8 PREFERRED ALTERNATIVE

8.1 Introduction

This chapter identifies the California High-Speed Rail Authority's (Authority) Preferred Alternative for the Los Angeles to Anaheim Project Section (project section) of the California High-Speed Rail (HSR) System. Shared Passenger Track Alternative A, with a light maintenance facility (LMF) at 26th Street, is the Authority's Preferred Alternative for the project section.

The Preferred Alternative extends approximately 30 miles from Los Angeles to Anaheim.[1] The project section starts at the northern edge of U.S. Highway 101, where the viaduct built as part of the Los Angeles County Metropolitan Transportation Authority's (Metro) Link Union Station (Link US) Project would begin (at Los Angeles Union Station [LAUS]). The project section ends at Anaheim Regional Transportation Intermodal Center (ARTIC).

The HSR project is closely interrelated with Metro's Link US Project, of which the Authority is the federal lead agency. As part of the Link US Project, Metro would build platforms, tracks, and the viaduct over U.S. Highway 101 to First Street, which could be used by HSR trains. From north of U.S. Highway 101 to First Street, the Authority would only build the overhead contact system[2] over the shared tracks to power HSR trains. This portion of the overhead contact system is considered to be part of this project section and is therefore included in this Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS).[3]

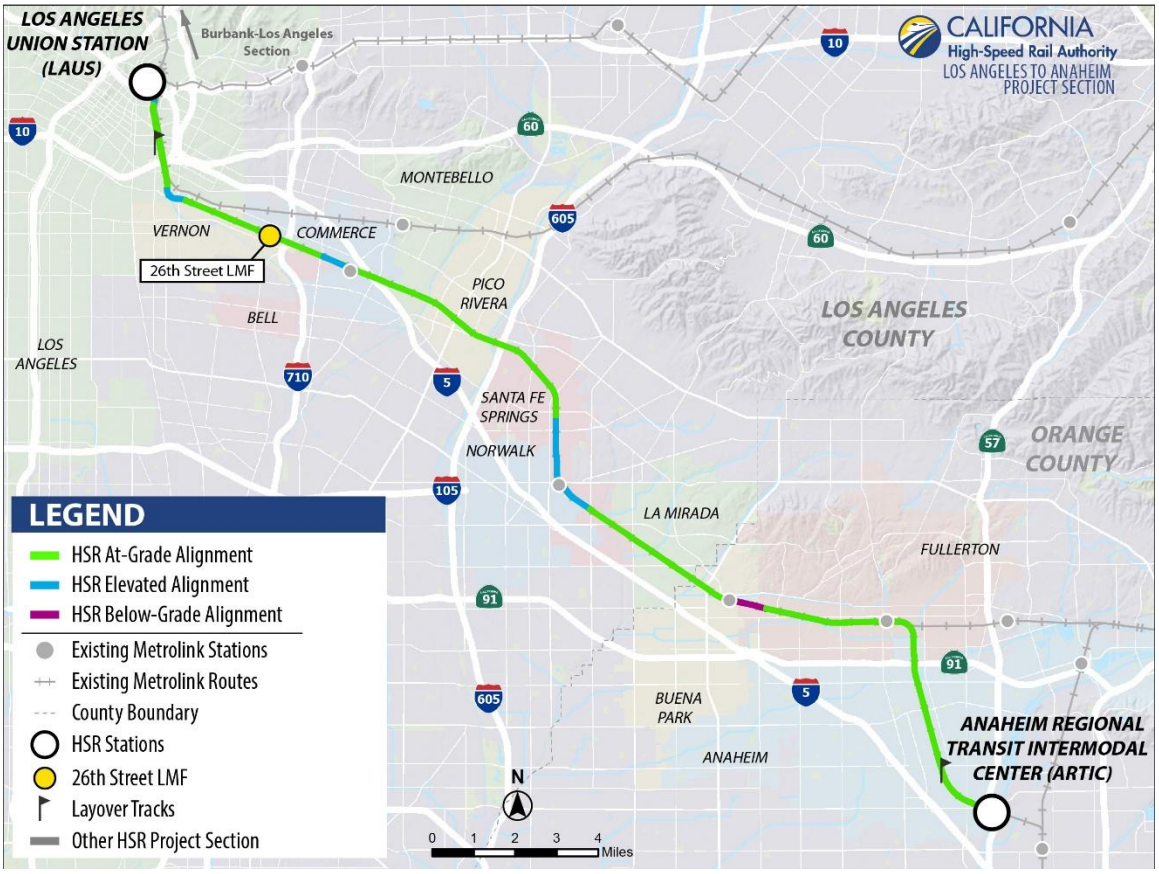
The project section is in an existing railroad corridor currently used by BNSF Railway (BNSF), Metrolink (of the Southern California Regional Rail Authority), and Amtrak (of the National Passenger Railroad Corporation). Users include both national Amtrak long-distance service and state-supported Pacific Surfliner intercity rail service, for which Amtrak is the contracted operator. The Preferred Alternative proposes new and upgraded track, overhead contact system, maintenance and traction power facilities, grade separations, drainage improvements, communications towers, security fencing, passenger train stations, and other necessary infrastructure to introduce HSR service into the Los Angeles – San Diego – San Luis Obispo Rail Corridor (LOSSAN Corridor) from south of LAUS to ARTIC, as illustrated on Figure 8-1. The Preferred Alternative would operate in a shared-track arrangement known as a "blended system," whereby HSR trains would share new and upgraded tracks with passenger and freight rail currently operating in the LOSSAN Corridor. The Authority would build an additional mainline through the majority of the corridor, totaling to four mainline tracks. Two of the four mainline tracks would be electrified to be shared among passenger rail operators, but BNSF could use them during periods when there would not be operational conflicts with scheduled passenger trains. The two nonelectrified mainline tracks would be used for freight. The project footprint would be implemented largely within the existing railroad right-of-way, generally 100 feet wide in this urban corridor, and include both a northbound and southbound electrified track for HSR. In constrained areas along the corridor, the width is reduced to 50 feet. Additional right-of-way

[1] The project section connects logical termini at planned passenger stations where HSR service would be provided at LAUS to the north and at ARTIC to the south. The Authority evaluated the environmental impacts associated with an HSR station at LAUS as an element of the Burbank to Los Angeles Project Section EIR/EIS, and the Authority Board approved this station in January 2022. Any LAUS elements discussed in this Draft EIR/EIS are included for context and reference and to provide additional information. For more information about LAUS, please refer to the Burbank to Los Angeles Project Section Final EIR/EIS, available on the Authority's website.

[2] The overhead contact system provides electrical power to HSR trainsets and is necessary for their operation along the entirety of the HSR system. It is a two-wire system, a messenger wire and a contact wire, with overhead wires supported by cantilevers and attached to poles alongside the tracks.

[3] The Burbank to Los Angeles Project Section included the Authority's construction of overhead contact system leading through LAUS to a point north of U.S. Highway 101. First Street is the match line where the Link Union Station tracks stop and the Authority's Los Angeles to Anaheim Project Section's tracks begin. Starting from that point, the Authority's project includes the HSR project tracks and all other project infrastructure south to ARTIC.

would be required beyond the existing right-of-way in certain areas. The project footprint includes all project components and consequential physical changes, including existing and potential stations, potential maintenance sites, wayside and other ancillary HSR facilities, areas needed for construction mobilization and material laydown, roadway and utility relocations, power supply connections, and associated property rights. The Preferred Alternative would include HSR station facilities in Anaheim, and the project section would connect HSR service to the HSR station at LAUS. Although this Draft EIR/EIS considered intermediate HSR station options (at Norwalk/Santa Fe Springs and Fullerton), neither station option is part of the Preferred Alternative for reasons described herein.



Source: Authority 2024b
Draft alignments, elements not to scale

Figure 8-1 Los Angeles to Anaheim Project Section Preferred Alternative

The Preferred Alternative does not include a systemwide heavy maintenance facility; the heavy maintenance facility would be within either the Merced to Fresno Project Section or the Fresno to Bakersfield Project Section.

The Authority established a range of criteria to use in the identification of the Preferred Alternative. These criteria were applied to evaluate the key differentiators between Shared Passenger Track Alternatives A and B. These criteria included community factors, environmental issues, and meeting project objectives (Authority 2024a). The identification of the Preferred Alternative is based in part on the analyses presented in this Draft EIR/EIS as well as on public comments. These include comments from members of the public, local communities, businesses, organizations, and government interested parties in meetings held during project scoping in 2007 and 2020 and after publishing of the Supplemental Alternatives Analysis in 2023, and ongoing public outreach conducted by the Authority since that time.

This Draft EIR/EIS provides information on the relative differences among physical and operational characteristics and potential environmental consequences associated with the HSR alternatives and station location options, including the following:

- Physical/operational characteristics:
  - Alignment
  - Length
  - Capital cost
  - Travel time
  - Ridership
  - Constructability
- Environmental impacts:
  - Transportation-related topics (air quality, noise and vibration, and energy)
  - Human environment (land use and community impacts, farmlands and agriculture, aesthetics and visual resources, socioeconomics, community analysis, utilities and public services, hazardous materials and wastes)
  - Cultural resources (archaeological resources, historic properties)
  - Natural environment (geology and seismic hazards, paleontological resources, hydrology and water resources, and biological and aquatic resources)
  - Sections 4(f) or 6(f) properties (certain types of publicly owned parklands, recreation areas, wildlife/waterfowl refuges, and significant historic sites regardless of ownership)

In identifying a preferred alternative, the Authority was guided by the project purpose and need and project objectives described in Chapter 1, Project Purpose, Need, and Objectives, and the HSR Performance Criteria identified in Chapter 2, Alternatives. The Authority also prepared a series of documents chronicling agency consultation, public outreach, and alternatives analyses to establish the range of alternatives to be evaluated in this Draft EIR/EIS, including:

- *Final Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Proposed California High-Speed Train System* (Statewide Program EIR/EIS) (Authority and FRA 2005)
- *Los Angeles to Anaheim Project Section Alternatives Analysis Report* (Authority and FRA 2009)
- *Los Angeles to Anaheim Project Section Supplemental Alternatives Analysis Report* (Authority and FRA 2010)
- *Los Angeles to Anaheim Project Section Supplemental Alternatives Analysis Report* (Authority and FRA 2016)
- *Los Angeles to Anaheim Project Section Supplemental Alternatives Analysis Report* (Authority 2023)
- *Preliminary Impacts Assessment Report* (Authority 2024a)

These documents can be found at www.hsr.ca.gov/.

Scoping

The process of determining the focus and content of an environmental impact report/environmental impact statement (EIR/EIS) is known as scoping. Scoping helps to identify the range of actions, alternatives, environmental effects, and mitigation measures analyzed in an EIR/EIS.

8.2 Summary of Comments

The Authority released a Notice of Preparation and distributed the notice to the State Clearinghouse (State Clearinghouse No. 2007031067); elected officials; local, regional, and state agencies; and the interested public on March 12, 2007. The Federal Railroad Administration (FRA) published a Notice of Intent in the *Federal Register* on March 15, 2007. The Notice of Preparation and Notice of Intent identified the purpose of the project, the project limits, a description of project alternatives, the

need for agency input, potential environmental impacts of the project, points of contact for additional information, and the dates and locations of the scoping meetings.

As part of public outreach for the project section, three public scoping meetings were held between April 5 and April 12, 2007, in Los Angeles, Anaheim, and Norwalk in the project section corridor, with a total of over 100 people in attendance. The Authority and FRA received 64 comment submissions during scoping, including 34 letters and 30 written comment cards. Scoping meetings and comments received on the Notice of Preparation and Notice of Intent helped identify general environmental issues to be addressed in the project section Draft EIR/EIS. The project section scoping process identified issues with the proposed alignments and stations, suggestions for new or modified alignments and stations, and issues of potential concern related to the proposed project. The scoping period for the environmental process occurred from March 15 to April 24, 2007.

