3.4 Cultural Resources

This chapter identifies cultural resources present within the area of the proposed Project (Project), evaluates the potential project-related impacts on those resources, and describes the mandatory Project Design Features (PDFs) which will avoid or substantially lessen potential impacts, as applicable.

3.4.1 Regulatory Setting

Cultural resources fall within the jurisdiction of several levels of government. States and local jurisdictions provide the framework for the identification, documentation, and protection of such resources. For purposes of the California Environmental Quality Act (CEQA), Public Resources Code (PRC) Section 21084.1 and CEQA Guidelines Sections 15064.5(a)-(b); PRC Section 5024 related to state-owned historic resources; the City of Los Angeles (City) Cultural Heritage Ordinance (Los Angeles Administrative Code (LAAC) Section 22.171 et seq.); and California Health and Safety Code Section 7050.5 / PRC Section 5097.9 are the primary laws that define, govern, and affect the preservation of cultural resources of national, state, regional, and local significance. Archival and field surveys must be conducted, and identified historical resources must be inventoried and evaluated in prescribed ways.

3.4.1.1 Federal

Secretary of the Interior’s Standards for the Treatment of Historic Properties

Pursuant to the authority granted in the National Historic Preservation Act, the Secretary of the Interior (SOI) has established a series of professional standards and guidance for the preservation of the nation’s historic properties. The Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings (SOI Standards) address four concepts: preservation, rehabilitation, restoration, and reconstruction of historic properties. The SOI has also prepared advisory guidelines that offer general design and technical recommendations to assist in applying the Standards, including those that would be most relevant to the Project. These include the Guidelines for the Treatment of Historic Properties and the Guidelines for the Treatment of Cultural Landscapes. Together the SOI’s Standards and guidelines provide a framework and guidance for decision-making and work or changes to a historic property. The standards most relevant to the Project are the SOI Standards of Rehabilitation, which are codified at Title 36, Part 68 of the Code of Federal Regulations (CFR), as follows:

1. A property will be used, as it was historically, or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations or related new construction will not destroy historic materials, features and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

For the Project, the SOI Standards would be applicable to conditioning the type of work needed to repair and replace those sidewalks or street trees where the individual project would cause a substantial adverse change to the significance of a historic resource, as defined by CEQA.

**National Register of Historic Places**

The National Register of Historic Places (NRHP) was established by the National Historic Preservation Act of 1966 as “an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation’s cultural resources and to indicate what properties should be considered for protection from destruction or impairment.” (36 C.F.R. Section 60.2.) The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a property must be significant in American history, architecture, archaeology, engineering, or culture under one or more of the following criteria:

- **Criterion A:** It is associated with events that have made a significant contribution to the broad patterns of our history;

- **Criterion B:** It is associated with the lives of persons who are significant in our past;

- **Criterion C:** It embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; and/or

- **Criterion D:** It has yielded, or may be likely to yield, information important in prehistory or history.

Ordinarily, cemeteries, birthplaces, or graves of historic figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original
locations; reconstructed historic buildings; and properties that are primarily commemorative in nature are not considered eligible for the NRHP, unless they satisfy certain conditions. In general, a resource must be at least 50 years of age to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

In addition to meeting the criteria above, a property must also retain historic integrity, which is defined in National Register Bulletin 15 as the “ability of a property to convey its significance.” (National Park Service 2002.) To assess historic integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities:

1. Location – the place where the historic property was constructed or the place where the historic event occurred;
2. Design – the combination of elements that create the form, plan, space, structure, and style of a property;
3. Setting – the physical environment of a historic property;
4. Materials – the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property;
5. Workmanship – the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;
6. Feeling – a property’s expression of the aesthetic or historic sense of a particular period of time; and
7. Association – the direct link between an important historic event or person and a historic property.

The SOI maintains the NRHP, the nation’s inventory of historic places. The SOI established the criteria for evaluation for use in evaluating the eligibility of properties for the NRHP. (36 C.F.R. Part 60.) Properties listed in or formally determined eligible for listing in the NRHP are automatically listed in the state’s inventory of historical resources and, therefore, subject to compliance under state environmental law. Properties that are part of the NRHP within the City are listed and available at the National Park Service website using the search function with the words “Los Angeles” as the “City” criteria. (https://npgallery.nps.gov/NRHP)

**3.4.1.2 State Regulations**

**California Environmental Quality Act and California Register of Historical Resources**

In accordance with CEQA, PRC Section 21084.1, a “project that may cause a substantial adverse change in the significance of a historical resources is a project that may have a significant effect on the environment.” CEQA therefore requires public agencies to determine first whether a project could impact a resource that falls within the definition of “historical resource” and, second, whether any such impact would cause a “substantial adverse change” in the significance of that resource. (See CEQA Guidelines Section 15064.5 (a), (b).) In making the first determination, CEQA requires lead agencies to consider three distinct categories (mandatory, presumptive and discretionary) when evaluating whether a resource is a “historical resource” for purposes of CEQA. (Valley Advocates v. City of Fresno (2008), 160 Cal.App.4th 1039, 1051 [Valley Advocates] citing League for Protection of Oakland’s etc. Historic Resources v. City of Oakland (1997) 52 Cal.App.4th 896, 906–907.)
Section 15064.5 of the CEQA Guidelines defines historical resources as follows:

(a) For purposes of this section, the term “historical resources” shall include the following:

(1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code, Section 5024.1, Title 14 CCR, Section 4850 et seq.).

(2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements 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.

(3) 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, Section 5024.1, Title 14 CCR, Section 4852) including the following:

(A) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;

(B) Is associated with the lives of persons important in our past;

(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(D) Has yielded, or may be likely to yield, information important in prehistory or history.

(4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

Mandatory Historical Resources

The mandatory historical resources category is based on PRC Section 21084.1, which provides: “For purposes of this section, an historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources.” The CEQA Guidelines further define the scope of the category of mandatory historical resources by adding one limitation: “the term ‘historical resources’ shall [also] include ... [¶] ... [a] resource listed in, or determined to be eligible by the State Historical Resources Commission ... for listing in[,] the California Register of Historical Resources.” (Valley Advocates, supra, 160 Cal.App.4th at pp. 1051-1052, citing PRC Section 5024.1, Title 14 C.C.R., Section 4850 et seq.). Thus, if a resource is found in the California Register, or is determined to be eligible for inclusion in the Register, the resource “must in all cases be granted status as [an] historical resource[]” for purposes of section 21084.1. (League for Protection of Oakland, supra, 52 Cal.App.4th at p. 906.)
Properties listed or determined eligible for listing in the NRHP, such as those identified in the Section 106 process, are automatically listed in the CRHR, pursuant to CCR, Title 14, Section 485 (a)(1). Properties that are part of the CRHR within the City are listed by the City at [https://preservation.lacity.org/surveyla-findings-and-reports](https://preservation.lacity.org/surveyla-findings-and-reports) and mapped in Figure 3.4-1.

**Presumptive Historical Resources**

There are three types of presumptive historical resources. The first two involve resources included in a “local register of historic resources,” defined as a “list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution.” (PRC Section 5020.1(k).) The use of the disjunctive “or” has been interpreted to mean that a building is an historic resource if it is either “designated” in a local register or “recognized” as historically significant by local ordinance or resolution. (League for Protection of Oakland, supra, 52 Cal.App.4th at pp. 906–907.)

The first two presumptive historical resources categories are created by the third sentence of section 21084.1, which provides: “Historical resources included in a local register of historical resources, as defined in subdivision (k) of Section 5020.1, or deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1, 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 CEQA Guidelines reiterate this definition. (CEQA Guidelines, Section 15064.5, subd. (a)(2).) Thus, although any resource included in, or eligible for inclusion in, the State Register must be treated as an historical resource, a resource included in a local register, but not in the State Register, is only presumed to be an historical resource. That presumption may be rebutted by a “preponderance of the evidence.” (See Citizens for Responsible Development in West Hollywood v. City of West Hollywood (1995) 39 Cal.App.4th 490, 503–504 (Citizens for Responsible Development in West Hollywood).) The third type of presumptive historical resource is a resource identified as significant in certain surveys of historical resources. (PRC Section 5024.1 (g))

The historical resource survey must meet all four of the criteria set forth in PRC Section 5024.1(g). As with resources found in a local register, the resources within this third category presumptively qualify as “historical resources” within the meaning of PRC Section 21084.1.

**Discretionary Historical Resources**

The last sentence of section 21084.1 states: “The fact that a resource is not listed in, or determined to be eligible for listing in, the California Register of Historical Resources, not included in a local register of historical resources, or not deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1 shall not preclude a lead agency from determining whether the

---

1 PRC Section 5024.1(g) provides: “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. [¶] (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 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.” (Valley Advocates, supra, 160 Cal.App.4th at p. 1057 fn. 9.)
resource may be an historical resource for purposes of this section.” (See also CEQA Guidelines, Section 15064.5(a)(4).) This category of “historical resource” is created by the principle that, even where a resource does not qualify as “historical” under any of the preceding tests, a lead agency may nevertheless exercise its discretion to treat the resource as “historical.” (CEQA Guidelines Section 15064.5(a)(4).)

