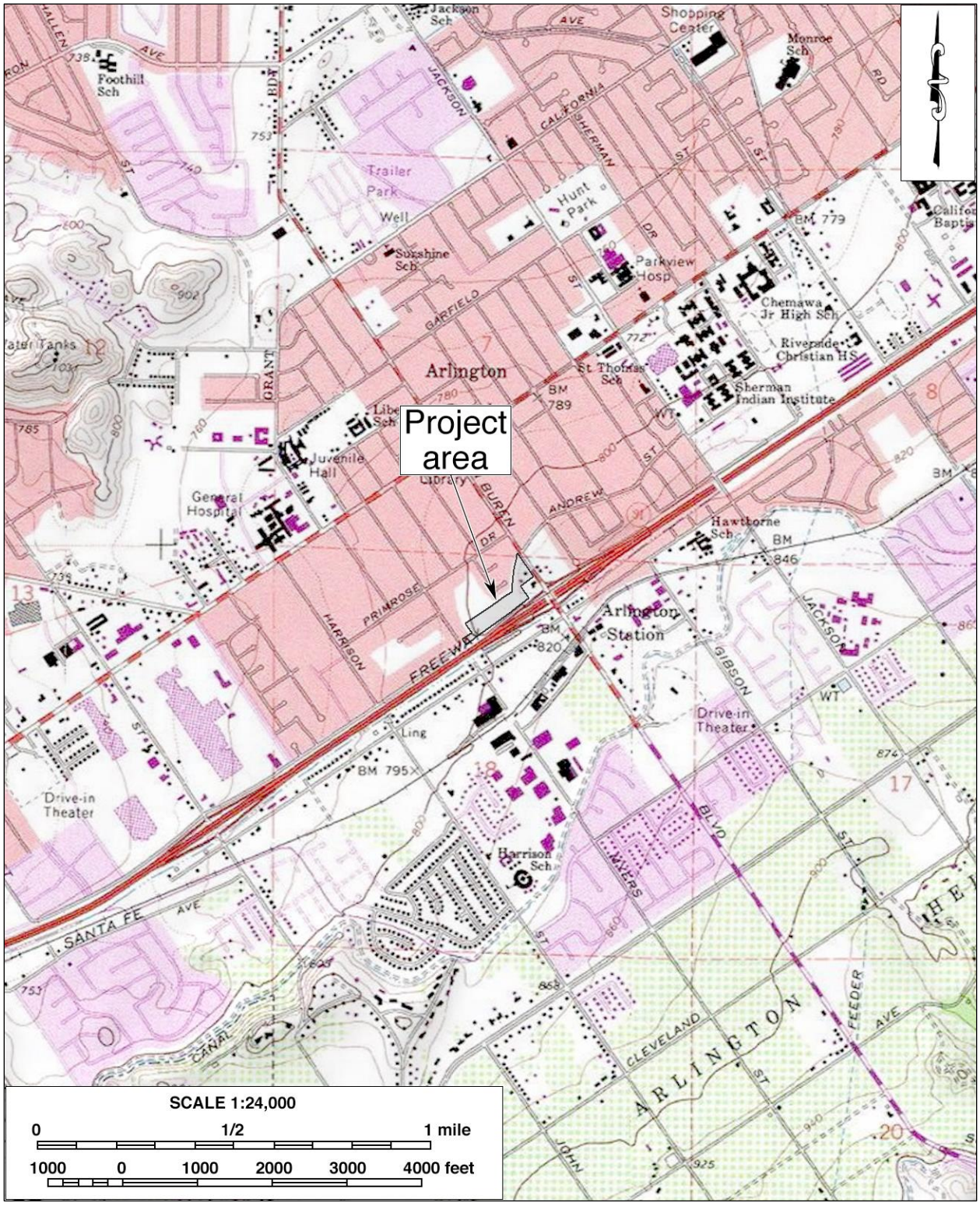

Figure 2. The project area and vicinity shown on USGS maps. (Based on USGS Riverside West, Calif., 7.5' quadrangle [USGS 1980])

