4.5 HISTORIC, ARCHAEOLOGICAL, AND PALEONTOLOGICAL RESOURCES

This section describes the cultural background and setting of the project area and provides the results of cultural resources surveys and analysis conducted for the project. Potential impacts include damage or destruction of significant cultural or paleontological resources in the project area. If potentially significant cultural or paleontological resources are discovered, those resources shall be inventoried and evaluated; additional treatment may include data-recovery and curation. Potential impacts that could result from the project on cultural resources, including historic, prehistoric, historical archaeological sites, and paleontological discoveries, are discussed and mitigation measures offered.

4.5.1 EXISTING SETTING

The project area is located in the San Fernando Valley, a 345 square-mile urbanized lowland in the northwest section of Los Angeles County, California. The Valley is bordered by the Santa Susana Mountains on the north, the Verdugo Mountains on the East, the Santa Monica Mountains on the South, and Simi Hills on the west. The specific project area is approximately 950 ft above sea level. Greater than 50 percent of the project area is covered in modern development. The Los Angeles River crosses the project area 0.10 miles north of Vanowen Street. A second aqueduct crosses the project area north of Parthenia Street. The Chatsworth Reservoir is located 1.9 miles northwest, the Encino Reservoir is 4.5 miles southeast, and the Sepulveda Flood Control Basin is located 5.5 miles southwest of the project area.

The proposed corridor is approximately 6 miles long and located primarily on Canoga Avenue. It extends from the western terminus of the existing Metro Orange Line at Warner Center and ends at the Chatsworth Metrolink Station. Departing from the Warner Center Transit Hub on Owensmouth Avenue, the route runs on Owensmouth Avenue between Erwin Street and Oxnard Street (1/4 mile); Erwin Street between Owensmouth Avenue and Canoga Avenue (1/4 mile); and Oxnard Street between Owensmouth Avenue and Canoga Avenue (1/4 mile). From Oxnard Street, it extends north along Canoga Avenue, parallel to the Metro-owned railroad right-of-way, for approximately 4 miles.

Paleontological Setting

The entire surface area of the project Area of Potential Effect (APE) has been heavily disturbed by urban development. The U.S. Department of Agriculture\(^1\) lists the surface soils as San Emigdio and Cropley Urban Land Complex. Below the Urban Land Complex is Quaternary Alluvium (less than 10,000 years in age) composed of loams, clays, silts, and sands. This alluvium is underlain by older Quaternary sediments, Pleistocene in age (10,000 to 1.2 million years old), which are known to contain fossils. These older Quaternary sediments generally occur at depths greater than 5 ft. The older Quaternary alluvium sediments overlay bedrock.

Underlying bedrock consists of the fossiliferous Fernando Formation, and Late Cretaceous marine sedimentary rocks, locally termed the Chatsworth Formation. The Chatsworth Formation is a sand-rich alluvium fan deposit consisting of sandstones, mudstones, shales, and conglomerates. It often contains marine invertebrate fossils (marine shells). These bedrock formations have a high potential to produce unique and significant fossilized remains.

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Paleontology Methodology and Results

The Vertebrate Paleontology section of the Natural History Museum of Los Angeles County conducted a search of its records for the proposed project vicinity on 30 October 2007. No known vertebrate fossil localities lie directly within the proposed project site. However, Pleistocene age fossils have been found nearby in sedimentary deposits similar to those of the project area. These significant fossilized deposits are generally found at depths greater than 5 ft. The closest vertebrate fossil locality is LACM 1406, 2 miles north-northwest of the proposed project route area at the base of a ravine in the Santa Susana Pass. Excavations at this site produced a fossil specimen of a mastodon. Other nearby localities from these older Quaternary deposits are LACM 5878, off Long Valley Road in Hidden Hills, 4 miles south of the proposed project area that produced a mastodon fossil and LACM 1213, 5 miles south of the proposed project area off of Mulholland Highway, that contained a fauna of fossil horse and ground sloth.

No paleontological field survey was conducted for this project.

Archaeological Setting

Ethnography

The project area lies within Gabrielino and Fernandeño ethnographic territories. The terms Gabrielino and Fernandeño refer to Native American groups historically associated with the San Gabriel and San Fernando Missions. Gabrielino and Fernandeño territory is not well defined, but generally believed to incorporate the watersheds of the Los Angeles, San Gabriel, and Santa Ana Rivers. It includes the entire Los Angeles Basin, the coast between Aliso Creek and Topanga Creek and the islands of San Clemente, San Nicholas, and Santa Catalina. The ancestors of the Gabrielinos and Fernandeños arrived in the Los Angeles Basin around 2500 B.P. as part of what Kroeber referred to as the “Shoshonean Wedge.” By 1500 B.P., permanent villages were built in the foothills and lowlands along rivers and streams. Over 50 villages may have been occupied simultaneously with populations between 50 and 200 people per village.

Gabrielino and Fernandeño houses were primarily domed, semi-subterranean, thatched structures of locally accessible materials including tule, fern, and carrizo. Principal game included deer, rabbit, fish, sea mammals, jackrabbit, woodrat, mice, ground squirrels, antelope, quail, and other birds. Acorns were the most important single food source and villages seem to have been located near water resources necessary for the leaching of acorns. Grass seeds were the next most abundant food source. Seeds were parched, ground, and cooked as a mush in various combinations. Additional food sources included various greens, cactus pods, yucca buds, bulbs, roots, and tubers. Tools for food acquisition, storage, and preparation included an inventory made from widely available materials. Hunting tools included shoulder-height bows with fire-hardened wood or stone-tipped arrows curved throwing sticks, rabbit nets, slings, and traps. Seeds were ground with handstones on shallow unshaped basin metates. The same granites were made into shaped or unshaped mortars and pestles for pounding acorns or small game. Coiled and twined baskets and steatite bowls were used in food gathering, preparation, storage, and serving. Other utensils for food preparation included wooden food paddles, brushes, tongs, tweezers, and wooden digging sticks.

4 Ibid.
5 Ibid.
Prehistory

The prehistoric occupation of southern California is divided chronologically into four temporal phases or horizons. Horizon I, or the Early Man Horizon, began at the first appearance of people in the region approximately 12,000 years ago, and continued until about 5000 B.C. Although little is known about these people, it is assumed that they were semi-nomadic and subsisted primarily on game.

Horizon II, also known as the Millingstone Horizon or Encinitas Tradition, began around 5000 B.C. and continued until about 1500 B.C. The Millingstone Horizon is characterized by widespread use of milling stones (manos and metates), core tools, and few projectile points or bone and shell artifacts. This horizon appears to represent a diversification of subsistence activities and a more sedentary settlement pattern. Archaeological evidence suggests that hunting became less important and that reliance on collecting shellfish and vegetal resources increased.

Horizon III, the Intermediate Horizon or Campbell Tradition began around 1500 B.C. and continued until about A.D. 600-800. Horizon III is defined by a shift from the use of milling stones to increased use of mortar and pestle, indicating a greater reliance on acorns as a food source. Projectile points become more abundant and, together with faunal remains, indicate increased use of both land and sea mammals.

