

4 SECTION 4(F) AND SECTION 6(F) EVALUATIONS

Based on preliminary Section 4(f) determinations for the California High-Speed Rail (HSR) Burbank to Los Angeles Project Section, implementing the HSR Build Alternative would result in the permanent use of one recreational facility (the San Fernando Railroad Bike Path¹) and the permanent use of four historic sites (the Arroyo Seco Parkway Historic District, Broadway [Buena Vista] Viaduct, Spring Street Viaduct, and Main Street Bridge). The project would also result in *de minimis* impacts on four recreational facilities (the planned Phase 3 of the San Fernando Bike Path, the planned extension of the Los Angeles River Bike Path, Rio de Los Angeles State Park, and Albion Riverside Park, which is currently under construction) and one historic site (the Los Angeles River Channel).

U.S. Department of Transportation Act of 1966 includes special provisions for the approval of a transportation program or project that uses land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites. Effects on Section 4(f) resources resulting from federally funded transportation projects are regulated. These regulations require the project to include a full evaluation to avoid impacts to these resources. If effects are unavoidable, further planning must be completed in order to try to minimize harm.

None of the temporary occupancies of, or indirect effects on, other resources in the study area under the HSR Build Alternative would constitute a use under Section 4(f).

There are no Section 6(f) properties in the study area.

The No Project Alternative would not include the construction of the HSR project or any associated facilities and, therefore, would have no effect on any Section 4(f) or 6(f) resources.

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being or have been carried out by the State of California pursuant to 23 U.S. Code (U.S.C.) § 327 and a Memorandum of Understanding dated July 23, 2019, and executed by the Federal Railroad Administration (FRA) and the State of California. This draft Section 4(f) evaluation is being released for comment by the California High-Speed Rail Authority (Authority) pursuant to 23 U.S.C. 327 and the terms of the National Environmental Policy Act (NEPA) Assignment Memorandum of Understanding (FRA and State of California 2019) assigning to the Authority responsibility for compliance with NEPA and other federal environmental laws, including Section 4(f) (49 U.S.C. 303) and related U.S. Department of Transportation orders and guidance.²

4.1 Introduction

This chapter provides the analysis to support the Authority's determinations necessary to comply with the provisions of 49 U.S.C. 303 (hereinafter referred to as "Section 4[f]"). This project section does not include any properties that are protected under the Land and Water Conservation Fund (LWCF) Act of 1965 (54 U.S.C. 200305(f)) (hereinafter referred to as "Section 6[f]"); therefore, no Section 6(f) analysis is required.

Under Section 4(f) an operating administration of the U.S. Department of Transportation may not approve a project that uses protected properties unless there are no prudent or feasible alternatives to such use, and the project includes all possible planning to minimize harm to such properties. Section 4(f) protected properties are publicly owned lands of a park, recreation area, or wildlife and waterfowl refuge, or lands of a historical site of national, state, or local significance that is listed on or eligible for listing on the National Register of Historic Places as determined by the federal, state, regional, or local officials having jurisdiction over the resource. Such historic

¹ The San Fernando Bike Path and the San Fernando Railroad Bike Path have similar names, but they are different resources, as described in Sections 4.6.1.1 and 4.6.1.5, respectively.

² All determinations of a constructive use by the Authority, if any, are preliminary only. Under the NEPA Assignment Memorandum of Understanding, the Authority is required to consult with the FRA on any proposed constructive use determination.

properties may be publicly or privately owned. To demonstrate the Authority's compliance with Section 4(f), this chapter will:

- Describe the statutory requirements associated with Section 4(f)
- Identify the properties protected by Section 4(f) in the study area
- Provide a preliminary determination whether the Burbank to Los Angeles Project Section (project section) of the HSR project would result in the Section 4(f) "use" of those properties
- If applicable,
 - Identify feasible and prudent alternatives, to the extent any exist, that would avoid or minimize use of the properties
 - Identify measures to minimize harm
 - Provide a preliminary least-harm analysis for build alternatives that would result in the "use" of Section 4(f) properties

Section 6(f) properties are recreation resources created or improved with funds from the LWCF Act. Land purchased with these funds cannot be converted to a non-recreational use without coordination with the U.S. Department of the Interior, National Park Service and mitigation that includes replacement of the quality and quantity of land used. This chapter describes the statutory requirements associated with Section 6(f) and the methodology for identifying Section 6(f) properties.

Additional information on publicly owned parks, recreation lands, wildlife and waterfowl refuges, and historic sites is provided in Section 3.7, Biological and Aquatic Resources; Section 3.15, Parks, Recreation, and Open Space; Section 3.17, Cultural Resources; and the *Burbank to Los Angeles Project Section: Historic Architectural Survey Report* (Authority 2018a).

4.1.1 Laws, Regulations, and Orders

This section includes the federal laws and regulations that pertain to Section 4(f) and Section 6(f) properties in the study area.

The project is an intercity passenger rail project that is receiving federal funding through the FRA, which therefore requires the project to comply with Sections 4(f) and 6(f). Whereas Section 4(f) applies only to programs and policies undertaken by the U.S. Department of Transportation, Section 6(f) compliance applies to programs and policies of any federal agency.

4.1.1.1 Federal Railroad Administration, *Procedures for Considering Environmental Impacts* (64 Fed. Reg. 28545)

On May 26, 1999, the FRA released *Procedures for Considering Environmental Impacts* (FRA 1999). These FRA procedures supplement the Council on Environmental Quality Regulations (40 Code of Federal Regulations [C.F.R.] Part 1500 et seq.) and describe the FRA's process for assessing the environmental impacts of actions and legislation proposed by the agency and for the preparation of associated documents (42 U.S.C. 4321 et seq.). The FRA *Procedures for Considering Environmental Impacts* states that "the EIS should identify any significant changes likely to occur in the natural environment and in the developed environment. The EIS should also discuss the consideration given to design quality, art, and architecture in project planning and development as required by U.S. Department of Transportation Order 5610.4." These FRA procedures state that an Environmental Impact Statement (EIS) should consider possible impacts on Section 4(f) resources.

4.1.1.2 Section 4(f) of the United States Department of Transportation Act (23 U.S.C § 138 and 49 U.S.C § 303)

Projects undertaken by an operating administration of the U.S. Department of Transportation or that may receive federal funding or discretionary approvals from such an operating administration of the U.S. Department of Transportation must demonstrate compliance with Section 4(f). Section

4(f) protects publicly owned land of parks, recreational areas, and wildlife refuges. Section 4(f) also protects historic sites of national, state, or local significance located on public or private land. The FRA's *Procedures for Considering Environmental Impacts* (64 C.F.R. Part 25445) contains FRA processes and protocols for compliance with NEPA and other federal laws, including Section 4(f). As of November 28, 2018, the FRA adopted the regulations in 23 C.F.R. Part 774 as FRA's Section 4(f) implementing regulations. Previously, the regulations in Part 774 applied only to the Federal Highway Administration (FHWA) and the Federal Transit Administration, and FRA followed those regulations as guidance when applying the requirements established in Section 4(f). In addition, the Authority considers the interpretations provided in the FHWA's Section 4(f) Policy Paper when implementing these regulations (FHWA 2012).

The Authority may not approve the use of a Section 4(f) property, as described in 49 U.S.C. Section 303(c), unless it determines that the project has a *de minimis* impact consistent with the requirements of 49 U.S.C. Section 303(d), or determines that (1) there is no feasible and prudent alternative to avoid the use of the property and (2) the action includes all possible planning to minimize harm resulting from such use.

An alternative is not feasible if it cannot be built as a matter of sound engineering judgment. In determining whether an alternative is prudent, the Authority may consider if the alternative would result in any of the following:

- Compromise the project to a degree that is unreasonable for proceeding with the project in light of its stated purpose and need
- Unacceptable safety or operational problems
- After reasonable mitigation, the project results in severe social, economic, or environmental impacts; severe disruption to established communities; severe disproportionate impacts on minority or low-income populations; or severe impacts on environmental resources protected under other federal statutes
- Additional construction, maintenance, or operational costs of an extraordinary magnitude
- Other unique problems or unusual factors
- Multiple factors that, while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude

If there is more than one alternative that results in the use of a Section 4(f) property, the Authority must compare the alternatives to determine which alternative has the potential to cause the least overall harm in light of the preservationist purpose of the statute. The least overall harm may be determined by balancing the following factors:

- The ability to mitigate impacts on each Section 4(f) property (including any measures that result in benefits to the property)
- The relative severity of the remaining harm—after mitigation—to the protected activities, attributes, or features that qualify each Section 4(f) property for protection
- The relative significance of each Section 4(f) property
- The views of the official(s) with jurisdiction over each Section 4(f) property
- The degree to which each alternative meets the purpose and need for the project
- After reasonable mitigation, the magnitude of any impacts on resources not protected by Section 4(f)
- Substantial differences in costs among the alternatives.

4.1.1.3 Section 6(f) of the Land and Water Conservation Fund Act (54 U.S.C. § 200305(f))

State and local governments often obtain grants through the LWCF Act to acquire or make improvements to parks and recreation areas. Section 6(f) of the act prohibits the conversion of property acquired or developed with these grants to a non-recreational purpose without the approval of the National Park Service. Section 6(f) directs the National Park Service to ensure that replacement lands of comparable value and function, location, and usefulness are provided as conditions to such conversions.

4.1.2 Study Area

The study area as defined below includes the Section 4(f) resources considered for evaluation. However, no Section 6(f) resources were found within the study area. Figure 4-1 (Section 4.4.2) depicts the alignment and stations for the Burbank to Los Angeles Project Section of the HSR system.

4.1.2.1 Public Park and Recreation Lands, and Wildlife and Waterfowl Refuges

The study area for publicly owned parks, recreational facilities, and wildlife and waterfowl refuges is illustrated on Figure 4-2 (Section 4.5.1) as Parks and Recreation Study Area. The study area is defined as the project footprint (as described in Chapter 2, Alternatives) plus 1,000 feet from the edge of the proposed project footprint, and includes stations, road construction, temporary laydown areas, or any other land used temporarily or permanently to implement the HSR system.

4.1.2.2 Historic Properties

Because this project is a federal undertaking, it must comply with the National Historic Preservation Act (NHPA). A *Programmatic Agreement Among the Federal Railroad Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, the Surface Transportation Board, and the California High-Speed Rail Authority Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the California High-Speed Train Project* (PA 2011) outlines an approach for compliance with Section 106 of the NHPA for the HSR program. The NHPA implementing regulations documented in 36 C.F.R. Part 800.4(a)(1) require the establishment of an Area of Potential Effects (APE). For Section 106 compliance, the APE is used for the technical reports that document the identification of historic properties and the assessment of effects. The APE is the geographic area or areas within which an undertaking may directly or indirectly alter the character or use of historic properties, if any such properties exist. The study area includes the cultural resources APE, which consists of the archaeological APE and the historic built resources APE. The archaeological APE consists of the project footprint, which is all areas that could be subject to ground-disturbing activities, as well as the maximum depth of ground disturbance. The APE for historic built resources includes the project footprint and any parcels outside of the footprint that contain resources that may be subject to indirect adverse effects from changes of use or physical features of a property's setting, or the introduction of visual, atmospheric, or audible intrusions. Therefore, the historic built resources APE, illustrated in Appendix B of the Historic Architectural Survey Report, serves as the study area for Section 4(f) historic properties that are eligible for listing or are listed in the National Register of Historic Places (NRHP).

4.1.3 Section 4(f) Applicability

A park or recreation area qualifies for protection under Section 4(f) if it (1) is publicly owned at the time at which the "use" occurs, (2) is open to the general public, (3) the land has been officially designated as a park or recreation area by a federal, State, or local agency, (4) the primary purpose is related to the property's primary function and how it is intended to be managed, and (4) is considered significant by the official(s) with jurisdiction over the property.

A wildlife or waterfowl refuge qualifies for protection under Section 4(f) if it (1) is publicly owned at the time at which the "use" occurs, (2) the land has been officially designated as a wildlife and/or waterfowl refuge area by a federal, State, or local agency, (3) its primary designated purpose is consistent with the property's primary function and how it is intended to be managed, and (4) is

considered significant by the official(s) with jurisdiction over the property. A refuge is not necessarily required to be open to the general public to be protected as a Section 4(f) resource.

A historic site eligible, or listed in, the NRHP may be protected under Section 4(f). Although the statutory requirements of Section 106 and Section 4(f) are similar, if a proposed action results in an “adverse effect” under Section 106, there would not automatically be a Section 4(f) “use.” To determine whether a use of an NRHP-protected property would occur, the Authority completes a separate Section 4(f) analysis and determination, in addition to those completed in compliance with the Section 106 process.

For a property to be eligible for the NRHP, it must meet at least one of the four NRHP criteria (i.e., Criteria A–D) described below. The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and meet one or more of the following criteria:

- Criterion A – Properties that are associated with events that have made a significant contribution to the broad patterns of our history
- Criterion B – Properties that are associated with the lives of persons significant in our past
- Criterion C – Properties that embody distinctive characteristics of a type, period, or method of construction; or that represent the work of a master; or that possess high artistic values; or that represent a significant and distinguishable entity whose components may lack individual distinction
- Criterion D – Properties that have yielded, or may be likely to yield, information important to prehistory or history

An archaeological resource that is eligible only under NRHP Criterion D, as defined above, is considered valuable primarily in terms of the data that can be recovered from it. For such resources (such as pottery scatters and refuse deposits), it is generally assumed that there is minimal value attributed to preserving such resources in place. Conversely, resources eligible under Criteria A, B, or C are generally considered to have value intrinsic to the resource’s location. In other words, Section 4(f) does not apply to a site if it is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place.

4.1.4 Section 4(f) Use Definition

There are three main types of uses under Section 4(f): permanent use, temporary occupancy, and constructive use. A *de minimis* impact involves the use of a Section 4(f) property that is generally minor in nature.

4.1.4.1 Permanent Use

A permanent use of a Section 4(f) resource occurs when property is permanently incorporated into a proposed transportation facility. This might occur as a result of partial or full acquisition, permanent easements, or temporary easements that exceed limits for temporary occupancy as defined below. The transportation facility is defined as any project element associated with the HSR Build Alternative.

4.1.4.2 Temporary Occupancy

A temporary occupancy of a Section 4(f) resource occurs when the resource, in whole or in part, is required for construction-related activities. Temporary occupancy would be considered use if the property is not permanently incorporated into a transportation facility but the activity is considered an impact in terms of the preservationist purposes of the Section 4(f) statute. A temporary occupancy of property does not constitute a use of a Section 4(f) resource when the following conditions are satisfied:

- The occupancy must be of temporary duration (e.g., shorter than the period of construction) and must not involve a change in ownership of the property.

- The scope of work must be minor, with only minimal changes to the protected resource.
- There must be no permanent physical impacts on the protected resource or temporary or permanent interference with activities or purpose of the resource.
- The property being used must be fully restored to a condition that is at least as good as existed before project construction.
- There must be documented agreement of the appropriate officials having jurisdiction over the resource regarding the foregoing requirements.

4.1.4.3 Constructive Use

A constructive use of a Section 4(f) resource occurs when a transportation project does not permanently incorporate the property of a protected resource, but the proximity of the project results in impacts (e.g., noise, vibration, visual, access, ecological) after incorporation of mitigation that are so severe that the protected activities, features, or attributes that qualify the resource for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only if the protected activities, features, or attributes of the resource are substantially diminished. This determination is made after taking the following steps:

- Identifying the current activities, features, or attributes of the resource that may be sensitive to proximity impacts.
- Analyzing the potential proximity impacts on the resource.
- Consulting with the appropriate officials having jurisdiction over the resource.

Erecting a structure over a Section 4(f) property, and thus requiring an air lease, does not, by itself, constitute a use, unless the effect constitutes a constructive use. Furthermore, an indirect adverse effect under Section 106 of the NHPA on a historic property does not in and of itself result in a constructive use.

4.1.4.4 De Minimis Impact

According to 49 U.S.C. Section 303(d), the following criteria must be met to reach a *de minimis* impact determination:

- For parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* impact determination may be made if the Authority concludes the transportation project would not adversely affect the activities, features, and attributes qualifying the property for protection under Section 4(f) after mitigation. In addition, to make a *de minimis* impact determination:
 - The official with jurisdiction over the property must be informed regarding the intent to make a *de minimis* impact determination, after which, public notice and opportunity for public review and comment must be provided.
 - After consideration of comments, if the official(s) with jurisdiction over the property concur in writing that the project will not adversely affect the activities, features or attributes that make the property eligible for Section 4(f) protection, then the Authority may finalize the finding of *de minimis* impact.
- For a historic site, a *de minimis* impact determination may be made if, in accordance with the Section 106 process of the NHPA, the Authority determines that the transportation program or project would have no effect or no adverse effect on historic properties, has received written concurrence from the official(s) with jurisdiction over the property (e.g., the State Historic Preservation Officer [SHPO]), and has taken into account the views of consulting parties to the Section 106 process as required by 36 C.F.R. 800.

4.2 Coordination

This preliminary Section 4(f) analysis, which is part of the Draft Environmental Impact Report/ Environmental Impact Statement (EIR/EIS), is being made available for public review during the

public comment period on the Draft EIR/EIS. Copies of the Draft EIR/EIS have been provided to official(s) with jurisdiction over the Section 4(f) resources for review and comment. The Final EIS would be provided upon completion. The Authority would continue to consult with these agencies to seek their written concurrence on temporary occupancy or *de minimis* determinations after publication of the HSR Draft EIR/EIS, during the public comment period.

The Authority would address any comments on the Section 4(f) analysis, as appropriate, and any changes would be reflected in this chapter or included in the response to comments of the Final EIR/EIS. After completing the final Section 4(f) analysis, the Authority's Section 4(f) determination would be part of its Record of Decision (ROD).

4.2.1 Parks, Recreation, and Wildlife and Waterfowl Refuges

Coordination with public parks, recreational areas, and wildlife and waterfowl refuges would be undertaken with the officials of the agency or agencies that own or administer the property in question and who are empowered to represent the agency on matters related to the property. These agencies are referred to as the officials with jurisdiction. There are no wildlife and/or waterfowl refuges in the Burbank to Los Angeles Project Section.

Officials with jurisdictions for the parks and recreation resources include:

- California Department of Parks and Recreation, Angeles District
- Los Angeles County Department of Parks and Recreation and Department of Public Works
- Los Angeles County Metropolitan Transportation Authority (Metro)
- City of Burbank Parks and Recreation Department, Community Development Department, and Public Works Department
- City of Glendale Community Services and Parks Department, Community Development Department, and Public Works Department
- City of Los Angeles Department of Recreation and Parks, Department of Public Works, and Department of Transportation
- Santa Monica Conservancy
- Mountains Recreation and Conservation Authority

4.2.2 Cultural Resources

In the case of historic sites in this project section, the official with jurisdiction is the SHPO.

4.3 Purpose and Need

The purpose of the statewide HSR system is to provide a reliable high-speed electric-powered train system that links the major metropolitan areas of the state, and that delivers predictable and consistent travel times. A further objective is to provide an interface with commercial airports, mass transit, and the highway network and to relieve capacity constraints of the existing transportation system as increases in intercity travel demand in California occur, in a manner sensitive to and protective of California's unique natural resources (Authority and FRA 2005).

The purpose of the project is to implement the Burbank to Los Angeles HSR Project Section of the California HSR system to provide the public with electric-powered high-speed rail service that provides predictable and consistent travel times between major urban centers and connectivity to airports, mass transit systems, and the highway network in the San Fernando Valley and the Los Angeles Basin, and to connect the Northern and Southern portions of the Statewide HSR system. For more information on the project objectives and the need for the HSR system in California and in the Burbank to Los Angeles region, refer to Chapter 1, Project Purpose, Need, and Objectives.

4.4 Alternatives

This section describes the No Project Alternative and the HSR Build Alternative. The HSR Build Alternative most closely follows the preferred alignment identified in the Record of Decision for the *2005 Final Program Environmental Impact Report/Environmental Impact Statement for the Proposed California High-Speed Train System* (Authority and FRA 2005). The No Project Alternative and the HSR Build Alternative are described in more detail in Chapter 2, Alternatives, and is briefly summarized below in Section 4.4.2, High-Speed Rail Build Alternative. Sheets 1 through 4 show the location of the HSR Build Alternative alignment.

4.4.1 No Project Alternative

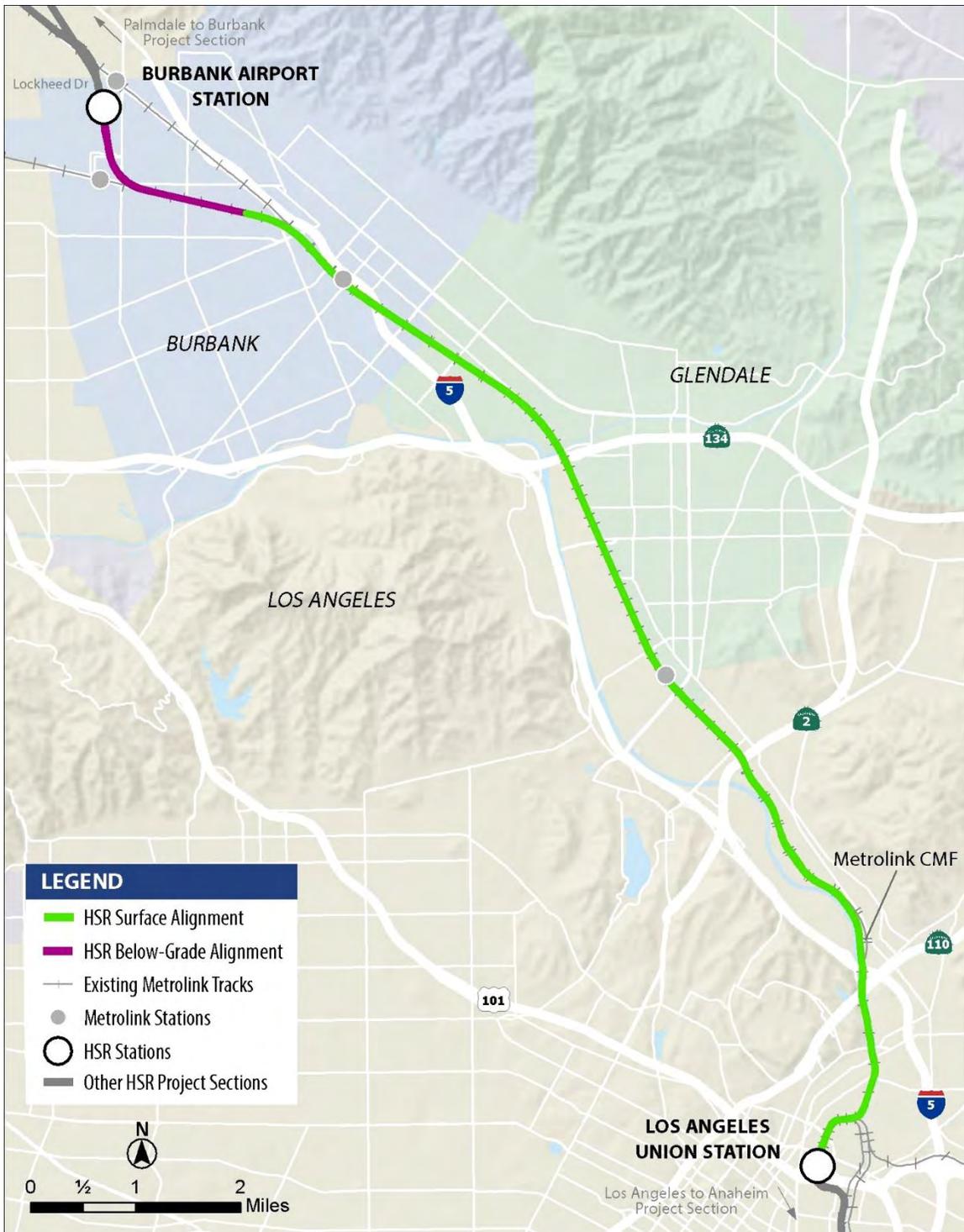
The No Project Alternative represents conditions as they would exist in 2040 if the Burbank to Los Angeles Project Section is not implemented. The No Project Alternative considers the effects of growth planned for the region as well as existing and planned improvements to the highway, aviation, conventional passenger rail, and freight rail systems in the Burbank to Los Angeles study area through the 2040 time horizon for the environmental analysis. It does not include construction of the HSR or any associated facilities, and would thus have no impact on any Section 4(f) or Section 6(f) resources; however, there could be impacts on Section 4(f) or Section 6(f) resources as a result of the existing and planned improvements associated with the No Project Alternative. Also, the No Project Alternative would not address the purpose and need for the project. This alternative is insufficient to meet existing and future travel demand; current and projected future congestion of the transportation system would continue to result in deteriorating air quality, reduced reliability, and increased travel times. Because the No Project Alternative does not meet the project section purpose and need, it is neither feasible nor prudent and is not discussed further as an avoidance alternative for any Section 4(f) or Section 6(f) resources.

4.4.2 High-Speed Rail Build Alternative

The HSR Build Alternative is approximately 14 miles long and would travel through the Cities of Burbank, Glendale, and Los Angeles mostly within the existing railroad corridor. The Burbank to Los Angeles Project Section, illustrated in Figure 4-1, would be located within a constrained urban environment, crossing major streets and highways, and in some portions would be adjacent to the Los Angeles River. HSR stations would be near Hollywood Burbank Airport and at Los Angeles Union Station (LAUS). The alignment would be entirely grade-separated at crossings, meaning that roads, railroads, and other transport facilities would be located at different heights so that the HSR system would not interrupt or interface with other modes of transport, including vehicle, bicycle, and pedestrian facilities.

For most of the project section, the HSR alignment would be within the existing railroad right-of-way, which is typically 70 to 100 feet wide. The HSR alignment includes northbound and southbound electrified tracks for high-speed trains. The right-of-way would be fenced to prohibit public or unauthorized vehicle access. The project footprint is the area required to build, operate, and maintain HSR service based on the following elements of design: station areas, hydrology, track, roadway, structures, systems, and utilities.

The project includes a combination of at-grade, below-grade, and retained fill track, depending on corridor and design constraints. The at-grade and retained fill portions of the alignment would be designed with structural flexibility to accommodate shared operations with other passenger rail operators. Throughout most of the project section (between Alameda Avenue and State Route [SR] 110), two new electrified tracks would be placed along the west side of the existing railroad right-of-way, which would be useable for HSR and other passenger rail operators. The existing non-electrified tracks would be realigned closer to the east side of the existing right-of-way, for a total of four tracks; these realigned, non-electrified tracks would be usable for freight and other passenger rail operators, but not for HSR.



Source: California High-Speed Rail Authority, 2017

Figure 4-1 Burbank to Los Angeles Project Section Alignment

Project elements occurring at and around LAUS would be part of the LAUS campus and would be incorporated into future station plans, with the HSR system sharing passenger facilities, such as parking and pick-up/drop-off, with other operators. Changes to station elements at LAUS were addressed in Metro's Link Union Station (Link US) Project Final EIR, certified in June 2019, on which the Authority was a responsible agency under the California Environmental Quality Act (CEQA). The Authority (as the lead federal agency pursuant to the NEPA Assignment Memorandum of Understanding) and Metro are currently preparing a Draft EIS for the Link US Project.

Under the HSR Build Alternative, Section 4(f) protected historic resources around the LAUS campus, including William Mead Homes (H-18), Vignes Street Underpass (H-20), Cesar E. Chavez Avenue (Macy Street) Underpass (H-23), and Los Angeles Union Station Passenger Terminal and Grounds (H-24), would be analyzed and treated as a future existing condition where project improvements from Link US have already been implemented. Therefore, within the LAUS campus, the Burbank to Los Angeles Project Section EIR/EIS only addresses project elements related to HSR operational requirements, including platform height increases, installation of an overhead contact system (OCS), and associated potential increases in traffic.

4.5 Section 4(f) Applicability Analysis

This section identifies Section 4(f) resources within the study area, which is defined in Section 4.1.2. Section 4.5.1, Parks and Recreation, identifies the park and recreation properties that meet the criteria for protection as Section 4(f) resources; there are no wildlife or waterfowl refuges within the Burbank to Los Angeles Project Section. Section 4.5.2, Cultural Resources, identifies the cultural resources that meet the criteria for protection as Section 4(f) resources. Section 4(f) resources are shown in Figure 4-2 (Sheets 1 through 4). These resources are numbered as B-1, B-2, etc. for bikeways; P-1, P-2, etc. for parks; R-1, R-2, etc. for recreation centers; S-1, S-2, etc. for school recreational facilities; and H-1, H-2, etc. for cultural resources.

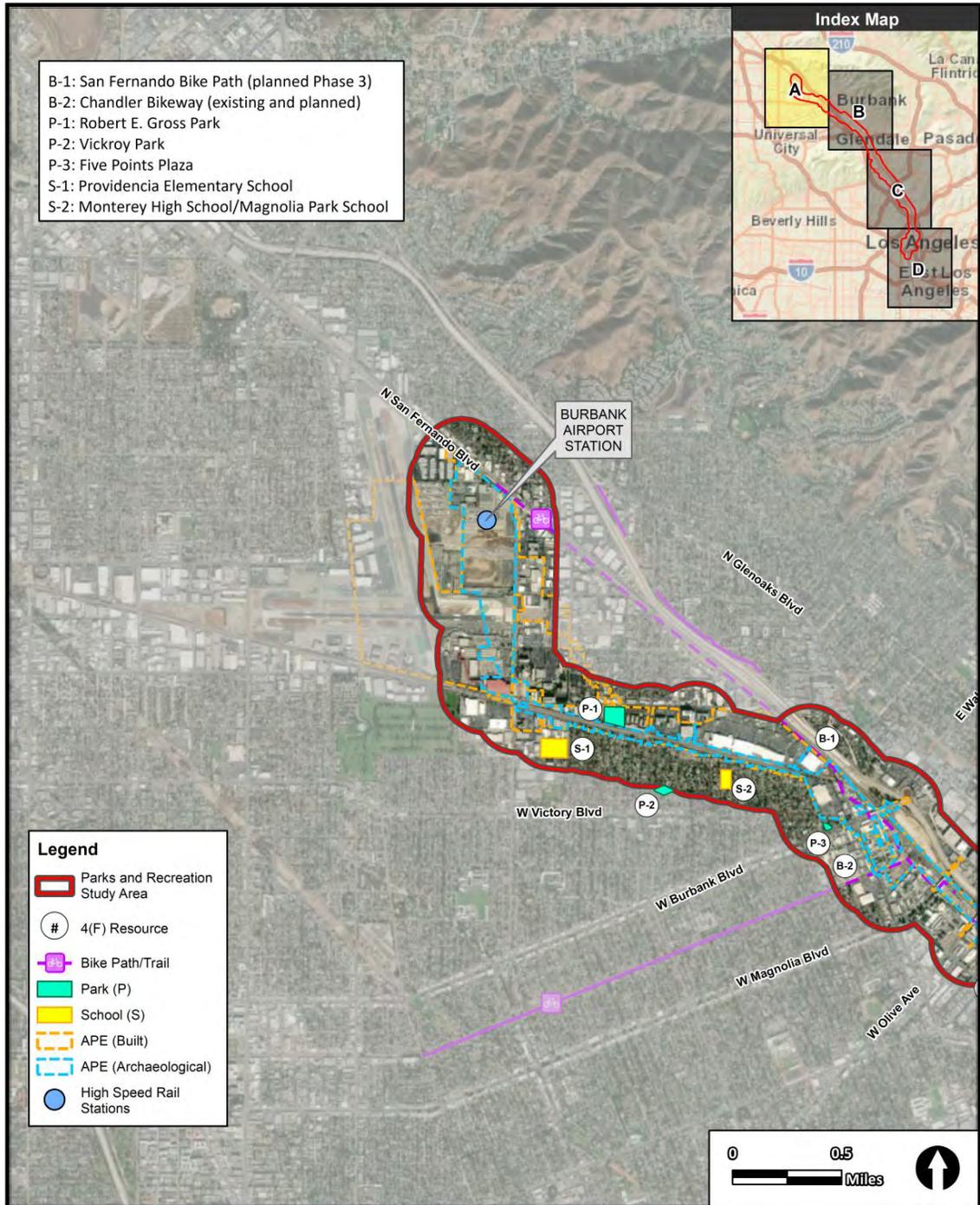
Appendix 4-A and Appendix 4-B provide additional information about all of the resources in the study area that are protected under Section 4(f). These appendices also include properties that would clearly not incur a Section 4(f) use, along with a brief analysis to support that there would be no Section 4(f) use. Properties that could result in a Section 4(f) use are further analyzed in Section 4.6, Section 4(f) Use Assessment.

4.5.1 Parks and Recreation

Section 3.15, Parks, Recreation, and Open Space, provides a description of each park, recreation, and open space area in the project study area; however, not all of these facilities meet the requirements to qualify for protection under Section 4(f). A park or recreational area qualifies for protection under Section 4(f) if it (1) is publicly owned at the time at which the "use" occurs, (2) is open to the general public, (3) is being used for recreation, and (4) is considered significant by the authority with jurisdiction. Open space is not protected under 4(f). Appendix 4-A provides additional information about the parks and recreation resources in the study area that are protected under Section 4(f).