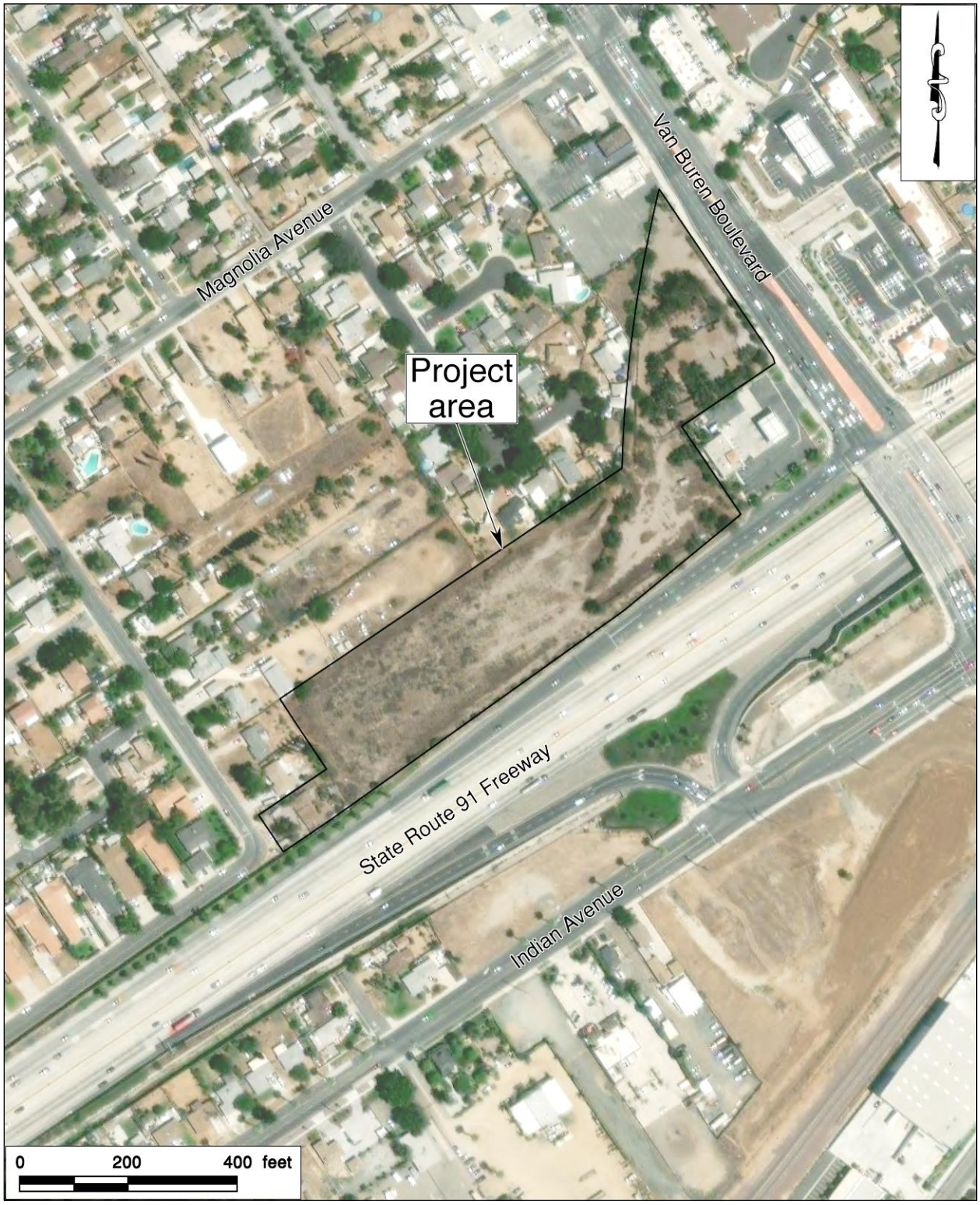

Figure 3. Recent satellite image of the project area. (Based on Google Earth imagery)

PALEONTOLOGICAL RESOURCES

DEFINITION

Paleontological resources represent the remains of prehistoric life, exclusive of any human remains, and include the localities where fossils were collected as well as the sedimentary rock formations in which they were found. The defining character of fossils or fossil deposits is their geologic age, which is typically regarded as older than recorded human history and/or older than the middle Holocene Epoch, which dates to circa 5,000 radiocarbon years (Society of Vertebrate Paleontology 2010:11).

Common fossil remains include marine and freshwater mollusk shells; the bones and teeth of fish, amphibians, reptiles, and mammals; leaf imprint assemblages; and petrified wood. Fossil traces, another type of paleontological resource, include internal and external molds (impressions) and casts created by these organisms. These items can serve as important guides to the age of the rocks and sediments in which they are contained and may prove useful in determining the temporal relationships between rock deposits from one area and those from another as well as the timing of geologic events. They can also provide information regarding evolutionary relationships, development trends, and environmental conditions.

Fossil resources generally occur only in areas of sedimentary rock (e.g., sandstone, siltstone, mudstone, claystone, or shale). Because of the infrequency of fossil preservation, fossils, particularly vertebrate fossils, are considered nonrenewable paleontological resources. Occasionally fossils may be exposed at the surface through the process of natural erosion or because of human disturbances; however, they generally lay buried beneath the surficial soils. Thus, the absence of fossils on the surface does not preclude the possibility of their being present within subsurface deposits, while the presence of fossils at the surface is often a good indication that more remains may be found in the subsurface.

SIGNIFICANCE CRITERIA

According to guidelines proposed by Eric Scott and Kathleen Springer (2003:6) of the San Bernardino County Museum, paleontological resources can be considered to be of significant scientific interest if they meet one or more of the following criteria:

1. The fossils provide information on the evolutionary relationships and developmental trends exhibited 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 the interactions between paleobotanical and paleozoological biotas;
4. The fossils demonstrate unusual or spectacular circumstances in the history of life; and/or
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.