The CEQA Guidelines provide lead agencies with criteria to apply when exercising discretion whether to treat resources as “historical” resources:

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.

(CEQA Guidelines Section 15064.5(a)(3).) Examples of “historically significant” resources include those: (i) associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage; (ii) associated with the lives of persons important in our past; or (iii) has yielded, or may be likely to yield, information important in prehistory or history.

(CEQA Guidelines Section 15064.5(a)(3)(A)-(D).)

Generally, the lead agency shall consider a historical resource to be historically significant if the resource meets the criteria for listing in the CRHR.

The criteria are summarized as follows:

1. **Criterion 1:** 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. **Criterion 2:** Is associated with the lives of persons important to local, California, or national history.
3. **Criterion 3:** 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.
4. **Criterion 4:** Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.
Figure 3.4-1. Map of Historical Resources in Los Angeles County
Archaeological Resources

CEQA states that a unique archaeological resource, as defined in PRC Section 21083.2 is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that the resource:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; or
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Paleontological Resources

In the State of California, fossil remains are generally considered to be limited, nonrenewable, and sensitive scientific resources. These resources may be afforded protection under CEQA as historical and/or unique archaeological resources, as discussed in PRC 21083.2, CEQA Guidelines Section 15064.5(a) (3), and CEQA Guidelines Appendix G.

State Health and Safety Code, Section 7050.5/California Public Resources Code, Section 5097.9

State Health and Safety Code (HSC) Section 7050.5 and PRC Section 5097.9 contain provisions for the treatment of human remains contained in archaeological sites. Under HSC Section 7050.5, if human remains are discovered during any project activity, the county coroner must be notified immediately. If human remains are exposed, HSC Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. Construction must halt in the area of the discovery of human remains, the area of the discovery shall be protected, and consultation and treatment shall occur as prescribed by law. If the remains are determined by the coroner to be Native American, the coroner is responsible for contacting the Native American Heritage Commission (NAHC) within 24 hours. NAHC, pursuant to Section 5097.98, will immediately notify those persons it believes to be most likely descended from the deceased person(s) so they can inspect the burial site and make recommendations for treatment or disposal.

California Health and Safety Code, Section 7051

Under this code, every person who removes any part of any human remains from any place where it has been interred, or from any place where it is deposited while awaiting interment or cremation, with intent to sell it or to dissect it, without authority of law, or written permission of the person or persons having the right to control the remains under Section 7100, or with malice or wantonness, has committed a public offense that is punishable by imprisonment in the state prison.

California Code of Regulations, Title 14, Sections 4307-4308

Under these state regulations, no person shall remove, injure, deface, or destroy any object of paleontological, archaeological, or historical interest or value.
3.4.1.3 Local Regulations

City of Los Angeles Citywide General Plan Framework

The Framework Element of the City General Plan (originally adopted in 1996 and re-adopted in 2001) was designed to provide a comprehensive update to the City's General Plan. The Framework provides a framework for managing Los Angeles' continued growth and provides strategies to promote a more livable and economically strong city. The Framework EIR provides the analysis of environmental issues such as cultural resources, which examine the significant archaeological, paleontological, and historical resources in the City and propose means for avoiding potential impacts to known or potential resources.

City of Los Angeles Conservation Element

The Conservation Element of the City General Plan (adopted September 2001) is designed to enhance, preserve, and protect the City's existing natural resources and other resources. The Conservation Element specifically addresses archaeological and paleontological resources in Section 3 of Chapter 2. The Conservation Element's paleontological objective is to "protect the city's archaeological and paleontological resources for historical, cultural, research and/or educational purposes." Moreover, its policy is to "continue to identify and protect significant archaeological and paleontological sites and/or resources known to exist or that are identified during land development, demolition or property modification activities." The identification and protection of significant archaeological and paleontological sites and/or resources known to exist or identified during land development, demolition, or property modification activities is to be achieved through the establishment of permit processing, monitoring, enforcement, and periodic revision of regulations.

City of Los Angeles Cultural Heritage Ordinance

The City maintains a list of all sites, buildings, and structures that have been designated Historic-Cultural Monuments (HCMs) under the Cultural Heritage Ordinance, LAAC Section 22.171 et seq. This Ordinance also mandates the formation of the Cultural Heritage Commission, which consists of five members who are qualified electors and are appointed by the Mayor. HCMs are included in a local register of historical resources and therefore are considered to be historical resources for the purposes of CEQA.

Historic-Cultural Monument

The Cultural Heritage Ordinance states that an HCM is any site (including street trees), building, or structure of particular historic or cultural significance to the City. The City Council may apply the designation upon recommendation from the Cultural Heritage Commission.

Any person may apply for the proposed designation of HCM, and the Cultural Heritage Commission determines whether or not the proposed designation merits consideration. If the Commission recommends approval of the application and the designation is adopted by the City Council to be included in the list of HCMs, under LAAC Section 22.171.14, no permit for the demolition, substantial alteration, or relocation of an HCM may be issued unless:

1. The Superintendent of Building or City Engineer determines that the demolition, relocation, or substantial alteration is necessary in the interest of the public health, safety or general welfare;
2. The substantial alteration complies with the Secretary of the Interior’s Standards for Rehabilitation;

3. The substantial alteration protects and preserves the historic and architectural qualities and the physical characteristics that make the site, building, or structure a designated HCM; and

4. The proposed action is in compliance with CEQA (PRC Section 21000 et seq.).

HCMs within the City are listed at: [https://preservation.lacity.org/commission/designated-historic-cultural-monuments](https://preservation.lacity.org/commission/designated-historic-cultural-monuments).

For reference, the following are examples of significant street trees that are HCMs:

- HCM #148—Coral (*Erythrina caffra*) trees on San Vicente Boulevard between Bringham Avenue and 26th Street
- HCM #465—Sycamore (*Platanus racemosa*) trees on Bienvenida Avenue between Sunset Boulevard and the dead end south of Sunset Boulevard
- HCM #93—California pepper (*Schinus molle*) trees on Canoga Avenue between Ventura Boulevard and Saltillo Street
- HCM #49—Olive (*Olea europaea*) trees on Lassen Street between Topanga Canyon Boulevard and Farraline Avenue
- HCM #24—Coast live oak (*Quercus agrifolia*) (deceased) in median island on Louise Avenue 210 feet south of Ventura Boulevard
- HCM #41—Deodar cedar (*Cedrus deodar*) trees on White Oak Avenue between Devonshire Street and Ronald Reagan Freeway (State Route 118)
- HCM #94—Median island Queen Palm (*Syagrus romanzoffianum*) and Mexican Fan Palm (*Washingtonia robusta*) trees on Highland Avenue
- HCM #509—Camphor (*Cinnamomum camphora*) trees in the 1200 block of Lakme Avenue
- HCM #67—Deodar cedar (*Cedrus deodar*) trees on Los Feliz Boulevard between Riverside Drive and Western Avenue

### Historic Preservation Overlay Zone

Section 12.20.3 of the City Municipal Code defines the HPOZ. It declares, “as a matter of public policy that the recognition, preservation, enhancement, and use of buildings, structures, Landscaping, Natural Features, and areas within the City having Historic, architectural, cultural or aesthetic significance are required in the interest of the health, economic prosperity, cultural enrichment and general welfare of the people.” As of August 2019, there are 35 designated HPOZs within the City. Resources that contribute to an HPOZ’s integrity and importance are identified as significant in a historical resource survey and therefore are considered historical resources for the purposes of CEQA.

#### 3.4.2 Environmental Setting

For cultural resources potentially affected by the Project, the environmental setting is provided below. The geological setting is related to paleontological resources; prehistoric background is related to prehistoric archaeological resources; ethnographic background is related to tribal
resources; and historic background is related to historic archaeological resources and historical resources.

### 3.4.2.1 Geological Setting

The City is situated in two geomorphic provinces, the Peninsular Ranges Geomorphic Province which includes the Central, East, West, South, and Harbor portions of the City, and the Transverse Ranges Geomorphic Province which encompasses the North Valley and South Valley portions of the City. Geologic structures in this region reflect the resolution of tectonic forces as the northwest-trending structures of the northern Peninsular Range Province, exemplified by the Whittier-Elsinore fault, meeting the Santa Monica-Hollywood-Raymond fault of the Transverse Range Province.

The Peninsular Ranges Geomorphic Province, extends from just south of the San Gabriel and Santa Monica Mountains and south into Mexico, where it forms the Baja California peninsula (Jenkins 1938; CGS 2002). The Peninsular Ranges Province consists of Mesozoic to Paleozoic age plutonic and metamorphic rocks overlain by younger sedimentary geologic units (Bean 1955; Hadley and Combs 1974). The province is characterized by a series of northwest-trending mountain ranges and associated valleys which is the result of continuing movement along a series of generally northwest-trending faults paralleling the San Andreas Fault Zone.