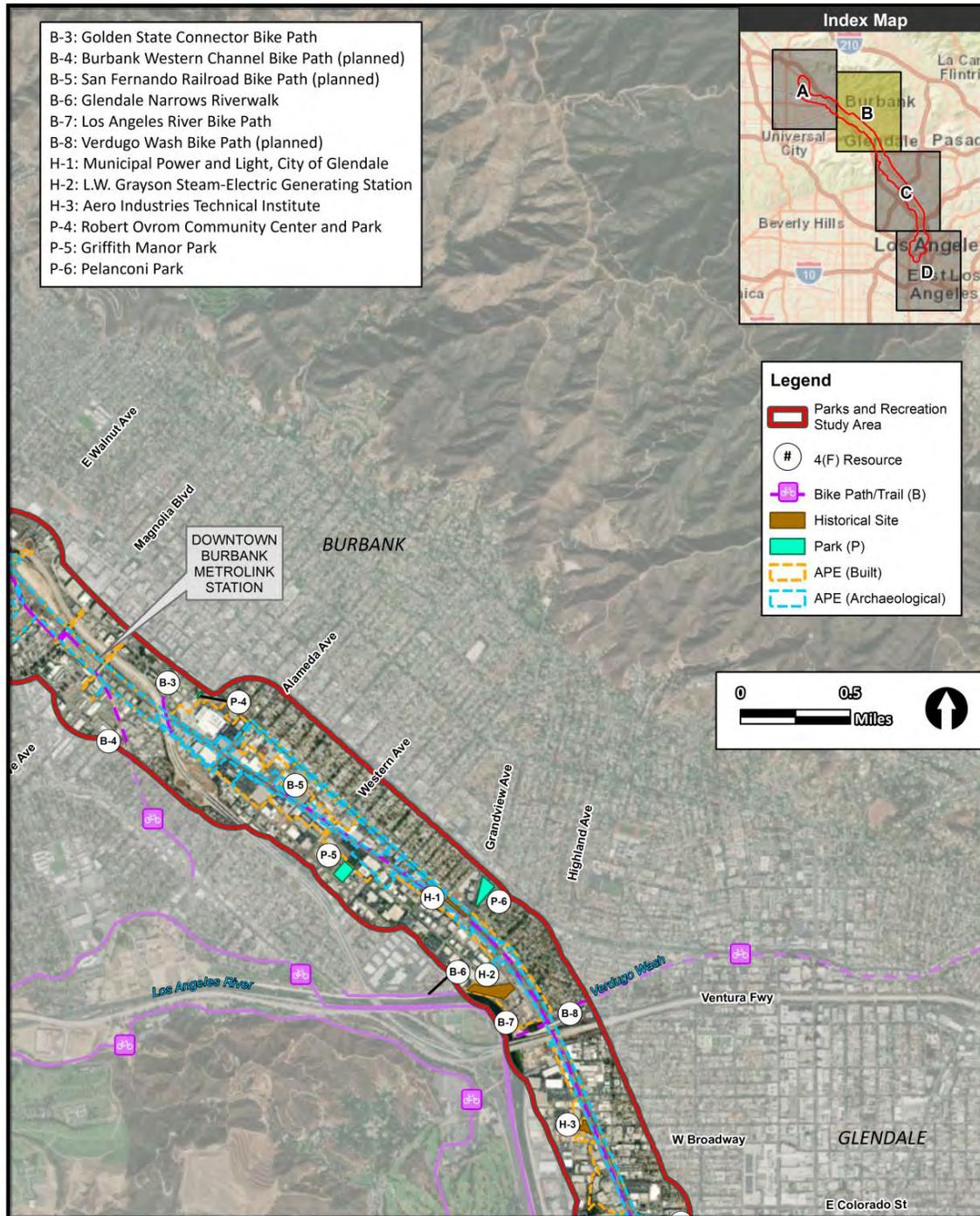
The resources listed in Appendix 4-A and identified in Figure 4-2 (Sheets 1 through 4), qualify as Section 4(f) resources because they are publicly owned and open to the public, and officially designated as a park or recreation area with recreation as their major purpose and function. Therefore, the properties are presumed to be significant parks and recreational areas by the official(s) with jurisdiction, because these resources play an important role in meeting the recreational and park objectives of the community after considering the availability and function of the resources.

This report evaluates parks and recreational resources if they are considered Section 4(f) resources and only in the context of making a Section 4(f) determination. The general environmental analysis for these Section 4(f) resources and other park and recreational resources that are not considered in this report is provided in Section 4.2.1, Parks, Recreation, Open Space, and Wildlife and Waterfowl Refuges.



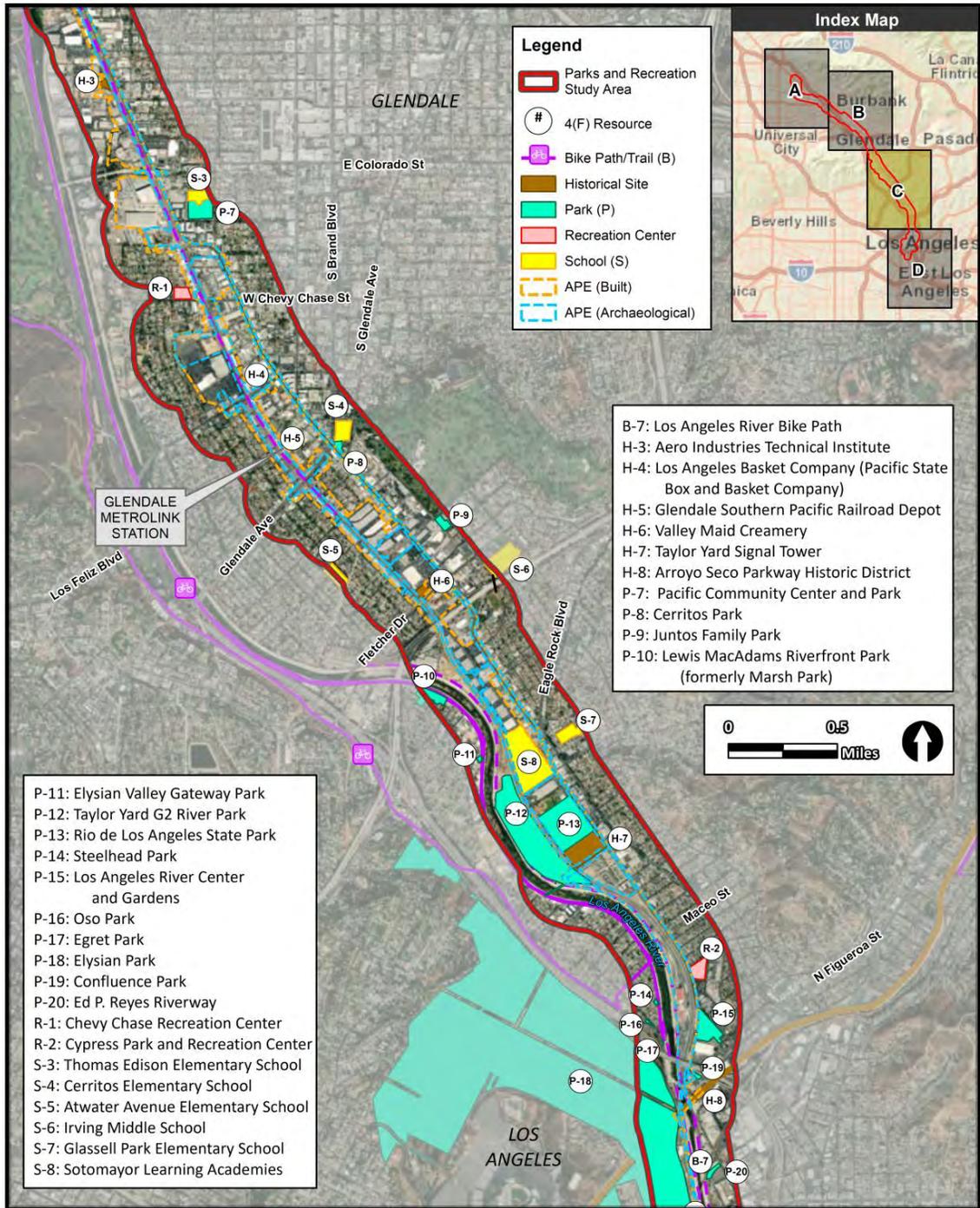
Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-2 Section 4(f) Resources
(Sheet 1 of 4)



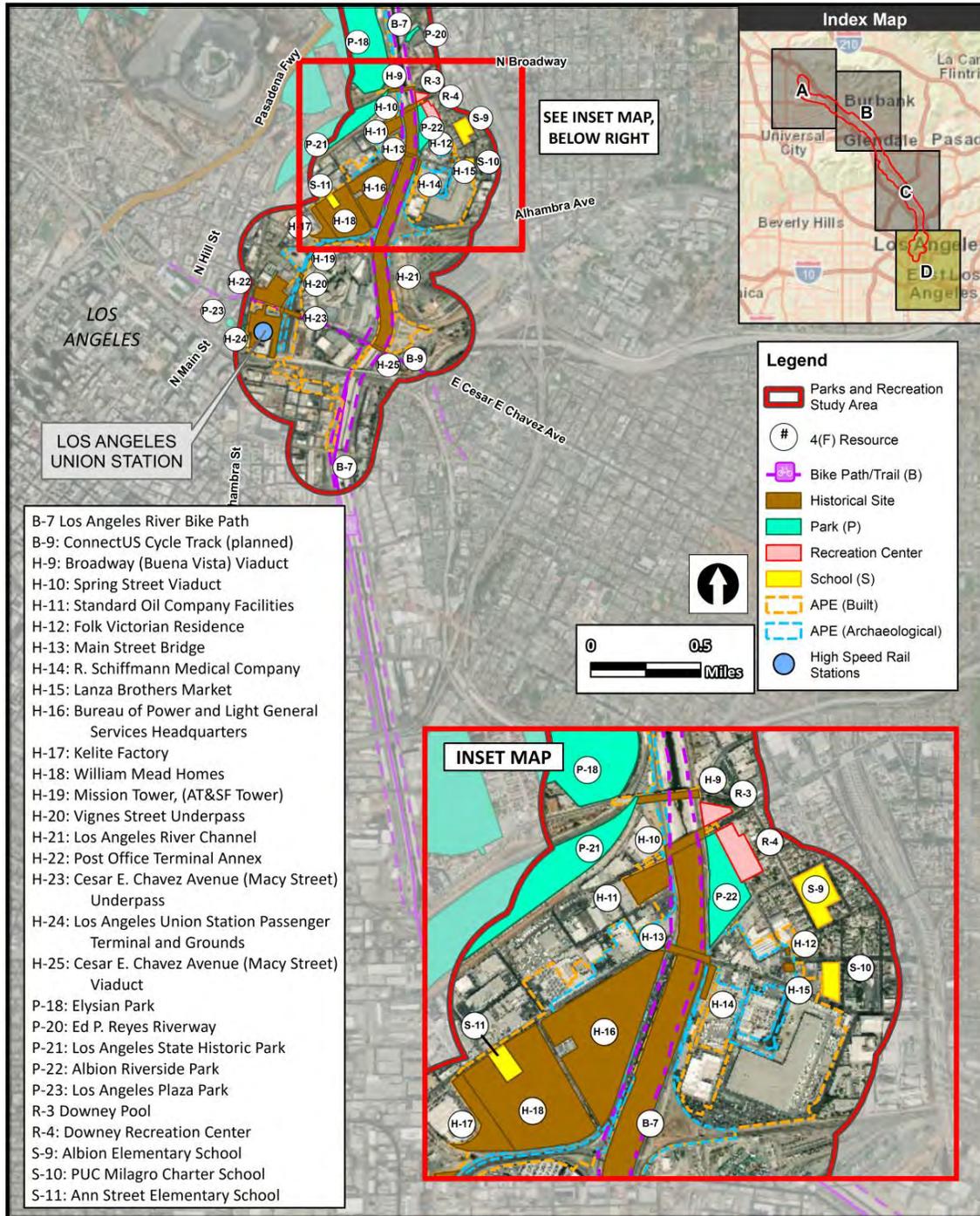
Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-2 Section 4(f) Resources
(Sheet 2 of 4)



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-2 Section 4(f) Resources
(Sheet 3 of 4)



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-2 Section 4(f) Resources
(Sheet 4 of 4)

Data collection to identify potential Section 4(f) resources consisted of a review of the plans and policies listed in Table 3.15-1 of Draft EIR/EIS Section 3.15, Parks, Recreation, and Open Space, consultation with officials with jurisdiction over resources, field reviews, public input, and the use of geographic information system (GIS) data banks. The cities and counties provided the GIS boundaries for parks and recreation resources and planned facilities from adopted plans located within the study area.

4.5.2 Cultural Resources

For purposes of identifying cultural resources potentially protected under Section 4(f), the study area is the same as the APE, which is defined in Section 3.17. Within the archaeological and historic property APEs, background research and field surveys revealed 25 historic properties listed or eligible for listing in the NRHP that qualify as Section 4(f) resources; the locations of these properties are shown in Figure 4-2 (Sheets 1 through 4).

There are three previously identified archaeological resources in the study area that may qualify as Section 4(f) resources. The three resources are mapped adjacent to or within the archaeological APE (P-19-001575, P-19-101229, and P-19-187085), as documented in the *Burbank to Los Angeles Project Section Archaeological Survey Report (ASR) Addendum No. 1* (Authority and FRA 2019). These resources are not shown in Figure 4-2, Sheets 1 through 4, because their locations are confidential to protect the resources under the Archaeological Resources Protection Act of 1979. Under Section 4(f) regulations, Section 4(f) does not apply to archaeological resources on or eligible for the NRHP if they are valuable primarily for data recovery rather than for preservation in place (23 C.F.R. 774.13(b)(1)). Section 4(f) eligibility has not been determined for any of the archaeological sites.

Stipulation VI.E of the PA states that, in accordance with 36 C.F.R. 800.4(b)(2), phased identification may occur in situations where identification of historic properties cannot be completed. This phased identification approach has been applied to this project section because the portions of the APE that contain exposed ground that could potentially be physically surveyed (including the Metro right-of-way, a vacant portion of a private parcel proposed for use as a staging area, and a private road shoulder) have not been accessible for archaeological pedestrian survey. Records searches have found that three archaeological resources have been previously identified within the project footprint, as listed in Appendix 4-B. Two of these sites have not been evaluated. These sites will be subject to phased survey once access is granted. Until the sites are surveyed, for the purposes of Section 106, they are assumed to be eligible for the NRHP (see Section 3.17, Cultural Resources, of this Draft EIR/EIS). Once surveyed and, if warranted, they will be evaluated under Section 106. At one of the sites, P-19-101229, the proposed work for the project would be completed within the historic property boundary of the site. If the site is not primarily valuable for preservation in place, appropriate data recovery steps would be taken. If the site has the potential to be valuable primarily for preservation in place, an expedited Section 4(f) evaluation would be prepared in accordance with 23 C.F.R. 774.9(e). Areas determined to be sensitive for archaeological sites through research and geoarchaeological conditions have the potential to yield buried resources and will also be subject to archaeological survey once access is granted.

If an archaeological resource is discovered during construction and determined to be eligible, it would be assessed to determine if it is valuable primarily for preservation in place. If it is not primarily valuable for preservation in place, appropriate data recovery steps would be taken. If it is valuable for preservation in place, an expedited Section 4(f) evaluation would be prepared in accordance with 23 C.F.R. 774.9(e).

Appendix 4-B describes resources listed in, or determined or recommended to be eligible for listing in the NRHP that are within the cultural resources APE. Appendix 4-B includes properties that would clearly not incur a Section 4(f) use, along with a brief analysis to support that there would be no Section 4(f) use. Properties that could result in a Section 4(f) use are further analyzed in Section 4.6, Section 4(f) Use Assessment.

This information was obtained from the following technical studies completed for the HSR Build Alternative:

- *Burbank to Los Angeles Project Section ASR* (Authority 2019a)
- *Burbank to Los Angeles Project Section Historic Architectural Survey Report* (Authority 2018a)
- *Burbank to Los Angeles Project Section ASR Addendum No. 1* (Authority and FRA 2019)
- *Burbank to Los Angeles Project Section Finding of Effect* (Authority 2019b)

Measures to minimize harm would be implemented (Section 4.8) for cultural resources within the APE that were determined to have a use determination.

4.6 Section 4(f) Use Assessment

4.6.1 Parks and Recreation

Preliminary use assessments for the park and recreation resources relative to the HSR Build Alternative are discussed in this section. All Section 4(f) properties are shown in Figure 4-2, Sheets 1 through 4, and are listed in Appendix 4-A; however, only 23 properties that would incur a use, or are in close enough proximity to the HSR Build Alternative alignment that they could possibly incur proximity impacts, are described further in this report in Sections 4.6.1.1 through 4.6.1.23. (See Appendix 4-A for the approximate distances of each resource from the project footprint.)³

Based on the analysis discussed in this report, the HSR Build Alternative would result in the permanent use of one resource, the San Fernando Railroad Bike Path (Planned) (B-5), and *de minimis* impacts on portions of four resources: the San Fernando Bike Path (Planned Phase 3) (B-1), the Los Angeles River Bike Path (Planned Extension) (B-7), Rio de Los Angeles State Park (P-13), and Albion Riverside Park (P-22).

The HSR Build Alternative would require temporary construction easements on portions of two resources: Chandler Bikeway (Planned Extension) (B-2) and the Burbank Western Channel Bike Path (Planned Phase II) (B-4). The Authority has preliminarily determined that the HSR Build Alternative would meet the five conditions under 23 C.F.R. 774.13(d) for temporary occupancy in each of these locations and would therefore not constitute a use of any of these resources.

Out of a total of 47 resources within the study area, 24 resources were identified that would result in no use or minimal potential for proximity impacts. These resources, which are listed in Appendix 4-A, would not be directly or indirectly affected by the HSR Build Alternative because all of the project improvements and proposed work would be completed outside the resource boundaries, and substantial proximity impacts (access, dust, noise, or visual impacts) are not anticipated for the following reasons:

- The distance of the resources from the project footprint (i.e., greater than 250 feet) would make proximity impacts unlikely.
- The resources are separated from the project by multiple buildings and parking lots.
- The HSR trains would operate underground beneath or near the resources
- Only minor street improvements or utility relocations within the street right-of-way would be required near the resources.

Parks and recreation facilities were identified within 1,000 feet to ensure that there are no properties with extreme sensitivity, and no such properties were identified. Therefore, there would be no permanent use, temporary occupancy, or constructive use of these 24 resources as a result of the project, and no further analysis is required.

Certain proximity impacts, such as access, dust, and visual impacts, are generally more localized near the project footprint, while noise impacts may reach farther distances compared to these

³ As discussed in Section 3.1 of this Draft EIR/EIS, the existing conditions baseline year for this Draft EIR/EIS is generally 2015, the time when the environmental analysis for the Burbank to Los Angeles Project Section began following issuance of the federal Notice of Intent and the state Notice of Preparation for the project section. The affected environment discussions, including the descriptions of infrastructure projects and land development projects considered in the cumulative impacts analysis, describe the existing and planned conditions provided in the most recent, publicly available data as of December 31, 2017, or collected during the fieldwork conducted in 2015, 2016, and 2017.

other impacts. Therefore, the distance threshold for evaluating constructive use and proximity impacts was based on a review of noise screening distances provided in the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b). A distance of 250 feet was the distance threshold used for evaluating constructive use and proximity impacts, which corresponds to the FRA screening distance for potential noise effects from a new rail corridor in an urban/noisy suburban area that is obstructed by rows of buildings assumed to be 200, 400, 600, 800, and 1,000 feet parallel to the guideway. The 250-foot distance is a conservative distance because the Section 4(f) properties are within an existing rail corridor rather than a new rail corridor; therefore, any properties outside the 250-foot threshold would be unlikely to be affected by substantial noise impacts from the project. Therefore, no proximity impacts are anticipated for properties outside of the 250-foot distance threshold. The Authority will continue to consult with the officials with jurisdiction over properties in the study area after publication of the Draft EIR/EIS and review of public comments.

Using the distance threshold of 250 feet, 16 resources have potential for proximity impacts: the Golden State Connector Bike Path (Under Construction) (B-3), the Verdugo Wash Bike Path (Planned) (B-8), Griffith Manor Park (P-5), Pelanconi Park (P-6), Pacific Community Center and Park (P-7), Chevy Chase Recreation Center (R1), Cerritos Park (P-8), Cerritos Elementary School (S-4), Sotomayor Learning Academies (S-8), Taylor Yard G2 River Park (Planned) (P-12), Cypress Recreation Center (R-2), Los Angeles River Center and Gardens (P-15), Elysian Park (P-18), Confluence Park (P-19), Los Angeles State Historic Park (P-21), and the ConnectUS Cycle Track (Planned) (B-9). However, based on the analysis discussed in this report, the HSR Build Alternative would not result in a constructive use of these resources. Measures would be implemented to minimize impacts on resources near the project footprint (see Section 4.8 for more details).

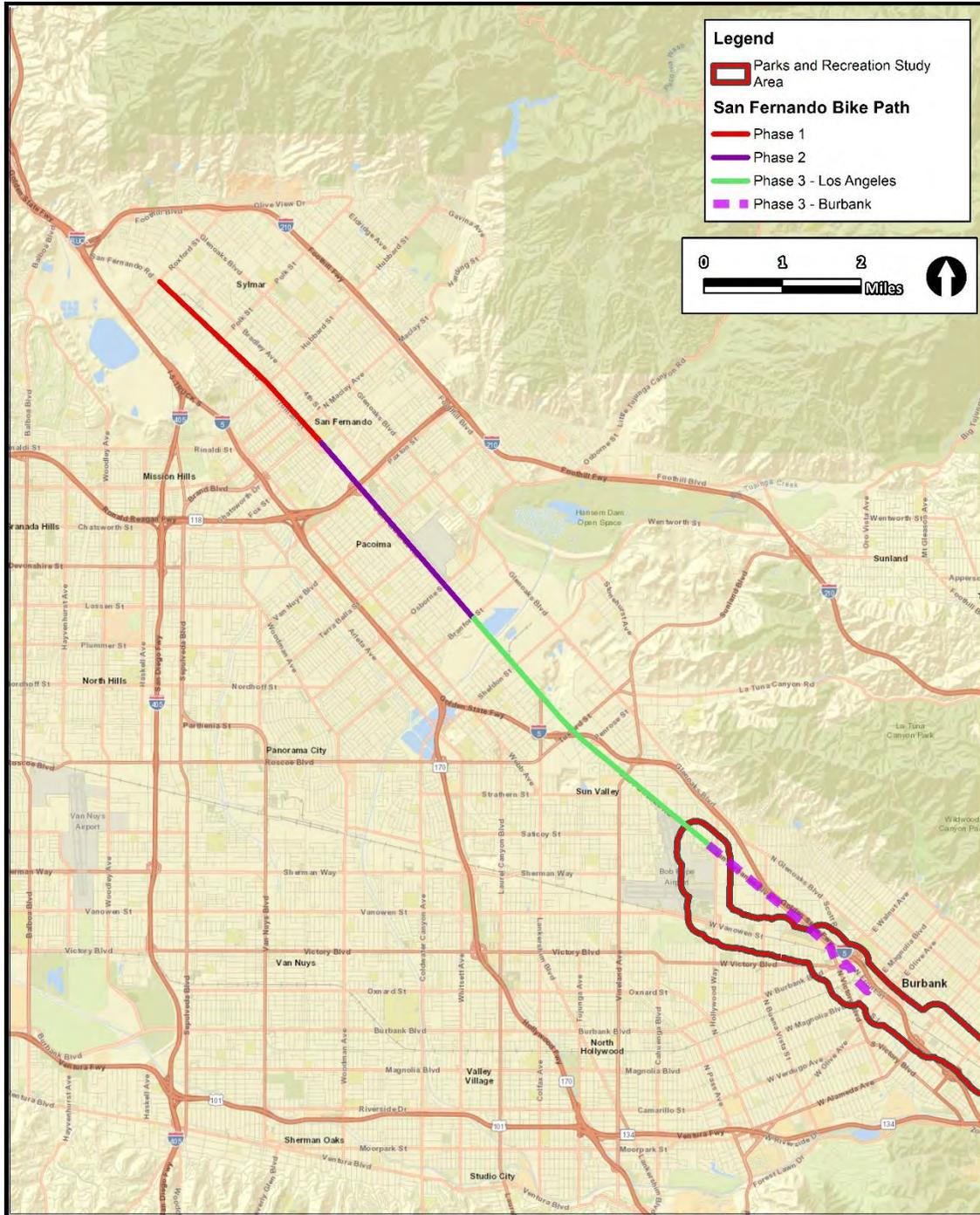
A Section 4(f) use assessment for 23 resources that are either within the project footprint or within the 250-foot distance threshold is provided in the following sections.

4.6.1.1 San Fernando Bike Path (Planned Phase 3) (B-1)

The San Fernando Bike Path is a Class I bike path that generally parallels the existing Metro/Metrolink railroad corridor in the city of Burbank.⁴ As shown in Figure 4-3, Phases 1 and 2 of the San Fernando Bike Path, totaling approximately 6 miles outside the study area, have already been constructed. Phase 3 of the San Fernando Bike Path is a planned portion of the bike path that includes a 4.28-mile portion in the city of Los Angeles and a 2.93-mile portion in the city of Burbank. With the construction of Phase 3 of the San Fernando Bike Path, the total length of the bike path would be approximately 13 miles.

The planned Phase 3 portion of the San Fernando Bike Path in the city of Burbank is located inside the study area, with potential to be affected by the project, and is therefore included in this analysis. The City of Burbank Parks and Recreation Department and Community Development Department are the officials with jurisdiction over the planned Phase 3 of the San Fernando Bike Path. The planned Phase 3 of the San Fernando Bike Path in the city of Burbank has been formally designated in the City of Burbank Bicycle Master Plan (City of Burbank 2009).

⁴ The San Fernando Bike Path (Planned Phase 3) (B-1) is a proposed Class I (off-street) bike path that would extend from the Burbank/Los Angeles city limits to the Downtown Burbank Metrolink Station (Figure 4-2, Sheet 1). This bike path is a unique recreational resource and is separate from the San Fernando Railroad Bike Path (Planned) (B-5), which is a proposed Class I (off-street) bike path that would extend from the northern limits to the southern limits of the City of Glendale (Figure 4-2, Sheet 2).



Sources: City of Burbank, 2009; Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-3 Phases 1 through 3 of the San Fernando Bike Path

The planned Phase 3 of the San Fernando Bike Path in the city of Burbank is in an urbanized area that is primarily surrounded by commercial and industrial buildings, the existing railroad corridor, and Interstate (I) 5. To the north of the Ventura County Metrolink railroad corridor, the planned Phase 3 of the San Fernando Bike Path would be constructed as a 12-foot-wide dedicated off-street path on land that currently accommodates Metrolink and Union Pacific Railroad freight operations. As part of the California Department of Transportation (Caltrans) I-5 Improvement Project, the railroad tracks would be elevated through this corridor, creating an unused rail right-of-way. The planned Phase 3 of the San Fernando Bike Path would be constructed in this unused right-of-way, adjacent to the city's street right-of-way (City of Burbank 2009). To the south of the Ventura County Metrolink railroad corridor, the planned Phase 3 of the San Fernando Bike Path would be constructed within the city's street right-of-way along Victory Boulevard and Lake Street, and along the western bank of the Lockheed Channel. At Magnolia Boulevard, the planned Phase 3 of the San Fernando Bike Path would cross to the eastern side of the channel and connect to the Downtown Burbank Metrolink Station.

As shown in Figure 4-4, the HSR Build Alternative would require a permanent easement on a 0.28-mile portion of the planned Phase 3 of the San Fernando Bike Path in the city of Burbank, between Burbank Boulevard and Chandler Boulevard, where the bike path is planned to run adjacent to the Lockheed Channel and to the east of the Burbank Water Reclamation Plant. In this area, the addition of HSR tracks would allow no room to accommodate the Class I bike path. Therefore, to accommodate the addition of electrified tracks within the existing railroad right-of-way, this 0.28-mile portion of the planned Class I bike path would be rerouted as a Class II bike lane along N Lake Street, approximately 300 feet to the west of the Burbank Water Reclamation Plant.

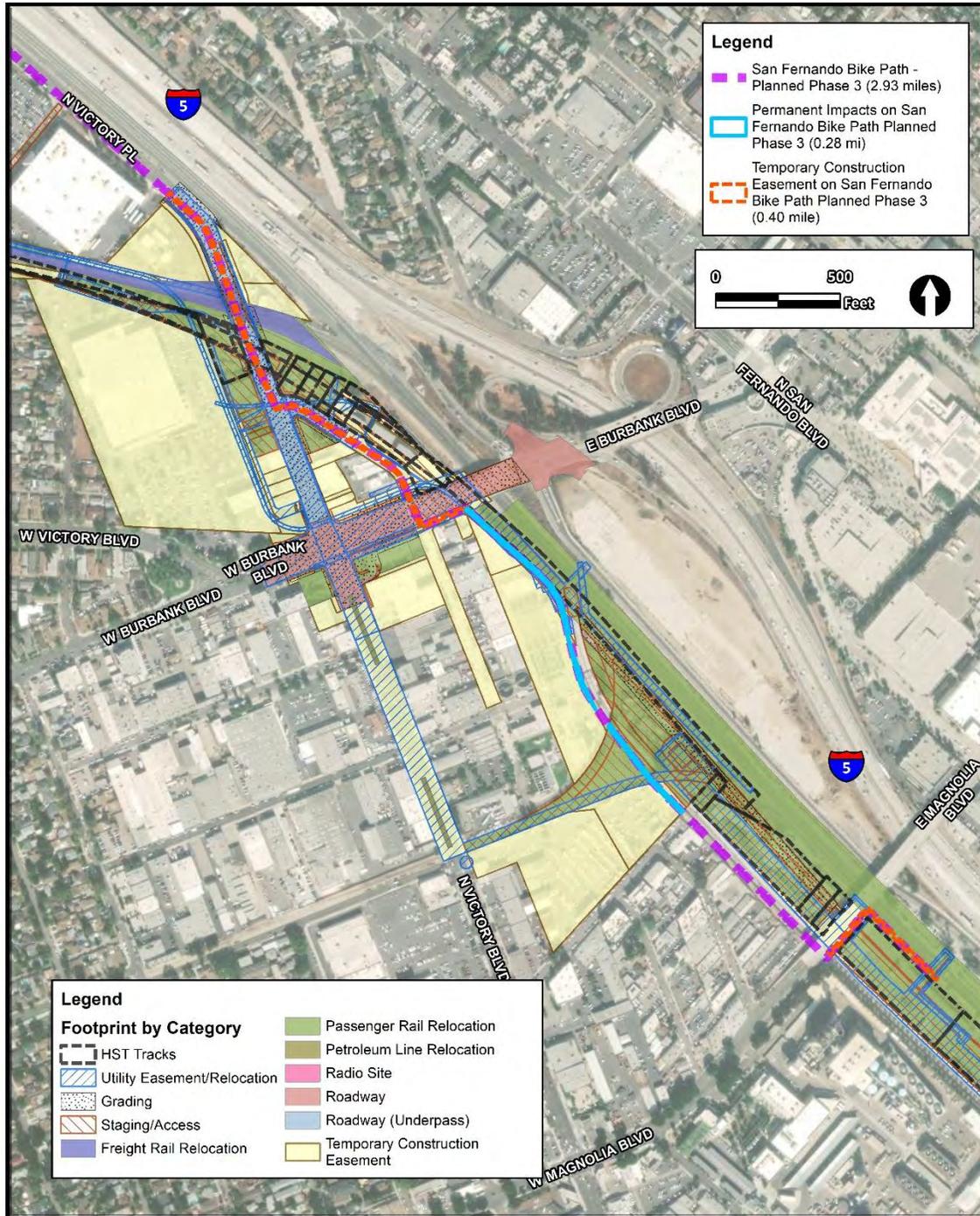
As shown in Figure 4-4, the HSR Build Alternative would also require a temporary construction easement on a 0.4-mile portion of the planned Phase 3 of the San Fernando Bike Path. The construction proposed in this area would consist of lowering Victory Place, reconstructing the existing Burbank Boulevard overcrossing, relocating utilities, and partially relocating Lockheed Channel along Front Street. Magnolia Boulevard would not be modified, but the existing piers may need to be modified with crash barriers for HSR operations.

After project implementation, HSR trains would run approximately 500 feet northeast of the planned Phase 3 of the San Fernando Bike Path.

The project would not adversely affect the activities, features, or attributes that qualify the San Fernando Bike Path for protection under Section 4(f). Therefore, the HSR Build Alternative would result in a *de minimis* impact on this resource, as follows.

- **Project Construction**

- A 0.4-mile portion of the planned Phase 3 of the San Fernando Bike Path would be required for construction activities. The affected area may consist of a Class I bike path, lighting, and landscaping. The remaining portion of the bike path outside of the construction area would remain open for public use during construction. If Phase 3 of the San Fernando Bike Path is existing at the time of HSR construction, construction activities would temporarily interrupt connectivity and use of the bike path. However, detours would be implemented during construction, in coordination with the official with jurisdiction over the bike path, so that access around the construction area would be maintained. In addition, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by the temporary construction easement. TR-IAMF#2, TR-IAMF#4, and TR-IAMF#5 would be implemented to minimize construction traffic impacts and to maintain pedestrian and bicycle access during construction. PR-MM#1 and PR-MM#3 would further address access impacts and closures of the bike path during construction.



Sources: City of Burbank, 2009; Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-4 De Minimis Impacts on the San Fernando Bike Path (Planned Phase 3)

PR-MM#5 would also be implemented to reduce the size of temporary impact areas, restrict access to temporary impact areas for public safety, provide signing at fenced-off areas with information on the completion date of the use of the land, consult with the property owner/operator on the temporary replacement of recreational uses, and return the land used for each temporary impact area to the owner in its original or better condition when construction in an area has been completed and the temporary impact area is no longer needed. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

- If the planned Phase 3 of the San Fernando Bike Path is existing at the time of HSR construction, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by short-term dust, noise, and visual impacts. AQ-IAMF#1 requires the contractor to prepare a fugitive dust control plan that identifies measures such as covering all materials transported on public roads, watering exposed graded surfaces, and stabilizing all disturbed graded areas. Prior to construction, the contractor would prepare a noise and vibration technical memorandum documenting how the Federal Transit Administration (FTA) and FRA guidelines for minimizing construction noise and vibration impacts would be employed when work is being conducted within 1,000 feet of sensitive receptors, per the requirements included in N&V-IAMF#1. N&V-MM#1 would also be implemented to monitor and control temporary construction noise. The construction contractor would prepare a technical memorandum identifying how it would minimize construction-related aesthetic and visual quality disruption per the requirements included in AVR-MM#1. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

- **Project Operation**

- As a result of permanent easements and acquisitions required for operation of the HSR Build Alternative, a 0.28-mile portion of the planned Phase 3 of the San Fernando Bike Path would be rerouted as a Class II bike lane along N Lake Street, approximately 300 feet to the west of the Burbank Water Reclamation Plant, which would impact access to this resource if it exists at the time of HSR construction. The affected area may consist of a Class I bike path, lighting, and landscaping. The affected portion of the planned Phase 3 of the San Fernando Bike Path is minor in size (approximately 0.28 mile) in relation to the entire Phase 3 of the bike path (approximately 3 miles). Project implementation would still allow for the San Fernando Bike Path to connect to the Downtown Burbank Metrolink Station, which is being designed to accommodate the bike path. In addition, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by the permanent easement. PK-IAMF#1 would be implemented to identify project design features to provide safe and attractive access for present travel modes to the bike path, and PR-MM#2 would further address access impacts on the bike path after construction. PR-MM#4 would also be implemented to require that the Authority consult with the official with jurisdiction to identify an alternative route for the continuation of the lost use and functionality of the resource, including maintaining connectivity. Therefore, the project would not adversely affect the activities, features, or attributes of the property. If the planned Phase 3 of the San Fernando Bike Path does not exist at the time of construction, the Authority will be required to consult with the official with jurisdiction to identify an alternative route for the implementation of the planned resource. Therefore, no permanent easements or acquisitions would be required if the planned Phase 3 portion of the bike path is rerouted prior to HSR construction.
- During operation, HSR trains would be added to the existing railroad corridor along the Lockheed Channel, which could be an additional source of noise near the planned Phase 3 of the San Fernando Bike Path. A 0.28-mile portion of the bike path between Burbank Boulevard and Chandler Boulevard would be rerouted away from the existing railroad corridor. Therefore, this portion of the bike path would be separated from HSR trains.