Horizon IV, the Late Horizon, which began around A.D. 600-800 and terminated with the arrival of Europeans, is characterized by dense populations; diversified hunting and gathering subsistence strategies, including intensive fishing and sea mammal hunting; extensive trade networks; use of the bow and arrow; and a general cultural elaboration.

Archaeological Survey Methodology and Results

Prior to field investigations, Shelly Long, a Jones & Stokes archaeologist, conducted a literature search at the South Central Coastal Information Center, located at California State University, Fullerton. The record search included a review of all available cultural resource survey and excavation reports and site records for an area within a one-quarter mile radius of the project area. The results of this literature and records search indicate that no archaeological resources are located within the Transportation Systems Management (TSM) Alternative and one resource, the Owensmouth Southern Pacific Railroad Station, is located within a ¼ mile of it. This same resource is located within the Canoga On-Street Dedicated Bus Lanes Alternative and the Canoga Busway Alternative.

The Owensmouth Southern Pacific Railroad Station was built in 1912 and burnt down in 1993. It was located within the Metro ROW, at the intersection of Canoga Avenue and Sherman Way. As one of the few Spanish Revival Railroad Stations in the San Fernando Valley, this site is recorded as a significant resource on the National Register of Historic Places. The station no longer exists. A strip mall parking lot is currently located at the recorded site. No further archaeological resources are located within the project alternatives or within a one-quarter mile radius of the alternatives.

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7 Ibid.
8 Ibid.
9 Ibid.
In addition to the records search, Jones & Stokes consulted the Native American Heritage Commission (NAHC) on October 3, 2007 and requested that they consult their sacred lands file and provide a list of potentially interested Native American representatives for the project area. The NAHC responded on October 4, 2007 stating that a search of their sacred lands database did not yield any sacred lands or traditional cultural properties within the project area. The NAHC provided a list of Native American contacts in the San Fernando Valley. Letters describing the project area and indicating the project location were sent to these Native American representatives on October 17, 2007. No comments have yet been received.

Much of the project area is developed, and pedestrian survey was not feasible. Open areas were examined by a Jones & Stokes archeologist walking in 15 meter transects across those areas of the project where the ground surface was visible. No cultural resources were identified during the pedestrian survey.

**Historic Setting**

European settlement of California began with the founding of Mission San Diego de Alcala in 1769. Several expeditions into California followed and led to the establishment of the San Gabriel Mission in 1771 and the San Fernando Mission in 1797. Mexico, including Southern California, won independence from Spain in 1821. In 1848, following the Mexican-American war, the American Southwest, including the project area, was ceded to the United States.

**Project Area**

Owensmouth, later named Canoga Park, was founded on March 30, 1912. It was named for its relation to the Los Angeles Aqueduct that brought water from Owens Valley. The Owensmouth community began in the 1860s when an immigrant and resident of San Francisco named Isaac Lankershim purchased approximately 15,000 acres in the southern half of the San Fernando Valley and began the area’s tradition of wheat production. Lankershim’s partner and son-in-law, Isaac Newton Van Nuys, continued the business, but after his death the vast land holdings were sold to a consortium of local businessmen under the rubric the Los Angeles Suburban Homes Company, led by *Los Angeles Times* publisher Harrison Gray Otis. Predicting the arrival of Owens River Valley water in Southern California, the Syndicate, as the group was known, platted several towns, and hired developers Janss Investment Company to subdivide lots. (This scenario was dramatized by Robert Towne in his film *Chinatown.*) The Southern Pacific Railroad’s Burbank Branch first opened on March 20, 1904. Separate trains operated by developers, such as the Janss Train, brought potential buyers to the new tracts at Van Nuys, Marion (later Reseda), and Owensmouth. Passenger and freight stations were built at Owensmouth and Van Nuys between 1913 and 1916. Many buildings associated with the Burbank Branch were retired beginning in the 1950s, but some still remained as of recently, when they were destroyed by fire or torn down.

The Pacific Electric line extended from Hollywood to Van Nuys via Cahuenga Pass in 1911. Pacific Electric leased trackage from Southern Pacific’s Burbank Branch between Lankershim and Kester, and had its own right-of-way from Kester to Van Nuys. Southern Pacific and the Pacific Electric crossed along Van Nuys Boulevard, after which the Pacific Electric headed west till where the line ended at Owensmouth, later Canoga Park.

The San Fernando Valley was annexed to Los Angeles County in 1917 and the town of Owensmouth was
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renamed Canoga Park in 1930. The economy of Canoga Avenue slowly shifted from agricultural to light industrial and by the 1950s was an industrial zone. In 1955, Rocketdyne set up its headquarters in the area and became a major employer. Hughes Aircraft (now Boeing), Atomics International, and Teledyne soon followed. Today, the area within and directly surrounding the project location consists of warehouses, retail shops and residential structures (primarily mobile homes).

**Site Survey Methodology and Results**

Qualified architectural historians\(^{10}\) David Greenwood, and Meghan Potter, completed a site reconnaissance study consisting of several tasks. The first task was to complete background research for the vicinity of the proposed project area. This research consisted of reviewing the following sources: Historic Property Data file at the South Central Coastal Information Center, TRW/Experian data from American Real Estate Solutions, Zoning Information and Map Access System (ZIMAS) from the City of Los Angeles Planning Department, and building permits from the City of Los Angeles Building and Safety. In addition, an oral interview with Beth Shirley, a member of the Canoga-Owensmouth Historical Society, was conducted on October 11, 2007. The following persons were consulted for railroad history research: John R. Signor specializing in western railroad history, and John Heller specializing in Pacific Electric railway history.

A field investigation was conducted on October 11, 2007, to identify existing buildings within and adjacent to the ROW that meet the 50-year age criterion for evaluation. The team of architectural historians conducted the site analysis, applying the California Register of Historical Resources *Criteria for Evaluation*. For consideration of a potential historical resource, a property must be shown to be significant under one or more of the three criteria for evaluation. Criterion 1 consideration is for a property that may be eligible under an association with events that made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States. Criterion 2 consideration is for a property that may be eligible through its association with the lives of persons important to local, California, or national history. Criterion 3 consideration is for a property that may be eligible if it embodies distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic value.

For this field investigation and site analysis, architectural historians evaluated proprieties under Criterion 3, which is defined as a building having distinctive architectural design characteristics, a unique construction type, represents the work of a master, or possess high artistic value. For identifying resources under Criteria 1 or 2, which is defined as a building having significance because of its association with an important event (Criterion 1) or an important person (Criterion 2), an oral interview with Beth Shirley, a member of the Canoga-Owensmouth Historical Society, was conducted. Mrs. Shirley expressed that there are no existing buildings 50 years of age or older, within the proposed alternative route segments, that are associated with important events or persons. No other additional research was conducted to identify potential historical resources under Criteria 1 or 2.

The records search, field surveys, and subsequent research identified over 50 parcels in the project area (i.e., within the ROW, adjacent to the ROW, and along alternative route alignments) with architectural resources 50 years of age or older.