Level areas of the City in this province are part of the Los Angeles Basin, a broad, level expanse of land comprising more than 800 square miles that extends from the Hollywood Hills and Santa Monica Mountains on the north, to the Pacific coast on the southwest, to Topanga Canyon on the west, and to the vicinity of Aliso Creek in Orange County on the southeast.

The Transverse Ranges Geomorphic Province consists of mostly east-west trending mountain ranges and sediment-filled valleys due to movement along the San Andreas Fault. The active San Andreas Fault Zone is located to the northeast of the province and forms the tectonic boundary between the North American and Pacific tectonic plates (Wagner 2002). The San Fernando Valley encompasses about 225 square miles, bounded on the north and east by the San Gabriel Mountains, on the north and west by the Santa Susana Mountains, with the Santa Monica Mountains forming the southern boundary.

The Los Angeles Basin and San Fernando Valley are several of the basins making up the Neogene (23 million years ago [Ma] to 2.6 Ma) continental borderland of Southern California (Yerkes et al. 1965). Both are structural depressions that were subject to discontinuous marine deposition during the Late Cretaceous (99.6 Ma to 65.5 Ma). Tectonic movements in the middle Miocene (18 Ma to 12 Ma) resulted in crustal extension and continuous subsidence of the Los Angeles Basin and primarily marine deposition during the middle Miocene (16 Ma to 11.6 Ma). As a result of this motion along the western margin of North America, the Los Angeles Basin and San Fernando Valley and other sedimentary basins filled with thick sedimentary accumulations during the Miocene (23 Ma to 5.3 Ma) and Pliocene (5.3 Ma to 2.6 Ma) (Ingersoll and Rumelhart 1999). This deposition continued until the end of the Pliocene. At that time the Palos Verdes Hills were an island, and large parts of the Santa Monica Mountains, the Puente Hills, the Santa Ana Mountains, and much of the southwestern portions of the basin were exposed. In the early Pleistocene, the Palos Verdes Hills and southwestern areas again subsided and marine deposition resumed (Yerkes et al. 1965).

The Los Angeles Basin and the San Fernando Valley began to fill with alluvium about 5 Ma; eventually these surfaces were exposed above sea level and terrestrial deposition began. This has
resulted in the landscape seen today—the level alluvial plains of the Los Angeles and San Fernando valleys, and the steep sided mountains and hills that rise above the valleys.

**Paleontological Sensitivity**

The current approach to analyzing impacts on paleontological resources—reflected in the Society for Vertebrate Paleontology guiding documents (SVP 1995, 1996, 2010)—is essentially a risk analysis. The goal is to identify the likelihood of impacts and provide flexible strategies to support appropriate management in response to project parameters.

This strategy reflects the well-substantiated working assumption that a geologic unit that has produced fossil finds in the past is likely to do so again, and in other locations. A geologic unit with a track record of producing important fossils is thus considered to have high paleontological potential or sensitivity. Moreover, the same paleontological potential is considered to apply throughout the three-dimensional extent of the unit, everywhere that unit occurs, regardless of whether fossils have actually been found in a given location or not.

By the same token, geologic units that have not produced past fossil finds are generally considered less sensitive throughout their regional extent. Consequently, the evaluation of paleontological potential—and by extension, of the potential for effects on fossil resources—depends not on fossil finds within a certain distance of the project footprint but, rather, on fossil finds in the geologic units affected by the project, wherever those units occur.

Appendix F includes Paleo Figures A through I, which depict the generalized surface geology of each of the project zones. These figures depict the various types and age of geologic units exposed at the ground surface throughout the City. More detailed geologic mapping along with extensive fossil data can be done for specific sites for rock units within the City, especially in the hills and mountain areas, where many different formations are exposed. More geological information and extensive fossil data is also available, but a detailed technical analysis of this information is beyond the scope of this document.

Table 3.4-1, below, depicts the rock and sediment units mapped in each of the seven project zones. The geological time period in which these units were formed is also provided, and each unit is evaluated as having high, low or no sensitivity for encompassing fossil resources. This evaluation is based on the results of numerous previous paleontological projects and fossil locality discoveries throughout the City; these results range from casual discoveries in the early twentieth century into the current era of paleontological monitoring and recovery associated with major construction, such as the Los Angeles subways and deep building foundation excavations.
### Table 3.4-1. Sedimentary Units and Rock Units in the Seven Project Zones

<table>
<thead>
<tr>
<th>Unit Symbol:</th>
<th>Age:</th>
<th>Description:</th>
<th>North Valley</th>
<th>South Valley</th>
<th>Central</th>
<th>East</th>
<th>West</th>
<th>South</th>
<th>Harbor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALLUVIUM:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low Sensitivity at Ground Surface:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q</td>
<td>Holocene</td>
<td>Younger Alluvium</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Qoa</td>
<td>Pleistocene</td>
<td>Older Alluvium</td>
<td>--</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>QPc</td>
<td>Plio-Pleistocene and Pliocene</td>
<td>Alluvial deposits</td>
<td>x</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>BEDROCK:</strong></td>
<td></td>
<td>High Sensitivity at Ground Surface and at Depth:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>Pliocene</td>
<td>Marine sedimentary</td>
<td>x</td>
<td>--</td>
<td>x</td>
<td>--</td>
<td>x</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>M</td>
<td>Miocene</td>
<td>Marine sedimentary</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Oc</td>
<td>Oligocene</td>
<td>Non-marine sedimentary</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Ep</td>
<td>Eocene</td>
<td>Marine sedimentary</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>x</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Ku</td>
<td>Upper Cretaceous</td>
<td>Marine sedimentary</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>--</td>
<td>x</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>J</td>
<td>Jurassic</td>
<td>Marine sedimentary</td>
<td>x</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>x</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>No Potential:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tv</td>
<td>Tertiary</td>
<td>Volcanic</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Ti</td>
<td>Tertiary</td>
<td>Igneous</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>x</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Gr/grMz/grM</td>
<td>Undated/Mesozoic/Pre-Cenozoic</td>
<td>Granitic</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>pC</td>
<td>Pre-Cambrian</td>
<td>Igneous and Metamorphic</td>
<td>x</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Essentially, two types of geologic environment exist in the City. The first is the level, or gently sloping areas of the Los Angeles Basin and the San Fernando Valley underlain by Quaternary Alluvium (units Q, Ooa, QPc on the maps). The second is the more complex folded and faulted geology of the hills and mountains in the City, such as the Santa Monica Mountains, the Hollywood Hills, the San Gabriel and Santa Susana Mountains, the Palos Verde Hills, and the various small hilly areas in neighborhoods such as Silver Lake and El Sereno. These upland areas, indicated as Quaternary Alluvium consists of silt, sand, and gravel deposited in the valley areas of the City during the Pleistocene and the Holocene. Sedimentary deposits younger than 10,000 years ago are unlikely to contain fossilized resources. But older alluvium, whether exposed at the ground surface or at depth below the younger alluvium, does encompass fossil resources. These resources are rare, however. Appendix F, Paleo Figure A, depicts a generalized map of alluvial deposits in the City.

As can be seen on Table 3.4-1, younger alluvium of Holocene age is not sensitive for fossil resources at the ground surface. But older Pleistocene Alluvium and early Pleistocene-late Pliocene sediments are sensitive for fossil resources at the ground surface, as well as at depth. However, it should be noted that excavations that extend below five feet in depth in areas of Younger Alluvium have the potential to encounter significant fossil resources, as the deeper sediments are older and can be old enough to encompass fossil resources.
The complex geology of the mountains and hills consist primarily of marine deposits, a small amount of non-marine sediments, and igneous, granitic, volcanic, and metamorphic rocks. All of these rock units are older than 10,000 years ago. However, the igneous, granitic, metamorphic, and volcanic rocks have no potential to contain paleontological resources.

Marine and non-marine sediments are depicted in Paleo Figures C through I (see Appendix F) by age, including the Pliocene, Miocene, Oligocene and Eocene Epochs of the Tertiary Period, and the older Cretaceous Period (145-66 Ma) and Jurassic (201.3 to 145 Ma) Period. These temporal divisions incorporate several well known rock formations in the region. For example, the Miocene area in East LA includes the Topanga Formation, in Central LA Miocene encompasses the Topanga and the Modelo Formation, while in the Harbor area, the Miocene includes the Monterey Shale. Similarly, Pliocene mapped areas encompass fossil bearing units such as the Fernando Formation and the Repetto Formation.

Marine deposited bedrock units encompass fossils more commonly than do the Quaternary Alluvial sediments. For example, excavation in downtown Los Angeles of an entire city block for subterranean parking, which was monitored full time by paleontologists, encountered Fernando Formation bedrock at depths of 20 to 35 feet below the ground surface. Paleontological monitors at this construction site recovered more than 4,025 fossil specimens from 65 numbered and mapped fossil localities during the course of monitoring of construction excavations.