PALEONTOLOGICAL SENSITIVITY

The fossil record is unpredictable, and the preservation of organic remains is rare, requiring a particular sequence of events involving physical and biological factors. Skeletal tissue with a high percentage of mineral matter is the most readily preserved within the fossil record; soft tissues not intimately connected with the skeletal parts, however, are the least likely to be preserved (Raup and Stanley 1978). For this reason, the fossil record contains a biased selection not only of the types of organisms preserved but also of certain parts of the organisms themselves. As a consequence, paleontologists are unable to know with certainty the quantity of fossils or the quality of their preservation that might be present within any given geologic unit.

Sedimentary units that are paleontologically sensitive are those geologic units (mappable rock formations) with a high potential to contain significant nonrenewable paleontological resources. More specifically, these are geologic units within which vertebrate fossils or significant invertebrate fossils have been determined by previous studies to be present or are likely to be present. These units include, but are not limited to, sedimentary formations that contain significant paleontological resources anywhere within their geographical extent as well as sedimentary rock units temporally or lithologically amenable to the preservation of fossils.

A geologic formation is defined as a stratigraphic unit identified by its lithic characteristics (e.g., grain size, texture, color, and mineral content) and stratigraphic position. There is a direct relationship between fossils and the geologic formations within which they are enclosed and, with sufficient knowledge of the geology and stratigraphy of a particular area, it is possible for paleontologists to reasonably determine the formation's potential to contain significant nonrenewable vertebrate, invertebrate, marine, or plant fossil remains.

The paleontological sensitivity for a geologic formation is determined by the potential for that formation to produce significant nonrenewable fossils. This determination is based on what fossil resources the particular geologic formation has produced in the past at other nearby locations. Determinations of paleontologic sensitivity must consider not only the potential to yield a large collection of fossil remains but also the potential to yield a few fossils that can provide new and significant taxonomic, phylogenetic, and/or stratigraphic data.

The Society of Vertebrate Paleontology issued a set of standard guidelines intended to assist paleontologists to assess and mitigate any adverse effects/impacts to nonrenewable paleontological resources. The guidelines defined four categories of paleontological sensitivity for geologic units that might be impacted by a proposed project, as listed below (Society of Vertebrate Paleontology 2010:1-2):

- **High Potential**: Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered.
- **Undetermined Potential**: Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment.
- **Low Potential**: Rock units that are poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances.
- **No Potential**: Rock units that have no potential to contain significant paleontological resources, such as high-grade metamorphic rocks and plutonic igneous rocks.

SETTING

The City of Riverside is located in the Peninsular Ranges geomorphic province, close to where it adjoins the Transverse Ranges province (Jenkins 1980:40-41; Harms 1996:131). The Peninsular Ranges province is bounded by the Transverse Ranges province on the north, the Colorado Desert province on the northeast, and the Pacific Ocean on the west (California Geology Survey 2002). This province consists of a well-defined geologic and physiographic unit occupying the southwest portion of the State of California and extending southward to the southern tip of Baja California (Jahns 1954:Plate 3, 29; Harden 2004:465; Harms 1996:130).

The Peninsular Ranges province is made up of a series of northwest-southeast trending structural blocks consisting of uplifted mountains that are separated by valley basins developed along the intervening fault zones. The mountains are made up mainly of igneous intrusive rocks, metasedimentary rocks, and some metavolcanic rocks (Harden 2004:466-468). The non-crystalline rocks in the eastern portion of the mountains contain mainly metasedimentary rocks of Paleozoic and older age, while the crystalline basement rocks consist mainly of Mesozoic-age granitic rocks with some scattered gabbroic intrusions (Harden 2004.466-468, 471-472).

The project location lies in the Jurupa Valley, a broad inland valley characterized by wide expanses of level alluvial plain interrupted periodically by steep, boulder-laden hills that rise to elevations above 1,400 feet above mean sea level. The Jurupa Valley is a part of the San Bernardino Valley region of inland southern California. The ambient environment of the region is characterized by a temperate Mediterranean climate, with seasonal average temperatures ranging between 35 and 90 degrees Fahrenheit. Annual rainfall is approximately 11 inches on average, most of which occurs between November and April.

The San Bernardino Valley, a structurally depressed trough, is filled with sediments of Miocene through Recent age, while isolated rocky knolls in and around the valley, such as the Jurupa Mountains and Mount Rubidoux, are composed of up-lifted basement rock (Clarke 1978-1979:15). The geographical features are some of the many tectonically controlled basins and ridges within the Perris Block, one of the structural blocks in the Peninsular Ranges province. The Santa Ana River, the main natural waterway in the San Bernardino Valley, runs through the low area between the Jurupa Mountains and Mount Rubidoux.

The Jurupa Valley is in the central portion of the Perris Block. Situated between the San Jacinto and Elsinore-Chino fault zones, the Perris Block includes many similar valley-and-ridge systems (English 1926). It is bounded on the north by the Cucamonga (San Gabriel) Fault and on the south by a vaguely delineated boundary near the southern end of the Temecula Valley (English 1926). This structural block is considered to have been active since Pliocene time (Woodford et al. 1971:3421). Colluvial/alluvial sediments of varying thickness derived from the erosion of the elevated portions of the region fill the low-lying areas of the Perris Block. The Pliocene- and Pleistocene-age nonmarine sedimentary rocks found filling the valley areas have produced a few vertebrate fossils, as well as a few invertebrate fossil remains (Mann 1955:13).