In addition, most of the bike path (approximately 2 miles of the 3-mile bike path) would be outside of the project footprint and would not run adjacent to the railroad corridor. The resource would be used for active recreational activities (bicycling), and users of the resource would be exposed to noise impacts for a relatively short duration as they pass through or near the area. Furthermore, as detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in no impact at Site PB-LT-30, which is the closest noise monitoring location to this resource. A proposed project is considered to have no impact when, on average, the introduction of the project would result in an insignificant increase in the number of people highly annoyed by the new noise. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. Most of the planned Phase 3 of the San Fernando Bike Path (approximately 2 miles of the 3-mile bike path) would be outside of the project footprint and would not run adjacent to the railroad corridor. Therefore, many of the project's visual elements would not be visible from the bike path. In addition, the resource would be used for active recreational activities (bicycling), and users of the resource would be exposed to visual impacts for a relatively short duration as they pass through or near the area. Furthermore, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by the introduction of HSR along the existing railroad corridor. Through implementation of AVR-IAMF#1, the Authority is seeking to balance a consistent aesthetic throughout the state with the local context for the nonstation structures throughout the Burbank to Los Angeles Project Section. Through implementation of AVR-IAMF#2, the Authority would consult with local jurisdictions on how best to involve the community in the process and would work with the contractor and local jurisdictions to review designs and local aesthetic preferences and incorporate them into final design and construction. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

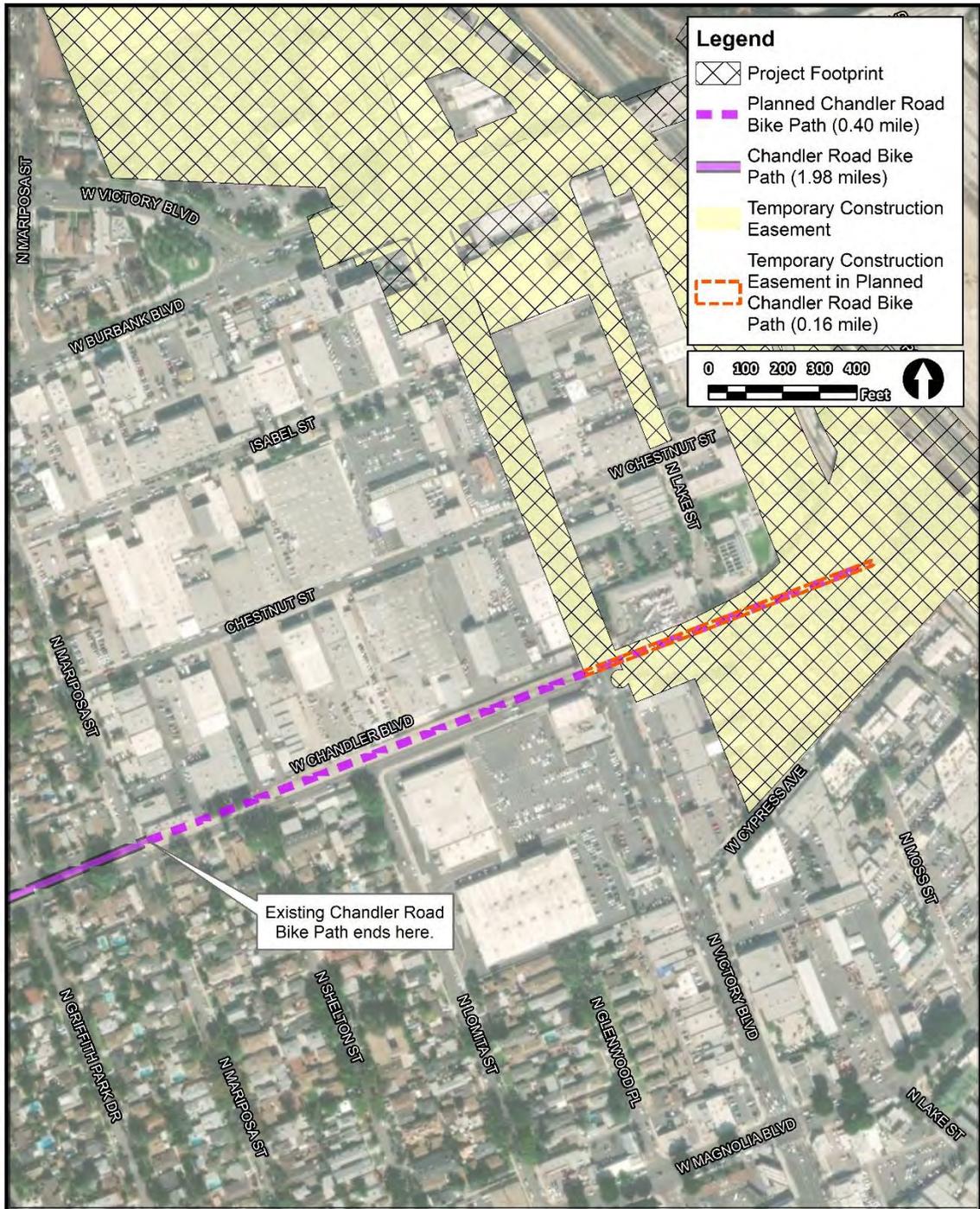
For the reasons stated above, the HSR Build Alternative would not adversely affect the activities, features, or attributes that qualify the San Fernando Bike Path for protection under Section 4(f). Therefore, the HSR Build Alternative would result in a *de minimis* impact on this resource. This preliminary determination has been made pending concurrence from the City of Burbank Parks and Recreation Department. The Authority will continue to coordinate with the City of Burbank Parks and Recreation Department regarding this determination.

4.6.1.2 Chandler Bikeway (Planned Extension) (B-2)

The Chandler Bikeway is an approximately 2-mile existing Class I bike path within the city of Burbank, with a planned extension of 0.7 mile from N Mariposa Street to the Burbank Western Channel. The City of Burbank Parks and Recreation Department, Community Development Department, and Public Works Department are the officials with jurisdiction over the planned Chandler Bikeway extension. The planned Chandler Bikeway extension has been formally designated in the City of Burbank Bicycle Master Plan, which identifies interest in pursuing the acquisition of property for construction of a Class I bike path extension from current rail operators (City of Burbank 2009).

The planned Chandler Bikeway extension is in an urbanized area that is primarily surrounded by commercial and industrial buildings, the existing railroad corridor, and I-5. The area where the planned bike path extension would be located currently operates as an active rail corridor with portions owned by both Metro and Union Pacific Railroad. The planned extension of the Class I bike path would extend the existing Chandler Bikeway east and connect to the Burbank Western Channel, where it would connect to the planned Phase 3 of the San Fernando Bike Path. This would close the gap and would link two regionally significant bikeways to increase connectivity to the Downtown Burbank Metrolink Station.

As shown in Figure 4-5, the HSR Build Alternative would require a temporary construction easement on a 0.16-mile portion of the proposed alignment for the planned Chandler Bikeway extension. The temporary construction easement would be required for temporary staging activities during the removal of existing industrial tracks adjacent to the Chandler Bikeway. After project implementation, HSR trains would run approximately 350 feet east of the planned Chandler Bikeway extension.



Sources: City of Burbank, 2009; Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-5 Temporary Occupancy of Chandler Bikeway (Planned Extension)

If the planned Chandler Bikeway extension is existing at the time of HSR construction, the temporary construction easement on a portion of the resource would constitute a temporary occupancy. However, the Authority has preliminarily determined that the HSR Build Alternative would meet the following five conditions under 23 C.F.R. 774.13(d), and the temporary occupancy would therefore not constitute a use:

- The land use would be of short duration (defined as less than the time needed for the construction of the HSR Build Alternative). The duration of construction in the temporary construction easement area would be temporary (a maximum of 2 years) and would be less than the total time needed to construct the entire project. There would be no change in ownership of the land. If the bike path extension is constructed prior to HSR project construction, the City of Burbank Parks and Recreation Department would continue to own the land for the bike path.
- The scope of work would be minor. The resource itself would not include any construction of project elements. However, construction staging, materials storage, parking of construction equipment and worker vehicles, and other similar activities would be conducted on the planned extension of the bike path, which is adjacent to the existing resource just east of N Victory Boulevard. No grading or other construction activities, such as HSR track construction, would take place in the portion of the resource to be used for the temporary construction easement.
- There would be no temporary or permanent adverse changes to the activities, features, or attributes of the property, as follows:

– **Project Construction**

- A 0.16-mile portion of the planned Chandler Bikeway extension would be required for construction activities. The affected area may consist of a Class I bike path and landscaping. The remaining portion of the bike path outside of the construction area would remain open for public use during construction. If the planned bike path extension is existing at the time of HSR construction, construction activities could temporarily interrupt connectivity and use of the bike path. However, detours would be implemented during construction, in coordination with the official with jurisdiction over the bike path, so that access would be maintained around the construction area. In addition, implementation of measures to minimize harm, described in more detail in Section 4.8, would ensure recreational uses on the bike path would not be adversely affected by the temporary construction easement. TR-IAMF#2, TR-IAMF#4, and TR-IAMF#5 would be implemented to minimize construction traffic impacts and to maintain pedestrian and bicycle access during construction. PR-MM#1 and PR-MM#3 would further address access impacts and closures of the bike path during construction. PR-MM#5 would also be implemented to reduce the size of temporary impact areas, restrict access to temporary impact areas for public safety, provide signing at fenced-off areas with information on the completion date of the use of the land, consult with the property owner/operator on the temporary replacement of recreational uses, and return the land used for each temporary impact area to the owner in its original or better condition when construction in an area has been completed and the temporary impact area is no longer needed. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
- If the planned Chandler Bikeway extension is existing at the time of HSR construction, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by short-term dust, noise, and visual impacts. AQ-IAMF#1 requires the contractor to prepare a fugitive dust control plan that identifies measures such as covering all materials transported on public roads, watering exposed graded surfaces, and stabilizing all disturbed graded areas. Prior to construction, the contractor would prepare a noise and vibration technical memorandum documenting how the FTA and FRA guidelines for minimizing construction noise and vibration

impacts would be employed when work is being conducted within 1,000 feet of sensitive receptors, per the requirements included in N&V-IAMF#1. N&V-MM#1 would also be implemented to monitor and control temporary construction noise. The construction contractor would prepare a technical memorandum identifying how it would minimize construction-related aesthetic and visual quality disruption, per the requirements included in AVR-MM#1. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

– **Project Operation**

- During operation, HSR trains would be added to the existing railroad corridor, which could be an additional source of noise near the bike path. The resource would be used for active recreational activities (bicycling), and users of the resource would be exposed to noise impacts for a relatively short duration as they pass through or near the area. In addition, as detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in no impact at Site PB-LT-30, which is the closest noise monitoring location to this resource. A proposed project is considered to have no impact when, on average, the introduction of the project would result in an insignificant increase in the number of people highly annoyed by the new noise. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. The resource would be used for active recreational activities (bicycling), and users of the resource would be exposed to visual impacts for a relatively short duration as they pass through or near the area. In addition, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by the introduction of HSR along the existing railroad corridor. Through implementation of AVR-IAMF#1, the Authority is seeking to balance a consistent aesthetic throughout the state with the local context for the nonstation structures throughout the Burbank to Los Angeles Project Section. Through implementation of AVR-IAMF#2, the Authority would consult with local jurisdictions on how best to involve the community in the process and would work with the contractor and local jurisdictions to review designs and local aesthetic preferences and incorporate them into final design and construction. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
- The land would be fully restored to a condition at least as good as that which existed prior to the project.
- Documented agreement from the official with jurisdiction over the property (the City of Burbank Parks and Recreation Department) is anticipated regarding the above conditions of the planned Chandler Bikeway extension.

For the reasons stated above, the Authority has preliminarily determined that the HSR Build Alternative would meet the five conditions under 23 C.F.R. 774.13(d). The temporary occupancy of the planned Chandler Bikeway extension would therefore not constitute a use. This preliminary determination has been made pending concurrence from the City of Burbank Parks and Recreation Department. The Authority will continue to coordinate with the City of Burbank Parks and Recreation Department regarding this determination.

4.6.1.3 Golden State Connector Bike Path (Under Construction) (B-3)

As shown in Figure 4-6, the Golden State Connector Bike Path is a 0.33-mile-long pedestrian-bike bridge that crosses the railroad corridor adjacent to I-5 in the city of Burbank. The City of Burbank Parks and Recreation Department, Community Development Department, and Public Works Department are the officials with jurisdiction over the Golden State Connector Bike Path. The bike path is an above-grade structure in an urbanized area and is primarily surrounded by commercial and industrial buildings, the existing railroad corridor, and I-5. As of the date of this report, the original pedestrian-bike bridge has been demolished and a replacement is currently under construction to be rebuilt as part of the Caltrans I-5 Improvement Project in the vicinity of Providencia Avenue. The replacement bridge would span the existing railroad right-of-way.

The project would not result in a Section 4(f) use of this resource, as follows:

- **Project Construction**

- If the bike path is completely rebuilt prior to HSR construction, the bike path would remain open during construction, and no access impacts would result from the project. Because all of the project improvements and proposed work would be completed beneath the bike path, the bike path would remain untouched by the project and no direct impacts on the bike path would result from the project. In addition, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by short-term dust, noise, and visual impacts. AQ-IAMF#1 requires the contractor to prepare a fugitive dust control plan that identifies measures such as covering all materials transported on public roads, watering exposed graded surfaces, and stabilizing all disturbed graded areas. Prior to construction, the contractor would prepare a noise and vibration technical memorandum documenting how the FTA and FRA guidelines for minimizing construction noise and vibration impacts would be employed when work is being conducted within 1,000 feet of sensitive receptors, per the requirements included in N&V-IAMF#1. N&V-MM#1 would also be implemented to monitor and control temporary construction noise. The construction contractor would prepare a technical memorandum identifying how it would minimize construction-related aesthetic and visual quality disruption per the requirements included in AVR-MM#1. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

- **Project Operation**

- During operation, HSR trains would be added to the existing railroad corridor, which could be an additional source of noise near the bike path. The resource would be used for active recreational activities (bicycling), and users of the resource would be exposed to noise impacts for a relatively short duration as they pass through or near the area. In addition, as detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in a noise increase at Site LT-02 (the closest noise monitoring location to this resource), from an existing level of 68 A-weighted decibels (dBA) to 69 dBA after project implementation. This would be a moderate impact. A moderate impact indicates that the introduction of the project will be noticeable to most people, but it may not be sufficient to cause strong reactions from the community. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. The resource would be used for active recreational activities (bicycling), and users of the resource would be exposed to visual impacts for a relatively short duration as they pass through or near the area. In addition, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by the introduction of HSR along the existing railroad corridor.



Sources: City of Burbank, 2009; Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-6 Project Footprint near the Golden State Connector Bike Path

Through implementation of AVR-IAMF#1, the Authority is seeking to balance a consistent aesthetic throughout the state with the local context for the nonstation structures throughout the Burbank to Los Angeles Project Section. Through implementation of AVR-IAMF#2, the Authority would consult with local jurisdictions on how best to involve the community in the process and would work with the contractor and local jurisdictions to review designs and local aesthetic preferences and incorporate them into final design and construction. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not result in a Section 4(f) use of the Golden State Connector Bike Path.

4.6.1.4 Burbank Western Channel Bike Path (Planned Phase II) (B-4)

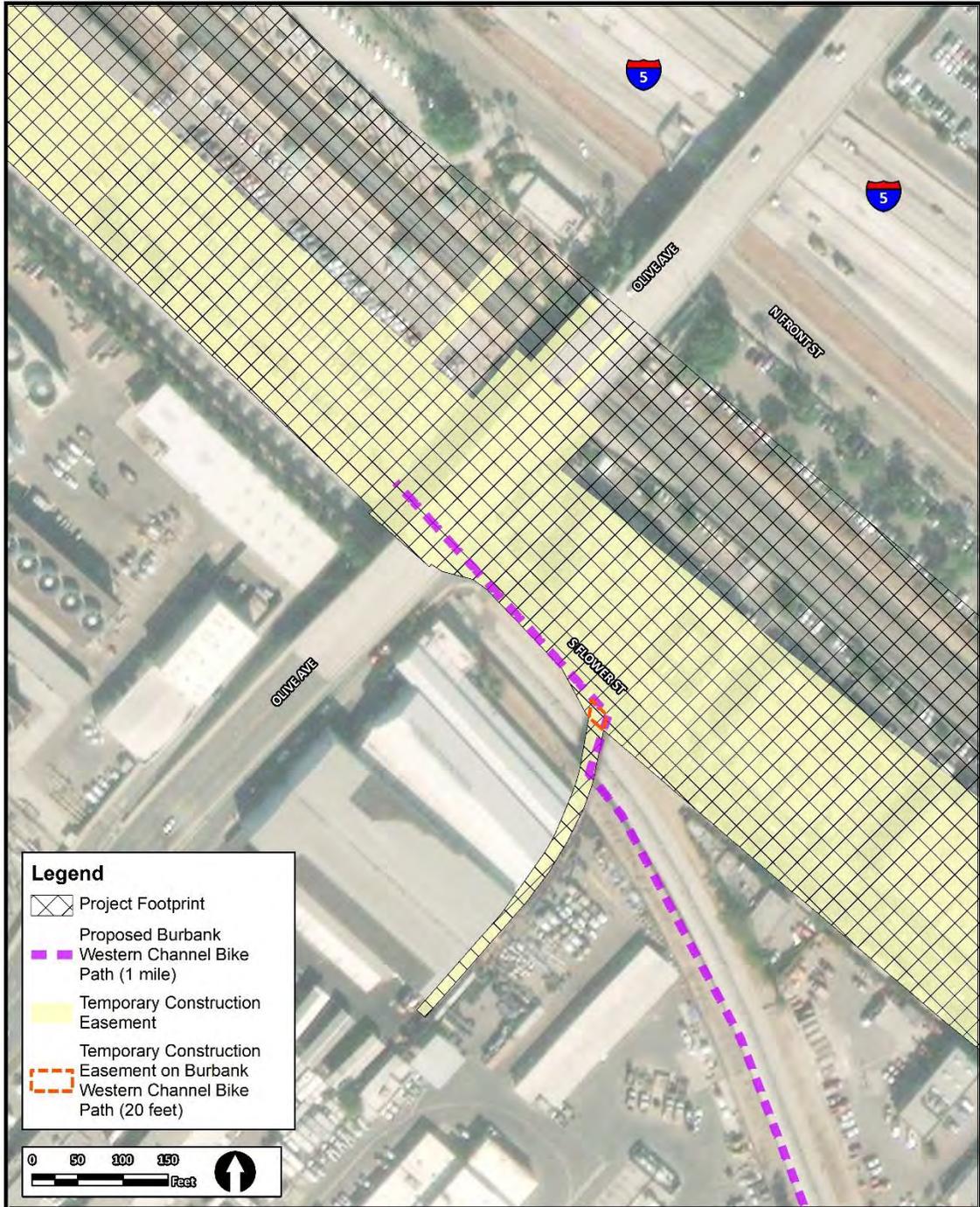
The Burbank Western Channel Bike Path is a Class I bike path that runs along the Burbank-Western Flood Control Channel in the city of Burbank. Phase I of the Burbank Western Channel Bike Path is a 0.4-mile portion of the bike path that has already been constructed outside the study area from Alameda Avenue to Victory Boulevard. The planned Phase II of the Burbank Western Channel Bike Path is a 1-mile planned portion of the Class I bike path that is located inside the study area, and that would run from the Downtown Burbank Metrolink Station to Alameda Avenue. The City of Burbank Parks and Recreation Department and Community Development Department are the officials with jurisdiction over the planned Phase II of the Burbank Western Channel Bike Path. The planned Phase II of the Burbank Western Channel Bike Path has been formally designated in the City of Burbank Bicycle Master Plan (City of Burbank 2009).

The planned Phase II of the Burbank Western Channel Bike Path is in an urbanized area primarily surrounded by commercial and industrial buildings, the existing railroad corridor, and I-5. The planned Phase II of the Burbank Western Channel Bike Path is proposed to begin at the Downtown Burbank Metrolink Station, travel southeast along Flower Street, and cross over to the west side of the channel via an existing, abandoned railroad bridge. The bike path would continue along the west side of the channel and then transition to the east side of the channel at Providencia Avenue and Lake Street. The bike path would then connect to the completed Phase I of the Burbank Western Channel Bike Path at Alameda Avenue.

As shown in Figure 4-7, the HSR Build Alternative would require a temporary construction easement on an approximately 20-foot-long portion of the planned Phase II of the Burbank Western Channel Bike Path along Flower Street. The construction proposed in this area consists of relocating existing oil and fiber-optic lines from the railroad corridor to underneath Flower Street. The existing railroad bridge that crosses over the channel would remain in place. After project implementation, HSR trains would run approximately 200 feet northeast of the planned Phase II of the Burbank Western Channel Bike Path.

If the planned Phase II of the Burbank Western Channel Bike Path exists at the time of HSR construction, the temporary construction easement on a portion of the resource would be required. The Authority has preliminarily determined that the HSR Build Alternative would meet the following five conditions for temporary occupancy under 23 C.F.R. 774.13(d) and would therefore not constitute a use:

- The land use would be of short duration (defined as less than the time needed for the construction of the HSR Build Alternative). The duration of construction in the temporary construction easement area would be temporary (a maximum of 2 years) and would be less than the total time needed to construct the entire project. If the planned Phase II of the Burbank Western Channel Bike Path is constructed prior to HSR project construction, the City of Burbank Parks and Recreation Department would continue to own the land for the bike path.



Sources: City of Burbank, 2009; Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-7 Temporary Occupancy of the Burbank Western Channel Bike Path (Planned Phase II)

- The scope of work would be minor. The temporary construction easement would be required for the relocation of oil and fiber-optic lines from the railroad to underneath Flower Street. The exact location for the trench needed for the oil/fiber-optic line relocation is currently not determined. No grading or other substantial construction activities, such as HSR track construction, would take place in the portion of the resource to be used for the temporary construction easement.
- There would be no temporary or permanent adverse changes to the activities, features, or attributes of the property, as follows:
 - **Project Construction**
 - An approximately 20-foot-long portion of the planned Phase II of the Burbank Western Channel Bike Path would be required for construction activities. The affected area may consist of a Class I bike path, lighting, and landscaping. The remaining portion of the bike path outside of the construction area would remain open for public use during construction. If the planned Phase II of the Burbank Western Channel Bike Path exists at the time of HSR construction, construction activities could temporarily interrupt connectivity and use of the bike path. However, detours would be implemented during construction, in coordination with the official with jurisdiction over the bike path, so that access would be maintained around the construction area. In addition, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by the temporary construction easement. TR-IAMF#2, TR-IAMF#4, and TR-IAMF#5 would be implemented to minimize construction traffic impacts and to maintain pedestrian and bicycle access during construction. PR-MM#1 and PR-MM#3 would further address access impacts and closures of the bike path during construction. PR-MM#5 would also be implemented to reduce the size of temporary impact areas, restrict access to temporary impact areas for public safety, provide signing at fenced-off areas with information on the completion date of the use of the land, consult with the property owner/operator on the temporary replacement of recreational uses, and return the land used for each temporary impact area to the owner in its original or better condition when construction in an area has been completed and the temporary impact area is no longer needed. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
 - If the planned Phase II of the Burbank Western Channel Bike Path exists at the time of HSR construction, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by short-term dust, noise, and visual impacts. AQ-IAMF#1 requires the contractor to prepare a fugitive dust control plan that identifies measures such as covering all materials transported on public roads, watering exposed graded surfaces, and stabilizing all disturbed graded areas. Prior to construction, the contractor would prepare a noise and vibration technical memorandum documenting how the FTA and FRA guidelines for minimizing construction noise and vibration impacts would be employed when work is being conducted within 1,000 feet of sensitive receptors, per the requirements included in N&V-IAMF#1. N&V-MM#1 would also be implemented to monitor and control temporary construction noise. The construction contractor would prepare a technical memorandum identifying how it would minimize construction-related aesthetic and visual quality disruption, per the requirements included in AVR-MM#1. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
 - **Project Operation**
 - During operation, HSR trains would be added to the existing railroad corridor, which could be an additional source of noise near the bike path. The resource would be used for active recreational activities (bicycling), and users of the resource would be

exposed to noise impacts for a relatively short duration as they pass through or near the area. In addition, as detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in no impact at Site PB-LT-30, which is the closest noise monitoring location to this resource. A proposed project is considered to have no impact when, on average, the introduction of the project would result in an insignificant increase in the number of people highly annoyed by the new noise. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. The resource would be used for active recreational activities (bicycling), and users of the resource would be exposed to visual impacts for a relatively short duration as they pass through or near the area. In addition, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by the introduction of HSR along the existing railroad corridor. Through implementation of AVR-IAMF#1, the Authority is seeking to balance a consistent aesthetic throughout the state with the local context for the nonstation structures throughout the Burbank to Los Angeles Project Section. Through implementation of AVR-IAMF#2, the Authority would consult with local jurisdictions on how best to involve the community in the process and would work with the contractor and local jurisdictions to review designs and local aesthetic preferences and incorporate them into final design and construction. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
- The land would be fully restored to a condition at least as good as that which existed prior to the project. Following construction, the temporary construction easement area would be restored to existing conditions.
- Documented agreement from the official with jurisdiction over the property (the City of Burbank Parks and Recreation Department) is anticipated regarding the above conditions of the planned Burbank Western Channel Bike Path.

For the reasons stated above, the Authority has preliminarily determined that the HSR Build Alternative would meet the five conditions under 23 C.F.R. 774.13(d), and the temporary occupancy of the planned Phase II of the Burbank Western Channel Bike Path would therefore not constitute a use. This preliminary determination has been made pending concurrence from the City of Burbank Parks and Recreation Department. The Authority will continue to coordinate with the City of Burbank Parks and Recreation Department regarding this determination.

4.6.1.5 San Fernando Railroad Bike Path (Planned) (B-5)

The San Fernando Railroad Bike Path is an approximately 4.5-mile planned Class I bike path that would run parallel to San Fernando Road within the Metro-owned Metrolink Valley railroad corridor in the city of Glendale.⁵ The City of Glendale Community Development Department and Public Works Department are the officials with jurisdiction over the planned San Fernando Railroad Bike Path. The planned San Fernando Railroad Bike Path has been formally designated in the City of Glendale Bicycle Transportation Plan (City of Glendale 2012).

The planned San Fernando Railroad Bike Path is in an urbanized area primarily surrounded by commercial and industrial buildings, the existing railroad corridor, and I-5. The planned San Fernando Railroad Bike Path bike path would run along the railroad right-of-way from

⁵ The San Fernando Railroad Bike Path (Planned) (B-5) is a proposed Class I (off-street) bike path that would extend from the northern limits to the southern limits of the City of Glendale (Figure 4-2, Sheet 2). This bike path is a unique recreational resource and is separate from the San Fernando Bike Path (Planned Phase 3) (B-1), which is a proposed Class I (off-street) bike path that would run from the Burbank/Los Angeles city limits to the Downtown Burbank Metrolink Station. See Figure 4-2, Sheet 1.

approximately E Alameda Avenue to approximately Tyburn Street to fulfill the city's long-term vision of a bike path along the rail line.

As shown in Figure 4-8 (Sheets 1 and 2), the HSR Build Alternative would require a permanent easement within the Metro-owned right-of-way, along the entire 4.5-mile planned bike path, to operate HSR trains in this area. As a result, the permanent easement needed for operation of the HSR Build Alternative would preclude the planned San Fernando Railroad Bike Path from being constructed in its current alignment if the bike path is not existing at the time of HSR construction. If the planned San Fernando Railroad Bike Path is already existing at the time of HSR construction, the entire San Fernando Railroad Bike Path would be removed and the Authority would be required to consult with the official with jurisdiction to relocate the entirety of this resource on an alternative route. Therefore, the entire bike path would be permanently incorporated into the permanent easement area required for the HSR right-of-way, which would constitute a permanent use of the entire resource under Section 4(f). A discussion of avoidance alternatives is required for this resource and is included in Section 4.7.

Throughout the length of the entire San Fernando Railroad Bike Path, the City of Glendale has identified various locations for existing and proposed Class I bike paths, Class II bike lanes, and Class III bike routes. These bicycle trails are part of the city's vision for an active and healthy community. PR-MM#4 would be implemented, which would require the Authority to consult with the official with jurisdiction over the bike path regarding the specific conditions of acquisition and compensation for, or replacement or enhancement of, other property for the land that will be acquired. Therefore, coordination with the official with jurisdiction will include discussion of potential feasible options to realign the proposed San Fernando Railroad Bike Path, and an alternative location for the planned bike path will be identified to determine if connectivity to other nearby bike trails can be maintained. However, for the purposes of this analysis, the project's impacts to the San Fernando Railroad Bike Path from permanent conversion of land are assumed to result in a loss of connectivity and recreation use of the resource.

4.6.1.6 Los Angeles River Bike Path (Planned Extension) (B-7)

The Los Angeles River Bike Path is a Class I bike path along the west bank of the Los Angeles River in the city of Los Angeles. In some areas, an unpaved equestrian trail parallels the bike path. The existing bike path has an approximately 8-mile gap in downtown Los Angeles and adjacent areas. Metro has an ongoing project to close the gap by extending the bike path along either the west or east side of the Los Angeles River. As shown in Figure 4-9, the extension of the Los Angeles River Bike Path is a planned portion of the bike path with different alignment options. With the construction of the extension of the Los Angeles River Bike Path, the total length of the bike path would be approximately 15 miles.

The planned extension of the Los Angeles River Bike Path in the city of Los Angeles is located inside the study area, with potential to be affected by the project. Therefore, it is included in this analysis. The City of Los Angeles Department of Recreation and Parks and Department of Public Works and the Los Angeles County Department of Parks and Recreation and Department of Public Works are the officials with jurisdiction over the planned extension of the bike path. The planned extension of the Los Angeles River Bike Path in the city of Los Angeles has been formally designated in the Los Angeles River Revitalization Master Plan (City of Los Angeles Department of Public Works, Bureau of Engineering 2007). The Los Angeles River Bike Path is in an urbanized area that is primarily surrounded by commercial and industrial buildings, the existing railroad corridor, and I-5.

As shown in Figure 4-9, the HSR Build Alternative overlaps with the planned extension options in several areas. After project implementation, HSR trains would run adjacent to the extension of the Los Angeles River Bike Path.

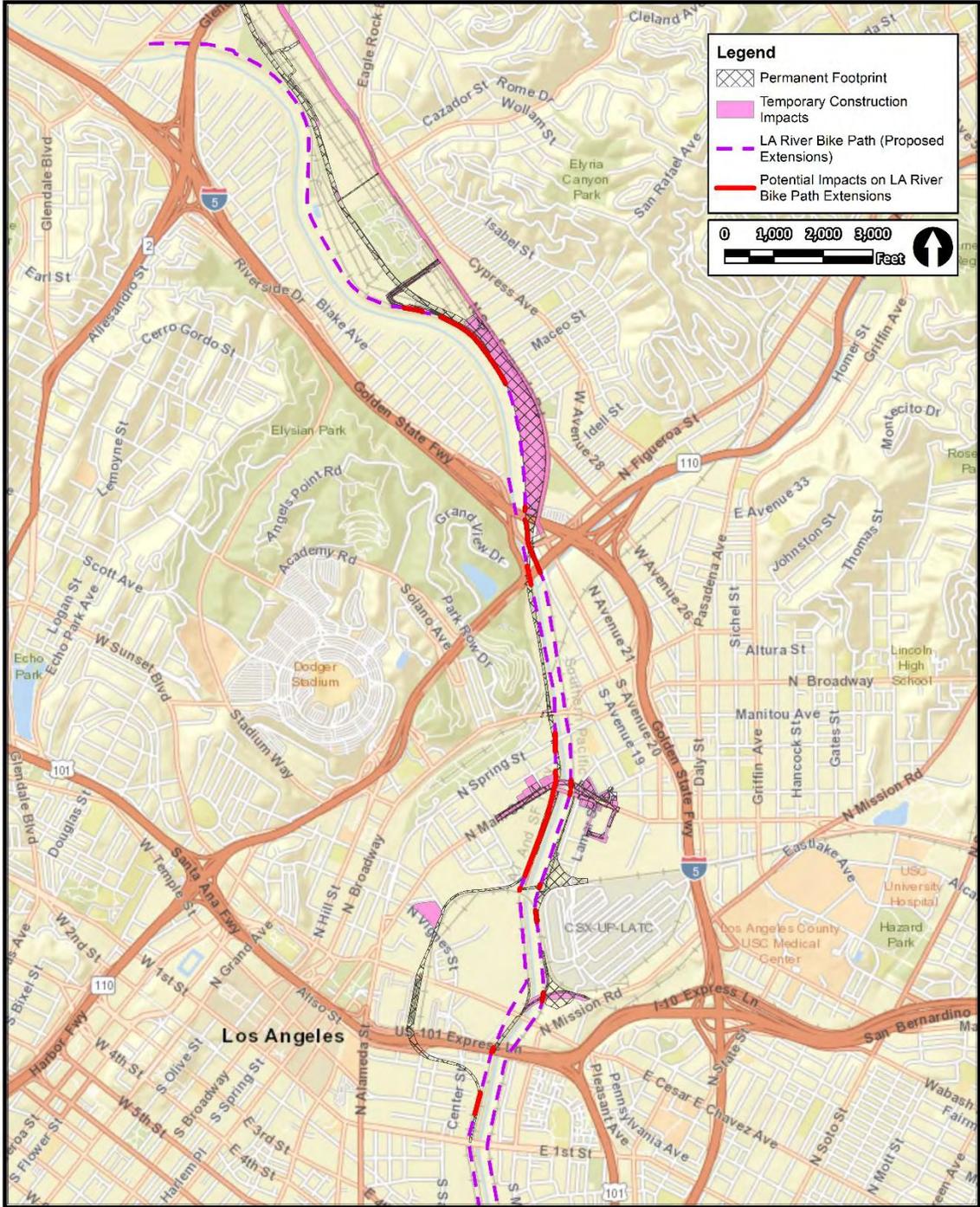


Figure 4-8 Permanent Use of the San Fernando Railroad Bike Path (Planned)
(Sheet 1 of 2)



Sources: City of Glendale, 2012; Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-8 Permanent Use of the San Fernando Railroad Bike Path (Planned)
(Sheet 2 of 2)



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-9 De Minimis Impacts on the Los Angeles River Bike Path (Planned Extension)

The project would not adversely affect the activities, features, or attributes that qualify the Los Angeles River Bike Path for protection under Section 4(f). Therefore, the HSR Build Alternative would result in a *de minimis* impact on this resource, as follows:

- **Project Construction**

- Portions of the planned extension of the Los Angeles River Bike Path may be required for construction activities. The affected area may consist of a Class I bike path, lighting, and landscaping. The remaining portion of the bike path outside of the construction area would remain open for public use during construction. If the extension of the Los Angeles River Bike Path is existing at the time of HSR construction, construction activities would temporarily interrupt connectivity and use of the bike path. However, detours would be implemented during construction, in coordination with the official with jurisdiction over the bike path, so that access around the construction area would be maintained. In addition, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by project construction. TR-IAMF#2, TR-IAMF#4, and TR-IAMF#5 would be implemented to minimize construction traffic impacts and to maintain pedestrian and bicycle access during construction. PR-MM#1 and PR-MM#3 would further address access impacts and closures of the bike path during construction. PR-MM#5 would also be implemented to reduce the size of temporary impact areas, restrict access to temporary impact areas for public safety, provide signing at fenced-off areas with information on the completion date of the use of the land, consult with the property owner/operator on the temporary replacement of recreational uses, and return the land used for each temporary impact area to the owner in its original or better condition when construction in an area has been completed and the temporary impact area is no longer needed. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
- If the planned extension of the Los Angeles River Bike Path is existing at the time of HSR construction, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by short-term dust, noise, and visual impacts. AQ-IAMF#1 requires the contractor to prepare a fugitive dust control plan that identifies measures such as covering all materials transported on public roads, watering exposed graded surfaces, and stabilizing all disturbed graded areas. Prior to construction, the contractor would prepare a noise and vibration technical memorandum documenting how the FTA and FRA guidelines for minimizing construction noise and vibration impacts would be employed when work is being conducted within 1,000 feet of sensitive receptors, per the requirements included in N&V-IAMF#1. N&V-MM#1 would also be implemented to monitor and control temporary construction noise. The construction contractor would prepare a technical memorandum identifying how it would minimize construction-related aesthetic and visual quality disruption, per the requirements included in AVR-MM#1. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