Invertebrate paleontological resources in the City are represented in Figure 3.4-2, and Figure 3.4-3 represents vertebrate palynological resources in the City. These maps are provided from the General Plan Framework EIR Cultural Resources section. Figure 3.4-2 depict three types of sediment associated with differing paleontological sensitivity. Bedrock shown on Figure 3.4-2 to be fossil-bearing are sedimentary rock associations (e.g. sandstone, limestone, or shale) or sedimentary rock associations with chunks of metamorphic rock embedded in them. Fossils are found in the sedimentary portion of the rock. The sedimentary rock was formed from an ancient ocean floor when the Los Angeles area was largely an underwater continental shelf of the ocean. Fossil found here tend to be prehistoric marine plants and animals. Older sediment shown on Figure 3.4-2 are alluvial sand, gravel, and clay which have been eroded from fossil bearing bedrock. Fossils in the bedrock were transported by erosion. Fossil found here tend to be prehistoric marine plants and animals. Surface sediments show on Figure 3.4-2 are alluvial deposits from a more recent erosion. Fossil found here are a combination of prehistoric marine plants and animals and more recent species of extinct land mammals (e.g. Pleistocene Epoch mammals). The paleontological sensitive areas shown on this map are based on types of rocks or alluvial sediments known to the Los Angeles County Museum of Natural History (NHMLA) to be the source of fossil discoveries in the past. Igneous rocks, metamorphic rocks, areas of artificial land fill, stream beds, and beach sand do not contain fossils.
Figure 3.4-2. Invertebrate Paleontological Resources in the City
Figure 3.4-3. Vertebrate Palynological Resources in the City
The locations of fossil-bearing rock associations and alluvial sedimentary based on maps prepared by the Thomas W. Dibblee Jr. Foundation and the unpublished research notes of Thomas E. Dibblee Jr. in areas of the City where maps have not been published by the Foundation. The survey areas and sites on Figure 3.4-3 are generalized locations where vertebrate fossils have been found. The exact locations are privileged information where are not released to the public to protect the fossil resource per California Government Code 6254.10. Figure 3.4-3 depicts all known sites with the City. According to NHMLA, these sites could be part of fossil-bearing rock formations which extend into the City.

3.4.2.2 Prehistoric Background

The prehistoric occupation of Southern California is divided chronologically into four temporal phases, or horizons (Moratto 1984). 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 (Moratto 1984).

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, possibly 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 (Moratto 1984).

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 (Moratto 1984).

Figure 3.4-4 depicts the prehistoric and historic archaeological sites and survey areas in the City provided by the Cultural Resources section of the City’s General Plan Framework Final EIR. The archeological sites depicted on this map represent generalized locations. Disclosure of this specific site locations is prohibited by law, Section 6254.10 of the Government Code, in order to protect the integrity of the archeological side.
Figure 3.4-4. Prehistoric and Historic Archaeological Sites and Survey Areas in the City
3.4.2.3 Ethnographic Background

The Gabrielino

The project area lies within the territory of the Gabrieleño Native American people, a Uto-Aztecan (or Shoshonean) group that may have entered the Los Angeles Basin as recently as 1500 Before Present (BP) (Bean and Smith 1978). The Gabrieleño are characterized as one of the most complex societies in native Southern California, along with the Chumash, their coastal neighbors to the northwest. This complexity derives from their overall economic, ritual, and social organization (Bean and Smith 1978:538; Kroeber 1925:621).

The Gabrieleño spoke a language that falls within the Cupan group of the Takic subfamily of the Uto-Aztecan language family. This language family is extremely large and includes the Shoshonean groups of the Great Basin. Given the geographic proximity of Gabrieleño/Tongva and Serrano bands living in the area and the linguistic similarities, ethnographers have suggested that they shared the same ethnic origins (Kroeber 1925).

In early protohistoric times, the Gabrieleño occupied a large territory including the entire Los Angeles Basin. This region encompasses the coast from Malibu to Aliso Creek, parts of the Santa Monica Mountains, the San Fernando Valley, the San Gabriel Valley, the San Bernardino Valley, the northern parts of the Santa Ana Mountains, and much of the middle to the lower Santa Ana River. They also occupied the islands of Santa Catalina, San Clemente, and San Nicolas. Within this large territory were more than 50 residential communities with populations ranging from 50 to 150 individuals. The Gabrieleño had access to a broad and diverse resource base. This wealth of resources, coupled with an effective subsistence technology, well-developed trade network, and ritual system, resulted in a society that was among one of the most materially wealthy and culturally sophisticated groups in California (Bean and Smith 1978).

Very little is known about early Gabrieleño social organization because the band was not studied until the 1920s and had already been greatly influenced by missionaries and settlers by that time (Kroeber 1925). Recorded ethnographic and archaeological sites associated with Gabrieleño settlements are few. This is directly attributable to the extensive and prolonged urban development of the City region over the last one and a half centuries (California Department of Parks and Recreation 2005:16). Kroeber's (1925) work indicates that the Gabrieleño were a hierarchically ordered society with a chief who oversaw social and political interactions both within and with other groups. The Gabrieleño had multiple villages ranging from seasonal satellite villages to larger, more permanent settlements. Gabrieleño houses were large, circular, thatched, and domed structures of tule, fern, or carrizo that were large enough to house several families. Smaller structures were also present in the villages and were used in a variety of ways. These structures were earth covered, and different ones were used as sweatouses, meeting places for adult males, ritual huts, and ceremonial enclosures (Heizer 1962:289–293).

Diet included hunting deer, rabbits, birds, and other small game to sea mammals; fishing freshwater fish, saltwater mollusks, and crustaceans; and gathering acorns and various grass seeds. (Bean 1978:538–549). Fishing technology included basket fish traps, nets, bonefish hooks, harpoons, and vegetable poisons, and ocean fishing was conducted from wooden plank canoes lashed and asphalted together.
The Tataviam

The Tataviam belong to the family of Serrano peoples who migrated down into the Antelope, Santa Clarita, and San Fernando Valleys some time before 450 A.D. The Tataviam may be among the larger “Shoshonean” migration into Southern California that occurred 2,000 to 3,000 years ago (Johnson and Earle 1990). The Tataviam people lived primarily on the upper reaches of the Santa Clara River drainage system, east of Piru Creek, but they also marginally inhabited the upper San Fernando Valley, including the present-day City of San Fernando and neighborhood of Sylmar (which they shared with their inland Gabrieleño/Tongva neighbors).

The Tataviam were hunter-gatherers who were organized into a series of clans throughout the region, living in small villages and becoming semi-nomadic when food was scarce. They were hunters and gatherers who prepared their foodstuffs in much the same way as their neighbors. Jimsonweed, native tobacco, and other plants found along the local rivers and streams provided raw materials for baskets, cordage, and netting. Larger game was generally hunted with the bow and arrow, while snares, traps, and pits were used for capturing smaller game. These resources were supplemented with roots, bulbs, shoots, and seeds that, if not available locally, were obtained in trade with other groups. At certain times of the year, communal hunting and gathering expeditions were held. Meat was generally prepared by cooking in earthen ovens, boiling, or sun drying. Cooking and food preparation utensils consisted primarily of lithic (stone) knives and scrapers, mortars and metates, pottery, and bone or horn utensils. Resources available to the desert-dwelling Tataviam included honey mesquite, piñon, yucca, mesquite, and cacti fruits (Solis 2008).

There is little information regarding Tataviam social organization, although information from neighboring groups shows similarities among Tataviam, Chumash, and Gabrieleño ritual practices. At first contact with the Spanish in the late 18th century, the population of this group was estimated at less than 1,000 persons. By 1810 nearly all of the Tataviam population had been baptized at San Fernando Mission (King and Blackburn 1978).

3.4.2.4 Historic Background

History of Paved Sidewalks in the City of Los Angeles

In the early years of Los Angeles settlement, there were no sidewalks of any kind. Wood was scarce, but the earliest sidewalks were boards. When Harris Newmark arrived in Los Angeles in 1853, he observed: “Graded streets and sidewalks were unknown; hence, after heavy winter rains mud was from six inches to two feet deep, while during the summer, dust piled up to about the same extent” (Newmark 1926:34). Some of the earliest commercial buildings in the late 1850s, including the Arcadia Block and the Temple Block, address this problem by elevating the entire building well above street grade, and the entrances were accessed by several steps (Newmark 1926:226, 229). In 1860, John Temple improved the sidewalk outside his block by covering bricks with a thick layer of asphalt from area now known as the La Brea tar pits, then sprinkled with sand (Newmark 1926:287). In 1880, the Temple Block then became the first in Los Angeles to replace wooden sidewalks with cement pavement (Newmark 1926:519). In 2009, Los Angeles had 700,000 street trees along 6,500 miles of road and over 10,400 miles of sidewalk gravel. Annually, the City plants 5,000 new street trees and removes approximately 2,000 (Loukaitou-Sideris and Ehrenfeucht 2009:210; Los Angeles Bureau of Street Services, Urban Forestry Division 2018).
3.4.3 Environmental Impact Analysis

3.4.3.1 Approach

For historical resources, analysis of potential impacts for purposes of this Draft EIR was based on the following sources: the City HCM list; Los Angeles City Community Plans and historic resources surveys such as SurveyLA; and the Secretary of Interior’s Standards for the Treatment of Historic Properties.