Figure 4. Typical landscapes in the project area. *Left*: view to the west; *right*: view to the east. (January 18, 2024)

The project area lies across currently undeveloped land that was once used for agriculture, south of the Santa Ana River floodplain, which flows southwest from the San Bernardino Mountains through multiple foothills of granitic origin (Figure 1). The immediate surrounding area currently features mostly developed housing tracts and modern roads, with California State Route 91 (the Riverside Freeway) to the south, and Van Buren Boulevard to the northeast (Figure 3). The terrain in the vicinity is relatively level, with an undulated surface leading to rolling hills nearby (Figure 4). Elevations within the project boundaries range from approximately 800 feet to 810 feet above mean sea level.

The ground surface in the project area shows evidence of past disturbances. The Riverside Canal No. 2 (the Riverside Lower Canal) and what was most likely the canal maintenance road traversed through the northern portion of the property and the property was under agricultural production (orchards) in the 1950s. The construction of the Riverside Freeway and other development-related construction undoubtedly disturbed at least portions of the property. Currently there is evidence of weed abatement disking over most of the property. In its undisturbed state, flora within the project area would have been typical of the California floristic province, represented by the coastal sage scrub plant community, commonly referred to as “soft chaparral.” While native species such as coyote gourd, jimsonweed, and buckwheat remain present, the project area currently contains primarily introduced plant species such as wild mustard, foxtails, and the typical amalgamation of intrusive grasses and small shrubs (Figure 4).

METHODS AND PROCEDURES

RECORDS SEARCH

The paleontological records search service for this study was provided by the Western Science Center (WSC) in Hemet. The WSC maintains files of regional paleontological localities as well as supporting maps and documents. The records search results were used to identify previously performed paleontological resource assessments and known paleontological localities within a one-mile radius of the project location. A copy of the records search results is attached to this report in Appendix 2.

LITERATURE AND MAPS REVIEW

In conjunction with the records search, CRM TECH report writer Frank Raslich reviewed geological literature pertaining to the project vicinity under the direction of principal paleontologist Ron Schmidtling. Sources consulted during the review primarily included published literature on regional geology, topographic, geologic, and soil maps of the Jurupa Valley area, the Riverside County GIS database on paleontological sensitivity, aerial photographs and satellite images available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software (1948-2023), and other materials in the CRM TECH library, including unpublished reports produced during similar surveys in the vicinity.

FIELD SURVEY

On January 18, 2024, paleontological surveyor Ron Schmidtling carried out the field survey of the project area. The survey was conducted on foot by walking along either side of the linear portions of the project area and a number of parallel transects spaced 15 meters (approximately 50 feet) apart across the open fields. In this way, the ground surface in the project area was systematically and carefully examined to determine soil types, verify the geological formations, and search for indications of paleontological remains. Ground visibility was moderate to good (50%-85%) throughout the survey, with light vegetation covering portions of the project area.

RESULTS AND FINDINGS

RECORDS SEARCH

The records search by the WSC identified no known paleontological localities within the project area or within a one-mile radius (Stoneburg 2024; see App. 2). Stoneburg notes that Dibblee and Minch (2004) mapped the geologic formation underlying the project area as a mix of alluvial fan deposits of sand and gravel from the Pleistocene epoch (Qoa) [Stoneburg 2024, following Dibblee (and Minch) 2004]. These units are considered to have high preservation value and there are known localities in similarly mapped units across Southern California (Stoneburg 2024).

The WSC notes that any fossils recovered from the project area would be scientifically significant (Stoneburg 2024). Therefore, the WSC concludes that “excavation activity associated with the development of the project area would impact the paleontologically sensitive Pleistocene and [possibly] Pliocene units [following Dibblee (and Minch) 2004], and a paleontological resource mitigation program be put in place” (Stoneburg 2024) [the WSC map is from the Google Earth overlay of Jennings et al. 2010].

LITERATURE AND MAPS REVIEW

Morton and Cox (2001), however, mapped the surface sediments in the project area as *Qyf*, namely “Young (Holocene and late Pleistocene) alluvial fan deposits that are described as “Grayhued, unconsolidated sand and pebble- to gravel-sand deposits derived from lithicly diverse sedimentary units. Arkosic sand derived from varied metamorphic and granitic lithologies of Peninsular Ranges. All deposits are located south of Santa Ana River” (Morton and Cox 2001)(Figure 5).