In connection with a decision to revise an earlier iteration of the Los Angeles to Anaheim Project Section HSR project to include BNSF facilities in Colton and the unincorporated community of Lenwood in San Bernardino County as necessary components to maintain adequate freight and passenger rail on-time performance and reliability on the LOSSAN Corridor, the Authority issued a Revised Notice of Preparation/Notice of Intent for the project-level Draft EIR/EIS for the initiation of additional scoping to solicit input on facilities in Colton and Lenwood. The FRA published a Notice of Intent in the *Federal Register* on August 25, 2020. The revised scoping period for the project section occurred from August 25 to September 24, 2020. Because of health concerns surrounding the novel coronavirus (COVID-19), the 2020 scoping meetings were modified from in-person to virtual and online meetings. During the revised scoping period, three meetings related to the revised scoping process were held online: Thursday, September 3, 2020 (telephone townhall meeting), from 6:00 p.m. to 7:00 p.m.; Thursday, September 10, 2020, from 5:00 to 7:30 p.m. (virtual scoping meeting #1); and Saturday, September 12, 2020, from 10:00 a.m. to 12:30 p.m. (virtual scoping meeting #2). The Authority received 130 comment submissions consisting of comment forms, letters, and emails, including 95 letters and 35 oral comments. Substantial opposition and concern were identified regarding introducing a new intermodal facility far outside the project corridor.

The Authority worked with community and agency interested parties to vet the conceptual alternatives and to gather information used in developing and comparing alternatives; following the Authority's revised scoping in 2020, interested party feedback led to the advance toward further environmental analysis. In 2023, the Authority issued a Supplemental Alternatives Analysis that evaluated new alternatives that would eliminate the need to redirect trains and trucks to a new BNSF Intermodal Facility in Colton. The 2023 Supplemental Alternatives Analysis proposed the Shared Passenger Track Alternative for further consideration in the draft environmental documents (EIR/EIS).

The Authority also conducted outreach for staging tracks in Hesperia and Victorville in 2024. The staging tracks had been considered as mitigation for freight rail impacts in the 2023 Supplemental Alternatives Analysis Report and 2024 Preliminary Impact Assessment Report (refer to Section 8.3, Alternatives Considered, for additional details about staging tracks). However, in fall of 2024, the staging tracks mitigation sites in Hesperia and Victorville, San Bernardino County, were removed from the project.

Chapter 9, Public and Agency Involvement, includes additional detail about interested party coordination and lists the public meeting dates and content that was covered.

Table 8-1 summarizes the most common types of comments at the public meetings held for the project section.

Table 8-1 Common Comments Considered During Development of Alternatives and Draft EIR/EIS

Topic	Key Issues
Protection of the Environment	▪ Traffic congestion in the region ▪ Land use compatibility and effects of land use changes in the project section ▪ Noise and vibration level increases along the project alignment ▪ Air pollution added to the region ▪ Biological resources, including nesting birds, bat species, and aquatic and nonaquatic resources affected during construction ▪ Safety and security concerns ▪ Construction methods for project implementation ▪ Energy requirements for project implementation ▪ Public utilities usage and conflicts ▪ Lake and Streambed Alteration Agreement requirements ▪ Waterbodies and their tributaries impacts ▪ Impacts on the Los Angeles River ▪ Aesthetics and visual quality ▪ Cultural resources affected by construction ▪ Los Angeles River bridges, Los Angeles Main Street Bridge ▪ Impacts from construction of opaque barriers ▪ Liquefaction, landslide hazards, and faulting hazards ▪ Proposed Los Angeles River Trail Extension, the Rio Hondo River Trail, and the San Gabriel River Trail ▪ Property values ▪ Train derailment safety hazards ▪ Infrastructure and flood district projects in Orange County ▪ Community analysis and impacts
Alignment and Station Alternatives	▪ Parking requirements at stations ▪ Expansion of nearby facilities ▪ Safety and security features (such as fencing) for rail grade separations and at-grade crossings ▪ Grade separation of crossings with arterial highways ▪ Effects of rail grade separation on local highway circulation during construction ▪ Pedestrian and bike path separation and continuity ▪ Maintenance facilities ▪ Platform length ▪ Curvature of the alignment ▪ The continuation to Fullerton for the project alignment ▪ Impacts of the BNSF Railway Components on the project; purpose and need for the project alternative (at that time) ▪ Concerns regarding use of the existing right-of-way between Los Angeles Union Station and San Diego Santa Fe Station
Operating Speed	▪ Up to 90 miles per hour

Topic	Key Issues
Connectivity and Coordination with/Impacts on Other Transportation Facilities	▪ Shared station access with existing rail stations ▪ Shared use of existing rail right-of-way ▪ Designing additional tracks to accommodate present and future rail operations ▪ Metrolink's planned ridership service expansion and concerns about taking ridership from Metrolink ▪ Compatibility with Amtrak and Metrolink train schedules ▪ Impacts on freight rail service ▪ Improvements to pedestrian, baggage, and transit connections at Los Angeles Union Station to accommodate HSR passengers[1] ▪ Improvements at the BNSF Railway Component facilities adding freight train volumes and resulting in impacts on freight truck operations and goods movement ▪ Additional truck trips or alteration of truck routes ▪ Changes to the truck routes on the state highway system ▪ Goods movement through use of the BNSF Railway facilities
Train Technologies	▪ Magnetic levitation and alternative energy sources ▪ Different train types
Project Funding/Cost	▪ Funding for project construction ▪ Increased operating costs, revenue estimates compared to existing HSR (e.g., Germany, France, Japan) ▪ Funding for grade separations (not secured by the Authority)

[1] This is beyond the scope of this project section.
Amtrak = National Railroad Passenger Corporation; Authority = California High-Speed Rail Authority; EIR/EIS = environmental impact report/ environmental impact statement; HSR = high-speed rail

8.2.1 California Legislators

During the refinement of the alternative, the Authority continued to work with state elected officials within the project section to ensure effective communication, coordination, and discussion of comments and concerns. The Authority accomplished this through legislative staff group briefings for state elected officials at key milestones and prior to public meetings. Additionally, Authority staff provided legislative staff one-on-one meetings as necessary.

Staff from the office of then-U.S. Senator Kamala Harris attended the June 2020 staff briefing and commented on potential impacts on Colton and Barstow. Similarly, issues raised by Congressmember Lucille Roybal-Allard staff were on job creation, community impacts, and Colton and Lenwood demographics. These comments pertain to the Colton and Lenwood Components, which are not part of the Preferred Alternative. Issues raised in briefings held in October 2023 and May 2024 with the California Congress, State Senate, and State Assembly include the following:

- Relationship between BNSF and HSR (State Senate District 29)
- Frequency passenger trains/ridership impacts (State Assembly District 68)
- Potential impacts and safety with shared tracks (State Senate District 33)
- Impacts on community from idling trains at storage facilities (State Senate District 33)
- Funding plan (State Senate District 33)
- Land acquisitions (State Senate District 33)
- Speed in Los Angeles to Anaheim corridor (State Assembly District 68)

- Community feedback on no HSR Norwalk/Santa Fe Springs Station (Congressional District 38)

8.2.2 Project Area Local Governments

Key feedback from local communities relevant to the Preferred Alternative includes the following:

- **City of Los Angeles:** Right-of-way requirements, impacts on cultural resources and multi-unit residential complex, connectivity with the community
- **City of Vernon:** Maintaining access to businesses, preserving tax base, right-of-way requirements, grade separation impacts, effects on local streets, use of layover tracks
- **City of Bell:** Right-of-way requirements, potential impacts on existing warehouses
- **City of Commerce:** Maintaining access to businesses, preserving tax base, right-of-way requirements, effects on local streets, impacts on Commerce Metrolink Station, noise/vibration, environmental justice
- **City of Montebello:** North-south connectivity in the city across the railroad corridor; noise, vibration, and aesthetic impacts for the residential area north of the railroad corridor; aerial alignments
- **City of Pico Rivera:** Grade separation impacts, noise/vibration/aesthetic impacts for residential areas bordering the rail corridor, right-of-way requirements, bike path connectivity to the San Gabriel River and Rio Hondo trails, impacts with new proposed Metrolink station
- **City of Santa Fe Springs:** Maintaining access to businesses, preserving tax base, right-of-way requirements, HSR station benefits/impacts, congestion from additional traffic on local streets, potential visual impacts, support for a Norwalk/Santa Fe Springs HSR Station in the city, roadway improvements at grade separations
- **City of Norwalk:** HSR station benefits/impacts, congestion from additional traffic on local streets, noise/vibration/aesthetic impacts for areas bordering the rail corridor, support for a Norwalk/Santa Fe Springs HSR Station in the city, roadway improvements at grade separations
- **City of La Mirada:** Grade separation impacts, noise/vibration impacts for residential areas north of the rail corridor, potential soundwalls as mitigation if noise impacts are identified, roadway improvements at grade separations
- **City of Buena Park:** Reconstruction of existing Metrolink station, preserving tax base, grade separation/property impacts, noise/vibration for residential areas along the rail corridor impacts on Metrolink station and surrounding neighborhood
- **City of Fullerton:** Right-of-way requirements, HSR station benefits/impacts, opportunities for partnership with the Authority on development, HSR station option support—or support for no HSR station options, quiet zones, additional outreach needs, maintenance of freight rail, Orangethorpe Avenue grade-separation support, project support, rail safety, parking impacts
- **City of Anaheim:** Coordination with city staff and ARTIC project team, treatment of existing at-grade crossings along the rail corridor, right-of-way requirements, connectivity to downtown Anaheim and Los Angeles, economic and connectivity benefits to Fullerton Station, safety at grade crossings, station safety, traffic, business and property impacts, project support, transit-oriented development, grade-crossing quiet zones, LMF locations, train frequency impacts
- **Unincorporated Los Angeles County (Pioneer/Rivera Road):** Community, property and grade-crossing impacts, quiet zone needs, soundwalls

In addition, comments from four cities in the Inland Empire (Barstow, Rialto, Colton, and Grand Terrace) were gathered during scoping in 2020; however, because of the removal of the BNSF

Colton Component from consideration, this input did not inform the selection of the Preferred Alternative.

Appendix 9-A, Comprehensive List of Public and Agency Meetings, provides a detailed list of meetings held during the alternatives development process.

8.2.3 Federal Agencies

Cooperating agencies under the National Environmental Policy Act (NEPA) include the Surface Transportation Board and U.S. Army Corps of Engineers. Multiple other federal agencies have been involved in and contributed to the NEPA process, including, but not limited to, the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Serve, National Marine Fisheries Service, National Park Service, and Advisory Council on Historic Preservation. Coordination with these agencies was conducted throughout development of the Draft EIR/EIS through recurring regulatory agency meetings and one-on-one meetings.

Agency comments and concerns specific to the project section include:

- Minimizing impacts on the Los Angeles River, Santa Ana River, and other waters of the U.S. and state
- Minimizing water quality impacts
- Concerns about bird strikes on the overhead contact system with construction of any new bridge structures

8.2.4 Tribal Consultation

Native American outreach and consultation efforts have been ongoing throughout the project planning process. Because of concerns about potential disturbance of cultural resources, the Authority must maintain the confidentiality of some of the information shared by tribal representatives. Tribal representatives have expressed that the project section is in an area of cultural importance and more resources are likely to be present within the project footprint than the records search for cultural resources indicates. Tribal representatives also accepted the consultation invitation or confirmed formal consultation, requested status updates, discussed statewide transportation issues, requested to have monitors present during any ground-disturbing activities, exchanged information like ethnographic articles and other documents, or provided no response or comment. The Authority has a recurring slot on the Native American Advisory Committee meeting agenda and provided project status and updates to the committee to help keep the tribal community informed, as well as to raise awareness, encourage tribal participation, and lay the groundwork for future consultations with tribes. Section 3.17, Cultural Resources, provides more information on Native American outreach and consultation efforts.

8.2.5 State Agencies

A number of California agencies (state and regional) would have to issue permits or approvals for the project section and therefore serve as California Environmental Quality Act (CEQA) responsible agencies. These agencies include the California Department of Fish and Wildlife, the California Department of Transportation, the California Public Utilities Commission, the California State Lands Commission, the State Water Resources Control Board, the Regional Water Control Boards, and California Department of Toxic Substances Control. Recurring regulatory agency meetings have provided coordination with these agencies throughout development of the Draft EIR/EIS.