\(^{10}\) Meets the Secretary of the Interior’s Professional Qualifications Standards (36 CFR Part 61) in the discipline of architectural history.
There were no previously identified historical resources, within the project’s alternative routes, eligible or listed in California Register of Historical Places.

4.5.2 REGULATORY FRAMEWORK

Federal Regulations

The National Environmental Policy Act (NEPA) requires that federal agencies integrate the NEPA process with other environmental laws. Section 106 of the National Historic Preservation Act as amended (Section 106, 16 U.S.C. 470f) requires that impacts on significant cultural resources, hereafter called historic properties, be taken into consideration in any federal undertaking.

This project is not associated with any federal agencies or undertakings; therefore, it is not subject to the Section 106 process and review, or regulatory federal regulations. The lead local agency for this project is the Los Angeles County Metropolitan Transportation Authority (Metro). No other federal agencies, such as the Federal Transit Administration (FTA), have been identified to be involved with this project. In addition, there are no identified federal undertakings that will be associated with this project.

State Regulations

The California Environmental Quality Act (CEQA) requires public or private projects financed or approved by public agencies to be assessed when determining the effects of projects on historical resources. CEQA uses the term “historical resources” to include buildings, sites, structures, objects, or districts, each of which may have historical, prehistorical, architectural, archaeological, cultural, or scientific importance.

CEQA states that if implementation of a project results in significant effects on historical resources, then alternative plans or mitigation measures must be considered; however, only significant historical resources need to be addressed (California Code of Regulations Sections 15064.5 and 15126.4). Therefore, before impacts and mitigation measures can be identified, the significance of historical resources must be determined.

CEQA statute and guidelines provide five basic definitions as to what may qualify as an historical resource. Specifically, Section 21048.1 of the CEQA statute (Division 13 of the California Public Resources Code), in relevant part, provides a description for the first three of these definitions, as follows:

...an historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources. Historical resources included in a local register of historical resources, as defined in subsection (k) of Section 5020.1, are presumed to be historically or culturally significant for purposes of this section, unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant. The fact that a resource is not listed in, or determined to be eligible for listing in, the California

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11 PRC 5020.1(k): “Local register of historic resources” means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution.
Register of Historical Resources, not included in a local register of historical resources, or not
demed significant pursuant to criteria set forth in subdivision (g) of

Section 5024.112 shall not preclude a lead agency from determining whether the resource
may be an historical resource for purposes of this section.

To simplify the first three definitions provided in the CEQA statute, an historical resource is a
resource that is:

1. Listed in the California Register of Historical Resources (California Register);
2. Determined eligible for the California Register by the State Historical Resources
Commission; or
3. Included in a local register of historical resources (see footnote No. 9).

Section 15064.5 of the CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3,
supplements the statute by providing two additional definitions of historical resources, which may be
simplified in the following manner. An historical resource is a resource that is:

1. Identified as significant in an historical resource survey meeting the requirements of Public
Resources Code §5024.1(g)
2. Determined by a Lead Agency to be historically significant or significant in the architectural,
engineering, scientific, economic, agricultural, educational, social, political, military, or cultural
annals of California. Generally, this category includes resources that meet the criteria for listing
on the California Register (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852).

Buildings and structures on the proposed project site and adjacent properties that could be
considered historical resources were evaluated in light of each of the above five definitions under
CEQA. Each CEQA definition is described in more detail below.

**Definition 1—Listed in the California Register**

There are several ways in which a resource can be listed in the California Register, which are codified
under Title 14 CCR, Section 4851.

- A resource can be listed in the California Register by the State Historical Resources Commission.
- If a resource is listed in or determined eligible for listing in the National Register of Historic
Places (National Register), it is automatically listed in the California Register.
- If a resource is a California State Historical Landmark, from No. 770 onward, it is automatically

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12 PRC 5024.1(g): A resource identified as significant in an historical resource survey may be listed in the California
Register if the survey meets all of the following criteria:
(1) The survey has been or will be included in the California Historic Resources Inventory.
(2) The survey and the survey documentation were prepared in accordance with office procedures and requirements.
(3) The resource is evaluated and determined by the office [of Historic Preservation] to have a significance rating of
Category 1 to 5 on DPR Form 523.
(4) If the survey is five or more years old at the time of its nomination for inclusion in the California Register, the survey is
updated to identify historical resources which have become eligible or ineligible due to changed circumstances or further
documentation and those which have been demolished or altered in a manner that substantially diminishes the
significance of the resource.
listed in the California Register.

**Definition 2—Determined Eligible for the California Register**

Properties that have been formally determined eligible for listing in the California Register of Historical Resources are considered to be historical resources for the purposes of CEQA.

**Definition 3—Listed in a Local Register of Historical Resources**

A property listed in a local register of historical resources is considered an historical resource for the purposes of CEQA.

**Definition 4—Identified as Significant in an Historical Resources Survey**

According to Section 15064.5(a)(2) of the CEQA Guidelines, a resource “identified as significant in an historical resource survey meeting the requirements [set forth in] section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.” The requirements set forth in PRC 5024.1(g) for historical resources surveys are listed below.

A resource identified as significant in an historical resource survey may be listed in the California Register if the survey meets all of the following criteria:

1. The survey has been or will be included in the State Historic Resources Inventory, which is used in part with the California Register of Historical Resources, an authoritative guide to historical and archeological resources.

2. The survey and the survey documentation were prepared in accordance with office [of Historic Preservation] procedures and requirements.

3. The resource is evaluated and determined by the office [of Historic Preservation] to have a significance rating of Category 1 to 5 on DPR Form 523.

4. If the survey is five or more years old at the time of the building’s nomination for inclusion in the California Register, the survey should be updated to identify any changes to historical resources that may cause it to be eligible or ineligible.

**Definition 5—Determined Significant by the Lead Agency**

The fifth and final category of historical resources are those that are determined significant by a lead agency. This usually occurs during the CEQA compliance process, such as the preparation of this EIR. According to Section 15064.5(a)(3) of the CEQA Guidelines, “Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be ‘historically significant’ if the resource meets the criteria for listing on the California Register of Historical Resources (Pub.
Res. Code SS5024.1, Title 14 CCR, Section 4852)..."

The CEQA Guidelines quote only a small portion of the California Register criteria; therefore, Title 14 CCR, Section 4852 (b)-(d) is quoted below to include all of the California criteria:

(b) Criteria for evaluating the significance of historical resources

An historical resource must be 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.

(c) Integrity

Integrity is the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Historical resources eligible for listing in the California Register must meet one of the criteria of significance described in section 4852 (b) of this chapter and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Historical resources that have been rehabilitated or restored may be evaluated for listing.

Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. It must also be judged with reference to the particular criteria under which a resource is proposed for eligibility. Alterations over time to a resource or historic changes in its use may themselves have historical, cultural, or architectural significance.

It is possible that historical resources may not retain sufficient integrity to meet the criteria for listing in the National Register, but they may still be eligible for listing in the California Register. A resource that has lost its historic character or appearance may still have sufficient integrity for the California Register if it maintains the potential to yield significant scientific or historical information or specific data.