Analysis of potential impacts related to archaeological resources was based on several sources. A limited cultural resources records search was conducted for the Project at the South Central Coastal Information Center, the State of California’s regional cultural resources repository, on February 22, 2017. Data reviewed during the records search included the Archaeological Determinations of Eligibility list for Los Angeles and the NRHP and CRHR listings. No NRHP or CRHR listed tribal cultural resources were identified in the City as a result of the records search. A review of the City HCM list identified two prehistoric archaeological sites, a Gabrieleño Indian site in the vicinity of Griffith Park (HCM #112) the Gabrieleño village of Sa’angna near the Ballona wetlands (HCM #490). The HCM list also identified an additional 11 resources that may be sensitive for archaeological deposits. These include four resources associated with the Spanish period (HCM #23, 50, 64, 487); the location of an ancient tree (HCM #24); two cemetery sites (HCM #26, 586); and two 20th century resources (HCM #101, 942). These 11 monuments are listed in Table 3.4-2. All City NRHP, CRHR, and HCMs are depicted in Figure 3.4-1.

Analysis for paleontological resources was based on examination of geological maps of the City, detailed review of the surface geology in each of the project zones, and a review of the known paleontological potential of surface and subsurface units based on previous projects conducted in the City.

Table 3.4-2. Potential Tribal-Associated Los Angeles Historic-Cultural Monuments

<table>
<thead>
<tr>
<th>HCM Name (#)</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Fernando Mission (#23)</td>
<td>15151 San Fernando Mission Blvd., Mission Hills</td>
<td>The present church is a reconstructed version of the original 1797 mission, which was demolished after the 1971 San Fernando Valley earthquake. The original convent building still remains on the site. It was seventeenth in the chain of missions.</td>
</tr>
<tr>
<td>(Site of) Oak Tree (#24)</td>
<td>Louise Avenue, 210 feet south of Ventura Boulevard, Encino</td>
<td>The tree, Quercus Agrifolia, was judged to be over 1,000 years old. It was destroyed by storms in January 1997.</td>
</tr>
<tr>
<td>(Site of) The First Cemetery in the City of Los Angeles (#26)</td>
<td>521 N. Main St.</td>
<td>Built 1823–1844, it was the first graveyard adjacent to the Plaza Church. It is believed to contain buried remains of the Christian indigenous inhabitants of Yang-Na, a Gabrieleño village, and the early Spanish and Mexican settlers.</td>
</tr>
<tr>
<td>Mission Wells and the Settling Basin (#50)</td>
<td>Havana and Bleeker Streets, Sylmar</td>
<td>The presence of cienegas or swamp lands was one of the vital factors in the decision of the Franciscan Padres to erect the Mission San Fernando Rey de España in 1797 at a site 2 to 3 miles west of these cienegas.</td>
</tr>
</tbody>
</table>
### Cultural Resources

<table>
<thead>
<tr>
<th>HCM Name (#)</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plaza Park (#64)</td>
<td>Area approx. bounded by Cesar E. Chavez Ave, Alameda, Los Angeles, Arcadia, New High, and Main Streets</td>
<td>Part of the original land grant, it was on the plaza that Governor Felipe de Neve conducted formal ceremonies on September 4, 1781 establishing El Pueblo de Nuestra Señora la Reina de Los Angeles. The present site of the existing plaza is not precisely its original location. The Zanja Madre runs through the park.</td>
</tr>
<tr>
<td>Union Station Terminal and Landscaped Grounds (#101)</td>
<td>800 North Alameda Street</td>
<td>It was designed by architects John and Donald B. Parkinson, with landscape architect Tommy Tomson. Three of the nation’s major railroads, the Southern Pacific, Santa Fe and Union Pacific, pooled their resources in 1933 and proceeded with the construction of the station.</td>
</tr>
<tr>
<td>Gabrieleño Indian Site (#112)</td>
<td>Griffith Park, Los Feliz</td>
<td>Archaeological surveys discovered sites of villages of the vanished Gabrieleños at the mouth of Fern Dell Canyon, leaving little doubt that fairly large settlements existed in this area and possibly at others that received water from canyons leading from the Hollywood Hills.</td>
</tr>
<tr>
<td>Sanchez Ranch (#487)</td>
<td>3725 Don Felipe Drive</td>
<td>Portions of the adobe structures were built in the 1790s as part of the Rancho La Cienega o Paso de la Tijera. Archaeological evidence indicates a prehistoric Native American village on this site.</td>
</tr>
<tr>
<td>Sa-Angna (#490)</td>
<td>South Lincoln Boulevard</td>
<td>The site was a major village and burial ground circa 1540 of the Gabrieleño Indians and contains remains of tools, jewelry, and weapons.</td>
</tr>
<tr>
<td>San Fernando Pioneer Memorial Cemetery (#586)</td>
<td>14400 Foothill Boulevard, Sylmar</td>
<td>A flat, 3.8-acre Sylmar site, where the area is covered with native grasses and includes a walkway and memorial patio. It is the second-oldest cemetery in the San Fernando Valley and holds the remains of early pioneers, Civil War veterans, and Mission Indians.</td>
</tr>
<tr>
<td>Griffith Park (#942)</td>
<td>4730 Crystal Springs Dr., 3201/3210/3401 Riverside Dr, 2715 Vermont Ave, 5333 Zoo Drive</td>
<td>Established in 1896, this 4,218-acre City of Los Angeles park is one of the largest interurban parks in the nation. The park is located within the eastern edge of the Santa Monica Mountains, northwest of downtown Los Angeles, and adjacent to a 4.9 mile stretch of the Los Angeles River.</td>
</tr>
</tbody>
</table>

### 3.4.3.2 Project Design Features

The following project design features related to cultural resources are proposed for implementation at the construction sites for the Project.

**PDF-CUL-1:** Prior to any approval of an individual sidewalk repair under the Project, the construction site shall be assessed to determine whether a substantial adverse change would occur to the significance of a historic, tribal cultural, unique archaeological, and/or unique paleontological resource.

**PDF-CUL-2:** Where an individual sidewalk repair would cause a substantial adverse change to the significance of a historic resource, the Secretary of 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 followed.
PDF-CUL-3: Where an individual sidewalk repair would cause a substantial adverse change to the significance of a unique archaeological resource, the City shall prepare an archaeological treatment plan (ATP) that ensures the long-term protection and proper treatment of archaeological resources of significance. The ATP shall include a monitoring plan, research design, and data recovery plan. The ATP shall be consistent with the Secretary of the Interior’s Standards and Guidelines for Archaeological Documentation, California Office of Historic Preservation’s (OHP) Archaeological Resources Management Report, Recommended Contents and Format (1989), and the Guidelines for Archaeological Research Design (1991); and shall also take into account the Advisory Council on Historic Preservation’s publication Treatment of Archaeological Properties: A Handbook. The ATP shall also be consistent with the Department of the Interior’s Guidelines for Federal Agency Responsibility under Section 110 of the National Historic Preservation Act. In addition, those steps outlined in Public Resources Code Sections 21083.2(b) and 21083.2(i) and Section 15064.5(f) of the CEQA Guidelines shall be implemented, as necessary.

PDF-CUL-4: Where an individual sidewalk repair would cause a substantial adverse change to the significance of a unique paleontological resource, a qualified paleontologist shall be retained by the City to develop an acceptable monitoring and fossil remains treatment plan (Paleontological Management Treatment Plan - PMTP) for construction-related activities that could disturb potential unique paleontological resources within the project area. The selection of the paleontologist and the development of the PMTP shall be subject to approval by the Vertebrate Paleontology Section of the Natural History Museum of Los Angeles County to comply with paleontological requirements, as appropriate.

PDF-CUL-5: Pursuant to the City Engineer Standard Specifications, Section 6-3.2, (Greenbook, 2012), if, during construction activities, an unexpected discovery is made of items of archaeological or paleontological interest, the Contractor shall immediately cease excavation in the area of discovery and shall not continue until ordered by the Engineer. PDF-CUL-3 and PDF-CUL-4 would be followed, as appropriate.