Agency comments and concerns specific to the project section include those listed above for federal agencies.

8.2.6 Regional and Other Public Agencies

The Authority consulted additional regional and other public agencies during project planning and the development of this Draft EIR/EIS. In particular, the Authority has been coordinating with Metro and is, under NEPA Assignment and the Memorandum of Understanding between the

Authority, California State Transportation Agency, and Metro, the federal lead agency for the Metro Link US Project EIS. Metro previously certified a Final EIR for the Link US Project in June 2019. The Link US Project will add run-through tracks to LAUS by extending tracks south of U.S. Highway 101, as well as develop a new passenger concourse at LAUS. The proposed HSR station at LAUS would be within the Link US Project limits of disturbance and would only include raising the train platforms and adding overhead contact system infrastructure at LAUS as part of HSR's Burbank to Los Angeles Project Section, which has already been environmentally approved. The Authority has also coordinated with the Los Angeles County Flood Control District, South Coast Air Quality Management District, Southern California Regional Rail Authority (Metrolink), San Bernardino County Transportation Authority, and Orange County Transportation Authority regarding environmental and engineering issues and constraints.

8.2.7 Businesses

Business interests provided comments on air quality, future funding, property acquisitions and impacts, and safety. Other key themes and comments received from businesses include the LMF, location of HSR station options, and Anaheim grade crossings.

8.2.8 Organizations

The Authority and FRA held and the Authority continues to hold regular coordination meetings with the railroad right-of-way owners and freight and passenger rail service operators that use the LOSSAN Corridor. These include BNSF, Amtrak, Metro, Metrolink, and Union Pacific Railroad (UPRR) to discuss how the introduction of HSR service, including track and station improvements, would affect existing rail operations in the corridor and to refine design elements to minimize conflicts. Railroad right-of-way owners and freight and passenger rail service operators commented on air quality, future funding, property acquisitions and impacts, and safety. Other key themes and comments received via the series of engagement activities include the LMF, location of HSR station options, and Anaheim grade crossings.

8.2.9 Individuals

The Authority and FRA held (and the Authority continues to hold) informal and formal public meetings during preparation of the project section Draft EIR/EIS. Various meeting formats, such as open houses, formal presentations, and question and comment sessions, were used to present information and provide opportunities for individual participants to provide input. Key themes identified by individuals through the meeting series included:

- Connectivity: Inquiries about how HSR would connect to key destinations; connectivity to other public transportation networks
- Alignment: Concerns ranging from noise, vibration, and air quality to operational right-of-way issues and property impacts, grade crossings, location of LMFs, speed
- Station Impacts: Concern for how HSR would affect existing stations and their accessibility
- Environmental Impacts: Concern regarding environmental impacts of the Shared Passenger Track Alternatives affecting adjacent land uses (e.g., traffic, air emissions, health risks, noise, vibration, visual, safety, speed, soundwalls)
- Funding and Fares: Concerns about the cost of the project and price of tickets
- Electrification: Inquiries about whether other operators would be able to use the electrified lines
- Service: HSR frequency and duration
- Project support

Public and agency outreach programs were conducted to engage individuals in the railroad corridor cities of Los Angeles, Vernon, Commerce, Bell, Montebello, Pico Rivera, Santa Fe Springs, Norwalk, La Mirada, Buena Park, Fullerton, Anaheim, and Los Nietos in unincorporated

Los Angeles County. Public outreach activities sought to increase project awareness and collaboration and to provide multiple opportunities for affected communities to provide input. Table 5-12 in Chapter 5, Community Analysis, summarizes public outreach activities undertaken during development of the alternatives and Draft EIR/EIS and the measures taken to ensure that information was accessible to low-income and minority populations present in the project section.

8.3 Alternatives Considered

The range of alternatives was developed using a tiered approach, which began with the 2005 Statewide Program EIR/EIS (Authority and FRA 2005). The following regulations and guidance support this approach:

- Procedures for Considering Environmental Impacts (FRA 1999)
- State CEQA Guidelines Section 15126.6 (Consideration and Discussion of Alternatives to the Proposed Project) and Section 15152 (Tiering)
- California Public Resources Code Section 21068.5 (Tiering or Tier)
- FRA High-Speed Intercity Passenger Rail Program Guidance[4]

Following the Authority's and FRA's Tier 1 decisions for the statewide HSR program, the Authority, in cooperation with the FRA, began the environmental review process for the Los Angeles to Anaheim Project Section. The environmental review process includes an outreach and public scoping process. Public and agency comments received during the project section EIR/EIS scoping period (2007), revised scoping (2020), and through interagency coordination meetings also informed the development of initial alternatives for the screening evaluation. After the Authority identified the initial group of potential alternatives, it developed alignment plans, preliminary profile concepts, and cross sections.

The environmental review process resulted in an Alternatives Analysis Report in 2009 and three Supplemental Alternatives Analysis Reports in 2010, 2016, and 2023, which were developed in consultation with the public, federal, state, and local agencies, and community groups.

The 2009 Alternatives Analysis analyzed four alternatives, but only carried forward the Dedicated High-Speed Train Alternative (described below), partially because of the uncertainty of obtaining an FRA waiver to allow shared-track HSR operations. Because of the constrained nature of the LOSSAN Corridor between LAUS and ARTIC, the July 2010 Supplemental Alternatives Analysis Report identified only two build alternatives for detailed consideration within the defined project corridor: Alternative 1 (previously known as the Dedicated High-Speed Train Alternative) and Alternative 2 (previously known as the Consolidated Shared-Track Alternative).

The 2016 Supplemental Alternatives Analysis considered two alternatives: Alternative 1 (previously, the Dedicated High-Speed Train Alternative) and Alternative 2 (previously, the Consolidated Shared-Track Alternative). The 2016 Supplemental Alternatives Analysis determined that Alternative 1 would require the acquisition of additional right-of-way that, although it generally included industrial uses, also included some residential areas in the southern section of the corridor. In contrast, Alternative 2, although also requiring right-of-way acquisitions, would not require as many additional right-of-way acquisitions in residential areas south of Fullerton Junction. Alternative 2 was also refined to include certain components of previously considered project alternatives and reflect ongoing stakeholder engagement. The 2016 Supplemental Alternatives Analysis advanced Alternative 2 for further analysis in the Draft EIR/EIS and eliminated Alternative 1 because of its greater impacts on right-of-way and community resources.

[4] Refer to website: High Speed Intercity Passenger Rail (HSIPR) Program | FRA (dot.gov).

Following the April 2016 Supplemental Alternatives Analysis, the 2016 Refinement Report was developed, which evaluated refinements to Alternative 2 that the Authority advanced from the 2016 Supplemental Alternatives Analysis. It recommended advancing the refined project alternative, named Alternative 2R, for further evaluation in the project Draft EIR/EIS. The refinements further capitalized on the blended system concept and reduced right-of-way impacts by consolidating passenger service on HSR tracks, removing passenger service from freight tracks, and allowing freight trains to use HSR tracks when necessary. Generally, these additional refinements resulted in avoidance or minimization of potential negative environmental impacts on historic resources, parks and recreational facilities, and water resources; reduced need for property acquisition; reduced construction cost; and were developed as a response to input from the public, stakeholders, and other operators in and adjacent to the railroad corridor.

On November 15, 2018, the Authority Board of Directors identified the 2018 HSR Project Alternative as the Preferred Alternative for the Los Angeles to Anaheim Project Section.[5] The 2018 HSR Project Alternative included intermediate station options, in either Norwalk/Santa Fe Springs or Fullerton, or in both locations.

In 2020, the Authority issued a revised Notice of Intent/Notice of Preparation to solicit public input on the Colton and Lenwood Components. Interested party feedback on the Colton Component received following the Authority's revised scoping in 2020 raised substantial opposition to and concern for introducing a new intermodal facility far outside the project corridor. In particular, interested parties in the Inland Empire expressed concerns about the Colton Component's air quality and community impacts, with the added concern that the benefits of HSR and its associated improvements would not reach them. For these reasons, the Authority considered additional alternatives that could eliminate the need to redirect trains and trucks to a new intermodal facility in San Bernardino County.

Responding to these concerns, in 2023, the Authority issued the 2023 Supplemental Alternatives Analysis, which introduced three new alternatives to address the project's purpose and need and respond to concerns regarding the 2018 HSR Project Alternative (formerly called Alternative 2R). These three new alternatives were the Shared Passenger Track Alternative, 3A – Freeway Tunnel Alternative, and 3B – UPRR Alignment Alternative. The 2023 Supplemental Alternatives Analysis determined that the 2018 HSR Project Alternative would no longer be evaluated in the environmental analysis, and identified the Shared Passenger Track Alternative to be evaluated further in this Draft EIR/EIS. The Shared Passenger Track Alternative would follow the same alignment as the 2018 HSR Project Alternative but would not include the Colton or Lenwood Components and would operate fewer trains in the project corridor. However, the 2023 Supplemental Alternatives Analysis Report indicated that staging tracks would still be needed to mitigate congestion in the corridor that would occur with the introduction of HSR service and shared operations; two potential sites for staging tracks were identified in Victorville and Hesperia. Unlike the 2018 HSR Project Alternative, these proposed staging tracks outside the project corridor were not considered a component of the Shared Passenger Track Alternative; rather, they would be provided as mitigation for freight rail performance impacts resulting from HSR construction and operations. Operationally, the Shared Passenger Track Alternative provided a peak service level for HSR trains of two trains per hour per direction. In October 2023, the Authority selected one Shared Passenger Track Alternative for further analysis in the Tier 2, project-level EIR/EIS.

After the 2023 Supplemental Alternatives Analysis, additional design refinements and outreach occurred and in May 2024, the *Preliminary Impacts Assessment Report* (Authority 2024a) was

[5] Refer to the Authority website, https://hsr.ca.gov/docs/brdmeetings/2018/brdmtg_111518_Item6_Final_Resolution_HSRA18_21_Preferred_Alternative_for_LA-Anaheim.pdf, for final resolution.

presented to the Authority Board. The *Preliminary Impacts Assessment Report* further defined elements of the Shared Passenger Track Alternative, such as:

- **HSR station options:** The build alternative would consider one HSR station option in either Norwalk/Santa Fe Springs or Fullerton.
- **LMF:** Two sites would be considered for the LMF, at either 15th Steet in Los Angeles or 26th Street in Vernon.
- **Grade crossings in Anaheim:** Unlike the 2018 HSR Alternative, which grade separated all crossings through Anaheim, the 2024 report recommended only grade separating two crossings and leaving eight crossings at grade to minimize environmental impacts and cost.

The *Preliminary Impacts Assessment Report* recommended the Shared Passenger Track Alternative be split into two build alternatives: Shared Passenger Track Alternative A and Shared Passenger Track Alternative B. The two build alternatives would be similar in all aspects except for the LMF size and location. Shared Passenger Track Alternative A proposes an LMF at 26th Street. Shared Passenger Track Alternative B proposes an LMF at 15th Street. In May 2024, the Board identified Shared Passenger Track Alternative A as the Preferred Alternative.

In fall of 2024, the staging tracks mitigation sites in Hesperia and Victorville, San Bernardino County, were removed from the project. The staging tracks had been considered as mitigation for freight rail impacts in the 2023 Supplemental Alternatives Analysis and 2024 Preliminary Impact Assessment. Because the California Department of Transportation would complete the High Desert Operational Efficiency Project, which fulfills the same function as the Authority's proposed staging tracks, prior to implementation of HSR, the High Desert Operational Efficiency Project will be considered as part of the No Project Alternative.

Figure 8-2 illustrates the evolution of the alternatives in the project section. For more information on the alternatives analysis process, refer to Chapter 2, Section 2.5.1, High-Speed Rail Project-Level Alternatives Development Process.