(d) Special considerations

1. Moved buildings, structures, or objects. The Commission encourages the retention of historical resources on site and discourages the non-historic grouping of historic buildings into parks or districts. However, it is recognized that moving an historic building, structure, or object is sometimes necessary to prevent its destruction.
Therefore, a moved building, structure, or object that is otherwise eligible may be listed in the California Register if it was moved to prevent its demolition at its former location and if the new location is compatible with the original character and use of the historical resource. An historical resource should retain its historic features and compatibility in orientation, setting, and general environment.

2. Historical resources achieving significance within the last fifty (50) years. In order to understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than fifty (50) years old may be considered for listing in the California Register if it can be demonstrated that sufficient time has passed to understand its historical importance.

3. Reconstructed buildings. Reconstructed buildings are those buildings not listed in the California Register under the criteria in Section 4853(b)(1), (2), or (3) of this chapter. A reconstructed building less than fifty (50) years old may be eligible if it embodies traditional building methods and techniques that play an important role in a community's historically rooted beliefs, customs, and practices; e.g., a Native American roundhouse.

4.5.3 IMPACTS AND MITIGATION MEASURES

Significance Criteria

Paleontological Resources

Paleontologically sensitive sedimentary units are those units with a high potential for containing significant paleontologic resources (i.e., rock units within which vertebrate fossils or significant invertebrate fossils have been determined by previous studies to be present or likely to be present). These units include, but are not limited to, sedimentary formations that contain significant paleontologic resources anywhere within their geographical extent, as well as sedimentary rock units temporally or lithologically suitable for the preservation of fossils. Determinations of paleontologic sensitivity must therefore consider not only the potential to yield abundant vertebrate fossils but also the potential for production of a few significant fossils, large or small, vertebrate or invertebrate, which may provide new and significant data on fossils types, species changes over time, or geologic strata. Areas that may contain datable organic remains older than the Recent era (less than 10,000 years in age) and areas that may contain unique, new vertebrate deposits, traces, and/or trackways must also be considered paleontologically sensitive. Fossils can be considered to be of significant scientific interest if one or more of the following criteria apply:

- The fossils provide data on the evolutionary relationships and developmental trends among organisms, both living and extinct;

- 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;

- The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;
The fossils demonstrate unusual or spectacular circumstances in the history of life; or

- 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.

According to CEQA, a project that may cause a substantial adverse change in the significance of a paleontological resource is a project that may have a significant effect on the environment (CEQA rev. 1998, Section 15064.5(b)). CEQA further states that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance would be materially impaired. Therefore, for purposes of the analyses in this Draft EIR and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a potentially significant effect on the environment if it directly or indirectly destroys a unique paleontological resource or site.

Archaeological Resources

For the purposes of this EIR, and in accordance with Section 21084.1 of CEQA, the proposed Project would have a significant adverse environmental impact if it causes a substantial or potentially substantial adverse change in the significance of an historical resource. A substantial change is explained in the following excerpt from the State CEQA Guidelines.

Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired (§15064.5[b]/1).

Cultural resources management work conducted as part of the proposed Project shall comply with the CEQA Statutes and the State CEQA Guidelines, which direct lead agencies to first determine whether an archaeological site is a “historically significant” cultural resource. Generally, a cultural resource shall be considered by the lead state agency to be “historically significant” if the resource meets any of the criteria for listing on the California Register of Historical Resources.

Historic Resources

For the purposes of this environmental impact report, and in accordance with Section 21084.1 of CEQA, the proposed project would have a significant adverse environmental impact if it:

- causes a substantial or potentially substantial adverse change in the significance of an historical resource.
- a substantial change is explained in the following excerpt from the State CEQA Guidelines.

Section 15064.5 of the CEQA Guidelines, Determining the Significance of Impacts to Historical Resources and Unique Archaeological Resources, has been applied to this project to determine whether the proposed project would have any significant effect on historical resources. According to these criteria, the project would result in a significant impact if it causes a substantial adverse change in the significance of a historical resource based on the following criteria established by the CEQA Guidelines:
(b) A project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.

1. Substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration in the resource or its immediate surroundings such that the significance of an historic resource would be materially impaired.

2. The significance of a historical resource is materially impaired when a project:

   (A) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register of Historical Resources; or

   (B) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that account for its inclusion in a local register of historical resources (pursuant to section 5021.1(k) of the Public Resources Code), or its identification in a historical resources survey meeting the criteria in section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

   (C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

3. Generally, a project that follows the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, or the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings, shall be considered as mitigated to a level of less than a significant impact on the historical resource.

Methodology

**Paleontological Resources**

Evaluation of paleontological resources was based on a review of paleontological discoveries adjacent to the project area and geological conditions within the project alternatives. The amount and depth of ground disturbance, as indicated on construction drawings, was used to estimate the potential for impacts.

**Archaeological Resources**

Impacts were assessed based on the potential of the project alternatives to affect areas containing archaeological resources. The amount and depth of ground disturbance, as indicated on construction drawings, was used to estimate the potential for impacts.

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construction drawings, was used to estimate the potential for impacts.

**Historic Resources**

The engineering drawings for the project were reviewed to identify parcels that could be affected by the alternative alignments. Research was conducted to determine the historic significance of structures on those parcels and the significance of potential effects on any identified historic properties.

**Impact 4.5.1:** Construction activities have a low potential to damage or destroy significant or unique paleontological resources or sites. Impacts would be less than significant after mitigation.

**Alternative 1. No Project**

The No Project Alternative would not result in any construction within the proposed project area. As such, no potential impacts to paleontological resources would occur during the construction of the project.

**Alternative 2. TSM**

The TSM Alternative includes changes to existing Metro bus routes and the addition of a new local transit line for Canoga Avenue. There are no construction elements of the TSM Alternative that are likely to have a significant impact on paleontological resources in the project area. Therefore, no significant impacts are anticipated.

**Alternative 3. Canoga On-Street Dedicated Bus Lanes**

As discussed in Chapter 3.0, Project Description, the Canoga On-Street Dedicated Bus Lanes Alternative would operate as a typical Metro Rapid service on street. The alternative would require designating a southbound, Bus-Only Lane along the western edge of Canoga Avenue as well as the widening of Canoga Avenue into the Metro right-of-way (ROW).

Within the project area and along this alignment, surface sediments consist of younger Quaternary Alluvium. The uppermost few feet of this alluvium are unlikely to contain significant fossil remains, and have previously been disturbed by development associated with historic agricultural activities. However, at depth within the older Quaternary sediments, there is a high potential of encountering significant vertebrate fossils.

Construction activities that require surface grading or very shallow excavations into the younger Quaternary alluvial deposits are unlikely to expose significant fossilized vertebrate remains. However, excavations of 5 ft or more in depth, extending into the older Quaternary deposits, may expose significant fossilized vertebrate remains. The destruction of any unique fossil resources on the proposed project site would result in a significant impact under CEQA.