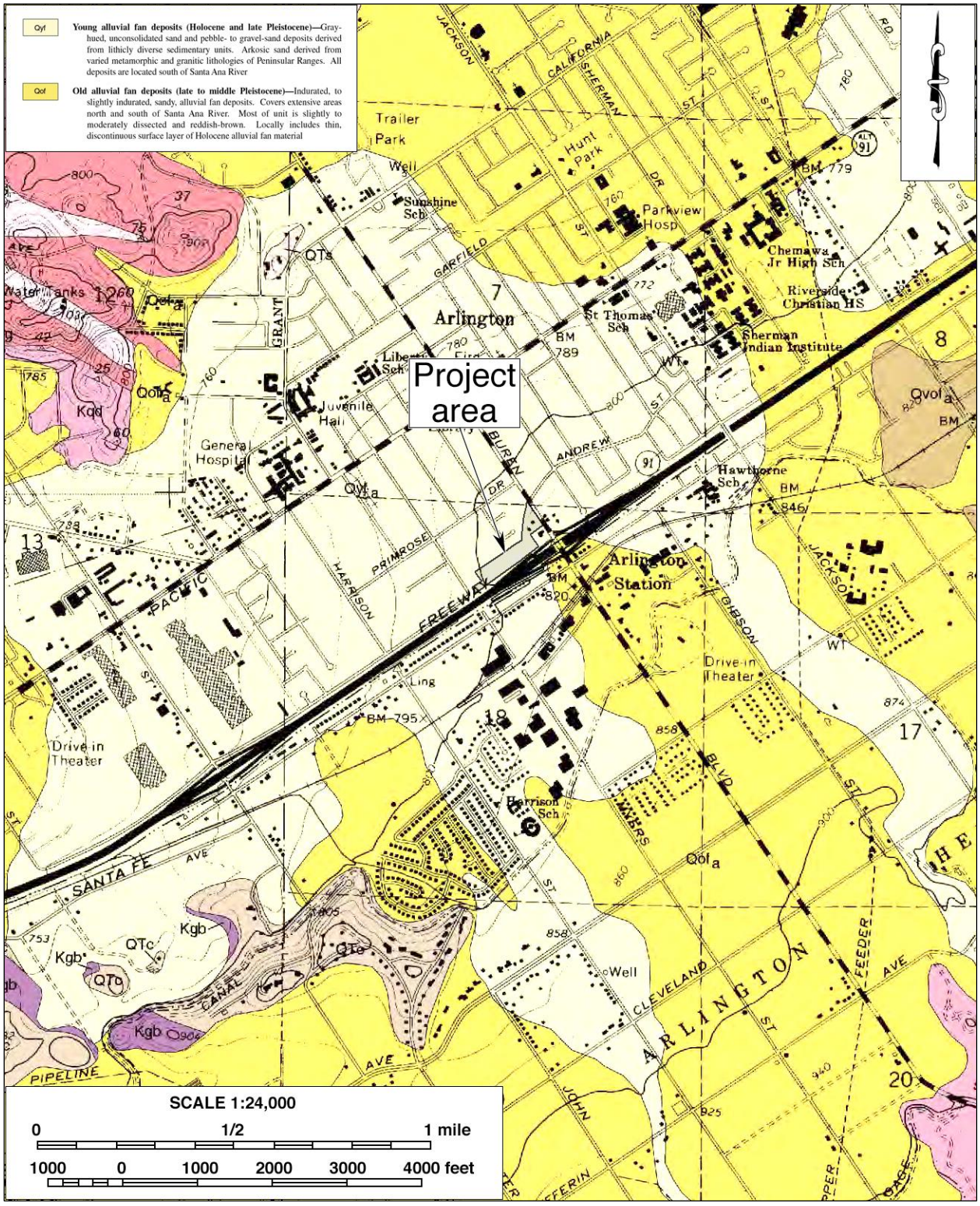

Figure 5. Geological map of the project vicinity. (Source: Morton and Cox 2001)

The Riverside County paleontological sensitivity map (which was made at the macro- entire County-level) classifies the project area as having a high sensitivity (High A) to contain significant paleontological resources indicating that fossils are likely to be encountered in this area. High A is based on geologic formations or mappable rock units that are known to contain or have the correct age and depositional conditions to contain significant paleontological resources such as fossilized body elements, and trace fossils such as tracks, nests, and eggs on or below the surface (RCIT n.d.). As always, however, a site-specific study is appropriate to determine site specific geologic and paleontological characteristics.

Historical aerial images, historic maps, and Google Earth time-slider images indicate that the northern part of the project area showed extensive previous disturbance as evidenced by tree-lines, cleared and leveled land, the presence of the Riverside Lower Canal, and dirt road (USGS 1901, 1942). The south part of the property appeared previously disturbed by agricultural activity (USGS 1953; NETR Online 1948-2020; Google Earth 1994-2023).