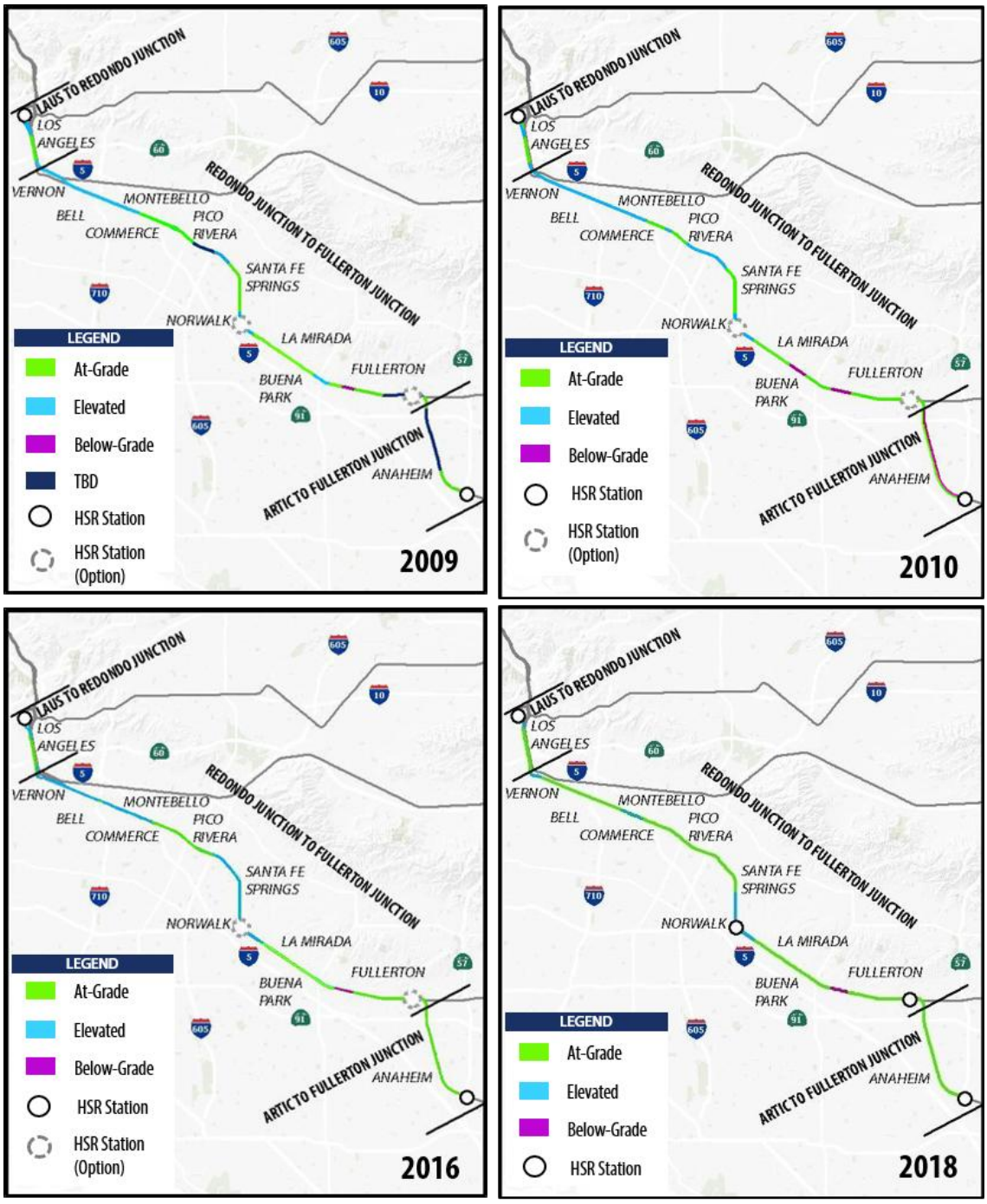


Figure 8-2 Graphical Representation of the Evolution of Los Angeles to Anaheim Project Section Alternatives[6]

[6] While the 2018 HSR project alternative proposed to evaluate both Norwalk/Santa Fe Springs and Fullerton HSR stations, the Authority did not make a formal commitment to build one or both intermediate stations.

8.4 Preferred Alternative

The Authority identified the Preferred Alternative that the agency believes would fulfill its statutory mission and responsibilities by giving consideration to economic, environmental, technical, and other factors. The Authority identified Shared Passenger Track Alternative A as the Preferred Alternative for the Los Angeles to Anaheim Project Section based on a balanced consideration of the environmental information presented in this Draft EIR/EIS in the context of project purpose and need; project objectives; CEQA, NEPA, and Section 404(b)(1) requirements; local and regional land use plans; community preferences; and costs.

The identification of the Preferred Alternative also integrates the Authority's evaluation under Section 4(f) of the Department of Transportation Act (49 U.S. Code 303) (Section 4(f)), which provides special protection to publicly owned public parks; recreational areas of national, state, or local significance; wildlife or waterfowl refuges; and lands of a historic site of national, state, or local significance. As described in Chapter 4, Draft Section 4(f) and 6(f) Evaluations, Section 4(f) properties can only be used by federally funded transportation projects if a *de minimis* impact finding is made or there is no feasible and prudent alternative and all possible planning has been taken to minimize harm to a 4(f) property used by the project. For more information on the Authority's evaluation under Section 4(f), please refer to Chapter 4.

The Authority identified the Preferred Alternative by balancing the adverse and beneficial impacts of the project on the human and natural environment. Taking this holistic approach means that no single issue was dispositive in identifying the Preferred Alternative in any given geographic area. The Authority weighed all of the issues including natural resource and community impacts, the input of the communities along the route, the views of federal and state resource agencies, project costs, and constructability to identify what the agency believes is the best alternative to achieve the project's purpose and need. There was no single determining factor in identifying the Preferred Alternative because of the multitude of issues considered and the varied input received from interested parties on each of the two build alternatives. Furthermore, many impacts on the natural environment and community resources would be the same, or very similar, across both of the build alternatives and, therefore, do not always provide enough meaningful information to distinguish between the relative merits of the alternatives. Because of the similarity of both build alternatives, specific criteria were used to identify a Preferred Alternative based on interested party, agency, and community input. Factored into this assessment are the additional impacts related to Shared Passenger Track Alternative B, which includes a larger area of construction for the LMF, which would result in additional construction impacts (for example, additional air quality emissions, and additional number of displacements).

The Authority's Preferred Alternative for the project section is Shared Passenger Track Alternative A (Figure 8-1) because it best meets the project's purpose and need by serving the most potential passengers in the most cost-effective manner while also reducing impacts on the environment, existing rail operations, and communities. Estimated capital costs are $6,593 million for each alternative (costs are in Quarter 4 2023$).[7] The Preferred Alternative does not include either of the HSR station options considered (Norwalk/Santa Fe Springs and Fullerton).

Interested parties that represented different areas along the corridor did not express a considerable preference toward a specific location between the two proposed Southern California LMF sites (15th Street and 26th Street).

Regarding the HSR station options, residents attending the information sessions for both Norwalk/Santa Fe Springs and Fullerton HSR Station Options expressed interest in having a

[7] The capital costs presented in this EIR/EIS reflect the capital costs that were developed for the 2023 Supplemental Alternatives Analysis that was approved by the Authority Board in May 2024. The Authority is preparing updated capital costs, to be published with the 2026 Business Plan in early 2026.

station in their communities. Community opinion was mixed on the adequacy of current passenger train service between Los Angeles and Anaheim. Although some interested parties agreed that introducing HSR in the area would help improve connectivity, especially on the weekends, others stated there were currently other services such as Metrolink and Amtrak trains that stopped at these stations. Feedback was provided supporting additional connectivity and identifying interagency collaboration as key to improving mobility along the project corridor. Most interested parties also seemed to understand the efficiencies gained by adding none, or only one, but not both HSR station options.

The proposed approach to Anaheim grade crossings was met with support, because interested parties and members of the public expressed relief over the reduced impacts on properties and the surrounding community associated with leaving crossings at grade. Although there is an interest in bringing HSR into the region, interested parties are concerned about the potential impacts (e.g., property acquisition, noise, vibration, air quality, and traffic) that construction could cause and are interested in learning about the mitigation measures that will be studied during the environmental process.

This Draft EIR/EIS's evaluation of potential impacts on community and natural environmental resources highlighted information on how the project alternatives differ substantively. Resources for which the potential impacts do not substantially differ between the alternatives were not included in the evaluation. Chapter 3 of this Draft EIR/EIS indicates that there are no substantial differentiating impacts between alternatives for the following resource areas:

- Air quality and global climate change
- Built environment resources
- Electromagnetic fields and electromagnetic interference
- Public utilities and energy
- Biological resources and wetlands (apart from special-status species habitat)
- Hydrology and water resources
- Geology, soils, and seismicity and paleontological resources
- Safety and security
- Socioeconomics and communities (apart from displacements and changes in property tax revenue)
- Agricultural farmlands
- Regional growth
- Station planning, land use, and development
- Noise and vibration
- Section 4(f) resources

The lack of substantial differentiation does not mean that impacts on these resources are unimportant parts of the evaluation or are not of concern to the public, interested parties, and agencies. All community and natural environmental factors are considered by the Authority as necessary in the NEPA/CEQA process, permitting and final design, construction, and implementation.

Table 8-2 presents the potential impacts of the project alternatives on community and natural environmental factors that differentiate the alternatives and HSR station options. The community factors include displacements, aesthetics and visual quality, land use and development, noise, traffic,[8] emergency vehicle access/response time, and impacts on low-income and minority

[8] In accordance with Senate Bill 743 (2013) and the State CEQA Guideline Updates (December 2018), the Authority does not consider traffic vehicle delay, measured through level of service or other metrics, to be a CEQA significant impact. The Authority's approach to CEQA is the same approach currently used by affected jurisdictions. This approach is currently allowed by the State CEQA Guidelines and became mandatory for all CEQA lead agencies in California as of July 1, 2020. Refer to Section 3.2, Transportation, for more information about traffic delay.

communities. The natural environmental factors include biological resources, Section 4(f)/6(f) resources, and built-environment historic resources. The impacts presented in Table 8-2 include relevant and applicable mitigation.

Table 8-2 Community and Environmental Factors by Alternative and High-Speed Rail Station Options

Impact	Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	HSR Station Option: Norwalk/Santa Fe Springs	HSR Station Option: Fullerton
Community Factors				
Displacements				
Residential displacements (number of units)	3	3	0	0
Commercial and industrial displacements (number of businesses)	256	274	0	9
Community or public facilities displacement (number of units)	0	0	0	0
Changes in Property Tax Revenue				
Losses in property tax revenue in RSA	$4.7 million	$6.3 million	None additional	About $49,000
Aesthetics and Visual Quality				
Visual quality impacts	From features such as stations, new and relocated tracks, historic bridge modifications, including at Olympic Boulevard, and 26th Street LMF	Similar to Shared Passenger Track Alternative A, but slightly more intense construction-related impacts on Olympic Boulevard Bridge because of 15th Street LMF's larger construction area	Localized impacts from elevated station, existing parking lot modifications, OCS	Localized impacts from expansion of existing Metrolink Station, OCS, fencing, retaining walls, and other elements
Traffic				
Permanent road closures	10	11	0	0

Impact	Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	HSR Station Option: Norwalk/Santa Fe Springs	HSR Station Option: Fullerton
Emergency Vehicle Access/Response Time				
Potential for delays in emergency vehicle response time (construction and operation)	Yes, some potential because of 10 road closures and other roadway modifications	Yes, because of 11 road closures (one more than Shared Passenger Track Alternative A, associated with 15th Street LMF) and other roadway modifications	None	None
Community Analysis[1]				
Disproportionately high and adverse effects from disruption of traffic or transit during construction on minority populations or low-income populations	No	No	No	No
Disproportionately high and adverse effects on operational traffic on minority populations or low-income populations	No	No	No	No
Disproportionately high and adverse effects from diesel particulate matter emissions on minority populations or low-income populations	Yes	Yes	Yes	Yes
Disproportionately high and adverse effects on local views associated with the viaduct or elevated embankment on minority populations or low-income populations	No	No	No	No
Disproportionately high and adverse residential displacements to minority populations or low-income populations	Yes	Yes	No	No
Disproportionately high and adverse business displacements to minority populations or low-income populations	Yes	Yes	No	Yes
Disproportionately high and adverse effects from emergency vehicle response time delays on minority populations or low-income populations	No	No	No	No
Disproportionately high and adverse effect on parks on minority populations or low-income populations	No	No	No	No