The northern segment options under this alternative would result in no or minor grading, perhaps including only excavations for streetlight footings; therefore, there would be a low potential for encountering paleontological resources under these options. However, even small excavations of 5 ft or more in depth extending into the older Quaternary deposits may expose significant fossilized vertebrate remains. The destruction of any unique fossil resources on the proposed project site would result in a significant impact under CEQA.
Alternative 4. Canoga Busway

This alternative would consist of extending the existing Metro Orange Line north on the abandoned railroad right-of-way, paralleling Canoga Avenue. In addition, three of the six options considered for the final northern segment to connect to the Chatsworth Metrolink Station may require deep excavation. As described above, in Alternative 3, the uppermost few feet of this alluvium are unlikely to contain significant fossil remains and have previously been disturbed by development. However, at depth within the older Quaternary sediments, there is a high potential of encountering significant vertebrate fossils. Consequently, excavations of 5 ft or more in depth would extend into the older Quaternary deposits as a result of the proposed underpass and other components of the proposed alternative, may expose significant fossilized vertebrate remains. The destruction of any unique fossil resources on the proposed project site would result in a significant impact under CEQA.

Mitigation Measures:

The following mitigation measures shall be implemented to reduce project-related adverse impacts to paleontological resources that may be encountered during construction of proposed project:

**MM 4.5-1:** A qualified paleontologic monitor shall monitor excavation in areas identified as likely to contain paleontologic resources. These areas are defined as all areas within the proposed project area where current design plans require excavation to exceed depths of 5 ft. The qualified paleontologic monitor shall retain the option to reduce monitoring if, in his or her professional opinion, sediments being monitored are previously disturbed. Monitoring may also be reduced if the potentially fossiliferous units, previously described, are not found to be present or, if present, are determined by qualified paleontologic personnel to have low potential to contain fossil resources. The monitor shall be equipped to salvage fossils and samples of sediments as they are unearthed to avoid construction delays and shall be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Because the older Quaternary deposits yield small fossils specimens likely to go unnoticed during typical large scale paleontological monitoring, matrix samples shall be collected and processed to determine the potential for small fossils to be recovered prior to substantial excavations in those sediments. If this sampling indicates these units do possess small fossils, a matrix sample of up to 6,000 pounds shall be collected at various locations, to be specified by the paleontologist, within the construction area. These matrix samples shall also be processed for small fossils. This is standard mitigation practice that will meet the requirements of Public Resources Code Section 5097.5 which prohibits excavation or removal of any vertebrate paleontological site or any other archaeological, paleontological, or historical feature situated on public lands, except with the express permission of the public agency having jurisdiction over such lands, and Section 30244 which requires reasonable mitigation of adverse impacts on paleontological resources from development on public land.

**MM 4.5-2:** Recovered specimens shall be prepared to a point of identification and permanent preservation, including washing of sediments, to recover small invertebrates and vertebrates. Unidentifiable specimens shall be discarded.

**MM 4.5-3:** Identified specimens shall be curated into a professional, accredited museum repository with permanent retrievable storage.
**MM 4.5-4:** A report of findings, with an appended itemized inventory of specimens, shall be prepared. The report and inventory, when submitted to the Lead Agency, will signify completion of the program to mitigate impacts to paleontologic resources.

**Level of Impact after Mitigation:** Less than significant.

Impact 4.5.2: Construction activities have a low potential to damage or destroy significant archaeological resources. Impacts would be less than significant after mitigation.

**Alternative 1. No Project**

The No Project Alternative would not result in any construction within the proposed project area. As such, no potential impacts to archaeological resources would occur during the construction of the proposed No Project Alternative.

**Alternative 2. TSM**

The TSM Alternative includes changes to existing Metro bus routes and the addition of a new local transit line for Canoga Avenue. There are no construction elements of the TSM Alternative that are likely to have a significant impact on archaeological resources in the project area. Therefore, no significant impacts are anticipated.

**Alternative 3. Canoga On-Street Dedicated Bus Lanes**

As discussed in Chapter 3.0, Project Description, the Canoga On-Street Dedicated Bus Lanes Alternative would operate as a typical Metro Rapid service on street. The alternative would require designating a southbound, Bus-Only Lane along the western edge of Canoga Avenue as well as the widening of Canoga Avenue into the Metro ROW, which varies from 65 ft to 275 ft with a typical width of 100 ft. The ROW has a low potential to contain intact or buried archaeological resources. No prehistoric cultural resources are recorded within the project area, and none were found during the pedestrian survey. One historic resource, the Owensmouth Southern Pacific Railroad Station, is recorded to be within the project ROW; however, this site was completely destroyed by fire and retail development. As a result, no known archaeological resources would be affected by this alternative.

The northern segment options, under this alternative, would result in no or minor grading and excavation; therefore, there would be a low potential for encountering archeological resources under these options.

The high degree of surface and subsurface disturbance resulting from previous construction and historic agricultural activities decreases the likelihood of encountering intact subsurface archaeological deposits. Should unanticipated archaeological resources be encountered during construction, the mitigation measures below shall be implemented to reduce project-related adverse impacts to archaeological resources to a less-than-significant level.
Alternative 4. Canoga Busway

This alternative would consist of extending the existing Metro Orange Line north on the abandoned railroad right-of-way, paralleling Canoga Avenue. In addition, three of the six options considered for the final northern segment to connect to the Chatsworth Metrolink Station may require deep excavation. Options 4, 4a would include an underpass while Option 5 would consist of an elevated or below grade separation of the proposed Busway over the existing Metrolink/Amtrak/freight railroad tracks. These options would require excavation between 5 to 15 ft below grade level. As described above in Alternative 3, the ROW has a low potential to contain intact or buried archaeological resources. No prehistoric cultural resources are recorded within the project area, and none were found during the pedestrian survey. Further, the high degree of surface and subsurface disturbance resulting from previous construction and historic agricultural activities decreases the likelihood of encountering intact subsurface archaeological deposits.

Mitigation Measures:

The following mitigation measures shall be implemented to reduce project-related adverse impacts to archaeological resources that may be encountered during construction of proposed project improvements:

**MM 4.5-5:** If buried cultural resources are uncovered during construction, all work shall be halted in the immediate vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery and assess the significance of the archaeological resource. All unanticipated finds shall be documented, and a report of findings prepared, and discoveries further evaluated. In the event of an accidental discovery of any human remains in a location other than a dedicated cemetery, the steps and procedures specified in Health and Safety Code 7050.5, State CEQA Guidelines 15064.5(e), and Public Resources Code 5097.98 shall be implemented.

**Level of Impact after Mitigation:** Less than significant.

Impact 4.5.3. The proposed project would result in the demolition of two buildings and a railroad bridge along the ROW that are 50 years of age or older. However, none of these structures are historic resources; therefore, any impacts would be less than significant.

Alternative 1. No Project

The No Project Alternative would not result in any construction within the proposed project area. As such, no potential impacts to historic properties would occur under the No Project Alternative.