- **Project Operation**

- The project may require permanent easements along the planned extension of the Los Angeles River Bike Path for project operation. The affected area may consist of a Class I bike path, lighting, and landscaping. The affected portions of the planned extension of the bike path appear to be minor in size in relation to the entire extension of the bike path, although exact acreages of impact were not generated because of the multiple alignment options for the path. Implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by the permanent easement. PK-IAMF#1 would be implemented to identify project design features to provide safe and attractive access for present travel modes to the bike path, and PR-MM#2 would further address access impacts on the bike path after construction. PR-MM#4 would also be implemented to require that the

Authority consult with the official with jurisdiction to identify an alternative route for the continuation of the lost use and functionality of the resource, including maintaining connectivity. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

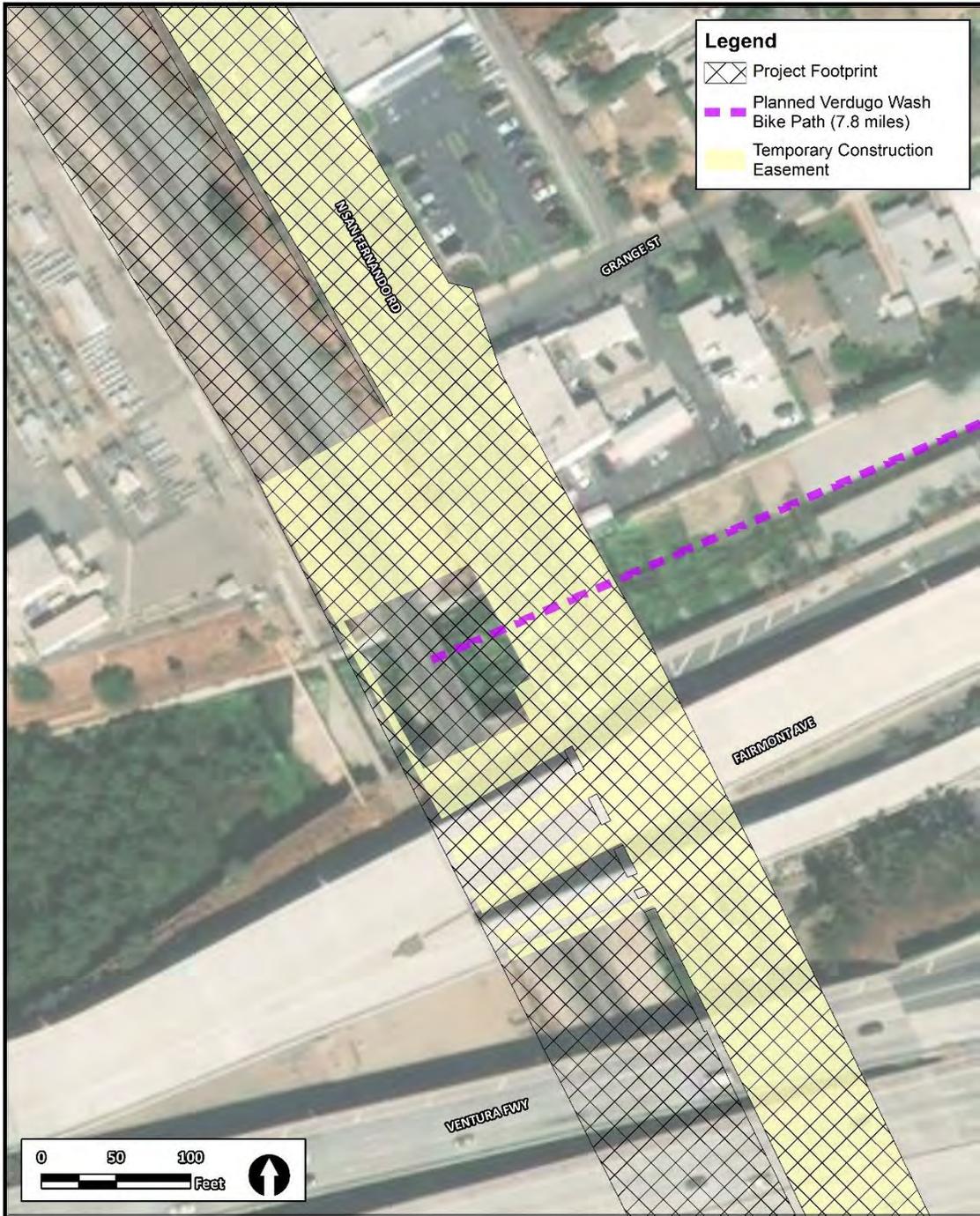
- During operation, HSR trains would be added to the existing railroad corridor along the Los Angeles River. The resource would be used for active recreational activities (bicycling), and users of the resource would be exposed to noise impacts for a relatively short duration as they pass through or near the area. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. The resource would be used for active recreational activities (bicycling), and users of the resource would be exposed to visual impacts for a relatively short duration as they pass through or near the area. Furthermore, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by the introduction of HSR along the existing railroad corridor. Through implementation of AVR-IAMF#1, the Authority is seeking to balance a consistent aesthetic throughout the state with the local context for the nonstation structures throughout the Burbank to Los Angeles Project Section. Through implementation of AVR-IAMF#2, the Authority would consult with local jurisdictions on how best to involve the community in the process and would work with the contractor and local jurisdictions to review designs and local aesthetic preferences and incorporate them into final design and construction. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not adversely affect the activities, features, or attributes that qualify the bike path for protection under Section 4(f). Therefore, the HSR Build Alternative would result in a *de minimis* impact on this resource. This preliminary determination has been made pending concurrence from the officials with jurisdiction over this resource (the City of Los Angeles, Los Angeles County, and the U.S. Army Corps of Engineers). The Authority will continue to coordinate with the City of Los Angeles, Los Angeles County, and the U.S. Army Corps of Engineers regarding this determination.

4.6.1.7 Verdugo Wash Bike Path (Planned) (B-8)

The Verdugo Wash Bike Path is a 7.8-mile planned Class I bike path that would run along the channel of the Verdugo Wash from north Glendale to the Los Angeles River in the city of Glendale. The City of Glendale Community Development Department and Public Works Department are the officials with jurisdiction over the planned Verdugo Wash Bike Path. The bike path has been formally designated in the City of Glendale Bicycle Transportation Plan (City of Glendale 2012). The planned Verdugo Wash Bike Path is in an urbanized area primarily surrounded by single-family residential properties. The Verdugo Wash is a channelized wash with concrete sides. The planned bike path would be constructed along or inside the channel.

As shown in Figure 4-10, the HSR Build Alternative would require a temporary construction easement on 0.02 acre of land above the bike path on San Fernando Road, which crosses over the channel, for utility relocation. In addition, the existing railroad bridge west of San Fernando Road would be demolished, and a new, wider bridge would be built across the channel to accommodate HSR tracks. The new bridge is a clear-span bridge with no construction required inside the channel. After project implementation, HSR trains would run along the existing railroad corridor directly above the planned Verdugo Wash Bike Path.



Sources: City of Glendale, 2012; Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-10 Project Footprint near the Verdugo Wash Bike Path (Planned)

The project would not result in a Section 4(f) use of this resource, as follows:

- **Project Construction**

- Aerial easements are not considered temporary occupancy or any other kind of use unless it is necessary to reroute access during construction for safety reasons, or if safety measures within the resource are required. If the bike path is existing at the time of HSR construction, the bike path would remain open during construction, and no access impacts would result from the project. No safety measures would be required within the resource. Because all of the project improvements and proposed work would be completed above the bike path, the bike path would remain untouched by the project, and no direct impacts on the bike path would result from the project. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
- Implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses on the bike path would not be adversely affected by short-term dust, noise, and visual impacts. AQ-IAMF#1 requires the contractor to prepare a fugitive dust control plan that identifies measures such as covering all materials transported on public roads, watering exposed graded surfaces, and stabilizing all disturbed graded areas. Prior to construction, the contractor would prepare a noise and vibration technical memorandum documenting how the FTA and FRA guidelines for minimizing construction noise and vibration impacts would be employed when work is being conducted within 1,000 feet of sensitive receptors, per the requirements included in N&V-IAMF#1. N&V-MM#1 would also be implemented to monitor and control temporary construction noise. The construction contractor would prepare a technical memorandum identifying how it would minimize construction-related aesthetic and visual quality disruption, per the requirements included in AVR-MM#1. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

- **Project Operation**

- The HSR Build Alternative would cross over the planned Verdugo Wash Bike Path on a new railroad bridge that would be wider than the existing bridge. Therefore, the HSR Build Alternative would require a wider permanent aerial easement over the bike path. Aerial easements are not considered a Section 4(f) use unless safety measures within the resource are required. No safety measures would be required within the resource. Because all of the project improvements and proposed work would be completed above the bike path, the bike path would remain untouched by the project, and no direct impacts on the bike path would result from the project. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
- During operation, HSR trains would be added to the existing railroad corridor, which could be an additional source of noise near the bike path. As detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in a noise increase at Site LT-07 (the closest noise monitoring location to this resource), from an existing level of 74 dBA to 75 dBA after project implementation, which would be a moderate impact. A moderate impact indicates that the introduction of the project will be noticeable to most people, but it may not be sufficient to cause strong reactions from the community. In addition, the resource would be used for active recreational activities (bicycling), and users of the resource would be exposed to noise impacts for a relatively short duration as they pass through or near the area. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. As stated in Section 3.16, *Aesthetics and Visual Quality*, of this Draft EIR/EIS, the project elements in this area, which is near Key Viewpoints 8 and 9, would have a neutral impact on visual quality near the bike path because the project features would be compatible with the existing environment, viewer exposure for cyclists would be low because of the dynamic view and

short viewing durations, and awareness is moderate depending on the routine of the viewer, resulting in a moderate-low viewer sensitivity to the visual change. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not result in a Section 4(f) use of the planned Verdugo Wash Bike Path.

4.6.1.8 Griffith Manor Park (P-5)

Griffith Manor Park is an approximately 2.9-acre park in the city of Glendale. It includes a community building that can be rented for special events, picnic areas, basketball courts, a children's play area, open play fields, and walking paths. The City of Glendale Community Services and Parks Department is the official with jurisdiction over Griffith Manor Park. The park is in an urbanized area that is primarily surrounded by commercial and industrial buildings, the existing railroad corridor approximately 500 feet to the northeast, and I-5 approximately 500 feet to the southwest.

As shown in Figure 4-11, Griffith Manor Park is approximately 244 feet from the project footprint. Project elements that would be constructed approximately 244 feet or more from the park include the retained fill along the existing railroad right-of-way and the new Sonora Avenue grade separation.

All of the project improvements and proposed work would be completed outside the resource boundaries; therefore, no permanent use or temporary occupancy would result from the project. In addition, the park would remain open during construction, and no access impacts would result from the project. However, the park is approximately 244 feet from the project footprint and is therefore within the 250-foot distance threshold for consideration of indirect noise and visual impacts (proximity impacts). After project implementation, HSR trains would run approximately 500 feet northeast of the park.

The project would not result in the constructive use of this resource, as follows:

- During operation, HSR trains would be added to the existing railroad corridor, which is approximately 500 feet northeast of the park. As detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in no impact at Site LT-03, which is the closest noise monitoring location to this resource. A proposed project is considered to have no impact when, on average, the introduction of the project would result in an insignificant increase in the number of people highly annoyed by the new noise. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.
- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. In addition, the Sonora Avenue Grade Separation would be visible in this area. As stated in Section 3.16, Aesthetics and Visual Quality, of this Draft EIR/EIS, the Sonora Avenue grade separation would have an adverse impact on visual quality in the area, which is near Key Viewpoint 5, because the grade separation would introduce a prominent visual element to the existing environment that would be out of scale with the surrounding commercial uses. However, the park is approximately 500 feet from the Sonora Avenue grade separation; therefore, visual impacts from the project would not be expected to substantially affect recreational resources in the park, many of which are active uses where viewers may have a low level of awareness to visual changes because they are engaged in active recreational activities. The park is also separated from the project footprint by a parking lot with trees, which would be expected to shield the park from visual impacts resulting from the grade separation. In addition, with implementation of AVR-MM#3 (described in more detail in Section 4.8), the contractor would incorporate the Authority-approved aesthetic preferences for nonstation structures into final design and construction. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not result in a Section 4(f) use of Griffith Manor Park.



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-11 Project Footprint near Griffith Manor Park

4.6.1.9 Pelanconi Park (P-6)

Pelanconi Park is an approximately 3.1-acre park in the city of Glendale that includes a picnic tables, barbecue areas, basketball courts, a baseball field, and a children's play area. The City of Glendale Community Services and Parks Department is the official with jurisdiction over the park. The park is in an urbanized area that is primarily surrounded by commercial and industrial buildings to the north, west, and south, and single-story residential buildings to the east.

As shown in Figure 4-12, Pelanconi Park is approximately 205 feet from the project footprint. All of the project improvements and proposed work would be completed outside the resource boundaries; therefore, no permanent use or temporary occupancy would result from the project. In addition, the park would remain open during construction, and no access impacts would result from the project. However, the park is 205 feet from the project footprint and is therefore within the 250-foot distance threshold for consideration of indirect noise and visual impacts (proximity impacts).

During operation, HSR trains would be added to the existing railroad corridor, which is approximately 205 feet away from the park. As detailed in the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in a noise increase at Site LT-06 (the closest noise monitoring location to this resource), from an existing level of 66 dBA to 70 dBA after project implementation, which would be a moderate impact. A moderate impact indicates that the introduction of the project would be noticeable to most people, but it may not be sufficient to cause strong reactions from the community. Therefore, proximity impacts related to noise would not substantially impair the activities, features, or attributes of the property.

As described in Section 3.16, Aesthetics and Visual Quality, the project proposes to grade-separate Grandview Avenue as an early investment project to maintain functionality of the HSR Build Alternative and reduce conflicts (see Chapter 2, Alternatives, for further details). The proposed grade separation at Grandview Avenue would be slightly lowered (approximately 2 to 3 feet) to cross under the HSR Build Alternative and the relocated Metrolink non-electrified tracks of the existing rail corridor on the retained fill. The HSR Build Alternative would be built on approximately 30 feet of retained fill, and there would be an additional 24 feet to the top of the overhead contact structure. The proposed grade separation and overhead contact lines would interrupt existing views of the Santa Monica Mountains/Hollywood Hills for recreational visitors to Pelanconi Park, which would decrease the natural harmony and change visual quality.

After project implementation, recreational visitors to Pelanconi Park are anticipated to experience a high level of exposure to visual changes, given the proximity of the park to the proposed grade separation at Grandview Avenue. Recreational viewers are often focused on their recreational activity. However, if visitors to the park are participating in passive activities, their focus could remain on the existing view of the Santa Monica Mountains/Hollywood Hills, and their overall awareness of visual change would be high. Given the high viewer exposure to and awareness of visual change, viewer sensitivity in the area would be high.

As described in Section 3.16, Aesthetics and Visual Quality, the permanent construction of the grade separation would introduce a prominent visual element to the existing visual character. The scale of the proposed grade separation would be visually compatible with the surrounding existing two-story commercial buildings and light industrial uses near the existing tracks. However, the proposed grade separation would be out of scale with the existing one-story residential uses near Pelanconi Park, and the project's scale would contrast with the existing visual character. In order to reduce impacts to the existing residential environment, the contractor will work with the Authority and local jurisdictions to incorporate the Authority-approved aesthetic preferences for nonstation structures into final design and construction. AVR-MM#3 requires the contractor to submit a technical memorandum to the Authority to document compliance. However, even with implementation of AVR-MM#3, the proposed grade separation would be out of scale with the surrounding residential uses, and the project's scale would contrast with the existing visual character. Therefore, the project's overall visual character would be incompatible with the existing visual character. As concluded in Section 3.16, Aesthetics and Visual Quality, the overall effect to visual quality would be adverse.



Sources: City of Glendale, 2012; Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-12 Project Footprint near Pelanconi Park

The proposed grade separation would be visible approximately 205 feet to the south of Pelanconi Park. While Pelanconi Park allows for some passive recreational activities, with the provision of picnic benches in the southern portion of the park, the picnic area includes relatively tall trees that may serve to mask many of the views of the proposed grade separation. To the north of the picnic area, park features, activities, and attributes allow for active recreational uses, such as basketball courts, a baseball field, and a children's play area. Most of the park area (greater than 70 percent) is used for these active recreational uses, as opposed to passive recreational uses. The active recreational use areas are surrounded by several large trees that almost entirely block views of the proposed grade separation to the south of the park. In addition, the basketball courts, baseball field, and children's play area are more than 400 feet from the proposed grade separation. Therefore, it is unlikely that active recreational uses would be substantially impaired by visual impacts from the proposed grade separation. Because the park is shielded by existing trees, project improvements would not be so severe that the protected activities, features, or attributes that qualify the resource for protection under Section 4(f) would be substantially diminished.

For the reasons stated above, the Authority has preliminarily determined that the HSR Build Alternative would not substantially impair Pelanconi Park and would therefore not constitute a use. This preliminary determination has been made pending concurrence from the official with jurisdiction (the City of Glendale Community Services and Parks Department). The Authority will continue to coordinate with the City of Glendale Community Services and Parks Department regarding this determination.

4.6.1.10 Pacific Community Center and Park (P-7)

Pacific Community Center and Park is an approximately 5.74-acre community center and park in the city of Glendale and includes meeting rooms, a gymnasium, recreation rooms, table tennis, ping pong tables, a soccer field, tennis courts, and a swimming pool. The City of Glendale Community Services and Parks Department is the official with jurisdiction over the Pacific Community Center and Park. The park is in an urbanized area that is primarily surrounded by commercial and industrial buildings, single- and multifamily residential properties, and the existing railroad corridor approximately 450 feet west of the park.

As shown in Figure 4-13, Pacific Community Center and Park is approximately 175 feet from the project footprint. Project elements that would be constructed approximately 175 feet from the park include utility relocation along San Fernando Road and the new Goodwin Avenue grade separation.

All of the project improvements and proposed work would be completed outside the resource boundaries; therefore, no permanent use or temporary occupancy would result from the project. In addition, the park would remain open during construction, and no access impacts would result from the project. However, the park is approximately 175 feet from the project footprint and is therefore within the 250-foot distance threshold for consideration of indirect noise and visual impacts (proximity impacts). After project implementation, HSR trains would run approximately 450 feet west of the park.



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-13 Project Footprint near Pacific Community Center and Park

The project would not result in the constructive use of this resource, as follows:

- During operation, HSR trains would be added to the existing railroad corridor, which is approximately 450 feet west of the park. As detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in no impact at Site SST-03, which is the closest noise monitoring location to this resource. A proposed project is considered to have no impact when, on average, the introduction of the project would result in an insignificant increase in the number of people highly annoyed by the new noise. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.
- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. In addition, the Goodwin Avenue grade separation would be visible in this area. As stated in Section 3.16, Aesthetics and Visual Quality, of this Draft EIR/EIS, the Goodwin Avenue grade separation would have a beneficial impact on visual quality because, although the grade separation would introduce a high visual change in the area (which is near Key Viewpoints 10 and 11), the grade separation would provide new views of Griffith Park, which would be an improvement in the existing environment. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not result in a Section 4(f) use of the Pacific Community Center and Park.

4.6.1.11 Chevy Chase Recreation Center (R-1)

Chevy Chase Recreation Center is an approximately 2.4-acre recreation area in the city of Los Angeles and includes a parking lot, a children's play area, two picnic areas, a handball court, and a basketball court. The City of Los Angeles Department of Recreation and Parks is the official with jurisdiction over the recreation center. The recreation center is in an urbanized area that is primarily surrounded by commercial and industrial buildings, single-family residential properties, and the existing railroad corridor approximately 200 feet east of the recreation center.

As shown in Figure 4-14, Chevy Chase Recreation Center is approximately 65 feet from the project footprint. Project elements that would be constructed approximately 65 feet from the recreation center include adding electrified tracks to the existing railroad right-of-way and a new pedestrian undercrossing at Chevy Chase Drive.

All of the project improvements and proposed work would be completed outside the resource boundaries; therefore, no permanent use or temporary occupancy would result from the project. In addition, the recreation center would remain open during construction, and no access impacts would result from the project. However, the recreation center is approximately 65 feet from the project footprint and is therefore within the 250-foot distance threshold for consideration of indirect noise and visual impacts (proximity impacts). After project implementation, HSR trains would run approximately 200 feet east of the park.



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-14 Project Footprint near Chevy Chase Recreation Center

The project would not result in the constructive use of this resource, as follows:

- During operation, HSR trains would be added to the existing railroad corridor, which is approximately 200 feet east of the park. As detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in a noise increase at Site LT-10 (the closest noise monitoring location to this resource), from an existing level of 63 dBA to 65 dBA after project implementation, which would be a moderate impact. A moderate impact indicates that the introduction of the project will be noticeable to most people, but it may not be sufficient to cause strong reactions from the community. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.
- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. The proposed electrified tracks near Chevy Chase Recreation Center would likely be consistent with the existing railroad corridor, and the undercrossing would not introduce any vertical elements that would be visually intrusive to users of the recreation center. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not result in a Section 4(f) use of the Chevy Chase Recreation Center.

4.6.1.12 Cerritos Park (P-8)

Cerritos Park is an approximately 0.89-acre park in the city of Glendale and includes a parking lot, a children's play structure, and a picnic area. The City of Glendale Community Services and Parks Department is the official with jurisdiction over the park. The park is in an urbanized area that is primarily surrounded by commercial and industrial buildings.

As shown in Figure 4-15, Cerritos Park is adjacent to the project footprint. The HSR Build Alternative would require a temporary construction easement on the sidewalk adjacent to the park to relocate oil and fiber-optic line utilities. During construction, directional boring along San Fernando Road would be conducted for the utility relocation.

All of the project improvements and proposed work would be completed outside the resource boundaries; therefore, no permanent use or temporary occupancy would result from the project. In addition, the park would remain open during construction, and no access impacts would result from the project. However, the park is adjacent to the project footprint and is therefore within the 250-foot distance threshold for consideration of indirect noise and visual impacts (proximity impacts). After project implementation, HSR trains would run approximately 0.2 mile west of the park.

The project would not result in the constructive use of this resource, as follows:

- During operation, HSR trains would be added to the existing railroad corridor, which is approximately 0.2 mile west of the park. As detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in a noise increase at Site LT-14 (the closest noise monitoring location to this resource), from an existing level of 68 dBA to 70 dBA after project implementation, which would be a moderate impact. A moderate impact indicates that the introduction of the project will be noticeable to most people, but it may not be sufficient to cause strong reactions from the community. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.
- As stated in Section 3.16, Aesthetics and Visual Quality, of this Draft EIR/EIS, the project elements in this area, which is near Key Viewpoint 13, would have a neutral effect on visual quality because the project would be compatible with the existing environment, resulting in a moderate-low visual change. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.



Sources: City of Glendale, 2012; Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-15 Project Footprint near Cerritos Park

For the reasons stated above, the HSR Build Alternative would not result in a Section 4(f) use of Cerritos Park.

4.6.1.13 Cerritos Elementary School (S-4)

Cerritos Elementary School is an approximately 4.02-acre school in the city of Glendale and includes a children's play area, outdoor basketball courts, handball courts, and an open play field. The Glendale Unified School District is the official with jurisdiction over the school. The school is in an urbanized area that is primarily surrounded by commercial and industrial buildings.

As shown in Figure 4-16, Cerritos Elementary School is approximately 52 feet from the project footprint. During project construction, oil and fiber-optic lines would be relocated along San Fernando Road in the public street right-of-way.

All of the project improvements and proposed work would be completed outside the resource boundaries; therefore, no permanent use or temporary occupancy would result from the project. In addition, the school would remain open during construction, and no access impacts would result from the project. However, the recreational resources at the school are approximately 52 feet from the project footprint and are therefore within the 250-foot distance threshold for consideration of indirect noise and visual impacts (proximity impacts). After project implementation, HSR trains would run approximately 0.2 mile west of the school.

The project would not result in the constructive use of this resource, as follows:

- During operation, HSR trains would be added to the existing railroad corridor, which is approximately 0.2 mile west of the school. As detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in a noise increase at Site LT-14 (the closest noise monitoring location to this resource), from an existing level of 68 dBA to 70 dBA after project implementation, which would be a moderate impact. A moderate impact indicates that the introduction of the project will be noticeable to most people, but it may not be sufficient to cause strong reactions from the community. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.
- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. As stated in Section 3.16, Aesthetics and Visual Quality, of this Draft EIR/EIS, the project elements in this area, which is near Key Viewpoint 13, would have a neutral effect on visual quality because the project would be compatible with the existing environment, resulting in a moderate-low visual change. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not result in a Section 4(f) use of Cerritos Elementary School.



Sources: City of Glendale, 2012; Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-16 Project Footprint near Cerritos Elementary School

4.6.1.14 Sotomayor Learning Academies (S-8)

Sotomayor Learning Academies is an approximately 23.4-acre school in the city of Los Angeles and includes a football field, a soccer field, outdoor basketball courts, track, and a softball field. The Los Angeles Unified School District is the official with jurisdiction over the school. The school is in an urbanized area that is primarily surrounded by commercial and industrial buildings and the existing railroad corridor approximately 550 feet west of the school's recreational resources.

As shown in Figure 4-17, Sotomayor Learning Academies is adjacent to the project footprint. Project elements that would be constructed adjacent to the school include adding electrified tracks within the existing railroad right-of-way to the west of the school and relocating oil and fiber-optic lines along San Fernando Road to the east of the school.

All of the project improvements and proposed work would be completed outside the resource boundaries; therefore, no permanent use or temporary occupancy would result from the project. In addition, the school would remain open during construction, and no access impacts would result from the project. However, the recreational resources at the school are adjacent to the project footprint and are therefore within the 250-foot distance threshold for consideration of indirect noise and visual impacts (proximity impacts). After project implementation, HSR trains would run approximately 550 feet west of the school's recreational resources.

The project would not result in the constructive use of this resource, as follows:

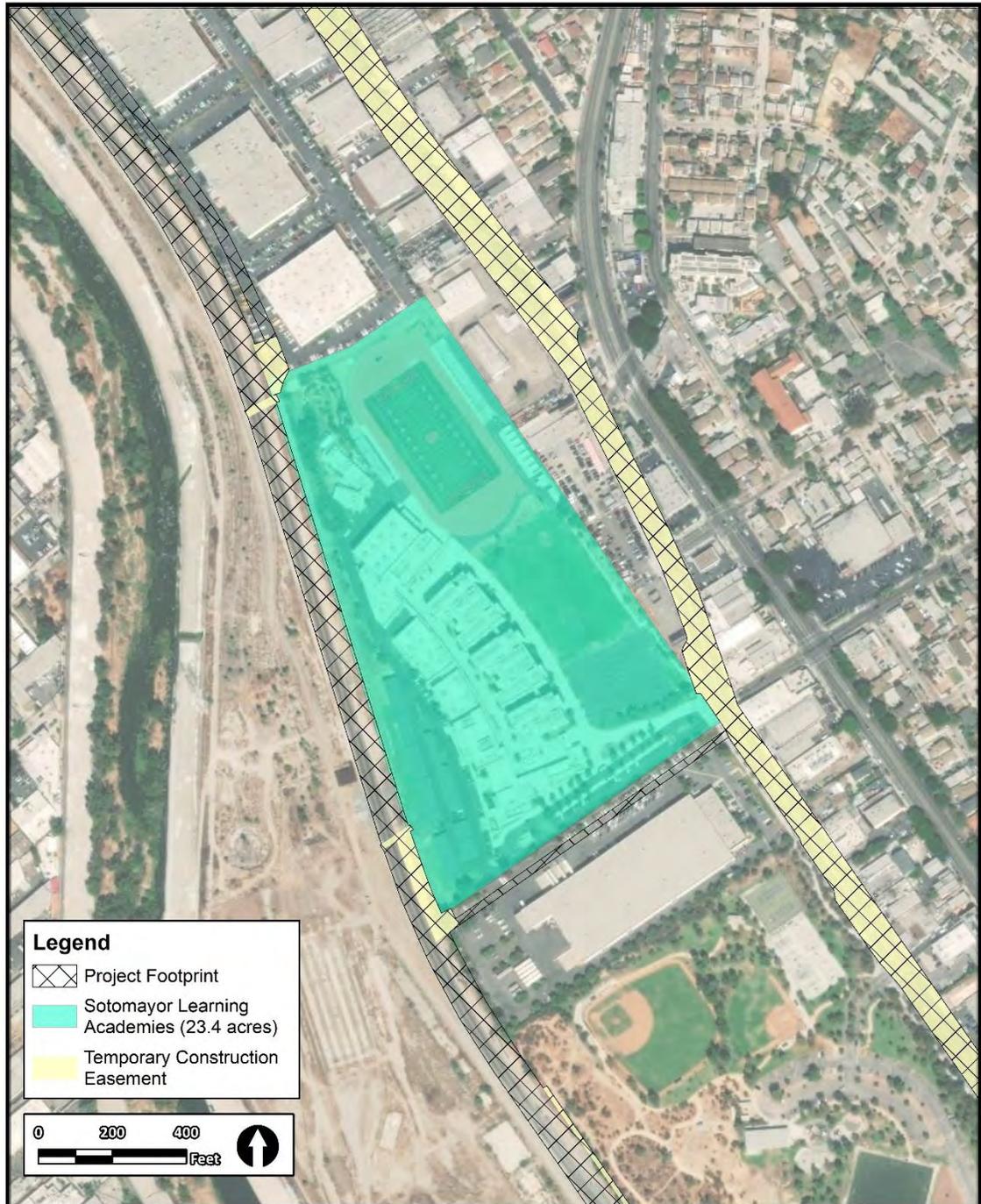
- During operation, HSR trains would be added to the existing railroad corridor, which is approximately 550 feet west of the school's recreational resources. As detailed in Table 6-10 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in a moderate impact at the school. A moderate impact indicates that the introduction of the project will be noticeable to most people, but it may not be sufficient to cause strong reactions from the community. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.
- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. As stated in Section 3.16, Aesthetics and Visual Quality, of this Draft EIR/EIS, the project elements in this area, which is near Key Viewpoint 16, would have a neutral effect on visual quality because the project would result in a moderate visual change that would be compatible with the existing environment. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not result in a Section 4(f) use of Sotomayor Learning Academies.

4.6.1.15 Taylor Yard G2 River Park (Planned) (P-12)

Taylor Yard G2 River Park is an approximately 43.6-acre planned park in the city of Los Angeles. This park will include elevated walkways, trails, and bike paths; a 1-acre dog park; an amphitheater; an access point for Los Angeles River kayaking; 8.2 acres for day camps, overnight camping, training exercise, nature programs, film screenings, and music events; platforms for bird watching; areas for picnicking; and access to the Los Angeles River.

The official with jurisdiction over the park is the City of Los Angeles Department of Recreation and Parks. The proposed park has been formally designated in the Los Angeles River Revitalization Master Plan (City of Los Angeles Department of Public Works, Bureau of Engineering 2007). Taylor Yard G2 River Park is in an urbanized area that is primarily surrounded by commercial and industrial buildings, a school, and single-family-residential properties, and the existing railroad corridor is adjacent to and east of the park.



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-17 Project Footprint near Sotomayor Learning Academies

As shown in Figure 4-18, Taylor Yard G2 River Park is adjacent to the project footprint. However, all of the project improvements and proposed work would be completed outside the resource boundaries; therefore, no permanent use or temporary occupancy would result from the project. All improvements associated with the project would be completed on an existing access road within the public right-of-way, and no work would be completed within the boundaries of the recreational resource. Project improvements in this area would include reconfiguration of the existing access road, which would continue to serve as an access road following project completion. In addition, the park would remain open during construction, and no access impacts would result from the project. Although the access road may be temporarily closed during project construction, alternate access routes would be provided if necessary.

The project would not result in the constructive use of this resource, as follows:

- During operation, HSR trains would be added to the existing railroad corridor, which is adjacent to the park. As detailed in the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in a noise increase at Site ST-09 (the closest noise monitoring location to this resource), from an existing level of 62 dBA to 69 dBA after project implementation, which would be a moderate impact. A moderate impact indicates that the introduction of the project will be noticeable to most people, but it may not be sufficient to cause strong reactions from the community. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.
- During operation, visual elements that would be introduced within the rail corridor include the trains, OCS, lighting, and signage. The proposed elements near Taylor Yard G2 River Park would be consistent with the existing railroad corridor, and the project would not introduce any vertical elements that would be visually intrusive to users of the park. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not result in a Section 4(f) use of Taylor Yard G2 River Park.

4.6.1.16 Rio de Los Angeles State Park (P-13)

Rio de Los Angeles State Park is an approximately 39.4-acre park in the city of Los Angeles and includes a natural play area, soccer fields, a running track, basketball courts, baseball fields, bike paths, tennis courts, picnic areas, an amphitheater, hiking trails, and a community building. The California Department of Parks and Recreation, Angeles District is the official with jurisdiction over the park. Rio de Los Angeles State Park is in an urbanized area that is primarily surrounded by commercial and industrial buildings, and the existing railroad corridor is adjacent to and west of the park.

As shown in Figure 4-19, the HSR Build Alternative would require permanent improvements to 0.56 acre of land along the southern boundary of the park. Kerr Road would be lowered adjacent to the park, which would require grading of the existing vegetated slope within the park boundary. After project implementation, HSR trains would run along the existing railroad corridor adjacent to and west of the park.