Impact	Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	HSR Station Option: Norwalk/Santa Fe Springs	HSR Station Option: Fullerton
Disproportionately high and adverse effects from significant exposure to contaminants on minority populations or low-income populations	Yes	Yes	No	Yes
Disproportionately high and adverse severe noise and vibration impacts on minority populations or low-income populations[2]	Yes	Yes	No	No
Environmental Factors				
Biological Resources				
Permanent direct impacts on suitable habitat for selected special-status wildlife species (acres):	--	--	--	--
Mountain lion	32.36	33.27	0	1.35
White-tailed kite	19.71	20.61	0	1.32
Loggerhead shrike	15.03	15.93	0	1.32
Yellow warbler	15.64	16.54	0	1.32
Mexican long-tongued bat	14.61	15.51	0	1.32
Western red bat and Western yellow bat	16.22	17.12	0	1.32
Nesting birds	42.01	42.92	0	1.42
Archaeological Resources				
Number of disturbances of known archaeological sites during construction	5	6	0	2
Hazardous Materials and Waste				
Anticipated volumes of contaminated soil associated with LMF	Up to 18,000 CY of Class I/II soils expected with construction of 26th Street LMF	Up to 48,000 CY of Class I/II soils expected with construction of 15th Street LMF (larger volume associated with trenching beneath Olympic Boulevard)	N/A	N/A

Impact	Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	HSR Station Option: Norwalk/Santa Fe Springs	HSR Station Option: Fullerton
Significant exposure to contaminants associated with the Exide and Orange County North Basin Superfund sites	Yes, associated with construction of 26th St LMF	Yes, associated with track realignment	No	Yes, associated with station and parking structure

[1] Criteria used for evaluation are those subjects where the EIR/EIS analysis indicates disproportionately high and adverse effects on low-income populations and minority populations after direct mitigation. Conclusions take into account the effect of direct mitigation, the offsetting value of project benefits, and where applicable, offsetting mitigation measures proposed for each project alternative.
[3] Determinations regarding use of historic properties under Section 4(f) are not synonymous with findings of adverse effect on historic properties per Section 106. Refer to analysis in Chapter 4.
CY = cubic yards; EIR/EIS = environmental impact report/environmental impact statement; HSR = high-speed rail; LMF = light maintenance facility; N/A = not applicable; OCS = overhead contact system; RSA = resource study area

The Authority Board reviewed the project section during its meeting on May 16, 2024. The alternatives considered were Shared Passenger Track Alternatives A and B and the No Project Alternative. The Board's objective was to evaluate whether to identify Shared Passenger Track Alternative A as the Preferred Alternative in the Draft EIR/EIS. The Authority Board concurred with the staff recommendation that Shared Passenger Track Alternative A should be identified as the state's Preferred Alternative. Resolution #HSRA24-06 can be found on the Authority's website (https://hsr.ca.gov/wp-content/uploads/2024/05/Final-Board-Resolution-LAA-Shared-Passenger-Track-Alternative-May2024-PA-A11Y.pdf). Shared Passenger Track Alternative A would meet the Program and Project purpose and need, as stated in the Statewide Program EIR/EIS and Chapter 1 of this Draft EIR/EIS, respectively, as summarized below:

The program-wide purpose of the 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 this project is to implement the Los Angeles to Anaheim Project Section of the California HSR System to provide the public with electric-powered HSR service that provides predictable and consistent travel times between major urban centers and connectivity to airports, mass transit, and the highway network in the Los Angeles-Orange Counties metropolitan region, and connects to the rest of the system. In addition, the Preferred Alternative would meet the Program and Project CEQA objectives, described in Chapter 1 of this Draft EIR/EIS.

The Authority's statutory mandate is to plan, build, and operate a HSR system, in coordination with California's existing transportation network, particularly intercity rail and bus lines, commuter rail lines, urban rail lines, highways, and airports. In accordance with Section 15124 of the State CEQA Guidelines, the Authority has responded to this mandate by adopting the following objectives and policies for the proposed HSR system:

- Provide intercity travel capacity to supplement critically overused interstate highways and commercial airports.
- Meet future intercity travel demand that will be unmet by present transportation systems; and increase capacity for intercity mobility.
- Maximize intermodal transportation opportunities by locating stations to connect with local transit, airports, and highways.
- Improve the intercity travel experience for Californians by providing comfortable, safe, frequent, and reliable high-speed travel.
- Provide a sustainable reduction in travel time between major urban centers.
- Increase the efficiency of the intercity transportation system.
- Minimize conflicts between freight and passenger rail services.
- Maximize the use of existing transportation corridors and rights-of-way, to the extent feasible.
- Develop a practical and economically viable transportation system that can be implemented in phases and generate revenues in excess of operations and maintenance costs.
- Provide intercity travel in a manner sensitive to and protective of the region's natural and agricultural resources and reduce emissions and vehicle miles traveled (VMT) for intercity trips.

The No Project Alternative would not meet the Program and Project purpose and need, nor would it meet CEQA objectives.

In general, the construction of a complex and innovative project, such as the Shared Passenger Track Alternatives, would always alter the physical landscape and character, even in an urbanized area or in an existing rail corridor. Decision makers can consider the relative benefits and challenges that the Preferred Alternative would have, compared to not building it at all. Although building the Preferred Alternative would cause temporary and permanent impacts, there would be many long-term benefits compared to the No Project Alternative. These benefits are summarized below.

Transportation: Total VMT[9] would be reduced, overall, with the HSR project in operation. VMT would be reduced with the commencement of HSR operations, including an increase in non-HSR passenger rail service, and VMT reductions would be expected to improve each year of operation.

Public Utilities and Energy: The HSR system would decrease automobile VMT and reduce energy consumption by automobiles, resulting in an overall reduction in energy use for intercity and commuter travel.

Regional Growth: Based on preliminary analysis, construction of the Preferred Alternative would result in employment growth and the creation of direct, indirect, and induced jobs in Los Angeles and Orange Counties that would benefit the region during construction. Operation of the Preferred Alternative as well as increased accessibility provided by HSR service would result in long-term employment growth.

Station Planning, Land Use, and Development: Based on preliminary analysis, implementing the Preferred Alternative would attract growth and investment in HSR station areas by increasing statewide accessibility and reducing travel times to intercity destinations.

Impacts of the Preferred Alternative are summarized below:

Transportation: Construction of the Preferred Alternative would result in temporary impacts on emergency access and response times, traffic hazards, passenger and freight rail, and pedestrian and bicyclist safety risks. During construction and operation, delays at signalized intersections and unsignalized intersections would increase temporarily, and changes would occur to volume-to-capacity ratios at some roadway segments within the project section.

During operation, 2040 Plus Project conditions would not result in a net increase of VMT over the baseline condition. Operation of the Preferred Alternative would result in an overall decrease in VMT throughout the region and the state, resulting in a beneficial impact on VMT.

Operation of the Preferred Alternative would not result in conflicts with transit, bicycle, or pedestrian policies, plans, facilities, or programs, and the project would improve continuous transit, bicycle, and pedestrian facility performance and safety. The Preferred Alternative would result in 6 of the existing 14 at-grade rail crossings in the project section becoming grade separated,[10] which would benefit transit, bicycle, and pedestrian facilities, as well as provide a benefit to safety in the corridor. In addition, no permanent impacts on emergency access are anticipated during operation of the Preferred Alternative. The proposed grade separations would provide a benefit to emergency access because passing trains and active grade-crossing safety equipment would no longer cause travel delays to emergency vehicles.

[9] VMT are calculated based on the number of vehicles multiplied by the distance traveled by each vehicle. Total VMT were derived from the statewide travel demand model estimate of daily vehicle miles traveled using medium and high ridership forecasts, as defined in the Authority's Business Plan. Refer to Appendix 1-A for more information regarding the use of ridership forecasts for analysis in the Draft EIR/EIS.

[10] For one of the crossings (Lakeland Road), HSR tracks would be on elevated structure while the freight tracks would remain at grade.

No freeway mainline segments are forecast to experience a substantial change between Horizon Year 2040, No Project Alternative Baseline conditions, and Horizon Year 2040 Plus Project conditions during project operation. However, there would be unavoidable queue length increases along one freeway ramp during AM peak hours on State Route 57. The Preferred Alternative would implement **TRAN-MM#6, Add Lane to State Route 57/Westbound Katella Avenue Southbound On-Ramp**, to provide sufficient capacity to accommodate the additional 680-foot queue length for vehicles exiting onto State Route 57 from Katella Avenue during peak hours.

Air Quality and Global Climate Change: Construction of the Preferred Alternative would result in the temporary generation of emissions of criteria pollutants and toxic air contaminants through the use of heavy-duty construction equipment, construction worker vehicles, and vendor and truck hauling that would exceed the South Coast Air Quality Management District (SCAQMD) regional project-level nitrogen oxides CEQA thresholds and the U.S. Environmental Protection Agency nitrogen oxides General Conformity *de minimis* levels. Although construction of the Preferred Alternative would exceed the SCAQMD regional project-level nitrogen oxides CEQA thresholds and the U.S. Environmental Protection Agency nitrogen oxides General Conformity *de minimis* levels, construction of the Preferred Alternative would not result in localized criteria air pollutant levels that would exceed the National Ambient Air Quality Standards and California Ambient Air Quality Standards.

Demolition activities associated with the Preferred Alternative construction could result in the release of asbestos and lead-based paint, which could present a health hazard for workers, residents, and other sensitive receptors near the construction activities. However, construction activities would comply with applicable National Emissions Standards for Hazardous Air Pollutants regulations and Title 8, Section 1529 of the California Code of Regulations and SCAQMD Rule 1403 to reduce exposure to asbestos and lead-based paint. Although construction activities may result in odors from diesel exhaust, asphalt paving and architectural coatings, these odors would be short term and would not adversely affect a substantial number of people.

Although the use of heavy-duty construction equipment and other diesel-fueled construction vehicles may expose nearby sensitive receptors to toxic air contaminants, the modeled residential and worker excess cancer risk values under the Preferred Alternative for each construction segment would not exceed the SCAQMD significance cancer health risk threshold of 10 in 1 million, or the noncancer health risk threshold of 1 in 1 million.

Project design features such as low-emitting construction equipment technology, renewable diesel fuel, and adoption of best management practices would be implemented during construction. Project design and compliance with existing asbestos and lead-based paint handling and disposal standards would prevent exposure. Furthermore, the Preferred Alternative would implement **AQ-MM#1, Offset Project Construction Emissions in the South Coast Air Basin through SCAQMD Emissions Offsets Program**, through **AQ-MM#3, Reduce the Potential Impact of Stationary Sources**, to reduce impacts. However, even after incorporation of the **AQ-MM#1** through **AQ-MM#3**, emissions of nitrogen oxides would continue to exceed the SCAQMD regional CEQA project-level thresholds and the U.S. Environmental Protection Agency General Conformity *de minimis* levels during construction, and the Preferred Alternative would contribute to a significant level of regional air pollution in the South Coast Air Basin.

Operation of the Preferred Alternative would result in net decreases in all criteria pollutant emissions (volatile organic compounds, carbon monoxide, nitrogen oxides, sulfur dioxide, and particulate matter less than or equal to 10 microns and 2.5 microns in diameter), consistent with SCAQMD's 2022 Air Quality Management Plan, as well as the Southern California Association of Governments' 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy. Therefore, the regional operational impacts of the Preferred Alternative would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Overall, operation of the Preferred Alternative would not result in the generation of criteria pollutant emissions that would have a significant impact on the environment.

During operation of the Preferred Alternative, increased station traffic within the project section would not result in localized carbon monoxide hot spots, odors, or exceedances of the carbon monoxide national or California ambient air quality standards (National and California Ambient Air Quality Standards). The Preferred Alternative would reduce the number of individual vehicle trips and VMT on a regional basis and would not result in an increase in mobile-source air toxic emissions.