Alternative 2. TSM

The TSM Alternative includes changes to existing Metro bus routes and the addition of a new local transit line for Canoga Avenue to provide or improve connecting service to the Orange Line, the Chatsworth Metrolink Station, and other areas in the project vicinity. This alternative would use existing Metro transit routes, and implementation of the proposed bus route changes is not expected to include major construction or acquisition of property. The planned service improvements could
include upgraded or additional bus stops. Therefore, there are no construction elements of the TSM Alternative that are likely to have a significant impact on historic resources in the project area.

**Alternative 3. Canoga On-Street Dedicated Bus Lanes**

The Canoga On-Street Dedicated Bus Lanes Alternative would operate as a typical Metro Rapid service on street, with a southbound Bus-Only Lane along Canoga Avenue provided by prohibiting on-street parking; a northbound Bus-Only Lane would be provided by widening the street into the Metro-owned right-of-way that parallels Canoga Avenue. Where feasible, a 10- to 17-foot-wide bikeway/pedestrian path would be located on the Metro ROW approximately 5 to 15 ft from the east side dedicated lane next to the curb.

To accommodate the Dedicated Lanes, Canoga Avenue would be widened into the ROW by about 34 ft, and a parallel bikeway/pedestrian path would be built on the Metro ROW. At the northern end of the route, between Marilla Street and Lassen Avenue, this alternative may include dedicated bus lanes in an exclusive right-of-way. The widening of Canoga Avenue in the ROW would require the demolition of two buildings and a railroad bridge that were found to be 50 years of age or older (listed in Table 4.5-1 and Table 4.5-2). These structures were evaluated under the CRHR criteria by a professional architectural historian for potential eligibility under Criterion 3, which is defined as a building having distinctive architectural design characteristics, a unique construction type, represents the work of a master, or possess high artistic value. For evaluating potential resources under Criteria 1 or 2, which is defined as a building having significance because of its association with an important event (Criterion 1) or an important person (Criterion 2), an oral interview with Beth Shirley, a member of the Canoga-Owensmouth Historical Society, was conducted on October 11, 2007. These two buildings were found to be ineligible for CRHR consideration as historically significant resources, as discussed below.

The commercial building located at 7119 N. Deering Avenue, Central Valley Builders Supply, is a one-story stucco structure with two large, open-shed warehouses. The main commercial building has a T-shape plan, with a flat roof, stucco exterior wall surface, raised entry with storefront picture windows, and six-pane wood frame and sash windows on the north elevation. The primary east elevation along Deering Avenue appears to have been remodeled. This building appears to have been altered and does not rise to the level of historical significance by possessing a distinctive architectural design characteristic or unique construction type, representing the work of a master, or possessing high artistic value under Criterion 3.

<table>
<thead>
<tr>
<th>Address</th>
<th>APN</th>
<th>Year Built</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>7119 N. Deering Avenue</td>
<td>2111-029-905</td>
<td>1930</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by local historical society.</td>
</tr>
<tr>
<td>1-story Commercial</td>
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</tr>
<tr>
<td>7000 block of Canoga</td>
<td>2111-029-904</td>
<td>1940s</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by local historical society.</td>
</tr>
<tr>
<td>Avenue</td>
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<td></td>
</tr>
<tr>
<td>1-story Warehouse</td>
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</tbody>
</table>

A one-story warehouse building located on the east side of Canoga Avenue between Gault Street and Sherman Way is a light industrial warehouse with a rectangular plan and gable roof. It appears to have been built using wood-frame construction; horizontal wood siding has been covered with corrugated metal sheeting. An aluminum sliding glass door, at the northwest corner of the structure, provides a side entry. According to Beth Shirley, a member of the Canoga-Owensmouth Historical Society, the warehouse was built sometime during the 1940s and, to her knowledge, is not associated with an important event (Criterion 1) or person (Criterion 2). This warehouse building appears to have been altered, and it does not rise to the level of historical significance by possessing a distinctive architectural design characteristic or unique construction type, representing the work of a master, or possessing high artistic value under Criterion 3.

A railroad bridge over 50 years of age would also be demolished under this alternative (listed in Table 4.5-2). The Los Angeles River Bridge is a steel girder railroad bridge with two 61’-8” steel deck girders, one concrete Pier, and two concrete abutments; it is 124 ft in length, and is located between Vanowen Street and Hart Street. It was designed and constructed in 1957 by U.S. Engineers and the Kaiser Steel Company. The steel girder construction is an example of a common post 1950s type of construction and there are many existing examples of steel girder bridges; as such, the bridge does not possess a unique method of construction. There are no construction details that show any type of stylized architectural design characteristics. Thus, although this bridge meets the 50-year age criteria for evaluation, it does not rise to the level-of-significance as a distinctive characteristic bridge type or unique method of construction and it is not be eligible for listing in the CRHR under Criterion 3. Further, the bridge has no known associations with persons or events important in local or state history; therefore, it is not eligible for listing in the CRHR under Criteria 1 or 2, respectively.¹⁴

There are no buildings 50 years of age or older identified within the proposed northern route segments. Therefore, the proposed alternative would result in no impacts to historical resources.

**Alternative 4. Canoga Busway**

This alternative would consist of extending the existing Metro Orange Line north on the abandoned railroad right-of-way, paralleling Canoga Avenue. As further described in Chapter 3 (Project Description) five options are being considered for the northern segment, which would connect to the Chatsworth Metrolink station.

1. The busway would end at Plummer Street, with buses using Plummer Street, Owensmouth Avenue, Lassen Street, and Old Depot Plaza Road.

2. The busway and possibly the bikeway/pedestrian path would extend north to Lassen Street on

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¹⁴ Research performed by John R. Signor, specializing in Western Railroad History.
the west side of the railroad tracks and would intersect Lassen Street at a new signalized “T”
intersection, approximately 200 ft west of the tracks. Buses would travel in mixed flow on
Lassen Street and cross the tracks to reach the Chatsworth Metrolink Station.

3. The busway and possibly the bikeway/pedestrian path would extend north to Lassen Street
directly to the west of the railroad tracks and cross Lassen Street at a signalized intersection
to access the Busway terminus station on the west side of the tracks.

4. An underpass would be constructed under the tracks. The busway would pass under the
tracks and Lassen Street and resurface east of the tracks in the Chatsworth Metrolink station
parking lot.

5. The busway would extend along the west side of the railroad tracks and would either be
raised over or put under the railroad tracks and over Lassen Street, then descending or
ascending into the parking lot of the Chatsworth Metrolink Station.

This alternative would require the demolition of two buildings within the ROW and a Los Angeles
River railroad bridge, which are all 50 years of age or older as listed in Table 4.5-3 and Table 4.5-4
below.