The project would not adversely affect the activities, features, or attributes that qualify Rio de Los Angeles State Park for protection under Section 4(f). Therefore, the HSR Build Alternative would result in a *de minimis* impact on this resource, as follows:



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-18 Project Footprint near Taylor Yard G2 River Park



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-19 De Minimis Impacts on Rio de Los Angeles State Park

- **Project Construction**

- A 0.56-acre portion of the park would be required for temporary construction activities, which would take place within the park boundary but outside the park’s fence line. The affected area consists of an existing vegetated slope that is adjacent to grass fields but is not developed with any other recreational amenities. The remaining portion of the recreation area outside of the construction area would remain open for public use during construction. In addition, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses at the park would not be adversely affected by temporary construction activities. TR-IAMF#2, TR-IAMF#4, and TR-IAMF#5 would be implemented to minimize construction traffic impacts and to maintain pedestrian and bicycle access during construction. PR-MM#1 would further address access impacts at the park during construction. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
- Implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses at the park would not be adversely affected by short-term dust, noise, and visual impacts. AQ-IAMF#1 requires the contractor to prepare a fugitive dust control plan that identifies measures such as covering all materials transported on public roads, watering exposed graded surfaces, and stabilizing all disturbed graded areas. Prior to construction, the contractor would prepare a noise and vibration technical memorandum documenting how the FTA and FRA guidelines for minimizing construction noise and vibration impacts would be employed when work is being conducted within 1,000 feet of sensitive receptors, per the requirements included in N&V-IAMF#1. N&V-MM#1 requires the contractor to prepare a construction noise monitoring program for Authority approval. The construction contractor would prepare a technical memorandum identifying how it would minimize construction-related aesthetic and visual quality disruption, per the requirements included in AVR-MM#1. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

- **Project Operation**

- A 0.56-acre portion of the park would be required for permanent improvements. The affected portion of Rio de Los Angeles State Park is minor in size (0.56 acre) in relation to the entire the park (39.4 acres). Although permanent improvements would be completed within the official park boundary, these project elements would not alter the function of the park because the improvements would be completed outside of the park’s fence line. The affected area consists of an existing vegetated slope that is adjacent to grass fields but is not developed with any other recreational amenities. Therefore, no recreational resources would be affected by the project. In addition, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses in the park would not be adversely affected by the permanent improvements. PK-IAMF#1 would be implemented to identify project design features to provide safe and attractive access for present travel modes to the park, and PR-MM#2 would further address access impacts on the park after construction. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
- During operation, HSR trains would be added to the existing railroad corridor, which is adjacent to and west of the park. Rio de Los Angeles State Park is directly south (separated by one building) from a school, Sotomayor Learning Academies. Because of the park’s proximity to the school, noise impacts at the park would likely be similar to those impacts at the school. As detailed in Table 6-10 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in a moderate impact at the school. A moderate impact indicates that the introduction of the project would be noticeable to most people, but it may not be sufficient to cause strong reactions from the community. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. As stated in Section 3.16, Aesthetics and Visual Quality, of this Draft EIR/EIS, the project elements in this area, which is near Key Viewpoint 16, would have a neutral effect on visual quality because the project would result in a moderate visual change that would be compatible with the existing environment. In addition, through implementation of AVR-IAMF#1, the Authority is seeking to balance a consistent aesthetic throughout the state with the local context for the nonstation structures throughout the Burbank to Los Angeles Project Section. Through implementation of AVR-IAMF#2, the Authority would consult with local jurisdictions on how best to involve the community in the process and would work with the contractor and local jurisdictions to review designs and local aesthetic preferences and incorporate them into final design and construction. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not adversely affect the activities, features, or attributes that qualify the park for protection under Section 4(f). Therefore, the HSR Build Alternative would result in a *de minimis* impact on this resource. This preliminary determination has been made pending concurrence from the California Department of Parks and Recreation. The Authority will continue to coordinate with the California Department of Parks and Recreation regarding this determination.

4.6.1.17 Cypress Recreation Center (R-2)

Cypress Recreation Center is an approximately 3.5-acre recreation area in the city of Los Angeles and includes an auditorium, barbecue pits, a children's play area, a gymnasium, a weight room, picnic areas, basketball courts, volleyball courts, a multi-purpose sports field, and a performance stage. The City of Los Angeles Department of Recreation and Parks is the official with jurisdiction over the recreation center. Cypress Recreation Center is in an urbanized area that is primarily surrounded by commercial and industrial buildings, single-family residential properties, and the existing railroad corridor, which is approximately 100 feet west of the recreation center.

As shown in Figure 4-20, Cypress Recreation Center is adjacent to the project footprint. Project elements that would be constructed adjacent to the resource include relocation of oil and fiber-optic lines along San Fernando Road and reconfiguration of the Metrolink Central Maintenance Facility.

All of the project improvements and proposed work would be completed outside the resource boundaries; therefore, no permanent use or temporary occupancy would result from the project. In addition, the recreation center would remain open during construction, and no access impacts would result from the project. However, the recreation center is adjacent to the project footprint and is therefore within the 250-foot distance threshold for consideration of indirect noise and visual impacts (proximity impacts). After project implementation, HSR trains would run approximately 100 feet west of the recreation center.

The project would not result in the constructive use of this resource, as follows:

- During operation, HSR trains would be added to the existing railroad corridor, which is approximately 100 feet west of the recreation center. As detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in a noise increase at Site LT-21 (the closest noise monitoring location to this resource), from an existing level of 67 dBA to 69 dBA after project implementation, which would be a moderate impact. A moderate impact indicates that the introduction of the project will be noticeable to most people, but it may not be sufficient to cause strong reactions from the community. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-20 Project Footprint near Cypress Recreation Center

- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. As stated in Section 3.16, Aesthetics and Visual Quality, of this Draft EIR/EIS, the project elements in this area, which is near Key Viewpoint 17, would have a neutral effect on visual quality because the project elements would be barely visible through existing vegetation or would be compatible with the existing environment. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not result in a Section 4(f) use of the Cypress Recreation Center.

4.6.1.18 Los Angeles River Center and Gardens (P-15)

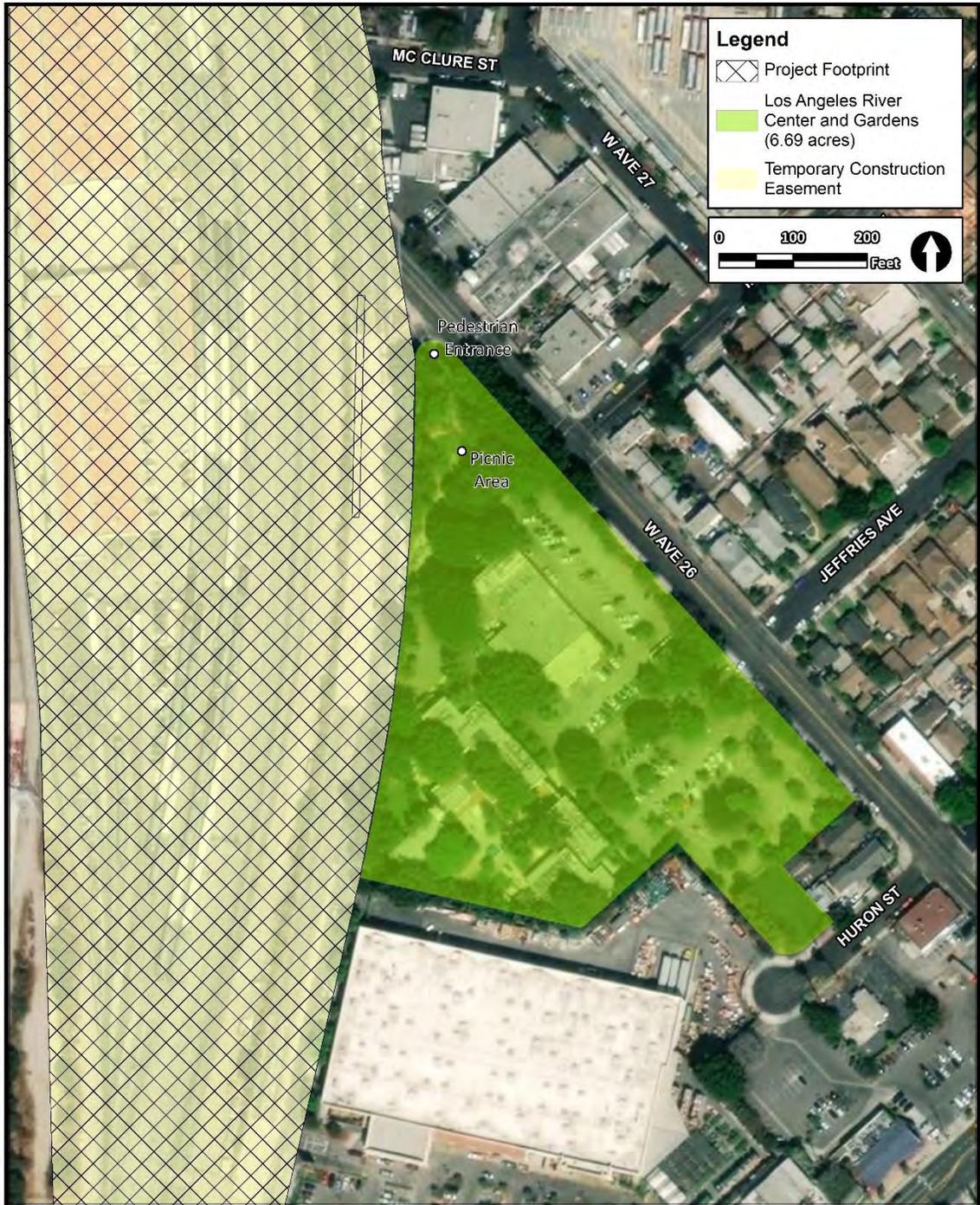
The Los Angeles River Center and Gardens is an approximately 6.7-acre park in the city of Los Angeles and includes a self-guided exhibit describing the history, current status, and future vision of the Los Angeles River; a nature center; a special event facility; walking trails; and picnic tables. The Santa Monica Conservancy, the Mountains Recreation and Conservation Authority, and the City of Los Angeles Department of Recreation and Parks are the officials with jurisdiction over the park. The Los Angeles River Center and Gardens is in an urbanized area that is primarily surrounded by commercial and industrial buildings and single-family residential properties.

As shown in Figure 4-21, the Los Angeles River Center and Gardens is adjacent to the project footprint. The HSR Build Alternative would require a temporary construction easement on the sidewalk adjacent to the park to relocate oil and fiber-optic line utilities.

All of the project improvements and proposed work would be completed outside the resource boundaries; therefore, no permanent use or temporary occupancy would result from the project. However, the park is adjacent to the project footprint and is therefore within the 250-foot distance threshold for consideration of indirect access, noise, and visual impacts (proximity impacts). After project implementation, HSR trains would run approximately 100 feet west of the recreation center.

The project would not result in the constructive use of this resource, as follows:

- While the park would remain open during construction, access to the park along N San Fernando Road would remain closed during construction; however, alternative pedestrian and vehicle routes would be available along W Avenue 26. In addition, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses at the park would not be adversely affected by temporary construction activities. TR-IAMF#2, TR-IAMF#4, and TR-IAMF#5 would be implemented to minimize construction traffic impacts and to maintain pedestrian and bicycle access during construction. In addition, with implementation of PR-MM#1, the contractor would prepare a technical memorandum documenting how connections to the unaffected park portions and nearby roadways are maintained during construction. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.
- During operation, HSR trains would be added to the existing railroad corridor, which is approximately 100 feet west of the recreation center. As detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in no impact at Site LT-22, which is the closest noise monitoring location to this resource. A proposed project is considered to have no impact when, on average, the introduction of the project would result in an insignificant increase in the number of people highly annoyed by the new noise. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-21 Project Footprint near the Los Angeles River Center and Gardens

- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. As stated in Section 3.16, Aesthetics and Visual Quality, of this Draft EIR/EIS, the project elements in this area, which is near Key Viewpoint 17, would have a neutral effect on visual quality because the project elements would be barely visible through existing vegetation or would be compatible with the existing environment. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not result in a Section 4(f) use of the Los Angeles River Center and Gardens.

4.6.1.19 Elysian Park (P-18)

Elysian Park is an approximately 576-acre park in the city of Los Angeles. It includes various recreational and playground structures, assorted sports fields, an adaptive recreation center, the Chavez Ravine Arboretum, a community garden, hiking and equestrian trails, and the Portola Trail Historical Monument. The City of Los Angeles Department of Recreation and Parks is the official with jurisdiction over the park. Elysian Park is in an urbanized area that is primarily surrounded by single-family residential properties, and the existing railroad corridor is adjacent to and east of the park.

As shown in Figure 4-22, Elysian Park is adjacent to the project footprint. Project elements that would be constructed adjacent to the park include the reconfiguration of the Metrolink Central Maintenance Facility.

All of the project improvements and proposed work would be completed outside the resource boundaries; therefore, no permanent use or temporary occupancy would result from the project. In addition, the park would remain open during construction, and no access impacts would result from the project. However, the park is adjacent to the project footprint, and is therefore within the 250-foot distance threshold for consideration of indirect noise and visual impacts (proximity impacts). After project implementation, HSR trains would run adjacent to and east of the park.

The project would not result in the constructive use of this resource, as follows:

- During operation, HSR trains would be added to the existing railroad corridor, which is adjacent to and east of the park. As detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in a noise increase at Site LT-23 (the closest noise monitoring location to this resource), from an existing level of 63 dBA to 67 dBA after project implementation, which would be a moderate impact. A moderate impact indicates that the introduction of the project will be noticeable to most people, but it may not be sufficient to cause strong reactions from the community. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.
- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. As stated in Section 3.16, Aesthetics and Visual Quality, of this Draft EIR/EIS, the project elements in this area, which is near Key Viewpoint 18, would have a neutral effect on visual quality because the project elements would be compatible with the existing environment and would introduce a low visual change because of the existing railroad corridor. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not result in a Section 4(f) use of Elysian Park.



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-22 Project Footprint near Elysian Park

4.6.1.20 Confluence Park (P-19)

Confluence Park is an approximately 0.4-acre park in the city of Los Angeles and includes walking paths, a visitor center, and interpretive exhibits. The Santa Monica Conservancy, the Mountains Recreation and Conservation Authority, and the City of Los Angeles Department of Recreation and Parks are the officials with jurisdiction over the park. The park is open from sunset to sunrise, and there are no restrictions on public access to the park. Confluence Park is an urbanized area that is primarily surrounded by I-5 and SR-110. The existing railroad corridor is approximately 250 feet west of the park.

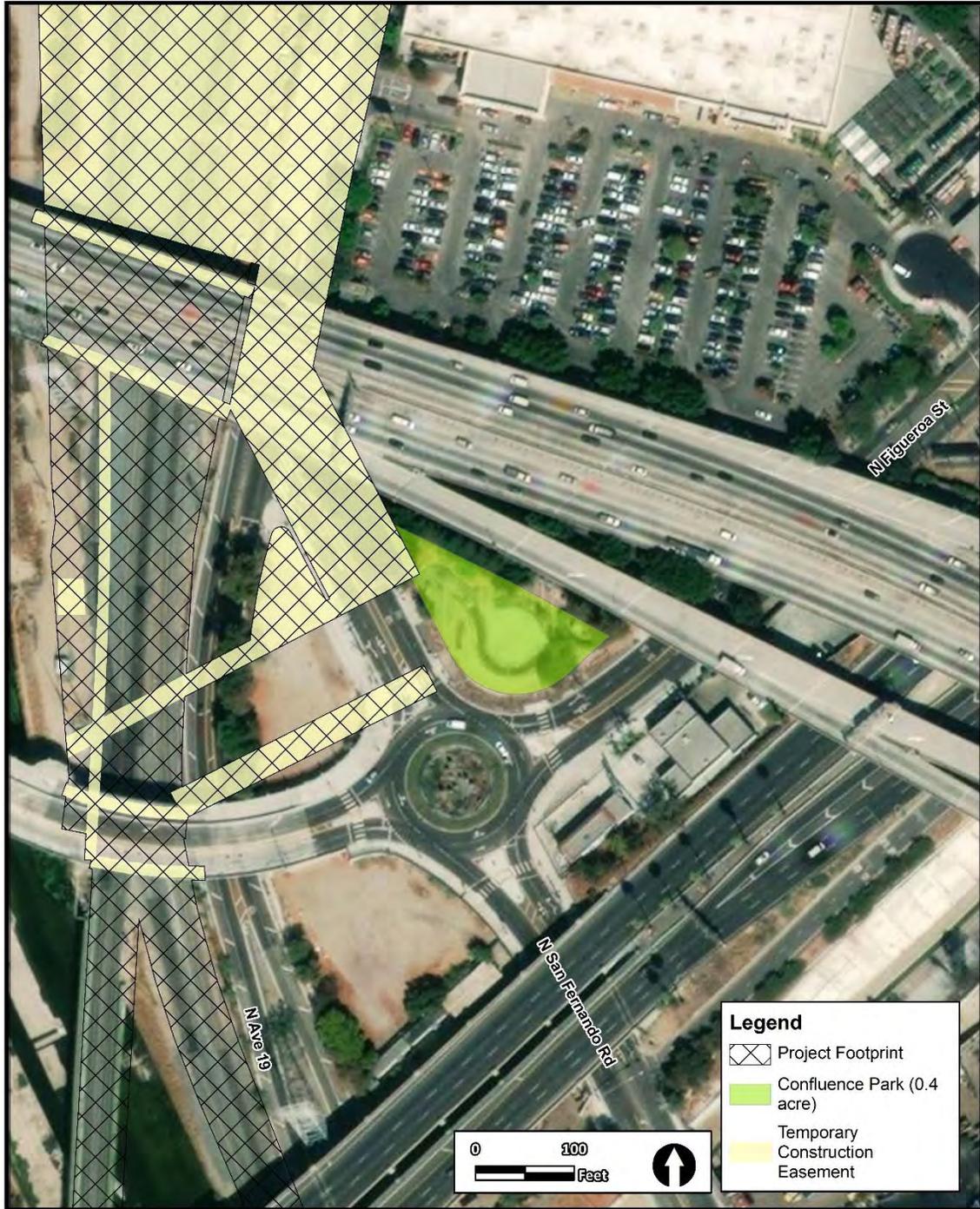
As shown in Figure 4-23, Confluence Park is adjacent to the project footprint. The HSR Build Alternative would require a temporary construction easement on the sidewalk adjacent to the park to relocate oil and fiber-optic line utilities.

All of the project improvements and proposed work would be completed outside the resource boundaries; therefore, no permanent use or temporary occupancy would result from the project. However, the park is adjacent to the project footprint and is therefore within the 250-foot distance threshold for consideration of indirect access, noise, and visual impacts (proximity impacts). After project implementation, HSR trains would run approximately 250 feet west of the park.

The project would not result in the constructive use of this resource, as follows:

- While the park would remain open during construction, access to the park would be slightly impaired, but alternative pedestrian and vehicle routes would be available. Access along San Fernando Road might be affected due to utility relocation; however, at least one access point in other parts of the resource (not on San Fernando Road) would be maintained. In addition, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses at the park would not be adversely affected by temporary construction activities. TR-IAMF#2, TR-IAMF#4, and TR-IAMF#5 would be implemented to minimize construction traffic impacts and to maintain pedestrian and bicycle access during construction. In addition, with implementation of PR-MM#1, the contractor would prepare a technical memorandum documenting how connections to the unaffected trail portions and nearby roadways are maintained during construction. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.
- During operation, HSR trains would be added to the existing railroad corridor, which is approximately 250 feet west of the park. As detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in no impact at Site LT-22, which is the closest noise monitoring location to this resource. A proposed project is considered to have no impact when, on average, the introduction of the project would result in an insignificant increase in the number of people highly annoyed by the new noise. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.
- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. As stated in Section 3.16, Aesthetics and Visual Quality, of this Draft EIR/EIS, the project elements in this area, which is near Key Viewpoint 17, would have a neutral effect on visual quality because the project elements would be barely visible through existing vegetation or would be compatible with the existing environment. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not result in a Section 4(f) use of Confluence Park.



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-23 Project Footprint near Confluence Park

4.6.1.21 Los Angeles State Historic Park (P-21)

Los Angeles State Historic Park is an approximately 32-acre park in the city of Los Angeles and includes bike trails, walking paths, and open lawn areas. The California Department of Parks and Recreation, Angeles District is the official with jurisdiction over the park. Los Angeles State Historic Park is an urbanized area that is primarily surrounded by commercial and industrial buildings, and the existing railroad corridor is adjacent to and north of the park.

As shown in Figure 4-24, Los Angeles State Historic Park is adjacent to the project footprint. Project elements that would be constructed near this resource include the new Main Street grade separation.

All of the project improvements and proposed work would be completed outside the resource boundaries; therefore, no permanent use or temporary occupancy would result from the project. In addition, the park would remain open during construction, and no access impacts would result from the project. However, the park is adjacent to the project footprint and is therefore within the 250-foot distance threshold for consideration of indirect noise and visual impacts (proximity impacts). After project implementation, HSR trains would run adjacent to and north of the park.

The project would not result in the constructive use of this resource, as follows:

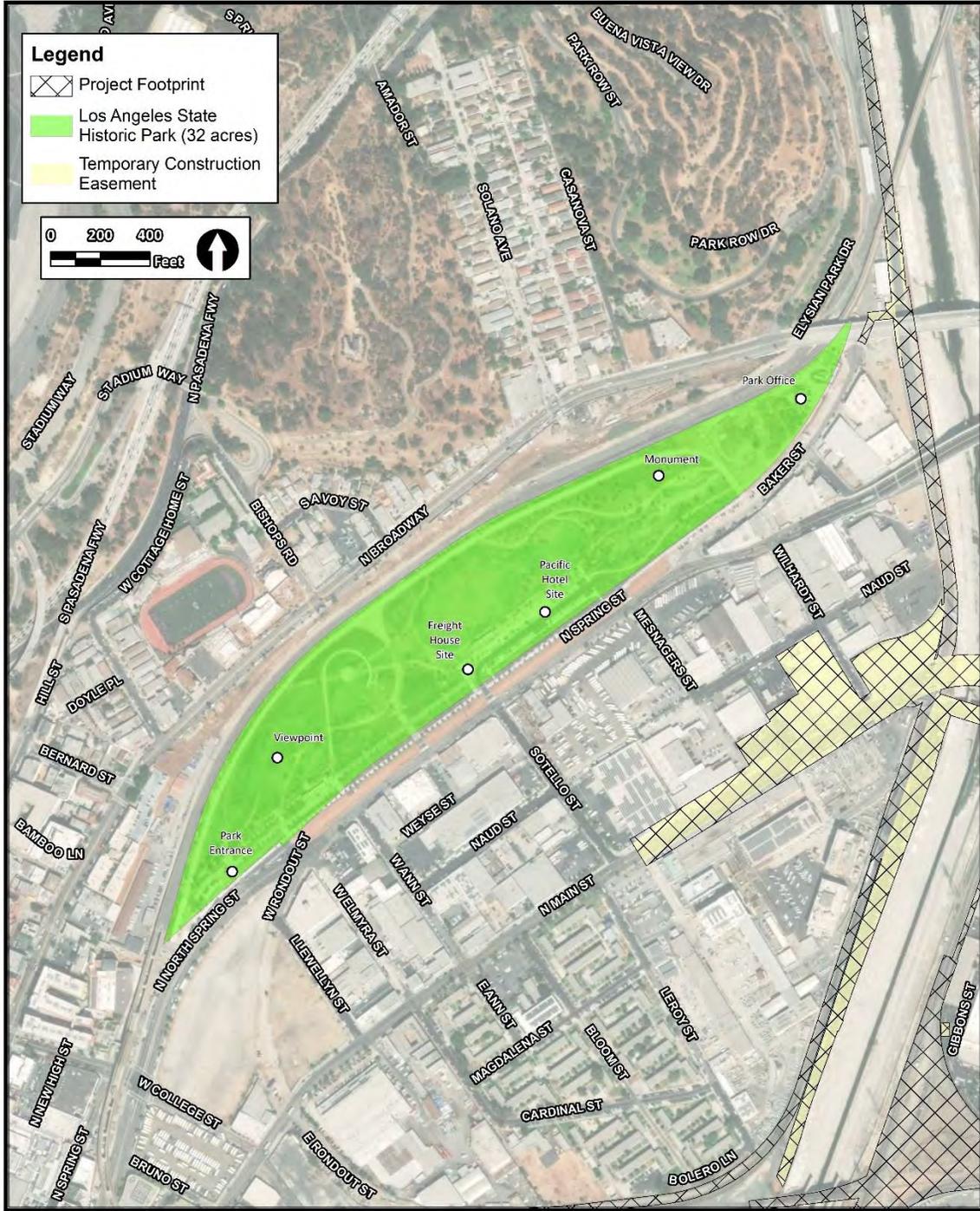
- During operation, HSR trains would be added to the existing railroad corridor, which is adjacent to and north of the park. As detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in no impact at Site ST-11, which is the closest noise monitoring location to this resource. A proposed project is considered to have no impact when, on average, the introduction of the project would result in an insignificant increase in the number of people highly annoyed by the new noise. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.
- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. While the Main Street grade separation would be a prominent visual element in the surrounding area, the grade separation would not likely be visible from the park because several buildings are between the park and the grade separation. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not result in a Section 4(f) use of Los Angeles State Historic Park.

4.6.1.22 Albion Riverside Park (P-22)

Albion Riverside Park is an approximately 6.2-acre park that was constructed in March 2019 in the Lincoln Heights neighborhood of the city of Los Angeles. The park includes bike paths, athletic fields, a community center, walking paths, picnic areas, water quality features, and open, natural areas. The City of Los Angeles Department of Recreation and Parks is the official with jurisdiction over the park. Albion Riverside Park is in an urbanized area that is primarily surrounded by commercial and industrial buildings and single-family-residential properties, and the existing railroad corridor is adjacent to and west of the park.

As shown in Figure 4-25, the HSR Build Alternative would require a permanent easement on three localized areas within a 0.12-acre portion of land in the southern corner of the park. In this area, the permanent easement would be required to accommodate the pier walls necessary to support the new Main Street roadway bridge. A permanent aerial easement would also be required over 0.12 acre of land in the park for bridge access in the same area as the permanent easement area. After project implementation, HSR trains would run along the west bank of the Los Angeles River, approximately 300 feet west of the park.



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-24 Project Footprint near Los Angeles State Historic Park



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-25 De Minimis Impacts on Albion Riverside Park

The project would not adversely affect the activities, features, or attributes that qualify Albion Riverside Park for protection under Section 4(f). Therefore, the HSR Build Alternative would result in a *de minimis* impact on this resource, as follows:

- **Project Construction**

- A 0.12-acre portion of the park would be required for temporary construction activities. The land in this area currently functions as a paved area with an existing cell tower. Therefore, no recreational resources would be affected by the project. The remaining portion of the park outside of the construction area would remain open for public use during construction. Because the existing Main Street Bridge would be closed, Albion Street would be slightly rerouted near the southern end of the park to maintain connectivity to Main Street. As a result, access to the park along the southern portion of Albion Street may be affected temporarily during construction. However, access to the park in other areas would remain open for park users. Following construction, access to the entire park would be restored. In addition, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses at the park would not be adversely affected by temporary construction activities. TR-IAMF#2, TR-IAMF#4, and TR-IAMF#5 would be implemented to minimize construction traffic impacts and to maintain pedestrian and bicycle access during construction. In addition, with implementation of PR-MM#1, the contractor would prepare a technical memorandum documenting how connections to the unaffected trail portions and nearby roadways are maintained during construction. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
- Implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses at the park would not be adversely affected by short-term dust, noise, and visual impacts. AQ-IAMF#1 requires the contractor to prepare a fugitive dust control plan that identifies measures such as covering all materials transported on public roads, watering exposed graded surfaces, and stabilizing all disturbed graded areas. Prior to construction, the contractor would prepare a noise and vibration technical memorandum documenting how the FTA and FRA guidelines for minimizing construction noise and vibration impacts would be employed when work is being conducted within 1,000 feet of sensitive receptors, per the requirements included in N&V-IAMF#1. N&V-MM#1 requires the contractor to prepare a construction noise monitoring program for Authority approval. The construction contractor would prepare a technical memorandum identifying how it would minimize construction-related aesthetic and visual quality disruption, per the requirements included in AVR-MM#1. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

- **Project Operation**

- A 0.12-acre portion of land in the southern corner of the park would be required to accommodate the pier walls necessary to support the new Main Street Bridge. The affected portion of Albion Riverside Park would be small (0.12 acre) in relation to the entire park (6.2 acres) and currently functions as cell tower easement area. The new bridge would be an elevated structure spanning the tracks on the west bank of the Los Angeles River and the nonelectrified tracks on the east bank of the river. Although the piers would be placed within the official park property boundary, this impact area would not alter the function of the park because the land required to support the new Main Street roadway bridge would be in the southern portion of the park, where no recreational amenities exist or are planned. The land in this permanent impact area currently functions as a paved area with an existing cell tower. Therefore, the project would affect no planned recreational uses. In addition, implementation of measures to minimize harm (described in more detail in Section 4.8) would ensure recreational uses in the park would not be adversely affected by the permanent easement. PK-IAMF#1 would be implemented to identify project design features to provide safe and attractive access for present travel modes to the park, and PR-MM#2 would further address access impacts

on the park after construction. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

- A permanent aerial easement would be required over 0.12 acre of land in the park for bridge access in the same area as the permanent easement area. Aerial easements are not considered a Section 4(f) use unless safety measures within the resource are required. No safety measures would be required within the resource. The land in this area currently functions as a paved area with an existing cell tower. Therefore, the project would not adversely affect the activities, features, or attributes of the property. During operation, HSR trains would be added to the existing railroad corridor along the west bank of the Los Angeles River, and the existing freight and passenger trains currently operating along the west bank would be relocated to the east bank of the Los Angeles River, adjacent to the park. As detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2018b), the project would result in a noise increase at Site LT-24 (the closest noise monitoring location to this resource), from an existing level of 63 dBA to 66 dBA after project implementation, which would be a moderate impact. A moderate impact indicates that the introduction of the project will be noticeable to most people, but it may not be sufficient to cause strong reactions from the community. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
- During operation, visual elements that would be introduced within the rail corridor include the trains, tracks, OCS, new structures, lighting, and signage. In addition, the new Main Street roadway bridge would be visible in this area. As stated in Section 3.16, Aesthetics and Visual Quality, of this Draft EIR/EIS, the new Main Street Bridge would have a neutral impact on visual quality in the park because, while the new bridge would introduce a high visual change to the area, which is near Key Viewpoint 20, the bridge would be consistent with existing industrial land uses, resulting in low viewer sensitivity to the visual change. In addition, with implementation of AVR-IAMF#1, the grade separation would be designed to reduce intrusiveness to primary viewer groups. Through implementation of AVR-IAMF#2, the Authority would consult with local jurisdictions on how best to involve the community in the process and would work with the contractor and local jurisdictions to review designs and local aesthetic preferences and incorporate them into final design and construction. Therefore, the project would not adversely affect the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not adversely affect the activities, features, or attributes that qualify the park for protection under Section 4(f). Therefore, the HSR Build Alternative would result in a *de minimis* impact on this resource. This preliminary determination has been made pending concurrence from the City of Los Angeles Department of Recreation and Parks. The Authority will continue to coordinate with the City of Los Angeles Department of Recreation and Parks regarding this determination.

4.6.1.23 ConnectUS Cycle Track (Planned) (B-9)

The planned ConnectUS Cycle Track is an element of the ConnectUS Action Plan, which identifies bike and pedestrian improvements to and from LAUS (Metro 2015). Metro and the City of Los Angeles Department of Transportation are the officials with jurisdiction over the ConnectUS Cycle Track.

A cycle track is an exclusive bikeway that has elements of a separated path and on-road bike lane, and is within or next to the roadway but is made distinct from both the sidewalk and general purpose roadway by vertical barriers or elevation differences. The portion of the ConnectUS Cycle Track in the study area would be 1.76 miles in length along Cesar E. Chavez Avenue from Grand Avenue to Pleasant Avenue and along Pleasant Avenue from Cesar E. Chavez Avenue to Boyle Avenue/1st Street in the city of Los Angeles. The cycle track is in an urbanized area that is primarily surrounded by commercial and industrial buildings and would be accessible from surrounding roadways.

As shown in Figure 4-26, the ConnectUS Cycle Track is adjacent to the project footprint. The cycle track is proposed to run in a northwest-to-southeast direction along Cesar E. Chavez Avenue through the LAUS campus.

All of the project improvements and proposed work would be completed outside the resource boundaries; therefore, no permanent use or temporary occupancy would result from the project. However, the cycle track is adjacent to the project footprint and is therefore within the 250-foot distance threshold for consideration of indirect noise and visual impacts (proximity impacts). After project implementation, HSR trains would run adjacent to/intersect above or below the cycle track.

The project would not result in the constructive use of this resource, as follows:

- During operation, HSR trains would be added to the existing LAUS campus, which is adjacent to and transects above or below the cycle track. As detailed in Table 6-8 of the *Burbank to Los Angeles Project Section Noise and Vibration Technical Report* (Authority 2019), the project would result in a noise increase at Site LT-26 (the closest noise monitoring location to this resource), from an existing level of 73 dBA to 74 dBA after project implementation. This would be a moderate impact. A moderate impact indicates that the introduction of the project will be noticeable to most people, but it may not be sufficient to cause strong reactions from the community. Therefore, the project would not adversely affect the activities, features, or attributes of the property.
- As stated in Section 3.16, Aesthetics and Visual Quality, of this Draft EIR/EIS, the project elements in this area, which is near Key Viewpoints 23 and 25, would have a neutral effect on visual quality because the project would be compatible with the existing environment, resulting in a moderate-low visual change at Key Viewpoint 23 and moderate visual change at Key Viewpoint 25. Therefore, proximity impacts would not substantially impair the activities, features, or attributes of the property.

For the reasons stated above, the HSR Build Alternative would not result in a Section 4(f) use of the ConnectUS Cycle Track.

4.6.1.24 Summary of Preliminary Section 4(f) Use Determinations of Public Park and Recreation Resources

Table 4-1 provides a summary of the preliminary Section 4(f) use determinations (permanent use and *de minimis* impacts).

Table 4-1 Summary of Section 4(f) Uses of Park and Recreation Resources

Preliminary Section 4(f) Use Determinations	Section 4(f) Resource
Permanent Use	<ul style="list-style-type: none"> ▪ San Fernando Railroad Bike Path (Planned)
<i>De Minimis</i> Impacts	<ul style="list-style-type: none"> ▪ San Fernando Bike Path (Planned Phase 3) ▪ Los Angeles River Bike Path (Planned Extension) ▪ Rio de Los Angeles State Park ▪ Albion Riverside Park



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-26 Project Footprint near ConnectUS Cycle Track

4.6.2 Cultural Resources

Section 106 of the NHPA requires federal agencies to consider a project's effect on cultural resources in much the same way as Section 4(f). The most important connection between the two statutes is that the Section 106 process is the method by which a cultural resource's significance is determined; resulting protections in addition to those determined through the Section 106 process may be determined under Section 4(f).

The results of the Section 106 analysis are critical in determining the applicability and outcome of the Section 4(f) evaluation. The most important difference between the two statutes is the way each of them measures impacts on cultural resources. Whereas Section 106 is concerned with "adverse effects," Section 4(f) is concerned with "use" of protected properties. A direct physical impact constitutes a use under Section 4(f) even if that impact does not result in an adverse effect under Section 106; conversely, an indirect adverse effect under Section 106 does not necessarily result in a Section 4(f) use unless the indirect effect substantially impairs the attributes and features that qualify the resource for protection under Section 4(f).

Section 4(f) historic properties were evaluated by (1) identifying if the project would permanently incorporate land from the property and (2) reviewing the effects on the property as documented during the Section 106 process. If an alternative would permanently incorporate land from the property or result in an adverse temporary occupancy (i.e., does not meet the criteria of Section 4.1.4.2), this impact would constitute a Section 4(f) use. A Section 4(f) use of a property with a "no adverse effect" finding under Section 106 would be a *de minimis* impact.