Under the Preferred Alternative, the project would relocate container parking from the southern part of the yard to the northern part of the yard and within 47.71 acres of acquired industrial and commercial properties to the north of Hobart Yard, along Washington Boulevard, to make room for the shared passenger track, the HSR track, BNSF mainline track, the 101,094 feet of storage and staging tracks, and the 26th Street LMF (STV 2025). Furthermore, BNSF mainline and shared tracks would be shifted at Hobart Yard, Commerce Yard, and along the project corridor. Because future activity is unknown for the additional storage and staging track and along the BNSF mainline, this could result in a potentially significant impact. To reduce this potential impact, the Authority would implement **AQ-MM#4, Requirement of a Future Operational Health Assessment**. However, because the level of activity for the 101,094 feet of storage and support track at Hobart Yard and the number of BNSF freight trains along the corridor are unknown, there is still the potential that nearby sensitive receptors are exposed to diesel particulate matter emissions that would result in a health risk impact exceeding the SCAQMD project-level thresholds, even with incorporation of **AQ-MM#4**.

The operation of the Preferred Alternative would not result in localized criteria pollutant concentrations in excess of the health-protective National or California Ambient Air Quality Standards and, accordingly, would not expose sensitive receptors to substantial criteria air pollutant concentrations or health effects during operations.

Construction of the Preferred Alternative would also result in temporary generation of greenhouse gas (GHG) emissions. However, the Preferred Alternative would be consistent with the state's 2017 Climate Change Scoping Plan and 2022 Climate Change Scoping Plan, and the state's Assembly Bill 1279 2045 carbon neutrality goal. Operation of the Preferred Alternative would reduce GHG emissions by substantially reducing light-duty passenger VMT in the region. In total, net GHG reductions achieved by operation of the Preferred Alternative would offset the temporary increase in GHG emissions generated during construction in about 1 month of operations. Lastly, operation of the Preferred Alternative would help the state achieve its long-term GHG emission reduction goal under Assembly Bill 1279 by reducing GHG emissions in the transportation sector. Therefore, the Preferred Alternative would result in long-term beneficial effects on regional air quality and global climate change.

Noise and Vibration: Construction of the Preferred Alternative would result in temporary increases in noise and vibration levels at sensitive receivers in the vicinity of construction areas. **N&V-MM#1, Construction Noise Mitigation Measures**, and **N&V-MM#2, Construction Vibration Mitigation Measures**, would be implemented to limit exposure to excess noise and vibration during construction.

Operation of the Preferred Alternative would result in severe noise impacts caused by increased noise and ground-borne vibration at residences, primarily in Pico Rivera and Anaheim. These impacts would be significant for both noise and vibration and would require the installation of a sound barrier in some locations with implementation of **N&V-MM#3, Implement California High-Speed Rail Project Noise Mitigation Guidelines**. In other locations, if a sound barrier would not meet the mitigation guidelines, additional measures under **N&V-MM#3** would be implemented to reduce impacts related to long-term exposure to noise and vibration in these sensitive areas. **N&V-MM#4, Implement Operational Vibration Mitigation Measures**, would also be implemented to limit exposure to excess vibration during operations. No operational noise impacts related to stationary facilities are anticipated.

Cultural Resources: Several archaeological resources and historic architectural properties were identified within the area of potential effects of the Preferred Alternative. Of those properties, the Preferred Alternative might result in adverse effects on five archaeological resources and four

architectural historic properties/historical resources. Adverse effects on these historic properties likely would be resolved adequately through mitigation measures developed in consultation with various Consulting Parties:

- **CUL-MM#1, Mitigate Adverse Effects on Archaeological and Built-Environment Resources Identified During Phased Identification and Comply with the Stipulations Regarding the Treatment of Archaeological and Historic Built Resources in the Programmatic Agreement and Memorandum of Agreement**
- **CUL-MM#2, Halt Work in the Event of an Archaeological Discovery and Comply with the Programmatic Agreement, Memorandum of Agreement, Archaeological Treatment Plan, and All State and Federal Laws, as Applicable**
- **CUL-MM#3, Halt Work in the Event of an Archaeological Discovery and Comply with the Programmatic Agreement, Memorandum of Agreement, Archaeological Treatment Plan, and All State and Federal Laws, as Applicable**

The Preferred Alternative would have potential impacts on archaeological historic resources during construction as a result of ground disturbance. Because of lack of access to the project area at this time, surveys to identify archaeological resources would occur during the design-build phase of the project. An archaeological treatment plan will be developed in consultation with Consulting Parties, including Native American government representatives, and will describe methods that will be used to identify, evaluate, and, if necessary, mitigate adverse effects on archaeological historic properties.

Public Utilities and Energy: Properties with other designated land uses would be converted to railroad/utility uses, resulting in operations amounting to approximately 63 to 69 percent of the existing water usage. Water suppliers within the project section may have sufficient supply to adequately serve its existing service area during normal, dry, and multiple dry years. However, taking into account highly variable water availability in Southern California and lack of water resource projections from municipalities within the RSA, it is not guaranteed that the project's increase in water usage for select municipalities would be available in the existing and future service capacity. Therefore, the Preferred Alternative would implement **PUE-MM#1, Water Demand Analysis for Water Supplies for Construction and Operation**, for operational water usage and regional water supply that will help to manage and prepare for continued operations in normal, dry, and multiple dry years.

Aesthetics and Visual Quality: Visual disturbance to historic bridges would result from Preferred Alternative construction and permanent changes to the viewscape during Preferred Alternative operation. Implementation of **AVQ-MM#1, Minimize Visual Disruption from Construction Activities**; and **AVQ-MM#3**, **Incorporate Design Aesthetic Preferences into Final Design and Construction of Nonstation Structures**, will partially reduce visual impacts on the historic bridges during construction and implementation of mitigation measures (**AVQ-MM#3**; **AVQ-MM#4**, **Provide Vegetation Screening Along At-Grade and Elevated Guideways Adjacent to Residential Areas**; **AVQ-MM#5**, **Replant Unused Portions of Land Acquired for the Los Angeles to Anaheim Project Section**; **AVQ-MM#6**, **Screen Traction Power Distribution Stations and Radio Communication Towers**; **AVQ-MM#7**, **Incorporate Design Criteria for Elevated Guideways and Station Elements that Can Adapt to Local Context**; and **CUL-MM#12, Design Review for Intrusion-Protection Barriers**) will reduce the effects on viewers, visual character, and visual quality once operational. However, the effects would remain for the life of the historic bridges. Visual disturbance from nighttime lighting would result from project construction activities. With implementation of **AVQ-MM#2**, **Minimize Light Disturbance During Construction**, nighttime light and glare associated from construction activities will be reduced.

Community Analysis: Minority and low-income populations are present in substantial proportions close to the existing rail corridor, and the Preferred Alternative would affect them both directly and indirectly from displacements, noise, vibration, and operational air quality. There are sufficient replacement units to accommodate the displaced properties in each of the respective

cities except for Commerce and Vernon. With incorporation of impact avoidance and minimization features and implementation of **SO-MM#1**, **Implement Measures to Reduce Impacts Associated with the Division of Residential Neighborhoods**, impacts from displacements would be reduced but there would still be a disproportionately high and adverse effect on low-income and minority communities. In addition, the effect of severe noise impacts and moderate vibration impacts during operation is determined to be high and adverse and would be experienced only by low-income and minority populations. Even with implementation of **N&V-MM#3** and **N&V-MM#4**, which will provide effective noise and vibration mitigation, severe impacts would remain. Therefore, these noise and vibration effects during operations would represent a disproportionately high and adverse effect on low-income and minority communities. There could also be a disproportionately high and adverse impact regarding operational-period air quality, owing to the reconfiguration of Hobart Yard discussed above. In addition, exposure to diesel particulate matter emissions could result in a disproportionately high and adverse effect on the communities of Hobart/west Commerce, east Commerce, and Hobart in Vernon. Lastly, because completion of remediation activities at two Superfund sites is currently unknown, significant exposure to contaminants associated with these sites could occur during construction. Therefore, there would be a disproportionately high and adverse impact on minority communities in the Hobart and south-central Fullerton neighborhoods.

Socioeconomics and Communities: Based on preliminary analysis, property acquisitions for construction of the Preferred Alternative would result in displacement of approximately 256 businesses with an estimated 2,948 employees. In addition, property acquisitions would result in displacement of approximately three residential units and 12 residents.

Hazardous Materials and Waste: Construction of the Preferred Alternative involves construction near potential environmental concern sites, including potential impacts associated with the Exide and Orange County North Basin Superfund sites. Because completion of remediation activities at each site is currently unknown, significant exposure to contaminants associated with these sites could occur during construction. With implementation of **HMW-MM#2**, **Coordination of HSR Design and Construction with Remediation of Exide Site and Orange County North Basin Superfund Site**, ongoing U.S. Environmental Protection Agency remedial actions at a proposed or listed Superfund site would occur, and remediation may also need to be funded by the Authority to be accomplished in accordance with the requirements of the appropriate oversight agency. This measure would reduce, but not eliminate, adverse effects, and impacts would remain significant.

Safety and Security: Construction of the Preferred Alternative would involve temporary exposure to construction site hazards (refer to Section 3.11, Safety and Security). Because of the extensive nature of potential impacts associated with the two Superfund sites and because completion of remediation activities at each site is currently unknown, significant exposure to contaminants associated with these sites could occur during construction. Even after incorporation of **HMW-MM#2**, which requires coordination with regulatory oversight agencies and the Authority, impacts would be reduced but remain significant.

Operation of the Preferred Alternative may result in permanent interference with emergency response times. Retention of at-grade crossings in Anaheim and introduction of HSR service would lead to increased gate-down events, up to four per hour, because of added HSR train frequency, which could lead to increased emergency vehicle response times. Implementation of **SS-MM#1**, **Implement Emergency Response Time Mitigation Strategies**, which requires the Authority to conduct monitoring to identify the extent to which HSR operations would affect the City of Anaheim's response times and develop an emergency vehicle priority treatment plan, would reduce the impact.

Parks, Recreation, and Open Space: Construction of the Preferred Alternative would include construction activities near multiple existing or planned recreational facilities that would result in limited and diminished access to several recreational resources. Measures **(PR-MM#1, Temporary Restricted Access to Park Facilities During Construction**, and **PR-MM#2, Providing Park Access**) would be implemented to reduce the impact.

Based on consideration of the factors discussed in this chapter and this Draft EIR/EIS as a whole, the Authority has determined the Preferred Alternative to be the best choice among build alternatives considered for both the project section and overall HSR system. Between the Preferred Alternative and the No Project Alternative, it represents the better balance of adverse and beneficial impacts on the natural environment and community resources and maximizes the transportation and safety benefits of the HSR system.

8.4.1 Alignment

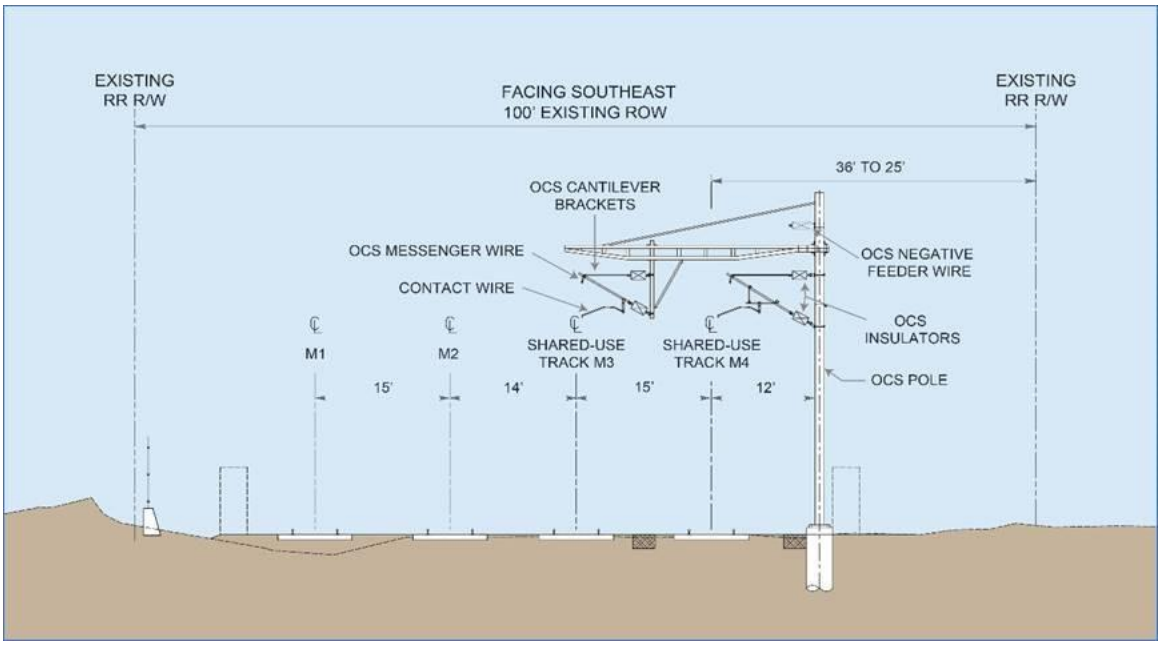
The track schematic included in each volume of the Preliminary Engineering for Project Definition provides detailed information on station locations; elevated, at-grade, and trenched track locations; platform details and locations; track work locations; and areas where there would be electrified track. Chapter 2 includes a discussion of these details as well as information on changes at facilities that would allow existing freight and passenger rail operators to continue their operations.