Table 4.5-3. Buildings 50 Years of Age or Older (eligible for CRHR) That Would Be
Demolished under Alternative 4

<table>
<thead>
<tr>
<th>Address</th>
<th>APN</th>
<th>Year Built</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>7119 N. Deering Avenue</td>
<td>2111-029-905</td>
<td>1930</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by local historical society.</td>
</tr>
<tr>
<td>7000 block of Canoga Avenue 1-story Warehouse</td>
<td>2111-029-904</td>
<td>1940's</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by local historical society.</td>
</tr>
</tbody>
</table>


Table 4.5-4. Railroad Bridges 50 Years of Age or Older (eligible for CRHR) That Would Be
Demolished under Alternative 4

<table>
<thead>
<tr>
<th>Name</th>
<th>Structure No.</th>
<th>Year Built</th>
<th>Recommendation</th>
</tr>
</thead>
</table>


Buildings within the ROW are primarily light industrial commercial buildings. A field investigation
was conducted on October 11 and November 8, 2007, to identify the existing buildings within the
ROW that meet the 50-year age criteria for evaluation and for potential historical significance under
Criterion 3. The commercial building located at 7119 N. Deering Avenue, Central Valley Builders
Supply, is a one-story stucco structure with two large, open-shed warehouses. The one-story
warehouse building located on the east side of Canoga Avenue between Gault Street and Sherman
Way is a light industrial warehouse with a rectangular plan and gable roof. It appears to have been
built using wood-frame construction; horizontal wood siding has been covered with corrugated metal sheeting. From the field survey, it appears there are no buildings that rise to the level of historical significance by possessing a distinctive architectural design characteristic, unique construction type, represents the work of a master, or possess high artistic value. The table above identifies the two buildings that would be demolished as a result of this alternative. Descriptive information for the two buildings, located at 7119 N. Deering Avenue and in the 7000 block of Canoga Avenue, are discussed under Alternative 3 above. These two buildings were found to be ineligible for CRHR consideration as historically significant resources.

The Los Angeles River Bridge would be demolished under this alternative. Descriptive information for the bridge is discussed under Alternative 3 above. The steel girder construction of the bridge is an example of a common post 1950s type of construction and there are many existing examples of steel girder bridges; as such, the bridge does not possess a unique method of construction. Further the bridge has no construction details that show any type of stylized architectural design characteristics and has no known associations with persons or events important in local or state history. It has been determined that the bridge is not eligible for listing in the CRHR under Criterion 1, 2 or 3.

In addition to the two buildings and bridge identified above in Table 4.5-3 and Table 4.5-4, there is another building within the ROW that is 50 years of age or older. This building is listed in Table 4.5-5 and would not be demolished as a result of this alternative. It is also not eligible for the CRHR and is not a historical resource.

<table>
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<tr>
<th>Address</th>
<th>APN</th>
<th>Year Built</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>7030 N. Canoga Avenue</td>
<td>2138-014-906</td>
<td>1953</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
</tbody>
</table>


A site field investigation was conducted on October 11 and November 8, 2007, to identify existing buildings adjacent to the ROW that meet the 50-year age criteria for evaluation and for potential historical significance under Criterion 3. Because of their proximity to the ROW, these properties could be affected by the noise or visual effects of the proposed busway. Buildings adjacent to the ROW, along Canoga Avenue and Deering Avenue, are primarily light industrial commercial buildings, with the exception of some residential homes along Canoga Avenue between Community and Parthenia Streets. Table 4.5-6 below identifies buildings adjacent to the ROW that are 50 years of age or older. From the field survey, it has been determined that there are no buildings that rise to the level of historical significance by possessing a distinctive architectural design characteristic or unique construction type, representing the work of a master, or possessing high artistic value under Criterion 3.
### Table 4.5-6. Buildings 50 Years of Age or Older (eligible for CRHR) adjacent to Alternative 4 ROW

<table>
<thead>
<tr>
<th>Address</th>
<th>APN</th>
<th>Year Built</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>21350 Bryant Street</td>
<td>2779-015-028</td>
<td>1950/1957</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7009 N. Canoga Avenue</td>
<td>2138-013-014</td>
<td>1956</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7011 N. Canoga Avenue</td>
<td>2138-013-030</td>
<td>1946–1947</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7057 N. Canoga Avenue</td>
<td>2138-013-024</td>
<td>1925/1950</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7101 N. Canoga Avenue</td>
<td>2111-028-038</td>
<td>1939</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7123 N. Canoga Avenue</td>
<td>2111-028-033</td>
<td>1954</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7129 N. Canoga Avenue</td>
<td>2111-028-040</td>
<td>1923</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7255 N. Canoga Avenue</td>
<td>2111-017-037</td>
<td>1956</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7239 N. Canoga Avenue</td>
<td>2111-017-033</td>
<td>1957</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7221 N. Canoga Avenue</td>
<td>2111-017-031</td>
<td>1949</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7349 N. Canoga Avenue</td>
<td>2111-016-033</td>
<td>1952–1953</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7349 N. Canoga Avenue</td>
<td>2111-016-032</td>
<td>1955</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7333 N. Canoga Avenue</td>
<td>2111-016-018</td>
<td>1953</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7353 N. Canoga Avenue</td>
<td>2111-016-028</td>
<td>1946/1950</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7303 N. Canoga Avenue</td>
<td>2111-016-038</td>
<td>1941/1956</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7441 N. Canoga Avenue</td>
<td>2111-006-007</td>
<td>1956</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
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<tr>
<td>Address</td>
<td>APN</td>
<td>Year Built</td>
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<tr>
<td>8440 N. Canoga Avenue</td>
<td>2779-014-029</td>
<td>1947</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as</td>
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<td>identified by the local historical society.</td>
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<tr>
<td>8444 N. Canoga Avenue</td>
<td>2779-014-028</td>
<td>1953</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as</td>
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<td>identified by the local historical society.</td>
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<tr>
<td>8424 N. Canoga Avenue</td>
<td>2779-014-025</td>
<td>1940/1945</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as</td>
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<td>identified by the local historical society.</td>
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<tr>
<td>10108 N. Canoga Avenue</td>
<td>2747-009-034</td>
<td>1948</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as</td>
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<td>identified by the local historical society.</td>
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<tr>
<td>10210 N. Canoga Avenue</td>
<td>2747-011-039</td>
<td>1957</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as</td>
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<td>identified by the local historical society.</td>
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<tr>
<td>10216 N. Canoga Avenue</td>
<td>2747-011-038</td>
<td>1925/1930</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as</td>
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<td>identified by the local historical society.</td>
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<tr>
<td>10049 N. Canoga Avenue</td>
<td>2747-010-029</td>
<td>1955</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as</td>
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<tr>
<td>10201 N. Canoga Avenue</td>
<td>2747-010-027</td>
<td>1957</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as</td>
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<td>identified by the local historical society.</td>
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<tr>
<td>10155 N. Canoga Avenue</td>
<td>2747-010-022</td>
<td>1957</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as</td>
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<td>identified by the local historical society.</td>
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<tr>
<td>10231 N. Canoga Avenue</td>
<td>2747-010-019</td>
<td>1949</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as</td>
</tr>
<tr>
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<td></td>
<td>identified by the local historical society.</td>
</tr>
<tr>
<td>10115 N. Canoga Avenue</td>
<td>2747-010-026</td>
<td>1954</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>identified by the local historical society.</td>
</tr>
<tr>
<td>21350 Chase Street</td>
<td>2770-014-007</td>
<td>1957</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>identified by the local historical society.</td>
</tr>
<tr>
<td>21351 Chase Street</td>
<td>2747-015-018</td>
<td>1950</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>identified by the local historical society.</td>
</tr>
<tr>
<td>21351 Community Street</td>
<td>2779-014-026</td>
<td>1950</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>identified by the local historical society.</td>
</tr>
<tr>
<td>7331-7343 N. Deering Avenue</td>
<td>2111-030-012</td>
<td>1954–1955</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as</td>
</tr>
</tbody>
</table>
### Table 4.5-6. Buildings 50 Years of Age or Older (eligible for CRHR) adjacent to Alternative 4 ROW