3.4.3.3 Thresholds of Significance

The City’s 2006 L.A. CEQA Thresholds Guide identify significance criteria to be considered for determining whether a project could have significant impacts related to cultural resources. Accordingly, for purposes of the analysis in this Draft EIR, the City has used the L.A. CEQA Thresholds Guide and CEQA Guidelines, Appendix G, as guides to evaluate the potential for the Project to cause a significant impact related to cultural resources using the following thresholds:

- **CUL-1:** Would the proposed Project result in the demolition of a significant historical resource as defined in Section 15064.5(a) of the CEQA Guidelines? L.A. CEQA Thresholds Guide and Appendix G.
- **CUL-2:** Would the proposed Project result in relocation that does not maintain the integrity and significance of a significant historical resource? LA CEQA Thresholds Guide.
- **CUL-3:** Would the proposed Project result in the conversion, rehabilitation, or alteration of a significant historical resource which does not conform to the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings? LA CEQA Thresholds Guide.
- **CUL-4:** Would the proposed Project disturb, damage, or degrade an archaeological resource, or its setting, that is found to be important because it:
o Is associated with an event or person of recognized importance in California or American
prehistory or of recognized scientific importance in prehistory;

o Can provide information which is both of demonstrable public interest and useful in
addressing scientifically consequential and reasonable archaeological research questions;

o Has a special or particular quality, such as the oldest, best, largest, or last surviving example
of its kind;

o Is at least 100 years old and possesses substantial stratigraphic integrity; or

o Involves important research questions that historical research has shown can be answered
only with archaeological methods. LA CEQA Thresholds Guide.

- **CUL-5:** Would the proposed Project result in the permanent loss of, or loss of access to, a
paleontological resource of regional or statewide significance? LA CEQA Thresholds Guide.

- **CUL-6:** Would the proposed Project cause disturbance of human remains, including remains
interred outside of formal cemeteries? Appendix G of the CEQA Guidelines.

### 3.4.3.4 Construction Impacts

If an impact on an "historical resource" does not involve a "substantial adverse change" in the
significance of the resource, the lead agency need not deem the impact significant. If a lead agency
determines that a project will adversely affect a "historical resource," then the agency must evaluate
whether that impact will result in a "substantial adverse change in the significance" of that resource.
(PRCS 21084.1; CEQA Guidelines Section 15064.5 (b).) The CEQA Guidelines define a
"substantial adverse change in the significance of an historical resource" to mean "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." (CEQA Guidelines
Section 15064.5(b)(1).) CEQA Guidelines Section 15064.5(b)(2), defines "materially impaired" as
follows:

(A) Demolishes or materially alters in an adverse manner those physical characteristics
of an 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
that account for its inclusion in a local register of historical resources pursuant to
section 5020.1(k) of the Public Resources Code or its identification in an historical
resources survey meeting the requirements of 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.

After having identified a significant impact, "[a] lead agency shall identify potentially feasible
measures to mitigate significant adverse changes in the significance of an historical resource. The
lead agency shall ensure that any adopted measures to mitigate or avoid significant adverse changes
are fully enforceable through permit conditions, agreements, or other measures." (CEQA Guidelines Section 15064.5 (b)(4).) Section 15126.4 provides detailed guidance on the subject of how to mitigate impacts on historical resources, which also sometimes include “archaeological resources” (discussed below):

(1) Where maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction of the historical resource will be conducted in a manner consistent with the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (1995), Weeks and Grimmer, the project’s impact on the historical resource shall generally be considered mitigated below a level of significance and thus is not significant.

(2) In some circumstances, documentation of an historical resource, by way of historic narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to a point where clearly no significant effect on the environment would occur.

(3) Public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed in an EIR for a project involving such an archaeological site:

(A) Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.

(B) Preservation in place may be accomplished by, but is not limited to, the following:
   1. Planning construction to avoid archaeological sites;
   2. Incorporation of sites within parks, greenspace, or other open space;
   3. Covering the archaeological sites with a layer of chemically stable soil before constructing any facilities on the site;
   4. Deeding the site into a permanent conservation easement.

(C) When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archaeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation.

(D) Data recovery shall not be required for an historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented in the EIR and that the studies are deposited with the California Historical Resources Regional Information Center.

(CEQA Guidelines Section 15126.4(b); see also CEQA Guidelines Section 15064.5(b)(3) [if a project follows the Secretary of the Interior’s standards for historic properties, then...
the impacts on the historical resource shall be considered mitigated to a level of less than significant."

Potential impacts from implementation of the ordinance on cultural resources is described below, including potential effects from construction of the sidewalk improvements required to the extent such effects are reasonably foreseeable at this time. In this regard, cultural resource impacts are analyzed by:

- Determining if the proposed activities have the potential to affect a cultural resource,
- Applying the criteria for determining the significance of impacts to archaeological and historical resources set forth in Section 15064.5 of the CEQA Guidelines, and
- Assessing consistency with the relevant plans and policies.

For a description of the activities under each of the two construction scenarios, please see Chapter 3.1, Introduction.

**CUL-1: Would the proposed Project result in the demolition of a significant historical resource as defined in Section 15064.5(a) of the CEQA Guidelines?**

**This impact would be potentially significant during construction.**

The Project involves the continuation of repair of sidewalks and curb ramps which typically will include removal of existing concrete, street trees, gutters, and traffic signs, and utility infrastructure. Any such element related to a Project site could be demolished and/or otherwise materially altered for sidewalk repairs consistent with the applicable accessibility requirements. Under Scenarios 1 and 2, construction activities under the Project may demolish sidewalks, ramps, curbs, traffic signs, gutter lids, or other similar sidewalk-related features that are of historical significance.

Under PDF-CUL-1, sites will be assessed for historical significance prior to the approval of any individual sidewalk repair. The existing Cultural Heritage Ordinance would still apply to HCM resources under the Project. Where it is determined that an element of a sidewalk repair, including a street tree or other structure, would result in a substantial adverse change to a historic resource, under PDF-CUL-2 repairs and replacements would be implemented in a manner consistent with the SOI Standards, and per Section 15064.5(b)(3) of the CEQA Guidelines. This includes the provisions where rehabilitation is defined as the process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values. This scenario has not occurred to date since implementation of sidewalk repairs pursuant to the legal settlement under existing ordinances and policies, as described in Chapter 2, Project Description.

Pursuant to CEQA Guidelines Section 15064.5, a project that follows the SOI Standards for an impacted historical resource will generally be considered to result in a less-than-significant impact on that historical resource. In some cases, documentation of a historical resource, by way of historic narrative, photographs, or architectural drawings, as treatment for the effects of demotion of the resource will not reduce the effects to a point where no significant effect on the environment would occur. In most cases the use of drawings, photographs, and/or displays does not reduce the physical impact on the environment caused by demolition or destruction of an historical resource to a less-than-significant level. (CEQA Guidelines Section 15126.4(b)). However, CEQA requires that all feasible measures be undertaken even if it does not result in an impact below a level of significance.
In this context, recordation serves a legitimate archival purpose. The level of documentation required as a measure should be proportionate with the level of significance of the resource.

Where SOI Standards per PDF-CUL-2 cannot be followed or where, even following SOI Standards, a substantial material change to the significance of a historical resource would occur, the Project could result in the demolition of a character defining feature of a historical sidewalk, ramp, curb, gutter, street signs, pavement, utility poles, etc. for any such activity necessary for applicable accessibility requirements. Based on the experience to date of implementing sidewalk repair projects on a case-by-case basis, it is expected that such situations that would still result in a substantial material change to the significance of a historical resource, despite application of the SOI Standards, would be uncommon.

However rare, for any Project site, Project activities which would result in a substantial material change to the significance of a historical resource would be considered a Scenario 3. In such scenarios, it is possible construction activities would have a significant impact on a historical resource. This is because the significance of a historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance.

**Mitigation Measures**

For the large majority of the Project in Scenarios 1 and 2, impacts are less than significant, and no mitigation measures are required.

Demolition and/material alteration of a significant historical resource in Scenario 3 would be considered significant and unavoidable where implementation of the SOI Standards in PDF-CUL-2 consisting of, as applicable, recordation, demolition monitoring, salvaging, and other measures, may still result in a significant impact to historical resources. No other feasible mitigation measures have been identified at this time.

**CUL-2: Would the proposed Project result in relocation that does not maintain the integrity and significance of a significant historical resource?**

This impact would be potentially significant during construction.

The Project involves the continuation and repair of sidewalks and curb ramps which typically will include removal of existing concrete, street trees, gutters, and traffic signs, and utility infrastructure. As analyzed above in CUL-1, any such element related to a Project site could be demolished and/or otherwise materially altered for sidewalk repairs consistent with the applicable accessibility requirements under Scenarios 1 and 2. Another, albeit remote possibility is that instead of demolition or materially alteration of a historic resource in the process of sidewalk repairs, the historic resource, such as street trees, gutters, street lights, and utility poles, may be able to be relocated to a different location.

Relocating historical resources is not specifically addressed in the SOI Standards; however, the CRHR has special considerations for “Moved buildings, structures, or objects” at 14 CCR Section 4852(d)(1) as follows: “The [State Historic Resources] 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."