There are three archaeological resources in the study area that may qualify as Section 4(f) resources. The three resources are mapped adjacent to or within the archaeological APE (P-19-001575, P-19-101229, and P-19-187085), as documented in the *Burbank to Los Angeles Project Section ASR Addendum No. 1* (Authority and FRA 2019). P-19-001575 has been evaluated as eligible for the NRHP, but P-19-101229 and P-19-187085 have not been evaluated. Two of the archaeological sites, P-19-00-1575 and P-19-187085, are outside the area of disturbance, and have been determined to not incur a Section 4(f) use (Appendix 4-B).

As discussed in Appendix 4-B, the use determination for P-19-101229 is to be determined. This archaeological resource would be further assessed as property access is granted and during the design-build phase, in accordance with the Section 106 Programmatic Agreement, to assess whether it is eligible for the NRHP. Under the Section 4(f) regulations, Section 4(f) does not apply to archaeological resources (even NRHP-eligible resources) if they are valuable primarily for data recovery and not valuable for preservation in place in accordance with 23 C.F.R. 774.13(b)(1).

If an archaeological resource is discovered during surveys or construction and determined to be eligible, it would be assessed to determine if it is valuable primarily for preservation in place. If it is not valuable for preservation in place, appropriate data recovery steps will be taken. If it is valuable for preservation in place, an expedited Section 4(f) evaluation would be prepared in accordance with 23 C.F.R. 774.9(e).

4.6.2.1 Preliminary Section 4(f) Use Determinations at Historic Sites with Direct Adverse Effects under Section 106 of the National Historic Preservation Act

Based on the analysis conducted for cultural resources (Section 3.17, Cultural Resources), the following four NRHP-listed or eligible historic sites would be directly adversely affected under Section 106 by the HSR Build Alternative:

- Arroyo Seco Parkway Historic District (H-8)
- Broadway (Buena Vista) Viaduct (H-9)
- Spring Street Viaduct (H-10)
- Main Street Bridge (H-13)

As discussed below, the HSR Build Alternative would result in a permanent use of these resources under Section 4(f). Additional details regarding the activities occurring at these resources can be found in the Section 106 Finding of Effect report (Authority 2019b).

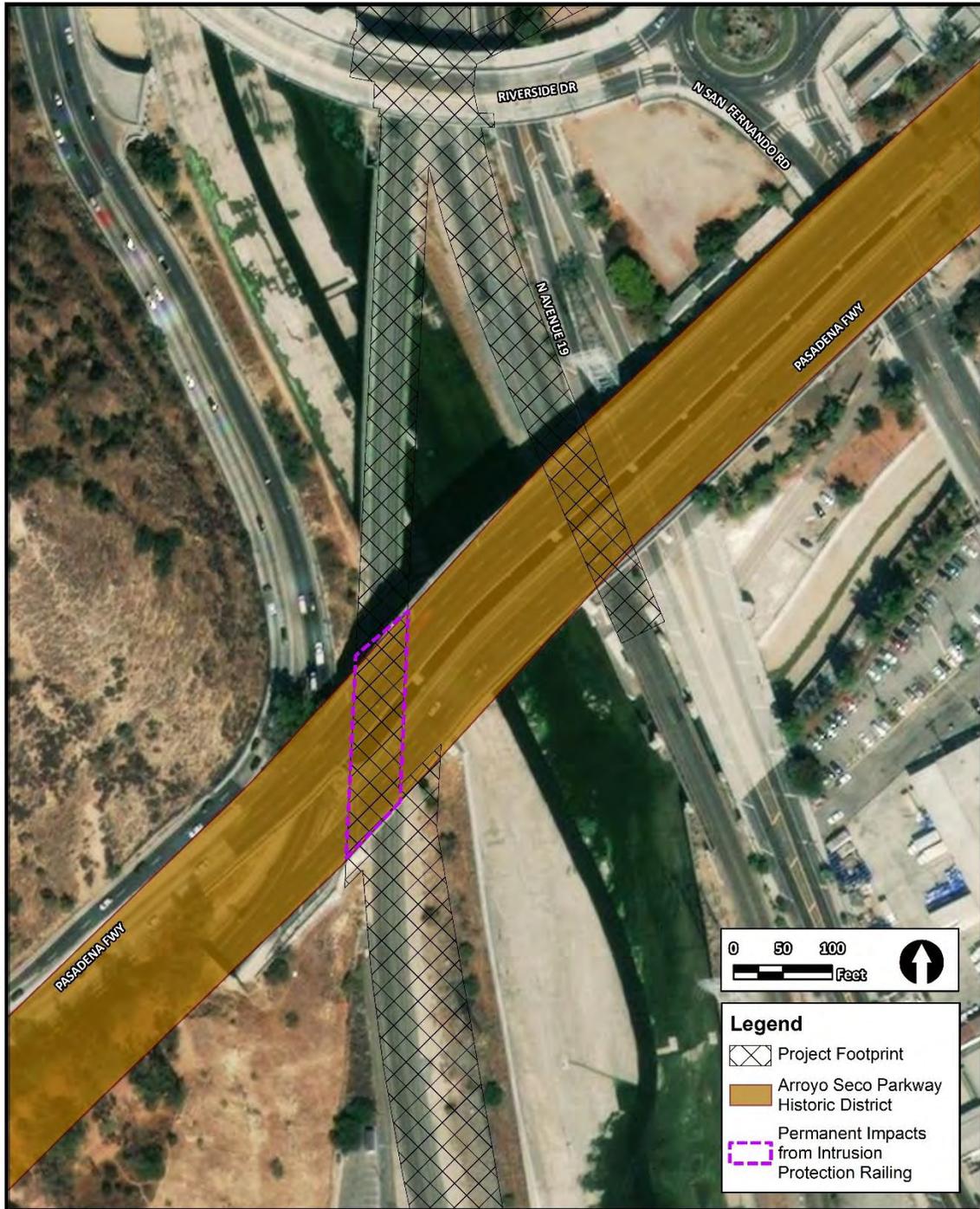
Arroyo Seco Parkway Historic District (H-8)

The Arroyo Seco Parkway Historic District is a linear resource that extends from Pasadena to Los Angeles; it was listed in the NRHP in 2011. Two contributing elements of this district are within the APE: portions of the Figueroa Street Viaduct (known as the Los Angeles River Bridge, Eastbound) (Bridge #53-0042R) (built 1936) and the Los Angeles River Bridge, Westbound (Bridge No. 53-0042L) (built 1944) that span the Los Angeles River Channel and the parallel railroad rights-of-way (referred to collectively as the Los Angeles River Bridge).

The district is eligible under Criteria A, B, and C at the state level of significance. The period of significance extends from 1938, when construction of the original 6-mile segment of parkway commenced, to completion of the southerly extension in 1953. Character-defining features of the Los Angeles River Bridge include five continuous reinforced concrete girder spans and three continuous steel plate girder spans; massive square concrete piers and abutments; and concrete railing with closely spaced, narrow arches and railing posts with parallel scoring on the outside face. A pedestrian stairway on the north side of San Fernando Road provides access to a walkway that travels along the north side of the eastbound bridge, up a spiral staircase, and continues along the south side of the westbound bridge. The pedestrian stairways and walkways are original features; the concrete barrier topped with a chain-link fence that separates the walkways from traffic are later additions.

As shown in Figure 4-27, a new intrusion protection railing would be constructed on the historic bridge deck above the HSR alignment to prevent people and objects from entering the right-of-way from the bridge; therefore, the HSR Build Alternative would encroach onto the historic property boundaries. The intrusion protection railings are protective barriers that are required on highway, roadway, freight, and pedestrian structures that cross over the HSR alignment. Providing a solid barrier on these structures where they cross over the electrified components of the system is critical for the safe operation of the train and the protection of both passengers and rail employees. Solid barriers on these overcrossings are required to extend to the edge of the rail right-of-way or 30 feet from the centerline of the outermost track, whichever is greater, at a minimum height of 8 feet. Other project elements outside the historic property boundaries include new electrified tracks, which would be constructed within the existing railroad right-of-way that passes beneath the Los Angeles River Bridge on the west bank.

Because of the construction of the new intrusion protection railing directly on the bridge, the HSR Build Alternative would encroach on the historic property boundaries and may cause direct physical destruction of or damage to the historic property, or alterations that are not consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties, as described in 36 C.F.R. 800.5(a)(2)(i) and (ii). Therefore, the HSR Build Alternative would result in a direct adverse effect to the Arroyo Seco Parkway Historic District under Section 106 of the NHPA.



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-27 Permanent Use of the Arroyo Seco Parkway Historic District

Permanent improvements associated with the HSR Build Alternative, which include the installation of a new intrusion protection railing, would be completed on the property. Therefore, a portion of the property would be permanently incorporated into the HSR Build Alternative, constituting a permanent use under Section 4(f). A discussion of avoidance alternatives is required for this resource and is included in Section 4.7.

In addition, measures that are required to minimize harm to the property include the following, as discussed in Section 4.8:

- The following impact avoidance and minimization features (IAMF) are incorporated in the project design to prevent accidental damage to cultural resources during construction:
 - CUL-IAMF#1: Geospatial Data Layer and Archaeological Sensitivity Map—Identify historic built resources on construction drawings to enable cultural resource management implementation
 - CUL-IAMF#2: Worker Environmental Awareness Program (WEAP) Training Session—Provide training on measures to avoid or protect historic built environment resources during construction.
 - CUL-IAMF#6: Pre-Construction Conditions Assessment, Plan for Protection of Historic Built Resources, and Repair of Inadvertent Damage—The protection plan should include identification of appropriate construction methods to avoid damage from work occurring on and near the historic property.
 - CUL-IAMF#7: Built-Environment Monitoring Plan—The Built-Environment Monitoring Plan (BEMP) would include periodic field checks of the historic property during construction.
- The following resource type-specific mitigation measure is proposed:
 - CUL-MM#12: Design of Intrusion Protection Railing for Historic Bridges—The Authority will involve the consulting parties in the design of the intrusion protection railing for historic bridges to avoid destruction of or damage to the historic property and alterations that are not consistent with the Secretary of the Interior’s Standards for the Treatment of Historic Properties, to the maximum extent feasible while still meeting the safety requirements of the HSR Build Alternative.

Consultation with the official with jurisdiction (SHPO) is being conducted to ensure that the project includes all possible planning to minimize harm to the property as a result of the permanent use. A Section 4(f) use is being assumed at this time, but consultation will continue after the ROD has been issued with the objective of achieving a finding of “no adverse effect” through application of the Secretary of the Interior’s Standards, which would change the Section 4(f) use determination to a *de minimis* impact. The requirements to comply with the Secretary of the Interior’s Standards will be included in the project section memorandum of agreement (MOA) and treatment plans.

Broadway (Buena Vista) Viaduct (Bridge #53C0545) (H-9)

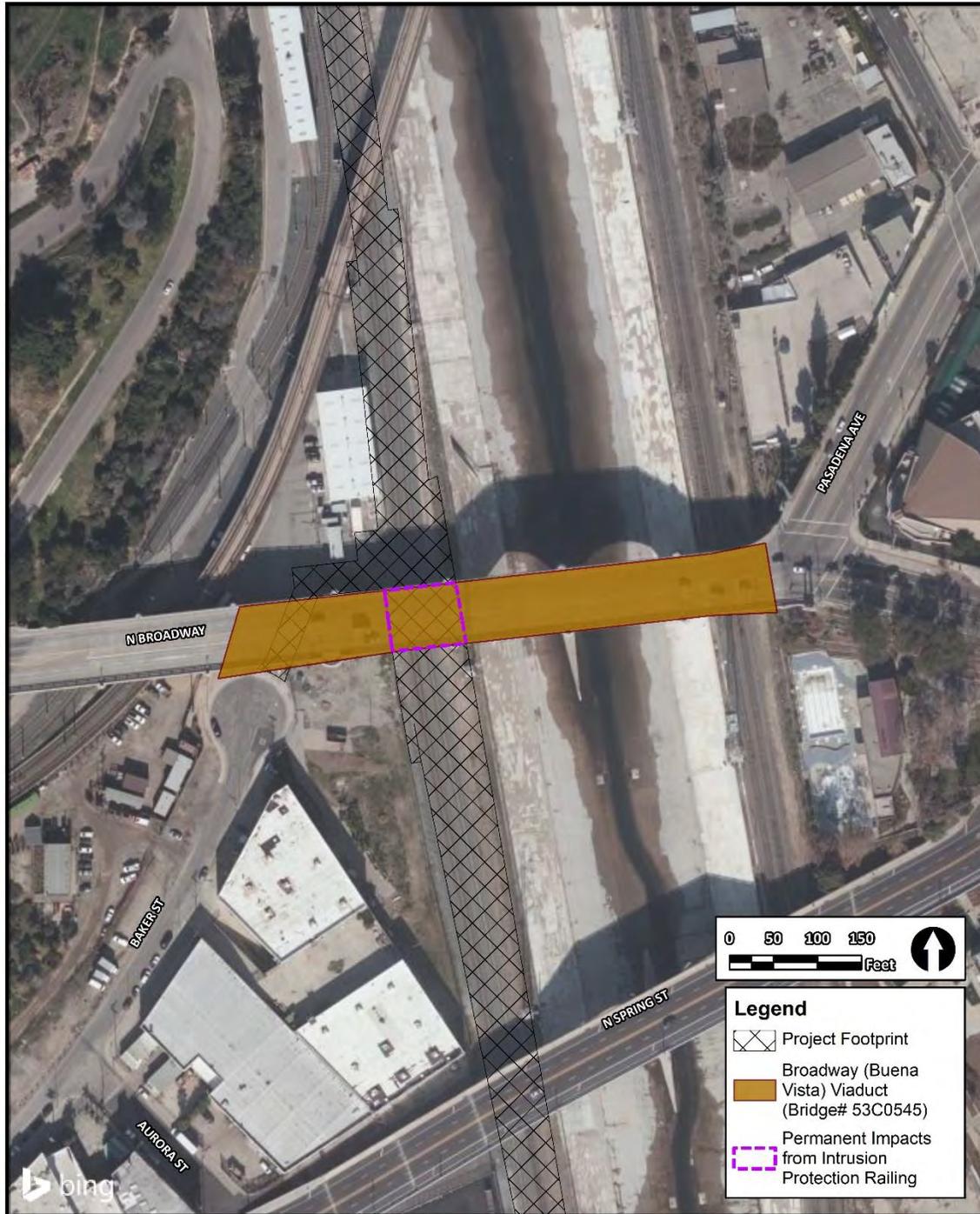
The Broadway (originally Buena Vista) Viaduct carries N Broadway over the Los Angeles River and railroad rights-of-way. It was previously evaluated in 1986 as part of the Caltrans Statewide Historic Bridge Inventory and determined eligible for the NRHP under Criterion C for its significance as the first viaduct in California and the first open-spandrel, ribbed concrete arch bridge in the state, a design that became standard for long-span concrete bridges. The period of significance is 1910. In 2008, the bridge was designated as Los Angeles Historic-Cultural Monument #907. The character-defining features of the bridge are its relationship with the Los Angeles River and its reinforced concrete construction, open spandrels, multiple spans, and the Beaux Arts design details. The bridge is not associated with a legal parcel; therefore, the boundaries of the historic property are limited to the bridge itself.

As shown in Figure 4-28, a new intrusion protection railing would be constructed on the historic bridge deck above the HSR alignment to prevent people and objects from entering the right-of-way from the bridge. Therefore, the HSR Build Alternative would encroach onto the historic property's boundaries. The intrusion protection railings are protective barriers that are required on highway, roadway, freight, and pedestrian structures that cross over the HSR alignment. Providing a solid barrier on these structures where they cross over the electrified components of the system is critical for the safe operation of the train and the protection of both passengers and rail employees. Solid barriers on these overcrossings are required to extend to the edge of the rail right-of-way or 30 feet from the centerline of the outermost track, whichever is greater, at a minimum height of 8 feet. Other project elements outside the historic property boundaries include new electrified tracks, which would be constructed within the existing railroad right-of-way that passes beneath the bridge on the west bank of the Los Angeles River. The electrified tracks with OCS and access restriction fences would be situated between two of the bridge's piers.

Because of the construction of the new intrusion protection railing directly on the bridge, the HSR Build Alternative would encroach on the historic property boundaries and may cause direct physical destruction of, damage to, or alteration of this historic property as described in 36 C.F.R. 800.5(a)(2)(i) and (ii). Therefore, the HSR Build Alternative may result a direct adverse effect to the Broadway Viaduct under Section 106 of the NHPA.

Permanent improvements associated with the HSR Build Alternative, which include the installation of a new intrusion protection railing, would be completed on the property. Therefore, a portion of the property would be permanently incorporated into the HSR Build Alternative, constituting a permanent use under Section 4(f). A discussion of avoidance alternatives is required for this resource and is included in Section 4.7. In addition, measures that are required to minimize harm to the property include the following, as discussed in Section 4.8:

- The following IAMFs are incorporated in the project design to prevent accidental damage to cultural resources during construction:
 - CUL-IAMF#1: Geospatial Data Layer and Archaeological Sensitivity Map—Identify historic built resources on construction drawings to enable cultural resource management implementation.
 - CUL-IAMF#2: Worker Environmental Awareness Program (WEAP) Training Session—Provide training on measures to avoid or protect historic built environment resources during construction.
 - CUL-IAMF#6: Pre-Construction Conditions Assessment, Plan for Protection of Historic Built Resources, and Repair of Inadvertent Damage—The protection plan should include identification of appropriate construction methods to avoid damage from work occurring on and near the historic property.
 - CUL-IAMF#7: Built-Environment Monitoring Plan—The BEMP would include periodic field checks of the historic property during construction.
- The following resource type-specific mitigation measure is proposed:
 - CUL-MM#12: Design of Intrusion Protection Railing for Historic Bridges—The Authority will involve the consulting parties in the design of the intrusion protection railing for historic bridges to avoid destruction of or damage to the historic property and alterations that are not consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties, to the maximum extent feasible, while still meeting the safety requirements of the HSR Build Alternative.



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-28 Permanent Use of the Broadway (Buena Vista) Viaduct

Consultation with the official with jurisdiction (SHPO) is being conducted to ensure that the project includes all possible planning to minimize harm to the property as a result of the permanent use. A Section 4(f) use is being assumed at this time, but consultation will continue after the ROD has been issued with the objective of achieving a finding of “no adverse effect” through application of the Secretary of the Interior’s Standards, which would change the Section 4(f) use determination to a *de minimis* impact. The requirements to comply with the Secretary of the Interior’s Standards will be included in the project section MOA and treatment plans.

Spring Street Viaduct (Bridge #53C0859) (H-10)

The Spring Street Viaduct carries Spring Street over the Los Angeles River and railroad rights-of-way. It was previously evaluated in 1986 as part of the Caltrans Statewide Historic Bridge Inventory and determined eligible for NRHP Criteria A and C for its design and association with the bridge building period in 1920s Los Angeles. The period of significance is 1928. In 2008, the bridge was designated as Los Angeles Historic-Cultural Monument #900. The character-defining features of the bridge are its relationship with the Los Angeles River and its reinforced concrete construction, open spandrels, multiple spans, and Beaux Arts-inspired design details. The bridge is not associated with a legal parcel; therefore, the boundaries of the historic property are limited to the bridge itself.

As shown in Figure 4-29, a new intrusion protection railing would be constructed on the historic bridge deck above the HSR alignment to prevent people and objects from entering the right-of-way from the bridge. Therefore, the HSR Build Alternative would encroach onto the historic property boundaries. The intrusion protection railings are protective barriers that are required on highway, roadway, freight, and pedestrian structures that cross over the HSR alignment.

Providing a solid barrier on these structures where they cross over the electrified components of the system is critical for the safe operation of the train and the protection of both passengers and rail employees. Solid barriers on these overcrossings are required to extend to the edge of the rail right-of-way or 30 feet from the centerline of the outermost track, whichever is greater, at a minimum height of 8 feet. Other project elements outside the historic property boundaries include new electrified tracks, which would be constructed within the existing railroad right-of-way that passes beneath the bridge on the west bank of the Los Angeles River. The electrified tracks with OCS and access restriction fences would be situated between two of the bridge’s piers.

Because of the construction of the new intrusion protection railing directly on the bridge, the HSR Build Alternative would encroach on the historic property boundaries and may cause direct physical destruction of or damage to the historic property, or alterations that are not consistent with the Secretary of the Interior’s Standards, as described in 36 C.F.R. 800.5(a)(2)(i) and (ii). Therefore, the HSR Build Alternative may result in a direct adverse effect to the Spring Street Viaduct under Section 106 of the NHPA.

Permanent improvements associated with the HSR Build Alternative, which include the installation of a new intrusion protection railing, would be completed on the property. Therefore, a portion of the property would be permanently incorporated into the HSR Build Alternative, constituting a permanent use under Section 4(f). A discussion of avoidance alternatives is required for this resource and is included in Section 4.7. In addition, measures that are required to minimize harm to the property include the following, as discussed in Section 4.8:

- The following IAMFs are incorporated in the project design to prevent accidental damage to cultural resources during construction:
 - CUL-IAMF#1: Geospatial Data Layer and Archaeological Sensitivity Map—Identify historic built resources on construction drawings to enable cultural resource management implementation
 - CUL-IAMF#2: Worker Environmental Awareness Program (WEAP) Training Session—Provide training on measures to avoid or protect historic built environment resources during construction.



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-29 Permanent Use of the Spring Street Viaduct

- CUL-IAMF#6: Pre-Construction Conditions Assessment, Plan for Protection of Historic Built Resources, and Repair of Inadvertent Damage—The protection plan should include identification of appropriate construction methods to avoid damage from work occurring on and near the historic property.
- CUL-IAMF#7: Built-Environment Monitoring Plan—The BEMP would include periodic field checks of the historic property during construction.
- The following resource type-specific mitigation measure is proposed:
 - CUL-MM#12: Design of Intrusion Protection Railing for Historic Bridges—The Authority will involve the consulting parties in the design of the intrusion protection railing for historic bridges to avoid destruction of or damage to the historic property and alterations that are not consistent with the Secretary of the Interior’s Standards for the Treatment of Historic Properties, to the maximum extent feasible, while still meeting the safety requirements of the HSR Build Alternative.

Consultation with the official with jurisdiction (SHPO) is being conducted to ensure that the project includes all possible planning to minimize harm to the property as a result of the permanent use. A Section 4(f) use is being assumed at this time, but consultation will continue after the ROD has been issued with the objective of achieving a finding of “no adverse effect” through application of the Secretary of the Interior’s Standards, which would change the Section 4(f) use determination to a *de minimis* impact. The requirements to comply with the Secretary of the Interior’s Standards will be included in the project section MOA and treatment plans.

Main Street Bridge (Bridge# 53C1010) (H-13)

The Main Street Bridge crosses the railroad right-of-way at-grade. It was previously evaluated in 1986 as part of the Caltrans Statewide Historic Bridge Inventory and determined eligible for the NRHP under Criterion C for its engineering. The period of significance is 1910. The bridge is a pioneering example of a three-hinge bridge design, originating in Europe, and one of the earliest of its kind in the western U.S. In 2008, the bridge was designated as Los Angeles Historic-Cultural Monument #901. The character-defining features of the bridge include its relationship with the Los Angeles River and its reinforced concrete construction, open spandrels, multiple spans, and Beaux Arts design details. The bridge is not associated with a legal parcel; therefore, the boundaries of the historic property are limited to the bridge itself.

As shown in Figure 4-30, project elements on the existing bridge include a temporary construction easement and maintenance access for systems facilities. In addition, in order to eliminate at-grade crossings within the project section, the HSR Build Alternative would construct a new Main Street Bridge immediately north of the existing historic Main Street Bridge. The new bridge would be an elevated structure spanning the tracks on the west bank, the Los Angeles River, and the tracks on the east bank.

This analysis assumes that the existing historic bridge would be maintained in place during construction and operation of the HSR Build Alternative, but would no longer function as part of the street network. This analysis also assumes the public right-of-way on either side of the bridge would be modified to terminate in a cul-de-sac on the west and a dead end on the east. Access restriction fences along the railroad corridor would prevent pedestrian and vehicular access from the west, and barriers would be installed at the bridge’s east end to limit access to maintenance staff and vehicles only. As the owner of the Main Street Bridge, the City of Los Angeles would be responsible for the ongoing maintenance of the historic bridge.

The historic use of the bridge would be discontinued, and no new compatible use is proposed as part of the HSR Build Alternative. Alterations to the nearby streets would eliminate the current condition of a continuous roadway across the Main Street Bridge that links the east and west sides of the river. In addition, the access restriction fences installed along the railroad corridor and the OCS would partially obscure views of the historic bridge from the west when at street level. Depending on the design of the proposed barrier at the east end of the bridge, a similar condition may happen there as well.



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-30 Project Footprint near the Main Street Bridge (Bridge #53C1010)

These changes would not be consistent with the Secretary of the Interior's Standards for Rehabilitation, which states: "A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building [structure] and its site and environment" (36 C.F.R. Part 68, Section 68.3 (b)(1)) (also known as Rehabilitation Standard No. 1). The defining characteristic of the historic property (its form and function as a bridge) and the defining characteristic of its site and environment (a physical and visual linkage between two places) would be substantially changed. Therefore, the HSR Build Alternative would result in a direct adverse effect on the Main Street Bridge (Bridge #53C1010) under Section 106 of the NHPA. This finding is a result of the changes to the character of the historic property's use and physical features within the property's setting that contribute to its historic significance.

Permanent improvements associated with the HSR Build Alternative would require that the historic use of the bridge be discontinued, constituting a permanent use under Section 4(f). A discussion of avoidance alternatives is required for this resource and is included in Section 4.7. In addition, measures that are required to minimize harm to the property include the following, as discussed in Section 4.8:

- The following IAMFs are incorporated in the project design to prevent accidental damage to cultural resources during construction:
 - CUL-IAMF#1: Geospatial Data Layer and Archaeological Sensitivity Map—Identify historic built resources on construction drawings to enable cultural resource management implementation.
 - CUL-IAMF#2: Worker Environmental Awareness Program (WEAP) Training Session—Provide training on measures to avoid or protect historic built environment resources during construction.
 - CUL-IAMF#6: Pre-Construction Conditions Assessment, Plan for Protection of Historic Built Resources, and Repair of Inadvertent Damage—The protection plan should include identification of appropriate construction methods to avoid damage from work occurring on and near the historic property.
 - CUL-IAMF#7: Built-Environment Monitoring Plan—The BEMP would include periodic field checks of the historic property during construction.
 - CUL-IAMF#8: Implement Protection and/or Stabilization Measures—The historic property would be protected from construction activities by implementing the protection plan and Built Environment Treatment Plan (BETP).
- The following property-specific mitigation measures are proposed:
 - CUL-MM#7: Prepare Interpretive or Educational Materials—The MOA may identify the Main Street Bridge as subject to historic interpretation or preparation of educational materials. In consultation with the SHPO, MOA signatories, and concurring parties, the BETP could specify the agreed-upon method of interpretation to mitigate the project's effects on public access and views of and from the historic property.
 - CUL-MM#13: Main Street Bridge Access Feasibility Study—The Authority will facilitate the development of a feasibility study to explore design options that would maintain the historic use of the Main Street Bridge to the maximum extent feasible while still meeting the safety requirements of the HSR Build Alternative.

Consultation with the official with jurisdiction (SHPO) is being conducted to ensure that the project includes all possible planning to minimize harm to the property as a result of the permanent use. Additionally, consultation with consulting parties will continue to determine if additional mitigation is needed and if interpretation is the most appropriate mitigation for this resource. The results of these consultation efforts will be included in the final document.

4.6.2.2 Preliminary Section 4(f) Use Determinations at Historic Sites with Indirect Adverse Effects under Section 106 of the National Historic Preservation Act

No historic properties have been determined to be indirectly adversely affected under Section 106 of the NHPA; therefore, there is no potential for constructive use.

4.6.2.3 Preliminary Section 4(f) Use Determinations at Historic Sites with No Adverse Effects under Section 106 of the National Historic Preservation Act

The Los Angeles River Channel (H-21) was analyzed under Section 106 of the NHPA, and it was determined that the HSR Build Alternative would not result in an adverse effect on this property despite physical intrusion onto the property.

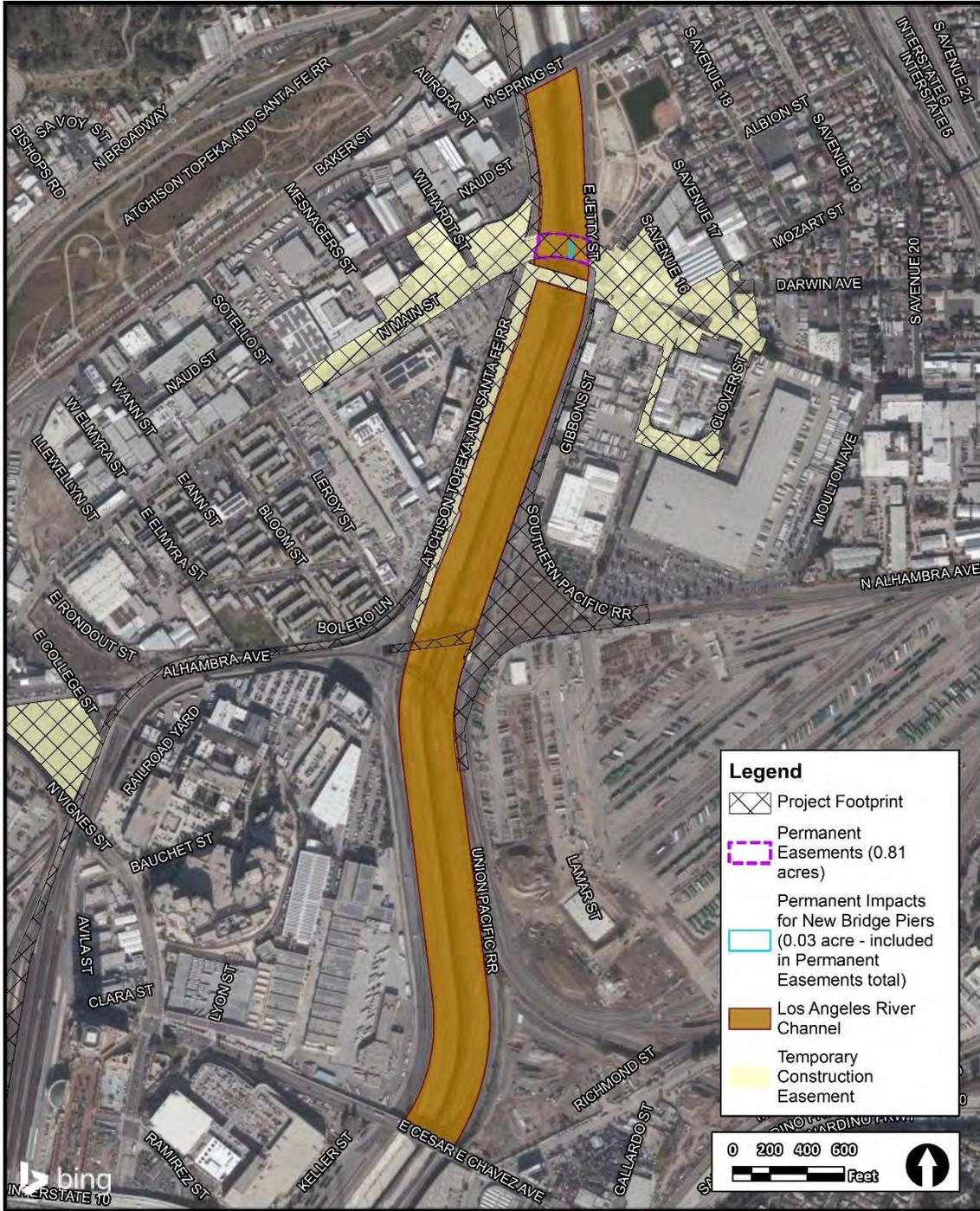
The HSR Build Alternative would require the construction of new piers in the Los Angeles River Channel. However, because the HSR Build Alternative would result in no adverse effect under Section 106 of the NHPA for the Los Angeles River Channel, the HSR Build Alternative would result in a *de minimis* impact on this resource under Section 4(f) if the SHPO concurs in the finding of a *de minimis* impact. Section 106 and *de minimis* documentation would be sent to the SHPO, with written notification that concurrence with the Section 106 findings would be treated as the written concurrence for a *de minimis* finding.

The historic property is discussed in detail in the following section. Additional details regarding the activities occurring at this resource can be found in the Section 106 Finding of Effect report (Authority 2019b).

Los Angeles River Channel (H-21)

Within the APE, segments of the Los Angeles River Channel account for a small percentage of the much larger 51-mile-long linear resource. The Los Angeles River Channel is significant as a district at the local level for its association with flood control in the Los Angeles region and its role in the development of river-adjacent areas in greater Los Angeles. Assessing the physical integrity of the entire 51-mile channel between Canoga Park and Long Beach to make a determination of the potential district's eligibility is beyond the scope of a reasonable level of effort, and full evaluation of the entire channel is precluded by its large size and the limited potential for effects as a result of the project. Therefore, for the purposes of this project only, the segments of the Los Angeles River Channel within the APE are presumed to be eligible for listing in the NRHP and the California Register of Historical Resources. The character-defining features of the Los Angeles River Channel include: its route, its trapezoidal reinforced concrete channels, its parapet paved berms, and the central trench at the bottom to guide water flow. The boundaries of the property generally correspond with several legal parcels. Within the study area, these Assessor's Parcel Numbers include 5415-003-901, 5447-027-901, and 5410-002-900.

As shown in Figure 4-31, the project would add one new bridge just north of the extant Main Street Bridge that would carry vehicular traffic. The new bridge would require new piers to be constructed within the river channel in an area totaling 0.03 acre, which would physically alter some of the historic property's materials. The project would also require a 0.81-acre permanent easement on a portion of the property to allow for routine maintenance beneath the new bridge; however, the permanent easement would not result in physical alterations to the channel. The HSR Build Alternative would also reconfigure two extant crossings over the river channel—the Metrolink Downey Bridge and the Mission Tower Bridge—which are outside the historic property boundaries of the Los Angeles River Channel.



Sources: Los Angeles County GIS Data Portal, 2017; ESRI, 2017

Figure 4-31 De Minimis Impacts at the Los Angeles River Channel

The HSR Build Alternative would not cause direct physical destruction of or damage to the historic property, or make alterations that are not consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties, as described in 36 C.F.R. 800.5(a)(2)(i) and (ii). Although the construction of new bridge piers within the river channel would physically alter some of the historic property's materials, it would not alter the character-defining features of the historic property.

Patches of concrete beneath the piers may be lost, but the channel's route, trapezoidal reinforced concrete channels, parapet paved berms, and central trench would remain intact. Further, the lost patches of concrete would constitute only a very minor fraction of the overall concrete channel's surface and could be repaired with relative ease if the piers were removed in the future, consistent with Rehabilitation Standard No. 10 (36 C.F.R. Part 68, Section 68.3 (b)(10)). Therefore, the HSR Build Alternative would not result in a direct adverse effect from physical changes to the historic property.

The reconfigured bridges and new bridge would be visible within the channel; however, these structures are consistent with the types of transportation infrastructure that have historically surrounded the river channel. The HSR Build Alternative would not change the character of the historic property's use or physical setting in a manner that would diminish its integrity as described in 36 C.F.R. 800.5(a)(2)(iv) and (v).