<table>
<thead>
<tr>
<th>Address</th>
<th>APN</th>
<th>Year Built</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>7347 N. Deering Avenue</td>
<td>2111-030-011</td>
<td>1954–1955</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7423 N. Deering Avenue</td>
<td>2111-030-007</td>
<td>1947</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7435 N. Deering Avenue</td>
<td>2111-030-006</td>
<td>1947</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7451 N. Deering Avenue</td>
<td>2111-030-004</td>
<td>1955</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7507 N. Deering Avenue</td>
<td>2111-030-003</td>
<td>1954/1957</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>7521-7529 N. Deering Avenue</td>
<td>2111-030-002</td>
<td>1954</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>21321 Gault Street</td>
<td>2112-027-005</td>
<td>1955</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>21336 Lemarsh Street</td>
<td>2747-009-014</td>
<td>1950</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>21389 Roscoe Boulevard</td>
<td>2779-013-030</td>
<td>1955</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>21339 Saticoy Street</td>
<td>2109-031-017</td>
<td>1935</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>21339 Sherman Way</td>
<td>2111-030-018</td>
<td>1955</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>21324 Sherman Way</td>
<td>2112-027-006</td>
<td>1956</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
<tr>
<td>21420 Valerio Street</td>
<td>2111-016-023</td>
<td>1950</td>
<td>Not eligible for CRHR under Criterion 3, and not eligible for Criteria 1 or 2, as identified by the local historical society.</td>
</tr>
</tbody>
</table>


There are no buildings 50 years of age or older within the proposed northern route segments.

**Mitigation Measures:**

There were no properties identified within the project area that are eligible for the CRHR and would
be affected by the proposed project alternatives; therefore no mitigation measures are required.

**Level of Impact after Mitigation:** No historical resources were identified within or adjacent to the ROW. Therefore, no impacts and no unavoidable significant adverse impacts on historical resources would occur.

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**Impact 4.5.4:** The proposed project could contribute to cumulative impacts to paleontological resources. However, with implementation of mitigation, the proposed project's incremental effects would not be cumulatively considerable.

**Paleontological Resources**

Previous review of the proposed project by the Natural History Museum of Los Angeles County indicates that the proposed project is located on surface sediments mapped as younger Quaternary Alluvium, underlain by older Quaternary sediments. These older Quaternary sediments have a high paleontologic sensitivity throughout their extent, while the overlying younger Quaternary Alluvium has low paleontologic sensitivity. Accordingly, the geographic scope of the area affected by potential cumulative paleontological impacts would consist of other areas in the region that are geologically similar to the project area and contain similar fossil resources.

Construction activities associated with some related projects could contribute to the progressive loss of paleontological resources and result in significant cumulative impacts under CEQA. The proposed project could also disturb or destroy paleontological resources that may exist in the proposed project area, a significant impact. Thus, the combined effects of the proposed and related projects could result in significant cumulative impacts to paleontological resources. However, mitigation measures have been identified (see above) that would reduce potential project-related impacts to below a level of significance. These measures include monitoring, recovery, treatment, and deposition of fossil remains in a recognized repository. Similar measures may also be implemented for other related projects that have the potential to affect paleontological resources. Consequently, the incremental effects of the proposed project, after mitigation, would not contribute to a cumulatively considerable impact to paleontological resources under CEQA.

**Mitigation Measures:**

Mitigation measures have been prescribed that would reduce potential project-related impacts to below a level of significance. These measures include monitoring, recovery, treatment, and deposition of fossil remains in a recognized repository. Similar measures may also be implemented for other related projects that have the potential to affect paleontological resources.

**Level of Impact after Mitigation:** The incremental effects of the proposed project, after mitigation, would not contribute to a cumulatively considerable impact to paleontological resources under CEQA.
Impact 4.5.5: The proposed project could contribute to cumulative impacts to archaeological resources. However, with implementation of mitigation, the proposed project’s incremental effects would not be cumulatively considerable.

Archaeological Resources

The geographic scope of the area affected by potential cumulative archaeological impacts is defined by the cultural setting and ethnographic territory of the prehistoric and historic peoples who have occupied this area of southern California. As discussed above, this region of Los Angeles County was part of the territory of the Fernandeno and Gabrielino peoples. Related projects in the project area and other development in the county could result in the progressive loss of as-yet-unrecorded archaeological resources. This loss, without proper mitigation, would be an adverse cumulative impact.

Construction activities associated with related projects could contribute to the progressive loss of archaeological resources and result in significant cumulative impacts under CEQA. The proposed project has a low potential to disturb or destroy archaeological resources that may exist in the proposed project area. Should unanticipated resources be encountered, the impacts could be significant, and the combined effects of the proposed and related projects could result in significant cumulative impacts to archaeological resources. The proposed project includes mitigation that would reduce potential impacts to a less-than-significant level. Similar measures may also be implemented for other related projects that have the potential to affect archaeological resources. Consequently, the incremental effects of the proposed project, after mitigation, would not contribute to cumulatively considerable impact to archaeological resources under CEQA.

Mitigation Measures:

The proposed project includes mitigation that would reduce potential impacts to a less-than-significant level. Similar measures may also be implemented for other related projects that have the potential to affect archaeological resources.

Level of Impact after Mitigation: The incremental effects of the proposed project and related projects, after mitigation, would not contribute to an adverse or cumulatively considerable impact to archaeological resources under CEQA.

Impact 4.5.6: The proposed project would not result in impacts to historical resources; therefore, it would not contribute to any cumulative impacts to historical resources.

The project area for the historical resource cumulative impacts analysis includes the ROW, and an area within approximately a 3-mile radius encompassing the communities of Canoga Park, West Hills, Hidden Hills, Calabasas, Woodlands Hills, Chatsworth, and Reseda. No historical resources were identified within or adjacent to the ROW that would be potentially affected by the proposed project. The proposed project would result in the demolition of two buildings and a railroad bridge along the ROW that are 50 years of age or older. However, none of these structures are historic resources. Therefore, the proposed project would not contribute to any cumulative impacts to historical resources in the project area.
Mitigation Measures:

There were no properties identified within the project area that are eligible for the CRHR and would be affected by the proposed project; therefore no mitigation measures are required.

Level of Impact after Mitigation: The proposed project would not result in cumulative impacts to historical resources. Therefore, no impacts and no unavoidable significant adverse impacts on historical resources would occur.