The Preferred Alternative proposes new and upgraded track, overhead contact system, maintenance and traction power facilities, grade separations, drainage improvements, communications towers, security fencing, passenger train stations, and other necessary facilities to introduce HSR service into the LOSSAN Corridor from LAUS to ARTIC. New and upgraded tracks would allow other trains to share tracks with HSR. This shared-track arrangement is known as a “blended system and operations.”

The Preferred Alternative includes a combination of at-grade, elevated, and below-grade track, depending on corridor and design constraints (Figure 8-3 through Figure 8-5). The at-grade track segments would consist of track set on ballasted railroad ties, compacted earth, or retained fill (contained earth with retaining walls). Fill material would be obtained from permitted sites and quarries. The elevated track segments would consist of concrete columns and concrete box girder either cast-in-place or precast. The height of the elevated track section would vary and could be up to 65 feet high, with columns spaced approximately 90 feet apart. Track centers would have a minimum spacing of 14 feet and design speeds would not exceed 90 miles per hour. The below-grade track segments would vary in depth from 4 feet to 30 feet. Tracks would be set between two retaining walls, with the greatest depth at the Fullerton Airport. Track centers would have a minimum spacing of 15 feet. The Preferred Alternative would build up to two new tracks in some locations and would realign existing tracks. With the Preferred Alternative, the railroad right-of-way in the project section would consist of up to six tracks, but the majority of the corridor would consist of four mainline tracks. Additionally, secondary type tracks (e.g., industry spurs, yard storage, branch lines) and ancillary facilities (e.g., traction power substations [TPSS], radio towers) would be installed adjacent to the tracks and could require the acquisition of additional right-of-way. Drainage improvements would be included only where the project would expand the railroad right-of-way to accommodate HSR.

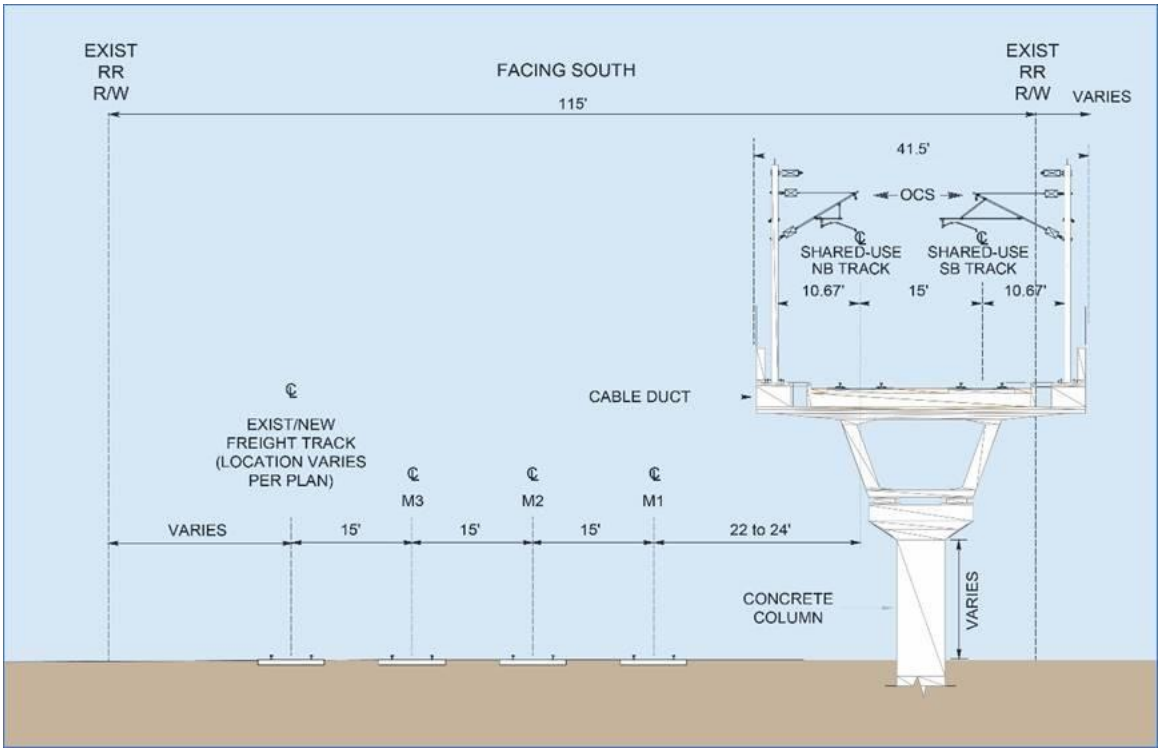
The project footprint would primarily be within the existing railroad right-of-way, typically 100 feet wide, and include both a northbound and southbound electrified track for HSR. The project footprint includes all project elements and consequential physical changes, including stations, potential maintenance sites, wayside and other ancillary HSR facilities, areas needed for construction mobilization and material laydown, roadway and utility relocations, power supply connections, and associated property rights.

The majority of the existing railroad in the project alignment is currently at grade, but many of the crossings of roads, railroads, and other transportation facilities are already grade separated from each other. The Preferred Alternative would fully grade separate five roadways and partially grade separate one roadway (freight would remain at grade). This is to prevent conflicts with other modes of transport, including auto, bicycle, and pedestrian, and ensure optimal HSR (and other passenger rail) operations.



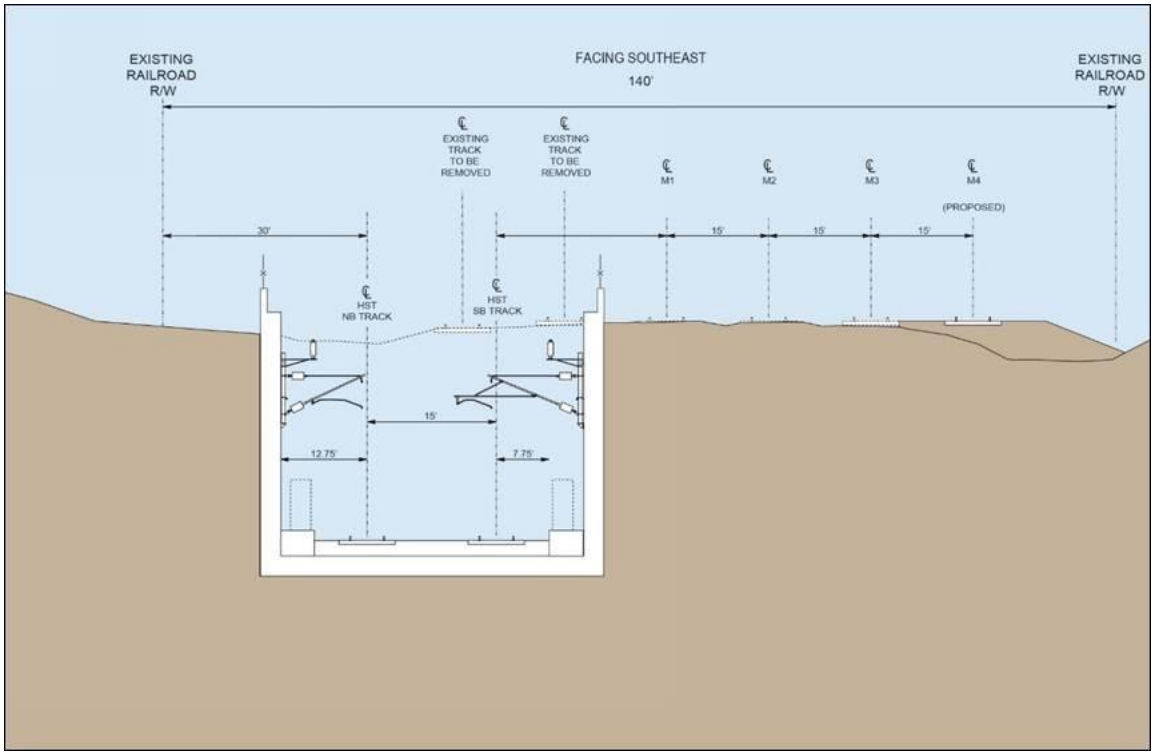
Source: Authority 2025
M = main track; OCS = overhead contact system; ROW = right-of-way; RR R/W = railroad right-of-way

Figure 8-3 At-Grade Typical Cross Section



Source: Authority 2025
M = main track; OCS = overhead contact system; RR R/W = railroad right-of-way; NB = northbound; SB = southbound

Figure 8-4 Elevated Structure Typical Cross Section



Source: Authority 2025
M = main track; HST = High-Speed Train; R/W = right-of-way; NB = northbound; SB = southbound

Figure 8-5 Below-Grade Cross Section in Fullerton

8.4.1.1 High-Speed Rail Project Section Stations

As stated previously, the project section would provide service between HSR stations at LAUS and ARTIC. The Preferred Alternative does not include an HSR station option at Norwalk/Santa Fe Springs or Fullerton. These stations would provide connections to several destinations, job centers, and transfer connections. As noted earlier in this document, LAUS was environmentally approved as part of the Burbank to Los Angeles Project Section. In identifying and selecting stations as part of the Shared Passenger Track Alternatives, the Authority considered, among other evaluation measures, the potential for transit-oriented development within walking distance of the station. A full description of the stations is provided in Section 2.6, Alignment, Station, and Maintenance Facility Alternatives Evaluated in this Project Environmental Impact Report/Environmental Impact Statement.

ARTIC

ARTIC is a regional transportation center, developed collaboratively between the Orange County Transportation Authority and the City of Anaheim. ARTIC is served by Amtrak, Metrolink, and numerous local buses from the Orange County Transportation Authority. Nearby destinations include two professional sports venues (Angel Stadium of Anaheim and Honda Center), Disneyland, the Anaheim Convention Center, and several major employment centers. The first phase of development would provide a new and relocated facility to serve Metrolink and Amtrak connections. The second phase would provide additional passenger facilities and support services to accommodate a HSR station; it is considered part of the Shared Passenger Track Alternatives.

Built at the existing ARTIC site, the proposed HSR station platform and facilities at ARTIC would be at grade, with two new HSR tracks, and a single 1,410-foot center platform for HSR, south of and parallel to the existing Metrolink/Amtrak tracks and platforms. The HSR platform would be

accessed through an extension of ARTIC's existing pedestrian bridge from the northeast and through an extension of two existing pedestrian tunnels on the western end of the ARTIC platforms. The new station building would be at the southern end of the pedestrian bridge. The existing Metrolink/Amtrak parking lot north of Angel Stadium would be reconfigured into a pick-up/drop-off area and connected to the existing access road from Katella Avenue. The project would maintain the two existing access points between the Santa Ana River Trail and ARTIC. The Authority notes the proposed "OC River Walk" project could make pedestrian connectivity-enhancing improvements in the vicinity of ARTIC and the Santa Ana River Trail. The existing pick-up/drop-off area and bus bays around the outside of the existing ARTIC building would be shared with HSR passengers. The Authority also would work with the City of Anaheim, as the ARTIC passenger terminal owner, to share the passenger amenities such as ticketing offices, waiting areas, and food and beverage services inside ARTIC in the near term. Once ridership increases enough that combined HSR and local-provider passenger volumes exceed the design capacity of the ARTIC passenger terminal building, then the Authority would build a separate HSR passenger terminal.