According to the updated geotechnical report (GeoTek 2024a) the 2021 geotechnical study encountered undocumented fill, extending to a maximum depth of two (2) feet below the ground surface, in two (2) of their borings (GeoTek 2024a:6; citing GSI 2021). GSI further stated that undocumented fill may be present within areas of the site that were not explored and, obviously, along the side of the property adjacent to the freeway (GeoTek 2024a:6; citing GSI 2021). In their review of the GSI study, GeoTek states that GSI reports that the site is underlain by undocumented fill soils which are in turn underlain by young alluvial fan deposits consisting of interbedded silty sands and graded sands with some gravels (GeoTek 2024a:3-4; citing GSI 2021). Older alluvium was found below the artificial fill soils (GeoTek 2024a:6). Based on their research, GeoTek recommended that, due to the non-uniform nature of the near-surface upper site soils, the soils be removed beneath the planned building footprint to a depth of at least five (5) feet below existing grade, or three (3) feet below the base of the proposed foundations, whichever is greater (GeoTek 2024a:10). In their addendum geotechnical evaluation, GeoTek found artificial fill to depth of greater than 7 feet in their recent (2024) borings along the west-southwestern edge of the property, adjacent to the Freeway (GeoTek 2024b:4).

FIELD SURVEY

The field survey yielded negative findings for potential paleontological resources; no surficial indications of any fossil remains were discovered within or adjacent to the project area. Occasional pebbles of weathered granite and quartz dotted the land. Overall, the surface soils, composed of light brown sand and clay from recent alluvial deposits, have evidently been disturbed by past activities on and around the property. Gopher activity allowed for limited inspection of back dirt and subsurface soil types, all with negative findings for paleontological resources.

Summary

Substantial surface and near-surface disturbances (agriculture, a road, weed abatement) have occurred within the property. Substantial subsurface disturbances (house and other structures, the canal) have occurred in some areas of the project area. The geotechnical studies found artificial fill soils in at least some parts of the property, with younger alluvium also present. However, it appears

that older, possibly undisturbed alluvium is also present subsurface. Paleontological resources have been found in this older alluvium in other areas of Riverside County. This older alluvium is, therefore assigned a high paleontological sensitivity. If project-related ground disturbing activities extend into this undisturbed older alluvium, those activities may impact paleontological resources.

CONCLUSION AND RECOMMENDATIONS

CEQA guidelines (Title 14 CCR App. G, Sec. V(c)) require that public agencies in the State of California determine whether a proposed project would "directly or indirectly destroy a unique paleontological resource" during the environmental review process. The present study, conducted in compliance with this provision, is designed to identify any significant, non-renewable paleontological resources that may exist within or adjacent to the project area, and to assess the possibility for such resources to be encountered in future excavation and construction activities.

Based on the research results presented above, the surficial soils in the project area appear to be of Recent age and to have been disturbed by previous developments within and adjacent to the subject property. These soils are assigned a low potential to contain significant paleontological resources. These more recent and disturbed soils, however, appear to be underlain by older, potentially fossiliferous sediments. Therefore, the proposed project's potential to impact significant, nonrenewable paleontological resources is low in the previously disturbed surface and near-surface soils that consist of alluvial fan deposits of sand and gravel from the Holocene epoch. The underlying, undisturbed older alluvial sediments, however, have a high potential to contain significant, nonrenewable paleontological resources.

Therefore, CRM TECH recommends to the City of Riverside that a paleontological resource impact mitigation program be developed and implemented during the project to prevent impacts on such resources or reduce the impacts to a level less than significant. The following mitigation program is formulated in accordance with the provisions of CEQA (Scott and Springer 2003) as well as the proposed guidelines of the Society of Vertebrate Paleontology (2010). It is designed so that any paleontological resources that may be encountered during project implementation will be preserved and protected and impacts to them will be mitigated to a level of less than significant.

- During the initial stages of subsurface ground-disturbing activities a paleontological monitor should periodically visit the project site and inspect the soils that are being impacted and identify potentially fossil-bearing sediments that may be present. The number and frequency of the site visits will depend on the rate of ground-disturbing excavations but may be as frequent as two times a week.
- Continuous, full-time paleontological monitoring should be instigated when paleontologically sensitive soils are being impacted.
- The paleontological monitor will have the power to temporarily halt or divert grading equipment to allow for the inspection, identification, and proper treatment of any fossiliferous soils and/or paleontological resources that may be exposed.
- The paleontological monitor must be properly equipped to recognize, document, and properly treat any paleontological resources that are encountered; this should include the

collection and processing of samples of sediments that are likely to contain fossil remains of small vertebrates or invertebrates.

- Samples of sediment around any larger fossils should be collected and processed to recover small fossils or fossil fragments that may be present in the vicinity.
- All fossil resources should be transported to the lab for cleaning and cataloguing, and all resources should be identified by a qualified expert to the lowest taxonomic level possible and analyzed for any pertinent information regarding the age(s) of the rock unit or sedimentary stratum, the depositional history of the region, data regarding the development of biological communities, the evolutionary relationships and developmental trends of the represented specimen, and any other information that may provide clues to past life in the area.
- All specimens should be curated at a repository with permanent retrievable storage.
- A report of findings, including an itemized inventory of recovered specimens, should be prepared upon completion of the procedures outlined above. The report should include a discussion of the significance of the paleontological findings, if any. The report and the inventory, when submitted to the City of Riverside, would signify completion of the program to mitigate potential impacts on paleontological resources.

Under these conditions, CRM TECH further recommends that the proposed project be cleared to proceed in compliance with CEQA provisions on paleontological resources.