The CRHR’s special consideration sets forth conditions under which relocation of a historical resource could be accomplished while still maintaining the integrity and significance of that historical resource; meeting those conditions would not result in an impact under CUL-2. Therefore, the impacts of the Project would be less than significant where relocation is necessary pursuant to the CRHR special considerations and the integrity and significance of the historic resource could be maintained. In general, types of construction activities under Construction Scenario 1 would be fairly minor. In the rare instances where relocation impacts the integrity and significance of a significant historical resource, the Project would have a potentially significant impact. This may occur for any site under construction Scenario 1 or construction Scenario 2 and would thus, be considered Scenario 3. The likelihood of this occurring is minimal, as observed under the existing individual sidewalk repair projects. However rare the occurrence would be, it is still a loss of a significant historical resource under the Project.

**Mitigation Measures**

For the large majority of the Project in Scenarios 1 and 2, impacts are less than significant, and no mitigation measures are required

Relocation of an historical resource may constitute an adverse impact to the resource. However, in situations where relocation is the only feasible alternative to demolition, relocation may result in impacts below a level of significance provided that the new location is compatible with the original character and use of the historical resource and the resource retains its eligibility for listing on the California Register (14 CCR Section 4852(d)(1)). This scenario has not occurred to date since implementation of sidewalk repairs pursuant to the legal settlement under existing ordinances and policies, as described in Chapter 2, Project Description. In the Scenario 3 situations where, despite adherence to the conditions of the CRHR’s special considerations, the relocation of the historical resource cannot maintain the integrity and significance, the impacts would be significant. No other feasible mitigation measures have been identified at this time. Therefore, impacts to significant historical resources for projects under Scenario 3 would remain significant and unavoidable.

**CUL-3: Would the proposed Project result in the conversion, rehabilitation, or alteration of a significant historical resource which does not conform to the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings?**

This impact would be potentially significant during construction.

See discussion in CUL-1 and CUL-2.

**Mitigation Measures**

See discussion in CUL-1 and CUL-2.
CUL-4: Would the proposed Project disturb, damage, or degrade an archaeological resource, or its setting, that is found to be important because it:

- Is associated with an event or person of recognized importance in California or American prehistory or of recognized scientific importance in prehistory;
- Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions;
- Has a special or particular quality, such as the oldest, best, largest, or last surviving example of its kind;
- Is at least 100 years old and possesses substantial stratigraphic integrity; or
- Involves important research questions that historical research has shown can be answered only with archaeological methods?

The impact would be potentially significant during construction.

During construction activities to be continued under the Project, it is possible archeological resources could be uncovered, such as buried artifacts or features, including but not limited to: prehistoric stone tools, hearths, and midden soils; historic period refuse deposits, privies, building foundations, basements, and structural materials; and historic period infrastructure such as water and electrical conveyances, and utility vaults.

Construction Scenarios would include the following ground-disturbing activities: repair and installation of curb ramps, sidewalk repairs, street tree removal and planting, minor utility work, and street sign relocation. The depth of excavation for sidewalk repairs typically would not be greater than 8 inches which includes 3 to 4 inches for concrete removal and 4 inches for untreated base material, while depth of excavation at driveways would typically be 12 inches, which includes 6 inches for concrete removal and 6 inches for untreated base material. However, excavations for street tree replacement and minor utility relocation could involve excavation extending to depths of 36 inches (3 feet). Catch basin and storm drain construction would require excavation and trenching to a minimum depth of 4 to 15 feet. Below-ground utility relocation could require 36- to 76-inch-deep trenching.

Given the results of the construction that has occurred to date in the City and the high level of disturbances that have occurred within the City, it is unlikely that intact subsurface deposits exist within the project area. However, the likelihood of encountering cultural resources like archaeological artifacts is high in areas where there is a high sensitivity for such finds, as shown in the General Plan Framework Figures CR-1, CR-2, and CR-3 (City of Los Angeles 1995). Improvement locations are unknown at this time and can occur anywhere in the City; thus, the possibility exists, however rare, that sidewalk improvements could occur in or near areas that are sensitive for archaeological resources. The disturbance or destruction of potentially significant archaeological/cultural resources by these activities would be considered a significant impact.

Imposition of PDF-CUL-1 and PDF-CUL-3 would identify and reduce, but not eliminate in all cases, potentially significant impacts to archaeological resources. Pursuant to PRC Section 21083, 2 preservation in place is preferred manner of mitigating impacts to archeological sites, because it maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values off groups associated with the site. Accordingly, the approved Archeological Treatment Plan (ATP) pursuant to PDF-CUL-3, which would be prepared on
any individual site for where unique archaeological resources are identified and will be impacted by construction activities, would implement preservation in place where appropriate. Preservation may take place by covering the archaeological sites with a layer of chemically stable soil before building sidewalk on the site. When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the resource, shall be prepared and adopted prior to any excavation being undertaken.

Furthermore, in the unlikely event that cultural deposits are encountered during any ground-disturbing activities where they were not previously anticipated, all work in the vicinity of the find will stop until the resource can be documented and evaluated by a qualified archaeologist. PDF-CUL-5, which incorporates City Engineer Standard Specifications, Section 6-3.2, (Greenbook 2012) will be required for all sidewalk repairs undertaken as part of this Project. PDF CUL-5 states: "If discovery is made of items of archaeological or paleontological interest, the Contractor shall immediately cease excavation in the area of discovery and shall not continue until ordered by the Engineer." Therefore, during activities in which there will be ground disturbances (i.e., digging, drilling, etc.), if any evidence of archaeological resources is found, all work within the vicinity of the find shall stop until a qualified archaeologist can assess the finds and make recommendations. A qualified archaeologist, meeting the SOI’s Professional Qualification Standards, can assess the significance of the find and determine if additional study or actions are warranted.

In instances where the Project impacts the integrity and significance of a unique archaeological resource despite use of the ATP, the Project would have a potentially significant impact. This may occur for any site under construction Scenario 1 or construction Scenario 2 and would thus, be considered Scenario 3. The likelihood of this occurring is minimal, as observed under prior sidewalk repair activities. However rare the occurrence would be, it is still a loss of a significant archaeological resource and therefore, is considered a significant impact of the Project.

Mitigation Measures

For the large majority of the Project in Scenarios 1 and 2, impacts are less than significant, and no mitigation measures are required.

Demolition and/material alteration of a significant archaeological resource in Scenario 3 would be considered significant and unavoidable despite implementation of PDF-CUL-3. In the Scenario 3 situations where, despite adherence to the conditions of PDF-CUL-3 which may include preservation in place by avoidance and capping, excavation, and other measures as appropriate, the measures cannot maintain the integrity and significance of the unique archaeological resource, the impacts would be significant. No other feasible mitigation measures have been identified at this time. Therefore, impacts to significant archaeological resources for projects under Scenario 3 would remain significant and unavoidable,

CUL-5: Would the proposed Project result in the permanent loss of, or loss of access to, a paleontological resource of regional or statewide significance?

This impact would be potentially significant during construction.

In Construction Scenario 1, excavation in areas underlain by Younger Alluvium would have a very low potential to affect fossil resources. Areas of Holocene Alluvium overlying Quaternary Alluvium become older and more sensitive for fossil resources at depth; however, generally at least the upper
5 feet of Holocene alluvial sediments is too young to contain fossil resources. The depth of excavation for sidewalks would typically be approximately 8 inches (i.e., 3 to 4 inches for concrete removal and 4 inches for untreated base material). Excavation at driveways would be up to approximately 1 foot deep (i.e., 6 inches for concrete removal and 6 inches for untreated base material). Excavations for street tree replacement and minor utility relocation could involve excavation extending to depths of 36 inches (3 feet). Therefore, in light of the relatively shallow depth of Scenario 1 construction activities, carrying out construction activities in areas underlain by Younger Alluvium would not affect significant paleontological resources.

Under Construction Scenario 1, areas with Older Alluvium or paleontologically sensitive surface bedrock units would have a high potential for impacts on paleontological resources, since even shallow excavation could uncover fossils, if excavation takes place in undisturbed sediments. Older Quaternary alluvium exposed in areas of the City as Pleistocene terraces could have fossils present at the ground surface. The presence of fossil material in this older Quaternary Alluvium is extremely rare, which is why these resources are of greater value. Therefore, carrying out construction activities in areas underlain by Older Alluvium or paleontologically sensitive surface bedrock could have a potentially significant impact on paleontological resources.

Because the Project covers the entire City, it is possible that activities associated with Construction Scenario 1 may uncover as-yet unknown paleontological resources. Because repair locations are unknown at this time and can occur anywhere in the City, the possibility exists that sidewalk improvements can occur in or near these undiscovered fossil resources.