Because the placement of the piers in the channel would not result in an adverse effect on the Los Angeles River Channel under Section 106 of the NHPA, the HSR Build Alternative would not adversely affect the activities, features, or attributes that qualify the resource for protection under Section 4(f). Therefore, the HSR Build Alternative would result in a *de minimis* impact on this resource. Although not required for the *de minimis* determination, the following measures would be implemented, as discussed in Section 4.8:

- IAMFs are incorporated in the project design to prevent accidental damage to historic properties during construction, including: a geospatial data layer depicting the location of cultural resources on construction drawings (CUL-IAMF#1) and mandatory training for contractors to protect cultural resources during construction (CUL-IAMF#2).

4.6.2.4 No Use/No Impacts/To Be Determined

Within the study area, 22 cultural resources were identified that would result in no use and no adverse effect under Section 106. All of the proposed work for the HSR Build Alternative would be completed outside of the historic property boundary for each resource; therefore, no permanent use or temporary occupancy would result from the project. Indirect dust, noise, visual, or access impacts (proximity impacts) are not anticipated for these resources because of their respective distances from the project footprint. Appendix 4-B, Historic Sites in Project APE Listed or Eligible for Listing in the National Register of Historic Places, includes further details on the use assessment. As discussed in Appendix 4-B, the HSR Build Alternative would not result in Section 4(f) uses of the following resources, and no further analysis is required for these resources:

- P-19-001575 (A-1)
- P-19-187085 (A-3)
- Municipal Power and Light, City of Glendale (H-1)
- L.W. Grayson Steam-Electric Generating Station (H-2)
- Aero Industries Technical Institute (H-3)
- Los Angeles Basket Company (Pacific State Box and Basket Company (H-4)
- Glendale Southern Pacific Railroad Depot (H-5)
- Valley Maid Creamery (H-6)
- Taylor Yard Signal Tower (H-7)
- Standard Oil Company Facilities (H-11)

- Folk Victorian Residence (H-12)
- R. Schiffmann Medical Company (H-14)
- Lanza Brothers Market (H-15)
- Bureau of Power and Light General Services Headquarters (H-16)
- Kelite Factory (H-17)
- William Mead Homes (H-18)
- Mission Tower (AT&SF Tower) (H-19)
- Vignes Street Underpass (Bridge #53C1764) (part of the LAUS Passenger Terminal and Grounds) (H-20)
- Post Office Terminal Annex (H-22)
- Cesar E. Chavez Avenue (Macy Street) Underpass (Bridge #53C0131) (part of Los Angeles Union Station Passenger Terminal and Grounds) (H-23)
- LAUS Passenger Terminal and Grounds (H-24)
- Cesar E. Chavez Avenue (Macy Street) Viaduct (Bridge #53C0130)(H-25)

As discussed in Appendix 4-B, the use determination for one resource, P-19-101229, is to be determined. The proposed work for the project would be completed within the historic property boundary of the site; however, while this site contains exposed ground that could potentially be physically surveyed, the site has not been accessible for archaeological pedestrian survey because it is on private property. This archaeological resource would be further assessed as property access is granted and during the design phase, in accordance with the Section 106 Programmatic Agreement, to assess whether it is eligible for the NRHP. Under the Section 4(f) regulations, Section 4(f) does not apply to archaeological resources (even NRHP-eligible resources) if they are valuable primarily for data recovery and not for preservation in place in accordance with 23 C.F.R. 774.13(b)(1). If it is determined to be eligible and its significance is contingent on preservation in place, an expedited Section 4(f) analysis will be prepared in accordance with 23 C.F.R. 774.9(e).

If an archaeological resource is discovered during phased surveys or construction and determined to be eligible, it would be assessed to determine if it is primarily valuable for preservation in place. If it is not valuable for preservation in place, appropriate data recovery steps will be taken. If it is valuable for preservation in place, an expedited Section 4(f) evaluation would be prepared in accordance with 23 C.F.R. 774.9(e).

4.6.2.5 Summary of Preliminary Section 4(f) Use Determinations of Historic Properties

A summary of Section 4(f) uses of NRHP-listed or eligible historic properties is provided in Table 4-2. Direct and constructive preliminary Section 4(f) use determinations are included in the table.

Table 4-2 Summary of Section 4(f) Uses of National Register of Historic Places Listed or Eligible Properties

Historic Property	Preliminary Section 4(f) Use Determinations
Arroyo Seco Parkway Historic District (H-8)	Permanent Use
Broadway (Buena Vista) Viaduct (Bridge #53C0545) (H-9)	Permanent Use
Spring Street Viaduct (Bridge #53C0859) (H-10)	Permanent Use
Main Street Bridge (Bridge# 53C1010)	Permanent Use
Los Angeles River Channel	<i>De Minimis</i> Impact

4.7 Avoidance Alternatives

Section 4(f) requires the selection of an alternative that avoids the use of a Section 4(f) property if that alternative is deemed feasible and prudent. As documented in this chapter, the HSR Build Alternative would result in Section 4(f) uses, which are not *de minimis* impacts, requiring a determination of whether there are feasible and prudent alternatives to avoid the use of these resources.

As described in Sections 4.6.1.5 and Section 4.6.2.1, the HSR Build Alternative would result in the permanent use of the San Fernando Railroad Bike Path (Planned), the Arroyo Seco Parkway Historic District, the Broadway (Buena Vista) Viaduct, the Spring Street Viaduct, and the Main Street Bridge. For each of these resources, the avoidance alternatives analyzed in this section include the No Project Alternative, the Shifted Alignment Alternative, and the Profile Variation Alternative, described as follows:

- **No Project Alternative:** The No Project Alternative would not construct the HSR project and would thus have no impact on any 4(f) resources that are related to construction and operation of the HSR project.
- **Shifted Alignment Alternative:** This alternative involves shifting the alignment outside the existing railroad corridor to avoid the Section 4(f) resources. As described in Chapter 2.4, Alternatives Considered during the Alternatives Screening Process, the alternatives evaluation process conducted for the Burbank to Los Angeles Project Section included the examination of multiple alternatives within and outside of the existing railroad corridor to the extent allowed by design speeds.
- **Profile Variation Alternative:** This alternative includes either raising the profile of the alignment above the resources (viaduct option), or lowering the profile below the resources (tunnel option), to avoid the use of Section 4(f) resources. Trench and viaduct options were previously considered in the 2011 *Palmdale to Los Angeles Project Section Preliminary Alternatives Analysis* (Authority and FRA 2010).

4.7.1 Feasible and Prudent Analysis of Avoidance Alternatives: San Fernando Railroad Bike Path (Planned)

As described in Section 4.6.1.5, the HSR Build Alternative would be within the Metro-owned right-of-way, which would preclude the planned San Fernando Railroad Bike Path from being constructed. If the planned San Fernando Railroad Bike Path is already existing at the time of HSR construction, the entire bike path would be permanently incorporated into the permanent easement area required for the HSR right-of-way.

The Shifted Alignment Alternative, No Project Alternative, and Profile Variation Alternative would avoid the use of the planned San Fernando Railroad Bike Path. However, as shown in **Error! Reference source not found.**, these avoidance alternatives would not be feasible and prudent, as follows:

- **No Project Alternative:** The No Project Alternative would not construct the HSR project and would thus have no impact on the planned San Fernando Railroad Bike Path related to construction and operation of the HSR project. However, the No Project Alternative would not address the Authority's purpose and need for the project. The No Project Alternative is insufficient to meet existing and future travel demand; current and projected congestion of the transportation system would continue to result in deteriorating air quality, reduced travel reliability, and increased travel times. Because the No Project Alternative does not meet the project purpose and need, it would not be considered prudent under Section 4(f).
- **Shifted Alignment Alternative:** To avoid the use of the planned San Fernando Railroad Bike Path, the alignment would be shifted to the east or west of the existing railroad corridor. As shown in aerial imagery provided in Figure 4-8 in Section 4.6.1.5, the areas to the east and west of the existing railroad corridor are occupied by densely populated commercial and residential neighborhoods. The Shifted Alignment Alternative would substantially increase the

number of residential or business displacements, overall community disruption, and the potential for adverse impacts on cultural resources outside the project APE, including buried archaeological resources, tribal cultural resources, and historic buildings or structures. This alternative would require substantial right-of-way acquisitions and utility relocations, which would result in excessive construction costs; and would result in a combination of impacts that would be significant if taken cumulatively. Therefore, the Shifted Alignment Alternative to avoid the use of the planned San Fernando Railroad Bike Path would not be considered prudent under Section 4(f).

- **Profile Variation Alternative:** Trench and viaduct options were previously considered in the 2011 *Palmdale to Los Angeles Project Section Preliminary Alternatives Analysis* (Authority and FRA 2011). Both tunnel and viaduct options would be disruptive to existing railroad operations during the construction period; result in excessive construction costs because of substantial right-of-way acquisitions and utility relocations, and a considerably high demand for materials, equipment, and construction services and staffing during a prolonged construction period; and result in a combination of impacts that would be significant if taken cumulatively. Therefore, the Profile Variation Alternative to avoid the use of the planned San Fernando Railroad Bike Path would not be considered prudent under Section 4(f). Additional justification that each option is not prudent and feasible is as follows:
 - A viaduct option above the planned San Fernando Railroad Bike Path would not be feasible because there are numerous existing roadway under/overcrossings between SR 134 and SR 2 in close proximity, which limits where the alignment could come back to grade. For a viaduct spanning the planned San Fernando Railroad Bike Path, the amount of land required to construct and maintain the structure would increase beyond current design. The viaduct would be up to 70 feet tall in a densely populated area that includes multiple sensitive receptors, which include densely populated residential neighborhoods between Goodwin Avenue and Glendale Boulevard, resulting in significant visual, noise, and vibration impacts. Therefore, a viaduct option to avoid the use of the planned San Fernando Railroad Bike Path would not be feasible and prudent.
 - Tunneling under the planned San Fernando Railroad Bike Path would require more land to be acquired for construction and operations, resulting in right-of-way impacts, including displacing businesses and public facilities, and impacts on cultural resources. Additionally, substantial amounts of soil would be removed, the export and storage of which would be considerable, resulting in additional air quality, cultural, and potential hazardous materials impacts. Lowering the alignment to provide sufficient clearance for a tunnel would involve the reconfiguration of the alignments and, depending on the alternative, may require additional tunneling to avoid other environmental or structural constraints and the reconfiguration of additional intersections. Therefore, a tunnel option to avoid the use of the planned San Fernando Railroad Bike Path would not be prudent.

Based on this analysis, there are no feasible and prudent alternatives that would avoid the use of the planned San Fernando Railroad Bike Path.

4.7.2 Feasible and Prudent Analysis of Avoidance Alternatives: Arroyo Seco Parkway Historic District

As described in Section 4.6.2.1, intrusion protection railings would be required on the Arroyo Seco Parkway Historic District to maintain safety, which would constitute a permanent use of the historic bridge under Section 4(f). The Shifted Alignment Alternative, No Project Alternative, and Profile Variation Alternative would avoid the use of the Arroyo Seco Parkway Historic District. However, as shown in **Error! Reference source not found.**, these avoidance alternatives would not be prudent, as follows:

- **No Project Alternative:** The No Project Alternative would not construct the HSR project and would thus have no impact on the Arroyo Seco Parkway Historic District related to construction and operation of the HSR project. However, the No Project Alternative would not address the Authority's purpose and need for the project. The No Project Alternative is

insufficient to meet existing and future travel demand; current and projected congestion of the transportation system would continue to result in deteriorating air quality, reduced travel reliability, and increased travel times. Because the No Project Alternative does not meet the project purpose and need, it would not be considered prudent under Section 4(f).

- **Shifted Alignment Alternative:** To avoid the use of the Arroyo Seco Parkway Historic District, the alignment would be shifted to the east or west of the existing railroad corridor. As shown in aerial imagery provided in Figure 4-27 in Section 4.6.2.1, the areas to the east and west of the existing railroad corridor are occupied by the Los Angeles River and Elysian Park to the west, and multiple roadways in all directions. The Shifted Alignment Alternative would substantially increase the number of residential or business displacements, overall community disruption, and the potential for adverse impacts on cultural resources outside the project APE, including buried archaeological resources, tribal cultural resources, and historic buildings or structures. This alternative would require substantial right-of-way acquisitions and utility relocations, which would result in excessive construction costs; and would result in a combination of impacts that would be significant if taken cumulatively. Therefore, the Shifted Alignment Alternative to avoid the use of the Arroyo Seco Parkway Historic District would not be considered prudent under Section 4(f).
- **Profile Variation Alternative:** Trench and viaduct options were previously considered in the 2011 *Palmdale to Los Angeles Project Section Preliminary Alternatives Analysis* (Authority and FRA 2011). Both tunnel and viaduct options would be disruptive to existing railroad operations during the construction period; result in excessive construction costs because of substantial right-of-way acquisitions and utility relocations, and a considerably high demand for materials, equipment, and construction services and staffing during a prolonged construction period; and result in a combination of impacts that would be significant if taken cumulatively. Therefore, the Profile Variation Alternative to avoid the use of the Arroyo Seco Parkway Historic District would not be considered prudent under Section 4(f). Additional justification that each option is not prudent is as follows:
 - For a viaduct spanning the Arroyo Seco Parkway Historic District, the amount of land required to construct and maintain the structure would increase beyond current design. The viaduct would be up to 70 feet tall in a densely populated area that includes multiple sensitive receptors, which include several park areas (Oso Park, Egret Park, Elysian Park, and Confluence Park) and densely populated residential neighborhoods to the north of I-5, resulting in significant visual, noise, and vibration impacts. Therefore, a viaduct option to avoid the use of the Arroyo Seco Parkway Historic District would not be prudent.
 - Tunneling under the Arroyo Seco Parkway Historic District would require more land to be acquired for construction and operations, resulting in right-of-way impacts, including displacing businesses and public facilities, and impacts on cultural resources. Additionally, substantial amounts of soil would be removed, the export and storage of which would be considerable, resulting in additional air quality, cultural, and potential hazardous materials impacts. Lowering the alignment to provide sufficient clearance for a tunnel would involve the reconfiguration of the alignments and, depending on the alternative, may require additional tunneling to avoid other environmental or structural constraints and the reconfiguration of additional intersections. Therefore, a tunnel option to avoid the use of the Arroyo Seco Parkway Historic District would not be prudent.

Based on this analysis, there are no feasible and prudent alternatives that would avoid the use of the Arroyo Seco Parkway Historic District.

4.7.3 Feasible and Prudent Analysis of Avoidance Alternatives: Broadway (Buena Vista) Viaduct

As described in Section 4.6.2.1, intrusion protection railings would be required on the Broadway (Buena Vista) Viaduct to maintain safety, which would constitute a permanent use of the historic bridge under Section 4(f). The Shifted Alignment Alternative, No Project Alternative, and Profile

Variation Alternative would avoid the use of the Broadway (Buena Vista) Viaduct. However, as shown in **Error! Reference source not found.**, these avoidance alternatives would not be prudent, as follows:

- **No Project Alternative:** The No Project Alternative would not construct the HSR project and would thus have no impact on the Broadway (Buena Vista) Viaduct related to construction and operation of the HSR project. However, the No Project Alternative would not address the Authority's purpose and need for the project. The No Project Alternative is insufficient to meet existing and future travel demand; current and projected congestion of the transportation system would continue to result in deteriorating air quality, reduced travel reliability, and increased travel times. Because the No Project Alternative does not meet the project purpose and need, it would not be considered prudent under Section 4(f).
- **Shifted Alignment Alternative:** To avoid the use of the Broadway (Buena Vista) Viaduct, the alignment would be shifted to the east or west of the existing railroad corridor. As shown in aerial imagery provided in Figure 4-28 in Section 4.6.2.1, the areas to the east and west of the existing railroad corridor are occupied by the Los Angeles River to the east, Elysian Park to the west, and multiple roadways in all directions. Densely populated commercial and residential neighborhoods are located further east and west in areas beyond what is shown in the figure. The Shifted Alignment Alternative would substantially increase the number of residential or business displacements, overall community disruption, and the potential for adverse impacts on cultural resources outside the project APE, including buried archaeological resources, tribal cultural resources, and historic buildings or structures. This alternative would require substantial right-of-way acquisitions and utility relocations, which would result in excessive construction costs; and would result in a combination of impacts that would be significant if taken cumulatively. Therefore, the Shifted Alignment Alternative to avoid the use of the Broadway (Buena Vista) Viaduct would not be considered prudent under Section 4(f).
- **Profile Variation Alternative:** Trench and viaduct options were previously considered in the 2011 *Palmdale to Los Angeles Project Section Preliminary Alternatives Analysis* (Authority and FRA 2011). Both tunnel and viaduct options would be disruptive to existing railroad operations during the construction period; result in excessive construction costs because of substantial right-of-way acquisitions and utility relocations, and a considerably high demand for materials, equipment, and construction services and staffing during a prolonged construction period; and result in a combination of impacts that would be significant if taken cumulatively. Therefore, the Profile Variation Alternative to avoid the use of the Broadway (Buena Vista) Viaduct would not be considered prudent under Section 4(f). Additional justification that each option is not prudent is as follows:
 - For a viaduct spanning the Broadway (Buena Vista) Viaduct, the amount of land required to construct and maintain the structure would increase beyond current design. The viaduct would be up to 70 feet tall in a densely populated area that includes multiple sensitive receptors, which include densely populated residential neighborhoods southeast of the railroad corridor, as well as Los Angeles State Historic Park and Elysian Park to the west of the railroad corridor, resulting in significant visual, noise, and vibration impacts. Therefore, a viaduct option to avoid the use of the Broadway (Buena Vista) Viaduct would not be prudent.
 - Tunneling under the Broadway (Buena Vista) Viaduct would require more land to be acquired for construction and operations, resulting in right-of-way impacts, including displacing businesses and public facilities, and impacts on cultural resources. Additionally, substantial amounts of soil would be removed, the export and storage of which would be considerable, resulting in additional air quality, cultural, and potential hazardous materials impacts. Lowering the alignment to provide sufficient clearance for a tunnel would involve the reconfiguration of the alignments and, depending on the alternative, may require additional tunneling to avoid other environmental or structural

constraints and the reconfiguration of additional intersections. Therefore, a tunnel option to avoid the use of the Broadway (Buena Vista) Viaduct would not be prudent.

Based on this analysis, there are no feasible and prudent alternatives that would avoid the use of the Broadway (Buena Vista) Viaduct.

4.7.4 Feasible and Prudent Analysis of Avoidance Alternatives: Spring Street Viaduct

As described in Section 4.6.2.1, intrusion protection railings would be required on the Spring Street Viaduct to maintain safety, which would constitute a permanent use of the historic bridge under Section 4(f). The Shifted Alignment Alternative, No Project Alternative, and Profile Variation Alternative would avoid the use of the Spring Street Viaduct. However, as shown in **Error!**

Reference source not found., these avoidance alternatives would not be prudent, as follows:

- **No Project Alternative:** The No Project Alternative would not construct the HSR project and would thus have no impact on the Spring Street Viaduct related to construction and operation of the HSR project. However, the No Project Alternative would not address the Authority's purpose and need for the project. The No Project Alternative is insufficient to meet existing and future travel demand; current and projected congestion of the transportation system would continue to result in deteriorating air quality, reduced travel reliability, and increased travel times. Because the No Project Alternative does not meet the project purpose and need, it would not be considered prudent under Section 4(f).
- **Shifted Alignment Alternative:** To avoid the use of the Spring Street Viaduct, the alignment would be shifted to the east or west of the existing railroad corridor. As shown in aerial imagery provided in Figure 4-29 in Section 4.6.2.1, the areas to the east and west of the existing railroad corridor are occupied by the Los Angeles River, Downey Recreation Center, and Downey Swimming Pool to the east, and commercial buildings to the west. Densely populated commercial and residential neighborhoods are located further east and west in areas beyond what is shown in the figure. The Shifted Alignment Alternative would substantially increase the number of residential or business displacements, overall community disruption, and the potential for adverse impacts on cultural resources outside the project APE, including buried archaeological resources, tribal cultural resources, and historic buildings or structures. This alternative would require substantial right-of-way acquisitions and utility relocations, which would result in excessive construction costs; and would result in a combination of impacts that would be significant if taken cumulatively. Therefore, the Shifted Alignment Alternative to avoid the use of the Spring Street Viaduct would not be considered prudent under Section 4(f).
- **Profile Variation Alternative:** Trench and viaduct options were previously considered in the 2011 *Palmdale to Los Angeles Project Section Preliminary Alternatives Analysis* (Authority and FRA 2011). Both tunnel and viaduct options would be disruptive to existing railroad operations during the construction period; result in excessive construction costs because of substantial right-of-way acquisitions and utility relocations, and a considerably high demand for materials, equipment, and construction services and staffing during a prolonged construction period; and result in a combination of impacts that would be significant if taken cumulatively. Therefore, the Profile Variation Alternative to avoid the use of the Spring Street Viaduct would not be considered prudent under Section 4(f). Additional justification that each option is not prudent is as follows:
 - For a viaduct spanning the Spring Street Viaduct, the amount of land required to construct and maintain the structure would increase beyond current design. The viaduct would be up to 70 feet tall in a densely populated area that includes multiple sensitive receptors, which include Los Angeles State Historic Park and Elysian Park to the west of the railroad corridor, the Downey Recreation Center and Downey Pool to the east of the railroad corridor, and densely populated residential neighborhoods east of the railroad corridor, resulting in significant visual, noise, and vibration impacts. Therefore, a viaduct option to avoid the use of the Spring Street Viaduct would not be prudent.

- Tunneling under the Spring Street Viaduct would require more land to be acquired for construction and operations, resulting in right-of-way impacts, including displacing businesses and public facilities, and impacts on cultural resources. Additionally, substantial amounts of soil would be removed, the export and storage of which would be considerable, resulting in additional air quality, cultural, and potential hazardous materials impacts. Lowering the alignment to provide sufficient clearance for a tunnel would involve the reconfiguration of the alignments and, depending on the alternative, may require additional tunneling to avoid other environmental or structural constraints and the reconfiguration of additional intersections. Therefore, a tunnel option to avoid the use of the Spring Street Viaduct would not be prudent.

Based on this analysis, there are no feasible and prudent alternatives that would avoid the use of the Spring Street Viaduct.

4.7.5 Feasible and Prudent Analysis of Avoidance Alternatives: Main Street Bridge

As described in Section 4.6.2.1, the Main Street Bridge, would be discontinued from transportation use to eliminate at-grade crossings within the project section, which would constitute a permanent use of the historic bridge under Section 4(f).

The Shifted Alignment Alternative, No Project Alternative, and Profile Variation Alternative would avoid the use of the Main Street Bridge. However, as shown in **Error! Reference source not found.**, these avoidance alternatives would not be prudent, as follows:

- **No Project Alternative:** The No Project Alternative would not construct the HSR project and would thus have no impact on the Main Street Bridge related to construction and operation of the HSR project. However, the No Project Alternative would not address the Authority's purpose and need for the project. The No Project Alternative is insufficient to meet existing and future travel demand; current and projected congestion of the transportation system would continue to result in deteriorating air quality, reduced travel reliability, and increased travel times. Because the No Project Alternative does not meet the project purpose and need, it would not be considered prudent under Section 4(f).
- **Shifted Alignment Alternative:** To avoid the use of the Main Street Bridge, the alignment would be shifted to the east or west of the existing railroad corridor. As shown in aerial imagery provided in Figure 4-30 in Section 4.6.2.1, the areas to the east and west of the existing railroad corridor are occupied by the Los Angeles River and Albion Riverside Park to the east and commercial buildings to the west. Densely populated commercial and residential neighborhoods are located further east and west in areas beyond what is shown in the figure. The Shifted Alignment Alternative would substantially increase the number of residential or business displacements, overall community disruption, and the potential for adverse impacts on cultural resources outside the project APE, including buried archaeological resources, tribal cultural resources, and historic buildings or structures. This alternative would require substantial right-of-way acquisitions and utility relocations, which would result in excessive construction costs and would result in a combination of impacts that would be significant if taken cumulatively. Therefore, the Shifted Alignment Alternative to avoid the use of the Main Street Bridge would not be considered prudent under Section 4(f).
- **Profile Variation Alternative:** Trench and viaduct options were previously considered in the 2011 *Palmdale to Los Angeles Project Section Preliminary Alternatives Analysis* (Authority and FRA 2010). Both tunnel and viaduct options would be disruptive to existing railroad operations during the construction period; result in excessive construction costs because of substantial right-of-way acquisitions and utility relocations, and a considerably high demand for materials, equipment, and construction services and staffing during a prolonged construction period; and result in a combination of impacts that would be significant if taken cumulatively. Therefore, the Profile Variation Alternative to avoid the use of the Main Street Bridge would not be considered prudent under Section 4(f). Additional justification that each option is not prudent is as follows:

- For a viaduct spanning the Main Street Bridge, the amount of land required to construct and maintain the structure would increase beyond the current design. The viaduct would be up to 70 feet tall in a densely populated area that includes multiple sensitive receptors, which include Albion Riverside Park and densely populated residential neighborhoods east of the railroad corridor, resulting in significant visual, noise, and vibration impacts. Therefore, a viaduct option to avoid the use of the Main Street Bridge would not be prudent.
- Tunneling under the Main Street Bridge would require more land to be acquired for construction and operations, resulting in right-of-way impacts, including displacing businesses and public facilities, and impacts on cultural resources. Additionally, substantial amounts of soil would be removed, the export and storage of which would be considerable, resulting in additional air quality, cultural, and potential hazardous materials impacts. Lowering the alignment to provide sufficient clearance for a tunnel would involve the reconfiguration of the alignments and, depending on the alternative, may require additional tunneling to avoid other environmental or structural constraints and the reconfiguration of additional intersections. Therefore, a tunnel option to avoid the use of the Main Street Bridge would not be prudent.

Based on this analysis, there are no feasible and prudent alternatives that would avoid the use of the Main Street Bridge.

4.8 Measures to Minimize Harm

Measures to minimize harm include measures that were taken during project planning to avoid or minimize impact. The HSR Build Alternative incorporates both standardized HSR features to avoid and minimize impacts, referred to as IAMFs, as well as mitigation measures to minimize harm. The IAMFs differ from mitigation measures in that they are part of the project and would be implemented by the Authority as a binding commitment as part of project approval. Appendix 2-B, California High-Speed Rail: Impact Avoidance and Minimization Features, provides a detailed description of IAMFs that are included as part of the HSR Build Alternative design. In contrast, mitigation measures may be required to further reduce, compensate for, or offset project impacts that the analysis identifies under NEPA or concludes are significant under CEQA.

The Authority is required by Section 4(f) to incorporate all possible planning to minimize harm to a Section 4(f) property only when the Authority finds that there would be a use of that property and the Authority does not make a finding of *de minimis* impact for that property. See 23 C.F.R. 774.3(a) and (b). The Authority has proposed findings of permanent use for the following five resources:

- **Recreational Resources**

- San Fernando Railroad Bike Path (Planned)

- **Cultural Resources**

- Arroyo Seco Parkway Historic District
- Broadway (Buena Vista) Viaduct
- Spring Street Viaduct
- Main Street Bridge

Therefore, Section 4(f) requires measures to minimize harm to these five resources. Specific measures that would be implemented to minimize harm to each resource are discussed in Section 4.6 within the use assessments for those resources.

Additionally, the HSR Build Alternative has been developed to avoid uses to Section 4(f) properties where possible, as described in Section 4.7, Avoidance Alternatives, and coordinated with the officials with jurisdiction over the resource. The Authority is continuing ongoing coordination, as appropriate, with these officials; during the Authority's consideration of its

decision and during final design, additional measures may be agreed on to further reduce potential impacts on Section 4(f) properties.

If the Authority finds that an alternative would not use a Section 4(f) property, or finds that a use would occur but would be a *de minimis* impact, the Authority is not required by Section 4(f) to consider or incorporate measures to minimize harm. As discussed in Section 4.6, the Authority proposed findings of temporary occupancy (i.e., no use) or *de minimis* impact determinations for six Section 4(f) properties (five recreational resources and one historic property) that would be temporarily or permanently affected by the HSR Build Alternative. In addition, the project would not result in the use of 39 recreational resources and 21 historic properties located in the study area. While the Authority would implement IAMFs to avoid or minimize potential impacts as part of the project design, the Authority is not required by Section 4(f) to adopt additional measures to minimize harm to these Section 4(f) properties.

The project IAMFs and mitigation measures are listed in Table 4-3.

Table 4-3 Measures to Minimize Harm

Impact(s)	Measures to Minimize Harm
Impact Avoidance and Minimization Features	
Long-Term Access Impacts to Parks, Recreation, and Open Space during Project Operation	<p>PK-IAMF#1: Parks, Recreation, and Open Space</p> <p>Prior to Construction, the Contractor will prepare and submit to the Authority a technical memorandum that identifies project design features to be implemented to minimize impacts on parks, recreation and open space. Typical design measures to avoid or minimize impacts to parks and recreation may include:</p> <ul style="list-style-type: none"> ▪ Provide safe and attractive access for present travel modes (e.g., motorists, bicyclists, pedestrians—as applicable) to existing park and recreation facilities. ▪ Design guideway, system, and station features in such a way as to enhance the surrounding local communities. Provide easy crossings of the guideway which allows for community use under the guideway or at station areas.
Short-Term Access Impacts to Parks, Recreation, and Open Space during Project Construction	<p>TR-IAMF#2: Construction Transportation Plan</p> <p>The design-build contractor will prepare a detailed Construction Transportation Plan (CTP) for the purpose of minimizing the impact of construction and construction traffic on adjoining and nearby roadways in close consultation with the local jurisdiction and/or property owners having authority over the site. The Authority must review and approve the CTP before the Contractor commences any construction activities. This plan would address, in detail, the activities to be carried out in each construction phase, with the requirement of maintaining traffic flow during peak travel periods. Such activities include, but are not limited to, the routing and scheduling of materials deliveries, materials staging and storage areas, construction employee arrival and departure schedules, employee parking locations, and temporary road closures, if any. The CTP would provide traffic controls pursuant to the <i>California Manual on Uniform Traffic Control Devices</i> sections on temporary traffic controls (Caltrans 2012) and would include a traffic control plan that includes, at a minimum, the following elements:</p> <ul style="list-style-type: none"> ▪ Temporary signage to alert drivers and pedestrians to the construction zone. ▪ Flag persons or other methods of traffic control. ▪ Traffic speed limitations in the construction zone. ▪ Temporary road closures and provisions for alternative access during the closure. ▪ Detour provisions for temporary road closures—alternating one-way traffic would be considered as an alternative to temporary closures where practicable and where it would result in better traffic flow than would a detour. ▪ Identified routes for construction traffic. ▪ Provisions for safe pedestrian and bicycle passage or convenient detour.

Impact(s)	Measures to Minimize Harm
	<ul style="list-style-type: none"> ▪ Provisions to minimize access disruption to residents, businesses, customers, delivery vehicles, and buses to the extent practicable—where road closures are required during construction, limit to the hours that are least disruptive to access for the adjacent land uses. ▪ Provisions for 24-hour access by emergency vehicles. ▪ Safe vehicular and pedestrian access to local businesses and residences during construction. The plan would provide for scheduled transit access where construction would otherwise impede such access. Where an existing bus stop is within the work zone, the design-builder would provide a temporary bus stop at a safe and convenient location away from where construction is occurring in close coordination with the transit operator. Adequate measures would be taken to separate students and parents walking to and from the temporary bus stop from the construction zone. ▪ Advance notification to the local school district of construction activities and rigorously maintained traffic control at all school bus loading zones, to provide for the safety of schoolchildren. Review existing or planned Safe Routes to Schools with school districts and emergency responders to incorporate roadway modifications that maintain existing traffic patterns and fulfill response route and access needs during project construction and HSR operations. ▪ Identification and assessment of the potential safety risks of project construction to children, especially in areas where the project is located near homes, schools, day care centers, and parks. ▪ Promotion of child safety within and near the project area. For example, crossing guards could be provided in areas where construction activities are located near schools, day care centers, and parks. <p>CTPs would consider and account for the potential for overlapping construction projects.</p> <p>TR-IAMF#4: Maintenance of Pedestrian Access</p> <p>The Contractor will prepare specific construction management plans to address maintenance of pedestrian access during the construction period. Actions that limit pedestrian access would include, but not be limited to, sidewalk closures, bridge closures, crosswalk closures or pedestrian rerouting at intersections, placement of construction-related material within pedestrian pathways or sidewalks, and other actions that may affect the mobility or safety of pedestrians during the construction period. If sidewalks are maintained along the construction site frontage, provide covered walkways and fencing. The plan objective will be to maintain pedestrian access where feasible (i.e., meeting design, safety, Americans with Disabilities Act (ADA) requirements). This measure will be addressed in the CTP.</p> <p>TR-IAMF#5: Maintenance of Bicycle Access</p> <p>The Contractor will prepare specific construction management plans to address maintenance of bicycle access during the construction period. Actions that limit bicycle access would include, but not be limited to, bike lane closures or narrowing, closure or narrowing of streets that are designated bike routes, bridge closures, placement of construction-related materials within designated bike lanes or along bike routes, and other actions that may affect the mobility or safety of bicyclists during the construction period. Maintain bicycle access where feasible (i.e., meeting design, safety, ADA requirements). This measure will be addressed in the CTP.</p>
<p>Short-Term Fugitive Dust Emissions from Project Construction at Parks and Recreational Resources</p>	<p>AQ-IAMF#1: Fugitive Dust Emissions</p> <p>During construction, the Contractor will employ the following measures to minimize and control fugitive dust emissions. The Contractor will prepare a fugitive dust control plan for each distinct construction segment. At a minimum, the plan will describe how each measure would be employed and identify an individual responsible for ensuring implementation. At a minimum, the plan will address the following components unless alternative measures are approved by the applicable air quality management district.</p>

Impact(s)	Measures to Minimize Harm
	<ul style="list-style-type: none"> ▪ Cover all vehicle loads transported on public roads to limit visible dust emissions, and maintain at least 6 inches of freeboard space from the top of the container or truck bed. ▪ Clean all trucks and equipment before exiting the construction site using an appropriate cleaning station that does not allow runoff to leave the site or mud to be carried on tires off the site. ▪ Water exposed surfaces and unpaved roads at a minimum three times daily with adequate volume to result in wetting of the top 1 inch of soil but avoiding overland flow. Rain events may result in adequate wetting of top 1 inch of soil thereby alleviating the need to manually apply water. ▪ Limit vehicle travel speed on unpaved roads to 15 miles per hour (mph). ▪ Suspend any dust-generating activities when average wind speed exceeds 25 mph. ▪ Stabilize all disturbed areas, including storage piles that are not being used on a daily basis for construction purposes, by using water, a chemical stabilizer/suppressant, hydro mulch or by covering with a tarp or other suitable cover or vegetative ground cover, to control fugitive dust emissions effectively. In areas adjacent to organic farms, the Authority would use non-chemical means of dust suppression. ▪ Stabilize all on-site unpaved roads and off-site unpaved access roads, using water or a chemical stabilizer/suppressant, to effectively control fugitive dust emissions. In areas adjacent to organic farms, the Authority would use non-chemical means of dust suppression. ▪ Carry out watering or presoaking for all land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities. ▪ For buildings up to 6 stories in height, wet all exterior surfaces of buildings during demolition. ▪ Limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at a minimum of once daily, using a vacuum type sweeper. ▪ After the addition of materials to or the removal of materials from surface or outdoor storage piles, apply sufficient water or a chemical stabilizer/suppressant.
<p>Short-Term Noise and Vibration Impacts from Project Construction at Parks and Recreational Resources</p>	<p>N&V-IAMF#1: Noise and Vibration</p> <p>Prior to construction, the contractor will prepare and submit to the Authority a noise and vibration technical memorandum documenting how the FTA and FRA guidelines for minimizing construction noise and vibration impacts will be employed when work is being conducted within 1,000 feet of sensitive receptors. Typical construction practices contained in the FTA and FRA guidelines for minimizing construction noise and vibration impacts include the following:</p> <ul style="list-style-type: none"> ▪ Construct noise barriers, such as temporary walls or piles on excavated material, between noisy activities and noise-sensitive resources. ▪ Route truck traffic away from residential streets when possible. ▪ Construct walled enclosures around especially noisy activities or around clusters of noise equipment. ▪ Combine noisy operations so that they occur in the same period. ▪ Phase demolition, earthmoving, and ground-impacting operations so as not to occur in the same time period. ▪ Avoid impact pile driving where possible in vibration-sensitive areas.