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1942 Map: Riverside, Calif. (15', 1:62,500); aerial photographs taken in 1939.
1953 Map: Riverside West, Calif. (7.5', 1:24,000); aerial photographs taken in 1948-1951, field-checked in 1953.
1969 Map: San Bernardino, Calif. (1:250,000); 1958 edition revised.
1979 Map: Santa Ana, Calif. (1:250,000); 1959 edition revised.
1980 Map: Riverside West, Calif. (7.5', 1:24,000); 1967 edition photorevised in 1978.

Woodford, Alfred O., John S. Shelton, Donald O. Doehring, and Richard K. Morton
1971 Pliocene-Pleistocene History of the Perris Block, Southern California. *Geological Society of America Bulletin* 82(12):3421-3448.

APPENDIX 1:
PERSONNEL QUALIFICATIONS

RON SCHMIDTLING, M.S.
PRINCIPAL PALEONTOLOGIST

Education

1995	M.S., Geology, University of California, Los Angeles.
1991	Pasadena City College, Pasadena, California.
1985	B.A., Archaeology, Paleontology, Ancient Folklore, and Art History, University of Southern Mississippi, Hattiesburg.

Professional Experience:

2020-	Principal Paleontologist, CRM TECH, Colton, California.
2014-	Instructor of Earth Science, History of Life, Ecology, and Evolutionary Biology, Columbia College Hollywood, Reseda, California.
2013, 2015	Volunteer, excavation of a camarasaur and a diplodocid in southern Utah, Natural History Museum of Los Angeles County, California.
1993-2014	Consultant, Getty Conservation Institute, Brentwood, California.
1999-2001	Archaeological and Paleontological Monitor, Michael Brandman Associates, Irvine, California.
1997	Department of Archaeology, University of California, Los Angeles.
1994	Scientific Illustrator and Teaching Assistant, Department of Earth and Space Sciences and Department of Biological Sciences, University of California, Los Angeles.

Memberships

AAPS (Association of Applied Paleontological Sciences), USA; CSEOL (Center for the Study of Evolution and the Origin of Life), Department of Earth Sciences, University of California, Los Angeles.

Publications and Reports

Author, co-author, and contributor on numerous paleontological publications and paleontological resource management reports.

FRANK J. RASLICH, M.A.
PALEONTOLOGIST/REPORT WRITER

Education

2016-	Ph.D. candidate, Michigan State University, East Lansing.
2010	M.A., Anthropology, Michigan State University, East Lansing.
2005	B.A., Anthropology, University of Michigan, Flint.
2019	Grant and Research Proposal Writing for Archaeologists; Society for American Archaeology online seminar.
2014	Bruker Industries Tracer S1800 pXRF Training; presented by Dr. Bruce Kaiser, Bruker Scientific.

Professional Experience

2022-	Project Archaeologist/Paleontologist, CRM TECH, Colton, California.
2022	Archaeological Monitor, Agua Caliente Band of Cahuilla Indians, Palm Springs, California.
2014-2022	Board of Directors, Ziibiwing Center of Anishinabe Culture and Lifeways, Saginaw Chippewa Indian Tribe of Michigan.
2008-2021	Archaeological Consultant, Saginaw Chippewa Indian Tribe of Michigan.
2019	Archaeologist, Sault Tribe of Chippewa Indians and Little Traverse Bay Band of Odawa Indians.
2016-2018	Adjunct Lecturer, Michigan State University, East Lansing.
2017-2018	Adjunct Lecturer, University of Michigan, Flint.
2009-2017	Teaching Assistant, Michigan State University, East Lansing.
2008-2014	Research Assistant, Intellectual Property Issues in Cultural Heritage, Simon Fraser University, British Columbia, Canada.
2010-2013	Research Assistant, Michigan State University, East Lansing.
2009-2011	Archaeologist/Crew Chief, Saginaw Chippewa Indian Tribe of Michigan.

Publications

2017	Preliminary Results of a Handheld X-Ray Fluorescence (pXRF) Analysis on a Marble Head Sarcophagus Sculpture from the Collection of the Kresge Art Center, Michigan State University. Submitted to Jon M. Frey, Department of Art, Art History, and Design, Michigan State University, East Lansing.
2013	Geochemical Analysis of the Dickenson Group of the Upper Peninsula, Michigan: A study of an Accreted Terrane of the Superior Province. Geological Society of America *Abstracts with Programs* 45:4(53).

APPENDIX 2

RECORDS SEARCH RESULTS

WESTERN SCIENCE CENTER

Nina Galllardo
CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA

February 15th, 2024

Dear Ms. Gallardo,

This letter presents the results of a record search conducted for the Proposed Magnolia Crossing Project in the city of Riverside, Riverside County, California. The project site is located north of California State Route 91 and southwest of Van Buren Boulevard in Township 3 South, Range 5 West in Section 18 of the *Riverside West, CA* USGS 7.5 minute quadrangle.