This project would include a new parking structure adjacent to State Route 57 and Katella Avenue, providing 1,350 HSR parking spaces and 626 spaces to account for existing parking spaces at ARTIC that would be displaced by the HSR station, for a total of 1,976 spaces. Refer to Chapter 2, Figure 2-59 for an illustration of the ARTIC general site plan.

8.4.1.2 Maintenance Facility

The project section would include one HSR vehicle maintenance and layover facility, with the proposed LMF location at 26th Street. The Preferred Alternative proposes an LMF at 26th Street on the south side of the BNSF Hobart Yard, also used by Amtrak, along the west bank of the Los Angeles River. Chapter 2, Figure 2-41 depicts the location of the LMF for the Preferred Alternative.

The LMF is likely to support the following functions:

- Train Storage: Some trains would be stored at the LMF prior to start of revenue service. The LMF would have two storage tracks that could accommodate nine 800-foot-long trains.
- Examinations in Service: Examinations would include inspections, tests, verifications, and quick replacement of certain train elements on the train.
- Inspection: Periodic inspections would be part of the planned preventive maintenance program requiring specialized equipment and facilities.

The size of the LMF site would support the level of daily revenue service dispatched by the nearby terminal at the start of each revenue service day.

The Authority defines three levels of maintenance performed at an LMF:

- Level I: Daily inspections, predeparture cleaning, and testing
- Level II: Monthly inspections
- Level III: Quarterly inspections, including wheel-truing

In 2024, the Authority released an update to its LMF standards in its Requirements for High-Speed Trainset Fleet and Infrastructure Maintenance Facilities report (Authority 2024c). HSR operations in Southern California would require a Level III LMF for fleet storage, cleaning, repair, overnight layover accommodations, and servicing facilities, including the necessary water cistern and power facilities. The nearest existing maintenance facility is planned for the Antelope Valley and would require substantial time and cost to transport empty trains to be serviced there.

Level III LMF requirements:

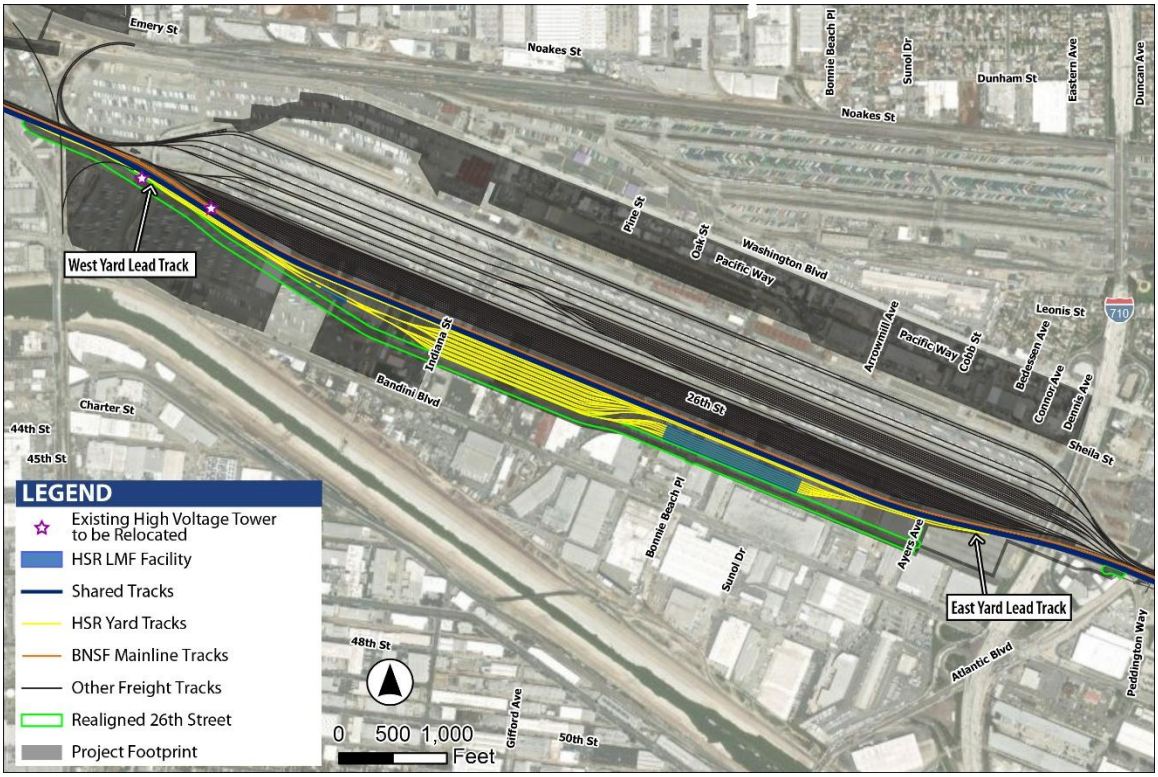
- Yard tracks (capable of holding a minimum of 20 trainsets) and runaround/transfer tracks
- Dedicated train wash track
- Wheel defect detection equipment

- Inside shop tracks with interior access for inspections
- Material and equipment storage areas
- Employee offices, parking lot, and other related facilities

The 26th Street LMF would have an overall size of 49 acres and be roughly bounded by the BNSF mainline and storage tracks and Hobart Yard on the north, a relocated 26th Street on the south, Downey Road on the west, and Interstate 710 on the east. 26th Street is currently located on the southern portion of the BNSF Hobart Yard and would be relocated to the southern portion of the right-of-way. Refer to Figure 8-6 for the footprint of the 26th Street LMF. There would be 12 yard tracks to allow for the storage of 24 single trainsets, along with a shop building that can accommodate six tracks.

A six-track, 1,410-foot-long shop building with 12 trainset spots would also be provided while still maintaining wider access roads and providing additional parking near the shop with 100 spaces. Other station operation facilities include the following:

- One 30,000-square-foot administrative building
- Right-of-way access to storage tracks for crews
- Train washer
- 100 parking spaces
- 20,000 square feet of sewerage
- 30,000 square feet of power facilities
- 20,000-square-foot water storage cistern
- 35,000 square feet of bulk storage area
- 45,000 square feet for stormwater treatment
- 45,000 square feet of paved area for deliveries/materials
- 6,500 square feet for a collection point
- 32,500 square feet miscellaneous area



Source: Authority 2025

Figure 8-6 26th Street Light Maintenance Facility Footprint

8.4.1.3 Traction Power Substation Site Descriptions

The approximately 30-mile project section would require two TPSS sites. The first TPSS would be in the city of Los Angeles south of Washington Boulevard and west of Soto Street, adjacent to the existing railroad viaduct. The second TPSS would be in Anaheim, near the intersection of Lewis Street and Cerritos Avenue, north of the HSR alignment. The utility provider for the Los Angeles TPSS site is the Los Angeles Department of Water and Power, and Anaheim Public Utilities is the provider for the Anaheim TPSS site. It should be noted that in the absence of formal agreements between the Authority and both utility providers, assumptions about capacity and site access have been made.

8.4.2 Identification of the Preferred Alternative

As described above, the alignment is the same between Shared Passenger Track Alternatives A and B. The difference between the two alternatives is the location of the LMF, at 26th Street or 15th Street (Shared Passenger Track Alternative A or B, respectively). The Preferred Alternative identifies the 26th Street LMF as included in the Preferred Alternative for the following reasons:

- The 26th Street LMF would use land that would be acquired to build other elements of the project, such as the Hobart Yard modifications, and it would not require acquisition of additional property. This would minimize displacement and cost impacts compared to obtaining new right-of-way, as would be needed for the 15th Street LMF option.
- The 26th Street LMF would be a double-ended yard with two-way access to mainline tracks from both the north and south, providing greater operational flexibility and redundancy. The 15th Street LMF would only provide one-way access for trains from the mainline tracks, increasing the chance of track fouling and decreasing operational efficiency.
- The 26th Street LMF would have more trainset storage capacity than the 15th Street LMF.
- The 15th Street LMF would be situated in a highly constrained area of the West Bank between the existing Arts District neighborhood and Amtrak's 8th Street Maintenance yard track and facilities. Accommodation of the HSR lead tracks into the Level III LMF yard would require a reconfiguration of the existing Amtrak lead track and relocation of the access gate to its Eighth Street Yard.
- The 15th Street LMF yard lead tracks would require a new depressed three-track trench to obtain the minimum 24-foot clearance under the historic Olympic Boulevard overpass. Because the yard lead tracks would be in trenches and below the existing elevation of the LMF site, the northern half of the LMF site would need to be excavated and regraded to meet the level of the yard lead tracks.

Although the 15th Street LMF would be closer to LAUS and require a smaller site than the 26th Street LMF, the 15th Street LMF would have greater impacts on some environmental considerations, including displacements and hazardous materials, as detailed in Table 8-2. The 15th Street LMF would also require a partial closure of 16th Street. Moreover, the 15th Street LMF's construction area would in turn result in slightly more intense impacts on the Olympic Boulevard Bridge (although this bridge would also be affected by Shared Passenger Track Alternative A to a lesser extent). Overall, the 26th Street LMF would be the preferred option.

Regarding station options, no HSR station options are included in the Preferred Alternative for the following reasons:

- It reduces the project footprint in Fullerton, resulting in fewer impacts on the community and better aligning with the City of Fullerton's Transportation Specific Plan, which aims to remove public parking facilities in the downtown area.
- It reduces costs.
- It reduces duplicative passenger rail service within the corridor. LAUS and ARTIC are only 30 miles apart; the Norwalk/Santa Springs HSR Station Option would be 13 miles from ARTIC

and 10 miles from the Fullerton HSR Station Option. The Fullerton HSR Station Option would only be 10 miles from ARTIC. Existing passenger rail service, provided by Amtrak and Metrolink, already provides connections among ARTIC, Fullerton, Norwalk/Santa Fe Springs, and LAUS. Additionally, Proposition 1A, passed by California voters in 2008, included a provision limiting the total number of HSR stations that could be built. Inclusion of one of the HSR station options could preclude future station development in Phase 2 of the HSR system.

Neither of the locations for the HSR station option would result in increased benefits related to transit-oriented development, because passenger rail stations already exist at those locations. Therefore, no HSR station option is included in the Preferred Alternative.

8.5 Environmentally Superior Alternative

The State CEQA Guidelines (Section 15126.6(e)(2)) state that if the environmentally superior alternative is the No Project Alternative, then the EIR must also identify an environmentally superior alternative among the other alternatives. For the reasons described in this Draft EIR/EIS, the environmentally superior alternative is not the No Project Alternative. The Shared Passenger Track Alternatives would provide benefits, such as reduced vehicle trips on freeways and overall VMT, reduced regional air pollutants, reduced need for freeway and airport expansion, and reduced GHG emissions to help California meet performance targets for 2030 stipulated in Senate Bill 32 and beyond, all of which would not be realized under the No Project Alternative. CEQA does not require a lead agency to select the environmentally superior alternative as its preferred alternative. Nevertheless, the Preferred Alternative (Shared Passenger Track Alternative A) is the environmentally superior alternative. Implementing the HSR project between Los Angeles and Anaheim would have adverse environmental impacts regardless of which alternative is selected but, overall, the Preferred Alternative provides the environmentally superior alternative by best meeting environmental regulatory requirements and best minimizing impacts on the natural environment and communities.

8.6 Environmentally Preferable Alternative

The environmentally preferable alternative is a NEPA term for the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment. It also means the alternative that best protects, preserves, and enhances historic, cultural, and natural resources. As required by the regulations implementing NEPA, the Authority will identify the environmentally preferable alternative in its Record of Decision for the project section.