Impact(s)	Measures to Minimize Harm
<p>Long-Term Visual Changes at Parks and Recreational Resources</p>	<p>AVQ-IAMF#1: Aesthetic Options</p> <p>Prior to construction the Contractor will document, through issue of a technical memorandum, how the Authority's aesthetic guidelines have been employed to minimize visual impacts. The Authority seeks to balance providing a consistent, project-wide aesthetic with the local context for the numerous high-speed rail non-station structures across the state. Examples of aesthetic options would be provided to local jurisdictions that can be applied to non-standard structures in the high-speed rail system. Refer to Aesthetic Options for Non-Station Structures, 2017.</p> <p>AVQ-IAMF#2: Aesthetic Review Process</p> <p>Prior to construction, the Contractor will document that the Authority's aesthetic review process has been followed to guide the development of non-station area structures. Documentation will be through issuance of a technical memorandum to the Authority. The Authority would identify key non-station structures recommended for aesthetic treatment, consult with local jurisdictions on how best to involve the community in the process, solicit input from local jurisdictions on their aesthetic preferences, and evaluate aesthetic preferences for potential cost, schedule and operational impacts. The Authority would also evaluate compatibility with project-wide aesthetic goals, include recommended aesthetic approaches in the construction procurement documents, and work with the contractor and local jurisdictions to review designs and local aesthetic preferences and incorporate them into final design and construction. Refer to Aesthetic Options for Non-Station Structures, 2017.</p>
<p>Potential Disturbance of Cultural Resources during Project Construction</p>	<p>CUL-IAMF#1: Geospatial Data Layer and Archaeological Sensitivity Map</p> <p>Prior to Construction (any ground disturbing activities) and staging of materials and equipment, the Contractor's archaeologist or geoarchaeologist will prepare a geospatial data layer identifying the locations of all known archaeological resources and built historic resources that require avoidance or protection, and areas of archaeological sensitivity that require monitoring within the APE. The Contractor's archaeologist, who meets the Secretary of the Interior's Professional Qualifications Standards provided in 36 C.F.R. 61, is to use, as appropriate, a combination of the following: known locations of archaeological sites and built historic properties, tribal consultation, landforms, depositional processes, distance to water, mapping provided in the Archaeological Treatment Plan, or historic mapping. This mapping is to be updated as the design progresses if it results in an expansion of the area of ground disturbance/APE, including temporary construction easements and new laydown and access areas. This mapping would be used to develop an archaeological monitoring plan to be prepared by the Contractor's archaeologist, and upon approval by the Authority, implemented by the Contractor's archaeologist. When design is sufficiently advanced, a geospatial data layer would be produced by the Contractor overlaying the locations of all known archaeological resources and built historic resources within the APE, for which avoidance measures are necessary, and all archaeologically sensitive areas, for which monitoring is required.</p> <p>CUL-IAMF#2: WEAP Training Session</p>

Impact(s)	Measures to Minimize Harm
	<p>Prior to Construction (any ground disturbing activity) construction contractor personnel who work on site would attend a WEAP training session provided by the Contractor and/or property owner(s). The WEAP would include cultural resources awareness training performed by the Contractor's archaeologist who meets the Secretary of the Interior's Professional Qualification Standards provided in 36 C.F.R. 61. The Contractor would develop instructional materials and a fact sheet for distribution to the construction crews, and submit the materials, as well as qualifications of the personnel providing the training, to the Authority for approval at least 15 days prior to being permitted on-site access. The training would address measures required to avoid or protect built historic resources, educate crews on artifacts and archaeological features they may encounter and the mandatory procedures to follow should potential cultural resources be exposed during construction. Translation services will be provided by the Contractor for non-English speaking participants. The training sessions will be given prior to the initiation of any ground disturbance activities and repeated on an annual basis. Additionally, new construction crewmembers will attend an initial WEAP training session prior to working on site.</p> <p>On completion of the WEAP training, construction crews would sign a form stating that they attended the training, understood the information presented, and would comply with the WEAP requirements. The Contractor's archaeologist would submit the signed WEAP training forms to the Mitigation Manager on a monthly basis. On an annual basis, the Contractor would provide the Authority with a letter indicating that regular WEAP training has been implemented and would provide at least one PowerPoint annually of the WEAP training. On a monthly basis, the Contractor's archaeologist would provide updates and synopsis of the training to workers during the daily safety ("tailgate") meeting. Construction crews would be informed during the WEAP training that, to the extent possible, travel within the marked project site would be restricted to established roadbeds.</p> <p>CUL-IAMF#3: Pre-Construction Cultural Resource Surveys</p> <p>Prior to Construction (any ground disturbing activities in areas not yet surveyed) and the staging of materials and equipment, the Contractor will conduct pre-construction cultural resource surveys. Resulting from lack of legal access, much of the construction footprint may not have been surveyed. Once parcels are accessible the Contractor would have archaeologists who meet the Secretary of the Interior professional qualification standards survey and complete reporting in appropriate document for archaeology, in accordance with documentation requirements stipulated in the Programmatic Agreement. Identified resources will be evaluated for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR). The qualified archaeologist would assess the potential to affect historic properties (NRHP) by applying the effects criteria in 36 C.F.R. 800.5(a)(1), and the potential of significant impacts to historical resources (CRHR) by applying the criteria in California Environmental Quality Act (CEQA) Guidelines 15064.5(b). Should the Authority determine, in consultation with the State Historic Preservation Office (SHPO), that any newly identified historic properties or historical resources would be adversely affected, the Archeological Treatment Plan would be amended to document mitigation measures agreed upon by the MOA signatories. The schedule of these surveys would be dependent on the timing of obtaining legal access to the properties and may be driven by the need to complete construction-related activities, e.g., geotechnical borings, laydown yards, etc. Prior to beginning surveys, updated records searches may be required by the Authority, depending on the length of the passage of time, to validate that accurate information was obtained regarding previous inventory and evaluation efforts. The Contractor's archaeologist, in consultation with the Authority, would determine if an updated records search is required. If an updated records search is necessary, the search will be performed by the Contractor's archaeologist.</p> <p>CUL-IAMF#4: Relocation of Project Features when Possible</p>

Impact(s)	Measures to Minimize Harm
	<p>Changing the rail alignment to avoid newly discovered sites is likely infeasible; however, access areas and laydown sites may be relocated should their proposed location be found to be on archaeological sites or have the potential to affect historic built resources in the vicinity. The contractor would delineate all avoidance and protection measures for identified archaeological and built resources on construction drawings.</p> <p>CUL-IAMF#5: Archaeological Monitoring Plan and Implementation</p> <p>Prior to construction the Contractor's professionally qualified archaeologist, as defined in the Programmatic Agreement, would prepare a monitoring plan based on the results of geospatial data layer and archaeological sensitivity map. The plan is to be reviewed and approved by the Authority prior to any ground-disturbing activities. During Construction (any ground disturbing activities) or staging of materials or equipment, the Contractor would be responsible for implementing the monitoring plan and providing archaeological and tribal monitoring of ground-disturbing construction activities with a potential to affect archaeological remains in areas identified as archaeologically sensitive in the Archaeological Treatment Plan. The Contractor will obtain Authority approval of all persons providing archaeological or tribal monitoring.</p> <p>CUL-IAMF#6: Pre-Construction Conditions Assessment, Plan for Protection of Historic Built Resources, and Repair of Inadvertent Damage</p> <p>Prior to Construction (any ground disturbing activities that are within 1,000 feet of a historic built property) the Contractor may be required to assess the condition of construction-adjacent historic properties, and prepare a Plan for the Protection of Historic Built Resources and Repair of Inadvertent Damage. The MOA and Built Environment Treatment Plan (BETP) would stipulate for which properties the plan is to be prepared. MOA signatories and consulting parties may comment on the adequacy of the assessments. Protection measures would be developed in consultation with the landowner or land-owning agencies as well as the SHPO and the MOA signatories and consulting parties, as required by the Programmatic Agreement. As the design progresses, additional properties may be identified by the Authority as requiring this plan. The plan will record existing conditions in order to (1) establish a baseline against which to compare the property's post-project condition, (2) to identify structural deficiencies that make the property vulnerable to project construction related damage, such as vibration, and (3) to identify stabilization or other measures required to avoid or minimize inadvertent adverse effects. The plan would be further described in the BETP and be prepared by an interdisciplinary team, including (but not limited to) as appropriate, an architectural historian, architect, photographer, structural engineer, and acoustical engineer. Ambient conditions would be used to identify buildings that are sensitive receptors to construction-related vibration and require vibration monitoring during construction activities. Additional protective measures may be required if the property is vacant during construction.</p> <p>The plan content will be outlined in the BETP and is to be completed and approved by the Authority, with protective measures implemented before construction begins within 1,000 feet of the subject building. The plan will describe the protocols for documenting inadvertent damage (should it occur), as well as notification, coordination, and reporting to the SHPO, MOA signatories, and the owner of the historic property. The plan will direct that inadvertent damage to historic properties will be repaired in accordance with the Secretary of the Interior's (SOI) Standards for the Treatment of Historic Properties (U.S. Department of the Interior, 1995). The plan will be developed in coordination with the Authority, and will be submitted to the SHPO for review and approval. Protective plans would be required for buildings that would be moved as part of the project mitigation, including stabilization before, during, and after relocation; protection during temporary storage; and relocation to a new site, followed by rehabilitation.</p>

Impact(s)	Measures to Minimize Harm
	<p>CUL-IAMF#7: Built Environment Monitoring Plan</p> <p>Prior to Construction (any ground disturbing activities within 1,000 feet of a historic property or resource) the Contractor will prepare a Built Environment Monitoring Plan (BEMP). Draft and final BEMP's would be prepared describing the properties that would require monitoring, the type of activities or resources that would require full-time monitoring or spot checks, the required number of monitors for each construction activity, and the parameters that would influence the level of effort for monitoring. Maximum vibration level thresholds may be established in the Plan for Protection of Historic Resources and Repair of Inadvertent Damage the monitoring of which would be included in this monitoring plan. The BETP would outline the process for corrective action should the protection measures prove ineffective. Consultation procedures would also be defined in the BETP. The Contractor will develop both the draft and final plans in coordination with the Authority,</p>
Mitigation Measures	
<p>Short-Term Access Impacts and Closures from Project Construction at Parks or Recreational Resources</p>	<p>PR-MM#1: Temporary Restricted Access to Park Facilities During Construction</p> <p>Prior to construction (any ground-disturbing activity impacting trails), the contractor will prepare a technical memorandum documenting how connections to the unaffected trail portions and nearby roadways are maintained during construction. The contractor would provide alternative access via a temporary detour of the trail using existing roadways or other public rights-of-way. The contractor would provide detour signage and lighting and would provide that the alternative routes meet public safety requirements. The technical memorandum will be submitted to the Authority for review and approval.</p> <p>PR-MM#3: Temporary Closures and Detours of Existing Trails and Bicycle Lanes</p> <ul style="list-style-type: none"> ▪ Trail and Bicycle Lane Facilities Plan—During final design, the Authority's project engineer would require the design/build contractor to develop a Trail and Bicycle Lane Facilities Plan addressing the short-term project impacts to existing trails and bicycle lanes within the construction limits of the project. That plan would address: <ul style="list-style-type: none"> - Identifying trails and bicycle lanes that would be closed temporarily and detoured during construction - Preparing a public awareness and notification plan - Temporarily closing trails and bicycle lanes during construction - Developing and implementing detours for temporarily closed trails and bicycle lanes - Phasing of temporary trail and bicycle lane closures to allow for effective detours to maintain connectivity of these facilities around the construction areas - Coordinating the trail and bicycle lane closures and detours with the local jurisdictions with authority over those facilities - Criteria for identifying detour routes and facilities - Information signing for closures and detours - Requirements for compliance with the Americans with Disabilities Act during construction - Maintaining signing for closures and detours throughout the closure period and replacing lost or damaged signing - Restoring trails and bicycle lanes to their original or better condition at the completion of project construction ▪ Temporary Closures of Trails and Bicycle Lanes—Prior to any temporary closures of trails and bicycle lanes, the Authority's project engineer would require the design/build contractor to coordinate with the directors of the appropriate jurisdictions' public works and/or parks departments, or their representatives, to review the location of and need for each temporary trail or bicycle lane closure. The Authority's Project Engineer would require the design/build contractor to develop detours for each closure in consultation with the public works and/or parks department directors or their representatives. Prior to

Impact(s)	Measures to Minimize Harm
	<p>and during construction activities that would require the temporary closure of a trail or bicycle lane, the Authority's project engineer would require the design/build contractor to comply with and implement the procedures in the Trail and Bicycle Lane Facilities Plan, described above, for the affected trails and bicycle lanes.</p> <ul style="list-style-type: none"> ▪ Signing for Trail and Bicycle Lane Detours and Closures—The Authority's project engineer would require the design/build contractor to develop detour signs, in consultation with the appropriate jurisdictions' public works and/or parks departments, notifying trail and bike lane users of the upcoming temporary facility closure and directing the trail and bicycle lane users to the temporary detour routes with estimated timeframes. The project design-build contractor would provide appropriate directional and informational signage prior to each closure and far enough in advance of the closure so trail and bicycle lane users would not have to backtrack to get to the detour routes. ▪ Contact Information at Trail and Bicycle Lane Detours—The Authority's project engineer would require the design/build contractor to provide detour signing that includes contact information for the Authority's project engineer and the design/build contractor, and that informs trail users to contact the project engineer and/or the design/build contractor with questions or concerns regarding upcoming or active temporary trail and bicycle lane closures. ▪ Restoration of Impacted Trail and Bicycle Lane Segments—The Authority's project engineer would require the design/build contractor to return trail and bike path segments closed temporarily during construction to their original, or better, condition after completion of construction, prior to their return to the control of the applicable public works or parks department. After project construction, the Authority's project engineer would require the design/build contractor to document that access to and connectivity of the affected trails and bicycle lanes were restored. ▪ Compliance with the Trails and Bicycle Lane Facilities Plan—Compliance with the Trails and Bicycle Lane Facilities Plan would be documented in the environmental commitments record with text, photographs, maps, and correspondence, as appropriate.
<p>Temporary Uses of Parks and Recreational Resources during Project Construction</p>	<p>PR-MM#5: Temporary Use of Land from Park, Recreation, or School Play Areas During Construction:</p> <ul style="list-style-type: none"> ▪ Temporary Impact Areas—During final design, the Authority's Project Engineer would evaluate all proposed temporary impact areas in parks, recreational resources, and school play areas and would identify opportunities to further reduce the sizes of those temporary impact areas. All temporary impact areas in parks, recreational resources, and school play areas shown on the project plans and specifications would include notes that the design/build contractor cannot increase the size of any of those areas without consultation with and approval by the project engineer. ▪ Temporary Impact Areas—During final design, the Authority's project engineer would consult with the affected jurisdictions and property owners to discuss the temporary impact areas needed for construction of the High-Speed Rail (HSR) Build Alternative and to determine the appropriate level of compensation for the use of land from park, recreation, or school play areas for the established temporary impact areas. It is anticipated that the compensation would be payments for the temporary use of land from those resources for the period of time that land is used for temporary impact areas during project construction. ▪ Access Restrictions at Temporary Impact Areas—The Authority's project engineer would require the design/build contractor to fence and gate all land in parks, recreation facilities, and school play areas used for temporary impact areas. The temporary impact areas would be appropriately signed to restrict access to those areas by park and recreational resource patrons and users of school play areas. The Authority's project engineer would require the design/build contractor to maintain the fencing throughout

Impact(s)	Measures to Minimize Harm
	<p>the time period each temporary impact area is used and to remove the fencing only after all construction activity in an area is completed, the temporary impact area is no longer needed, and the land is ready to be returned to the property owner.</p> <ul style="list-style-type: none"> ▪ Signing of Fenced Temporary Impact Areas—The Authority’s project engineer would require the design/build contractor to provide signing at each temporary impact area explaining why the area is fenced and access to the temporary impact area is restricted, the anticipated completion date of the use of the land for the temporary impact area, and contact information (for both the Authority’s project engineer and the design/build contractor) for the public to solicit further information regarding the temporary impact area and the project. ▪ Modifications to Recreation Uses—In the event a temporary impact area requires the temporary use of land at a park, recreational resource, or school play area that is used for recreation purposes, the Authority’s project engineer would consult with the property owner/operator on: (1) whether the property owner/operator wants those recreation uses replaced temporarily elsewhere on the property, and (2) if temporary replacement of those recreation uses is desired, modifications that could be made to the remaining recreation area on the property to temporarily replace the recreation uses displaced by the temporary impact area. Any modifications to recreation areas outside the limits of a temporary impact area would be constructed/implemented prior to fencing and use of the temporary impact area. ▪ Return of Land Used by Temporary Impact Areas to the Property Owners—The Authority’s project engineer would require the design/build contractor to return the land used for each temporary impact area to the owner in its original or better condition when construction in an area has been completed and the temporary impact area is no longer needed. The Authority’s project engineer would require the design/build contractor to coordinate the restoration of the affected land with the property owner and the project engineer.
<p>Long-Term Access Impacts on Parks and Recreational Resources</p>	<p>PR-MM#2: Providing Park Access</p> <p>Prior to construction (any ground-disturbing activity affecting park access), the contractor will prepare a technical memorandum documenting how the contractor would ensure that connections to the unaffected park portions or nearby roadways are maintained after construction. If a proposed linear park closure restricts connectivity, the contractor would provide permanent access via using existing roadways or other public rights-of-way. The technical memoranda will be submitted to the Authority for review and approval.</p>
<p>Permanent Acquisition of Property from Existing or Planned Bicycle Routes</p>	<p>PR-MM#4: Replacement of Property Acquired from Existing or Planned Bicycle Routes</p> <p>During the right-of-way acquisition process, the Authority will consult with the public agency with jurisdiction over any existing or planned bicycle routes regarding the specific conditions of acquisition and replacement of for the land that will be acquired.</p> <p>Where property that contains existing or planned bicycle paths required for HSR improvements involves the establishment of a permanent easement or permanent conversion to rail right-of-way from lands owned by the Los Angeles County Metropolitan Transportation Authority (Metro), the Authority will consult with the officials with jurisdiction to identify an alternative route for the continuation of the lost use and functionality of the resource, including maintaining connectivity. The identification of the alternative route must be determined to be feasible for the intended use by the respective Public Works Department, or Parks and Recreation Department or other equivalent authority within the affected City prior to the establishment of the permanent easement or permanent conversion of the Metro-owned lands.</p>

Impact(s)	Measures to Minimize Harm
Visual Disruption from Construction Activities near Parks and Recreational Resources	<p>AVR-MM#1: Minimize Visual Disruption from Construction Activities</p> <p>Prior to construction (any ground disturbing activity) the Contractor will prepare a technical memorandum identifying how the project will minimize construction-related visual/aesthetic disruption and include the following activities:</p> <ul style="list-style-type: none"> ▪ Minimize pre-construction clearing to that necessary for construction. ▪ Limit the removal of buildings to those that would conflict with project components. ▪ When possible, preserve existing vegetation, particularly vegetation along the edge of construction areas that may help screen views. ▪ After construction, regrade areas disturbed by construction, staging, and storage to original contours and revegetate with plant material similar in numbers and types to that that was removed, based upon local jurisdictional requirements. If no local jurisdictional requirements exist, replace removed vegetation at a 1:1 replacement ratio for shrubs and small trees, and a 2:1 replacement ratio for mature trees. For example, if the contractor removes 10 mature trees in an area, replant 20 younger trees that within 5 to 15 years (depending upon the growth rates of the trees) would be of a height and spread to provide visual screening similar to the visual screening provided by the trees that were removed for construction. Replaced shrubs will be a minimum 5 gallon and replaced trees will be a minimum 24" box and minimum 8' in height. ▪ To the extent feasible, do not locate construction staging sites within the immediate foreground distance (0 to 500 feet) of existing residential neighborhoods, recreational areas, or other land uses that include highly-sensitivity viewers. Where such siting is unavoidable, screen staging sites from viewers using appropriate solid screening materials such as temporary fencing and walls. Paint over or remove any graffiti or visual defacement of temporary fencing and walls within five business days of it occurring. <p>The technical memorandum will be submitted to the Authority for review and approval.</p>
Visual Changes from Sonora Avenue Grade Separation near Griffith Manor Park	<p>AVR-MM#3: Incorporate Design Aesthetic Preferences into Final Design and Construction of Non-Station Structures</p> <p>Prior to construction (any ground disturbing activity) the Contractor will work with the Authority and local jurisdictions to incorporate the Authority-approved aesthetic preferences for non-station structures into final design and construction. Refer to Aesthetic Options for Non-Stations Structures, 2017. A technical memorandum will be submitted to the Authority to document compliance.</p>
Temporary Noise and Vibration Impacts from Project Construction	<p>N&V-MM#1: Construction Noise Mitigation Measures:</p> <p>Prior to construction (any ground disturbing activities), the contractor will prepare a noise-monitoring program for Authority approval. The noise-monitoring program will describe how during construction the contractor will monitor construction noise to verify compliance with the noise limits (An 8-hour Leq, dBA of 80 during the day and 70 at night for residential land use, 85 for both day and night for commercial land use, and 90 for both day and night for industrial land use). The contractor would be given the flexibility to meet the FRA construction noise limits in the most efficient and cost-effective manner. This can be done by either prohibiting certain noise-generating activities during nighttime hours or providing additional noise control measures to meet the noise limits. In addition, the noise-monitoring program will describe the actions required of the contractor to meet required noise limits. These actions will include the following nighttime and daytime noise control mitigation measures, as necessary:</p> <ul style="list-style-type: none"> ▪ Install a temporary construction site noise barrier near a noise source. ▪ Avoid nighttime construction in residential neighborhoods. ▪ Locate stationary construction equipment as far as possible from noise-sensitive sites. ▪ Reroute construction truck traffic along roadways that will cause the least disturbance to residents.

Impact(s)	Measures to Minimize Harm
	<ul style="list-style-type: none"> ▪ During nighttime work, use smart back-up alarms, which automatically adjust the alarm level based on the background noise level, or switch off back-up alarms and replace with spotters. ▪ Use low-noise-emission equipment. ▪ Implement noise-deadening measures for truck loading and operations. ▪ Monitor and maintain equipment to meet noise limits. ▪ Line or cover storage bins, conveyors, and chutes with sound-deadening material. ▪ Use acoustic enclosures, shields, or shrouds for equipment and facilities. ▪ Use high-grade engine exhaust silencers and engine-casing sound insulation. ▪ Prohibit aboveground jackhammering and impact pile driving during nighttime hours. ▪ Minimize the use of generators to power equipment. ▪ Limit use of public address systems. ▪ Grade surface irregularities on construction sites. ▪ Use moveable noise barriers at the source of the construction activity. ▪ Limit or avoid certain noisy activities during nighttime hours. ▪ To mitigate noise related to pile driving, the use of an auger to install the piles instead of a pile driver would reduce noise levels substantially. If pile driving is necessary, limit the time of day that the activity can occur. ▪ The Authority will establish and maintain in operation until completion of construction a toll-free “hotline” regarding the project section construction activities. The Authority will arrange for all incoming messages to be logged (with summaries of the contents of each message) and for a designated Authority representative to respond to hotline messages within 24 hours (excluding weekends and holidays). The Authority will make a reasonable good-faith effort to address all concerns and answer all questions, and will include on the log its responses to all callers. The Authority will make the log of the incoming messages and the Authority’s responsive actions publicly available on its website. <p>The contractor will provide the Authority with an annual report by January 31 of the following year documenting how it implemented the noise-monitoring program.</p>
<p>Potential Disturbance of Currently Unidentified Archaeological and Built Environment Resources</p>	<p>CUL-MM#1: Mitigate Adverse Effects to Archaeological Resources Identified During Phased Identification</p> <p>Once parcels are accessible and surveys have been completed, including consultation as stipulated in the MOA, additional archaeological resources may be identified. For newly identified eligible properties that would be adversely affected, the following process would be followed, which would be presented in detail in the Archaeological Treatment Plan (ATP):</p> <ul style="list-style-type: none"> ▪ The Authority would consult with the MOA signatories and concurring parties to determine the preferred treatment of the properties/resources and appropriate mitigation measures. ▪ For California Register of Historical Resources (CRHR)-eligible archaeological resources, the Authority will determine if these resources can feasibly be preserved in place, or if data recovery is necessary. The methods of preservation in place will be considered in the order of priority provided in CEQA Guidelines § 15126.4(b)(3). If data recovery is the only feasible treatment the Authority will adopt a data recovery plan as required under CEQA Guidelines § 15126.4(b)(3)(C). ▪ Should data recovery be necessary, the Contractor’s Principal Investigator PI, in consultation with the MOA signatories and consulting parties, would prepare a data recovery plan, for approval from the Authority and in consultation with the MOA signatories. Upon approval, the Contractor’s PI would implement the plan.

Impact(s)	Measures to Minimize Harm
	<ul style="list-style-type: none"> ▪ For archaeological resources the Authority will also determine if the resource is a unique archaeological site under CEQA. If the resource is not a historical resource but is an archaeological site the resource will be treated as required in California Public Resources Code 21083.2 by following protection, data recovery, and/or other appropriate steps outlined in the ATP. The review and approval requirements for these documents would be outlined in the ATP. <p>CUL-MM#2: Halt Work in the Event of an Archaeological Discovery and Comply with the Programmatic Agreement (PA), Memorandum of Agreement (MOA), Archaeological Treatment Plan (ATP), and all State and Federal Laws, as applicable</p> <p>During construction (any ground disturbing activities, including clearing and grubbing) should there be an unanticipated discovery, the Contractor will follow the procedures for unanticipated discoveries as stipulated in the PA, MOA, and associated ATP. The procedures must also be consistent with the following: the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716-42), as amended (National Park Service); and Guidelines for the Implementation of CEQA, as amended (Title 14 CCR Chapter 3, Article 9, Sections 15120-15132). Should the discovery include human remains, the Contractor, the Authority, and the FRA will comply with federal and state regulations and guidelines regarding the treatment of human remains, including relevant sections of Native American Graves Protection and Repatriation Act (NAGPRA) (§3(c)(d)); California Health and Safety Code, Section 8010 et seq.; and CPRC Section 5097.98; and consult with the Native American Heritage Commission, tribal groups, and the State Historic Preservation Officer (SHPO).</p> <p>In the event of an unanticipated archaeological discovery, the contractor would cease work in the immediate vicinity of the find, based on the direction of the archaeological monitor or the apparent location of cultural resources if no monitor is present. If no qualified archaeologist is present, no work can commence until it is approved by the qualified archaeologist in accordance with the MOA, ATP, and monitoring plan. The contractor's qualified archaeologist would assess the potential significance of the find and make recommendations for further evaluation and treatment as necessary.</p> <p>CUL-MM#3: Other Mitigation for Effects to Pre-Contact Archaeological Sites</p> <p>Due to limited access to private properties during the environmental review phase of this project, the Authority's ability to fully identify and evaluate archaeological resources within the APE has, correspondingly, also been limited. Thus, most of the project APE has not been subject to archaeological field inventories. As pedestrian field surveys are a necessary component of the archaeological resource identification and evaluation effort, the commitment to complete the field surveys, prior to ground disturbing activities associated with the project, are codified in the MOA that has been executed as a condition of this Final EIR/EIS.</p> <p>Access to previously-inaccessible properties to complete the archaeological resource identification effort is expected to be available after the Record of Decision, during the design-build phase of the project. However, due to the design constraints associated with constructing a high-speed train, the ability to shift the alignment to avoid any newly-identified archaeological resources at this late phase of the project delivery process is substantially limited and/or unlikely, as the alignment is already established. As such, impacts/effects to as-yet-unidentified significant archaeological resources as a result of this project are anticipated; however, the nature and quantity of such effects remains unknown until completion of the archaeological field identification and evaluation effort, and after all ground-disturbing construction activities are complete.</p> <p>Protocols for the identification, evaluation, treatment, and data-recovery mitigation of as-yet-unidentified archaeological resources are addressed in the MOA and Archaeological Treatment Plan (ATP). Efforts to develop meaningful mitigation measures for effects to as-yet-unidentified Native American archaeological resources that cannot be avoided would</p>

Impact(s)	Measures to Minimize Harm
	<p>be negotiated with the tribal Consulting Parties. Measures that are negotiated among the MOA signatories and tribal Consulting Parties would be the responsibility of the Authority to implement.</p>
<p>Indirect Adverse Effects (Diminished Integrity of Setting) at the Main Street Bridge (Bridge #53C1010)</p>	<p>CUL-MM#7: Prepare Interpretive or Educational Materials</p> <p>The Authority-prepared MOA and Built Environment Treatment Plan (BETP) would identify historic properties and historical resources that would be subject to historic interpretation or preparation of educational materials. Interpretive and educational materials would address the significance of the properties that would be affected by the project. Interpretive or educational materials could include, but are not limited to: brochures, videos, websites, study guides, teaching guides, articles or reports for general publication, commemorative plaques, or exhibits. The agreed-upon method of interpretation would be specified in the BETP for each property, resulting from consultation with the State Historic Preservation Officer (SHPO), MOA signatories and concurring parties. The contractor would be responsible for assembling the appropriate interdisciplinary team to fulfill the mitigation. The required professionals and their qualifications would be specified in the BETP.</p> <p>In the preparation of the interpretive or educational materials, the contractor’s team would utilize previous research included in the environmental technical documents, images, narrative history, drawings, or other material produced for the mitigation described above. The interpretive or educational materials should be made available to the public in physical or digital formats, at local libraries, historical societies, or public buildings, as specified in the BETP.</p>
<p>Inadvertent Damage to Main Street Bridge (Bridge #53C1010) during Project Construction</p>	<p>CUL-MM#8: Repair of Inadvertent Damage</p> <p>The Authority-prepared Memorandum of Agreement (MOA) and Built Environment Treatment Plan (BETP) would identify properties subject to the preparation of plans for the repair of inadvertent damage, plans to be developed prior to the start of construction in the immediate proximity of the historic properties; the HSR standard impact avoidance and minimization measures require the Contractor to prepare these plans. Should any of the properties or resources be damaged as a result of construction activities, the contractor would repair them in accordance with the approved plan and with the Secretary of the Interior’s (SOI) Standards for Rehabilitation. Inadvertent damage is any damage that results in a significant impact to a historical resource within the meaning of CEQA Guidelines Section 15064.5(b)(2) or adverse effects to historic properties within the meaning of 36 C.F.R. 800.5(a)(1). All repairs would be reviewed and approved by the Authority prior to determining that the treatment has been adequately implemented.</p> <p>There may be instances where a property or resource that is damaged during construction would be better served by temporary stabilization and protection, with final repairs occurring post construction. This would be determined by the Authority, in consultation with the MOA signatories. Should this be the preferred approach, the contractor would have their interdisciplinary team prepare plans for the temporary work, for approval by the Authority and MOA signatories prior to construction commencing in the area of the damaged property. Any emergency stabilization deemed necessary by the contractor prior to plan approval must be reversible.</p>
<p>Direct Adverse Effects from Intrusion Protection Railing on Three Historic Bridges</p>	<p>CUL-MM#12: Design of Intrusion Protection Railing</p> <p>The Authority will involve the consulting parties in the design of the intrusion protection railing for three bridges – the Los Angeles River Bridge (Bridge# 53-0042R and 53-0042L) of the Arroyo Seco Parkway Historic District, the Broadway (Buena Vista) Viaduct (Bridge# 53C0545), and the Spring Street Viaduct (Bridge# 53C0859) – to avoid destruction of or damage to the historic properties and alterations that are not consistent with the Secretary of the Interior’s Standards for the Treatment of Historic Properties, to the maximum extent feasible while still meeting the safety requirements of the HSR Build Alternative.</p>

Impact(s)	Measures to Minimize Harm
Direct Adverse Effect from Discontinuing the Historic Use of the Main Street Bridge for Transportation	CUL-MM#13: Main Street Bridge Access Feasibility Study The Authority will facilitate the development of a feasibility study to explore design options that would maintain the historic use of the Main Street Bridge to the maximum extent feasible while still meeting the safety requirements of the HSR Build Alternative.

ADA = Americans with Disabilities Act
 APE = area of potential effect
 Authority = California High-Speed Rail Authority
 CFR = Code of Federal Regulations
 HSR = high-speed rail
 MOA = Memorandum of Agreement

For effects on historic properties, the Programmatic Agreement among the SHPO, ACHP, the Authority, and the FRA outlined an approach for compliance with Section 106 of the NHPA. An MOA that is under development for the Burbank to Los Angeles project section would address the treatment of adverse effects on the built environment from the proposed HSR alignment. Mitigation measures will be finalized as part of the MOA development process, which will conclude prior to the ROD and circulation of the final environmental document. The MOA would stipulate which treatment measures would be applied to which cultural resources and that the treatments would be described in the BETP. The BETP would define the process by which these treatment measures would be applied to each identified resource. Proposed measures to minimize harm for all historic properties are listed together in Table 4-3, measures pertaining to each individual historic property are outlined in Section 3.17, Cultural Resources. As described, the project includes all possible planning to minimize harm to Section 4(f) properties resulting from use, as required by 49 U.S.C. Section 303(c)(2).

4.9 Section 4(f) Least Harm Analysis

When more than one alternative is under consideration, an analysis and identification of the alternative that has the overall least harm must be documented in the final Section 4(f) evaluation. Because there is only one prudent and feasible build alternative within the Burbank to Los Angeles Project Section (the HSR Build Alternative), an analysis of least overall harm is not required pursuant to 23 C.F.R. 774.3(c); rather, the requirement to minimize harm is addressed through the consideration of refinements to the build alternative and implementation of mitigation, minimization, and avoidance measures.

4.10 Section 6(f)

A review of the LWCF website indicates that there are no resources in the project vicinity that are funded by LWCF (National Park Service 2017). No Section 6(f) properties have been identified in the study area; therefore, no further discussion is required.