The geologic units underlying this project are mapped as a mix of alluvial fan deposits of sand and gravel from the Pleistocene epoch (Dibblee and Minch 2004). Pleistocene alluvial units are considered to be highly paleontologically sensitive. The Western Science Center does not have localities within the project area or within a 1 mile radius, but does have localities in similarly mapped units across Southern California.

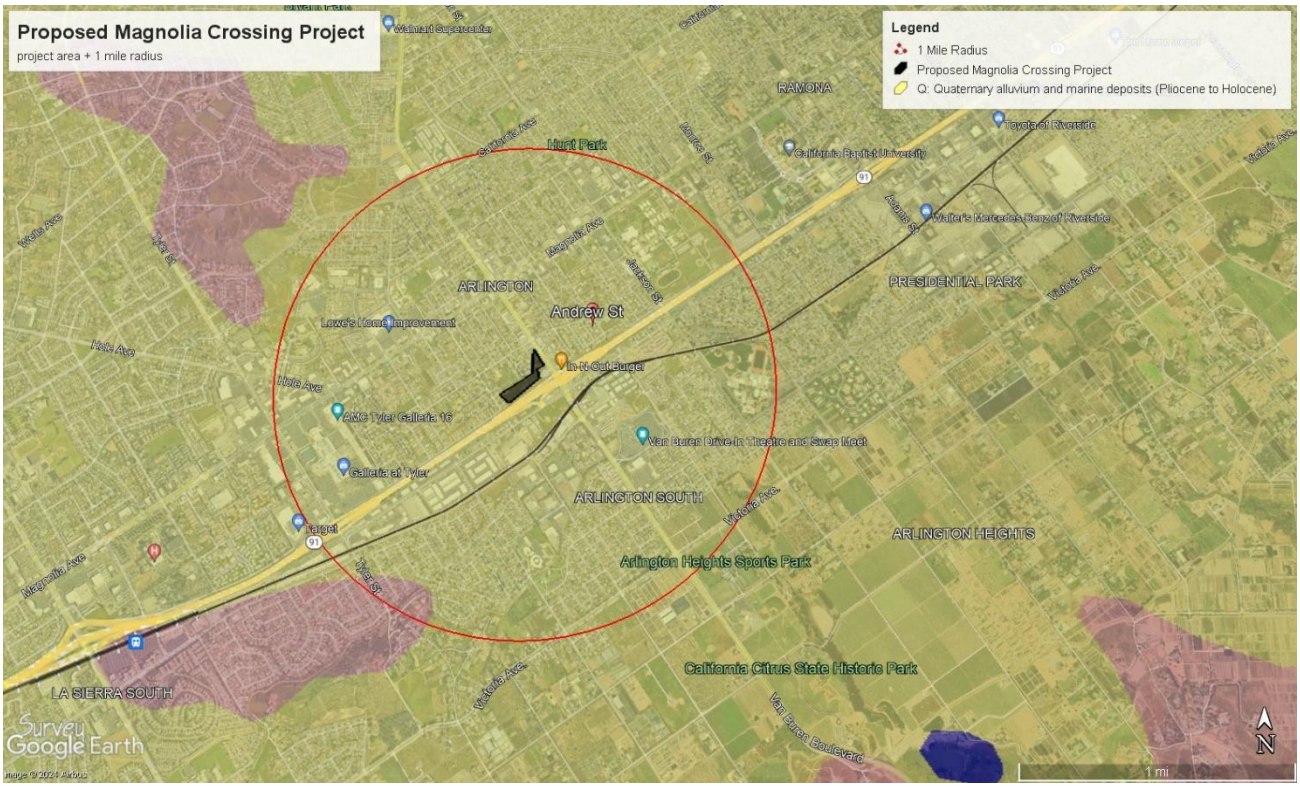
Any fossils recovered from the Proposed Magnolia Crossing Project area would be scientifically significant. Excavation activity associated with development of the project area would impact the paleontologically sensitive Pleistocene and Pliocene units and it is the recommendation of the Western Science Center that a paleontological resource mitigation program be put in place to monitor, salvage, and curate any recovered fossils associated with the current study area.

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

2345 Searl Parkway ♦ Hemet, CA 92543 ♦ phone 951.791.0033 ♦ fax 951.791.0032 ♦ WesternScienceCenter.org


Proposed Magnolia Crossing Project
project area + 1 mile radius
Legend
1 Mile Radius
Proposed Magnolia Crossing Project
Q: Quaternary alluvium and marine deposits (Pliocene to Holocene)
RAMONA
Hunt Park
ARLINGTON
Andrew St
PRESIDENTIAL PARK
ARLINGTON SOUTH
ARLINGTON HEIGHTS
Arlington Heights Sports Park
California Citrus State Historic Park
LA SIERRA SOUTH
Lowe's Home Improvement
In-N-Out Burger
AMC Tyler Galleria 16
Galleria at Tyler
Target
Van Buren Drive-In Theatre and Swap Meet
California Baptist University
Walter's Mercedes-Benz of Riverside
Victoria Ave
Magnolia Ave
Hole Ave
Jackson St
Van Buren Boulevard
Survey Google Earth
1 mi
N