However, as explained above, construction activities associated with sidewalk improvements under Scenario 1 would mainly occur in previously disturbed locations up to a maximum depth of 18 inches, and in limited areas to depths of 36 inches. Impacts are less likely within the Quaternary Alluvium deposits in the City, while bedrock exposures could be more easily affected by shallow excavation, grading, or cutting at or near the present surface. Therefore, construction activities under Construction Scenario 1 could, in rare instances, cause impacts on undisturbed paleontological resources that would meet the eligibility requirements of CUL-5, loss or damage of significant paleontological resources.

To ensure that impacts remain less than significant with regard to unexpected but potentially significant paleontological resources under Construction Scenario 1, PDF-CUL-4 would address potentially sensitive bedrock exposures and stop work if potentially significant paleontological materials are encountered.

Similar to Construction Scenario 1, construction activities under Construction Scenario 2 associated with sidewalk improvements would occur at shallow depths; however, some improvements would require excavations to a maximum depth of 30 feet.

In Construction Scenario 2, areas encompassed by Younger Alluvium could yield fossils resources a depth greater than 5 feet below the modern ground surface. These alluvial sediments grade at depth to an increasing age, and below 5 feet depth can possibly date to the latest Pleistocene. Excavations under Scenario 2 that extend below 5 feet in depth in areas designated Younger Alluvium at the ground surface have the potential to uncover significant fossil resources. Therefore, Scenario 2 activities in areas underlain by Younger Alluvium could cause impacts on undisturbed paleontological resources that would meet the eligibility requirements of CUL-5, loss or damage of significant paleontological resources.
Areas of older alluvium or paleontologically sensitive surface bedrock could encompass fossils at shallow depths or at the maximum depths specified under Scenario 2. Therefore, implementing Scenario 2 activities in areas underlain by these sediments could cause impacts on undisturbed paleontological resources that would meet the eligibility requirements of CUL-5, loss or damage of significant paleontological resources.

Imposition of PDF-CUL-1 and PDF-CUL-4 would identify and reduce but not eliminate, in all cases, potentially significant impacts to paleontological resources. Pursuant to PRC Section 21083.2 preservation in place is preferred manner of mitigating impacts to archeological (and paleontological) sites, because it maintains the relationship between artifacts and the paleontological/archaeological context. Preservation may also avoid conflict with religious or cultural values off groups associated with the site. The approved Paleontological Management Treatment Plan for those resources pursuant to PDF-CUL-4, would implement preservation in place where appropriate. Preservation may take place by covering the archaeological sites with a layer of chemically stable soil before building (sidewalk) on the site. When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken.

In the event that unanticipated historical artifacts were encountered, PDF-CUL-5 City Engineer Standard Specifications, Section 6-3.2, (Greenbook 2012) which will be required as part of this project, states: “If discovery is made of items of archaeological or paleontological interest, the Contractor shall immediately cease excavation in the area of discovery and shall not continue until ordered by the Engineer.” Therefore, during activities in which there will be ground disturbances (i.e., digging, drilling, etc.) if any evidence of paleontological resources are found, all work within the vicinity of the find shall stop until a qualified paleontologist can assess the finds and make recommendations.

In instances where the paleontological resources have been damaged, destroyed or demolished, or were the integrity of a character defining feature and significance of a known paleontological resource, the Project would significantly impact cultural resources under CEQA. This may occur for any site under Scenario 1 or Scenario 2 and would be considered Scenario 3. Though the likelihood of this occurring is minimal, as observed under prior sidewalk repairs. However rare occurrence of loss of a paleontological resource is considered a potentially significant impact of the Project.

**Mitigation Measures**

For the large majority of the Project in Scenarios 1 and 2, impacts are less than significant, and no mitigation measures are required

Demolition and/material alteration of a significant paleontological resource in Scenario 3 would be considered significant and unavoidable despite implementation of PDF-CUL-4. In the Scenario 3 situations where, despite adherence to the conditions of PDF-CUL-4 which may include preservation in place by avoidance and capping, excavation, and other measures as appropriate, the measures cannot maintain the integrity and significance of the unique paleontological resource, the impacts would be significant. No other feasible mitigation measures have been identified at this time. Therefore, impacts to significant paleontological resources for projects under Scenario 3 would remain significant and unavoidable,
CUL-6: Would the proposed Project cause disturbance of human remains, including remains interred outside of formal cemeteries?

This impact would be less than significant during construction.

Implementation of the Project would be limited to areas with existing sidewalks and curb ramps. Construction activities include repair and reconstruction of existing sidewalks and curb ramps as well as excavation for substantial utility relocations. The depth of demolition and excavation is not anticipated to exceed the depth of previously disturbed soil, even during utility relocations. However, construction of the Project has the potential to uncover buried human remains through ground-disturbing activities, especially under Scenario 2, where excavation may be greater than 5 feet in depth and up to 30 feet.

California Health and Safety Code Section 7050.5 states that in the event of discovery of human remains during ground disturbances, no further disturbance of the site or nearby area shall occur until the county coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The county coroner must be notified of the find immediately. If the remains are determined by the coroner to be Native American, the coroner is responsible for contacting the Native American Heritage Commission (NAHC) within 24 hours. NAHC, pursuant to Section 5097.98, will immediately notify those persons it believes to be the Most Likely Descendent (MLD) from the deceased person so they can inspect the burial site and make recommendations for treatment or disposal.). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials as provided by existing law.

Impacts associated with the disturbance of human remains would be less than significant because compliance with the existing laws and regulations for appropriate handling of any human remains that are encountered would occur.

Mitigation Measures

No mitigation is required.

3.4.3.5 Operational Impacts

The continuation of operational activities from the Project would include sidewalk inspection and street tree monitoring and watering with a hose that is attached to a water tank on a pick-up truck. During construction activities, the street trees would have been planted in a 4- by 6-foot street tree well, per the proposed Revised Street Tree Retention, Removal and Replacement Policy for the Sidewalk Repair Program. As discussed Chapter 2, Project Description, the street trees will be manually watered 33 times annually. For the times when manual watering is not feasible, two 15-gallon water bags would be placed in the street tree well for the new street trees until the next scheduled manual watering. Other than routine watering and inspection, there are no additional operations associated with the Project. As a result of the proposed Revised Street Tree Retention, Removal and Replacement Policy for the Sidewalk Repair Program, there would be an increase in the number of street trees from the baseline count of 711,248 to 728,793 and an approximate 0.72 percent net increase of the street tree canopy cover.
CUL-1: Would the proposed Project result in the demolition of a significant historical resource as defined in Section 15064.5(A) of the CEQA Guidelines?

There would be no impact during operation.

Operation of the Project would involve only continuation of routine street tree watering and sidewalk inspections. These activities would not result in the demolition of a significant historical resource and there would be no impact during operation.

CUL-2: Would the proposed Project result in relocation that does not maintain the integrity and significance of a significant historical resource?

There would be no impact during operation.

Operation of the Project would involve only continuation of routine street tree watering and sidewalk inspections. These activities would not result in relocation of a significant historical resource that would not maintain its integrity. There would be no impact during operation.

CUL-3: Would the proposed Project result in the conversion, rehabilitation, or alteration of a significant historical resource which does not conform to the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings?

There would be no impact during operation.

Operation of the Project would involve only continuation of routine street tree watering and sidewalk inspections. These activities would not result in the conversion, rehabilitation, or alteration of a significant historical resource. There would be no impact during operation.

CUL-4: Would the proposed Project disturb, damage, or degrade an archaeological resource, or its setting, that is found to be important because it:

- Is associated with an event or person of recognized importance in California or American prehistory or of recognized scientific importance in prehistory;
- Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions;
- Has a special or particular quality, such as the oldest, best, largest, or last surviving example of its kind;
- Is at least 100 years old and possesses substantial stratigraphic integrity; or
- Involves important research questions that historical research has shown can be answered only with archaeological methods?

There would be no impact during operation.

Operation of the Project would involve only continuation of routine street tree watering and sidewalk inspections. These activities would not disturb, damage, or degrade an archaeological resource or its setting. There would be no impact during operation.
CUL-5: Would the proposed Project result in the permanent loss of, or loss of access to, a paleontological resource of regional or statewide significance?

There would be no impact during operation.

Operation of the Project would involve continuation of only routine street tree watering and sidewalk inspections. These activities would not result in the permanent loss of a paleontological resource of regional or statewide significant. There would be no impact during operation.

CUL-6: Would the proposed Project cause disturbance of human remains, including remains interred outside of formal cemeteries?

There would be no impact during operation.

Operation of the Project would involve continuation of only routine street tree watering and sidewalk inspections. These activities would not result in disturbance of human remains. There would be no impact during operation.

Mitigation Measures

No mitigation measures related to operational activities are required.

3.4.4 Significant Unavoidable Adverse Impacts

There are significant and unavoidable adverse impacts to significant historical resources, archeological, and paleontological resources in the limited instances in Scenario 3 projects where implementation of PDF-CUL-1 through PDF-CUL-5 related to assessment, SOI Standards, ATPs, and PMTPs would not maintain the significance of the historical, archaeological, and/or paleontological resources.