

SUMMER 2019



# SAN FRANCISCO TO SAN JOSE PROJECT SECTION **STATE'S PREFERRED ALTERNATIVE**

## OVERVIEW

High-speed rail offers an unprecedented opportunity to modernize the rail corridor between San Francisco and San Jose. In a landmark agreement in 2012, Caltrain, the California High-Speed Rail Authority (Authority), and a variety of other regional partners agreed to electrify the existing Caltrain corridor, have the two rail systems share the tracks, and maintain the corridor as primarily a two-track railroad. The plan to share the tracks for both the regional commuter and state high-speed rail systems is referred to as the Blended System. Following the 2012 agreement, Caltrain completed the environmental clearance process and is now building the electrification system (learn more at [Calmod.org](http://Calmod.org)). This fact sheet discusses the staff recommendation for a preferred alternative to be considered by the Authority for adding the infrastructure that will be necessary to support high-speed rail service in the corridor.

## WHAT IS A PREFERRED ALTERNATIVE?

Since 2008, numerous alternatives have been considered for the high-speed rail alignment traveling within and outside of the Bay Area. Ultimately, two alternatives were carried forward for inclusion in the Draft Environmental Impact Report/Statement (EIR/S). The alternative determined to best balance tradeoffs between environmental; community; and performance, operations, and cost factors is known as the preferred alternative and indicates the proposed direction of the project.

Analyzing these two alternatives and engaging with high-speed rail partners and stakeholders has led Authority staff to recommend Alternative A as the State's Preferred

Alternative. Authority staff is seeking feedback from the public before this recommendation is presented to the Authority Board of Directors in September 2019.

Alternative A will be referred to as the staff-recommended State's Preferred Alternative until the Authority Board of Directors concurs with the staff recommendation or requests that a different alternative be identified as the State's Preferred Alternative. The identification of the State's Preferred Alternative does not necessitate approval or adoption of a preferred alternative for final design or construction.

## WHAT IS THE PUBLIC'S ROLE IN DEVELOPING AND RECOMMENDING ALTERNATIVES?

The Authority closely coordinated with individuals, local governments, tribes, public agencies, and organizations to get local knowledge and input on project alternatives. Based on information gathered over the last three years in nearly 400 meetings with stakeholders and members of the public, the existing alternatives in Northern California were developed and refined.

The Authority is seeking public feedback on the staff-recommended State's Preferred Alternative. A summary of feedback provided at community meetings and open houses – as well as via telephone or written correspondence – will be presented to the Authority Board of Directors in September 2019.



## HOW TO PROVIDE FEEDBACK

**By email:** [san francisco\\_san.jose@hsr.ca.gov](mailto:san francisco_san.jose@hsr.ca.gov)

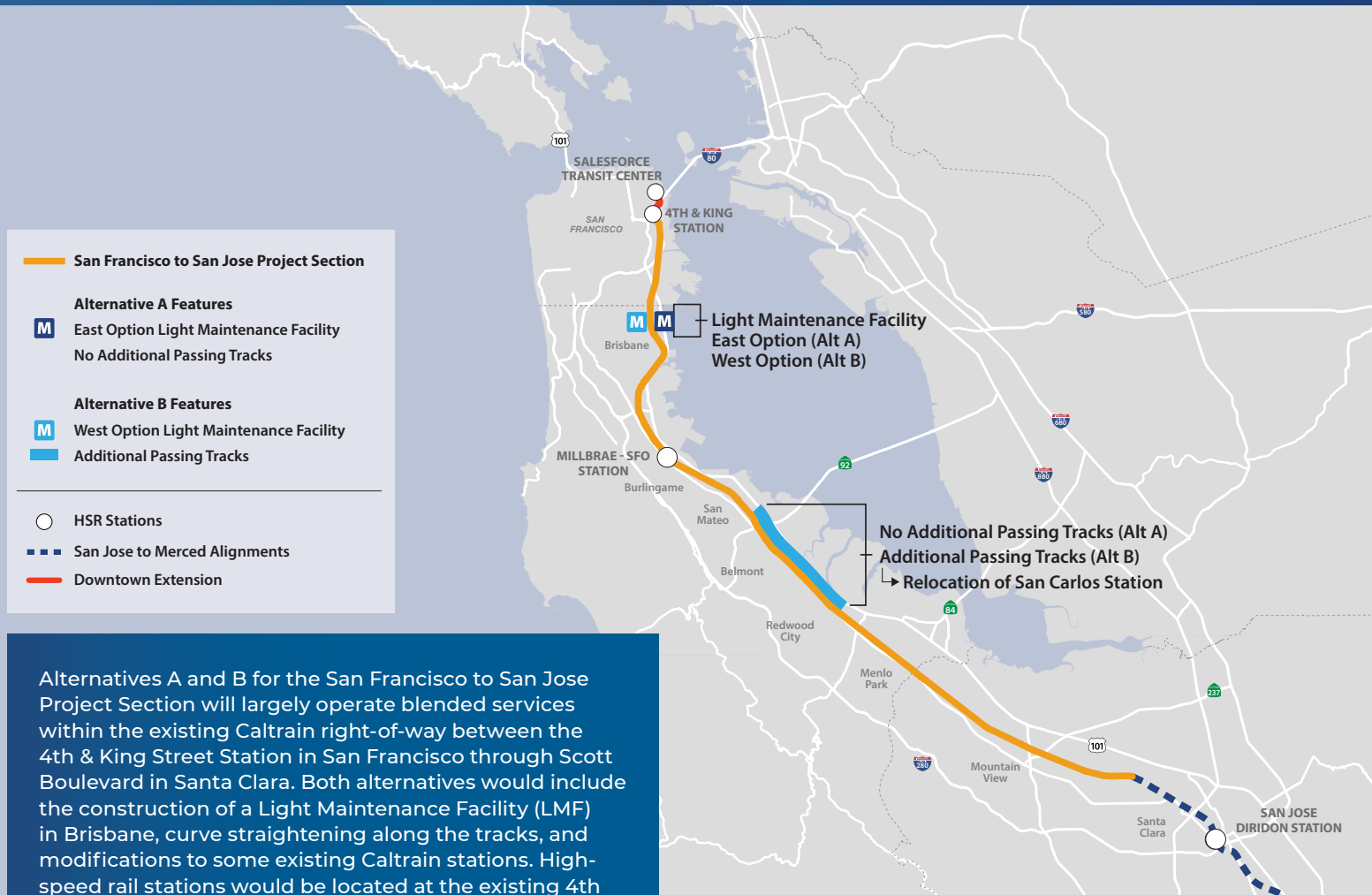
**By phone:** 800-435-8670

**By mail:** Northern California Regional Office  
California High-Speed Rail Authority  
100 Paseo De San Antonio, Suite 300  
San Jose, CA 95113

**In person:** Attend a Community  
Open House:  
August 6 in City of Santa Clara  
August 12 in San Francisco  
August 19 in Redwood City

Attend the Board  
Meeting:  
September 17 in  
San Jose

# WHAT ARE THE ALTERNATIVES CONSIDERED?



Alternatives A and B for the San Francisco to San Jose Project Section will largely operate blended services within the existing Caltrain right-of-way between the 4th & King Street Station in San Francisco through Scott Boulevard in Santa Clara. Both alternatives would include the construction of a Light Maintenance Facility (LMF) in Brisbane, curve straightening along the tracks, and modifications to some existing Caltrain stations. High-speed rail stations would be located at the existing 4th and King Street and Millbrae Stations, which would both see improvements to accommodate high-speed rail.

## Alternative A ✓

Alternative A would operate high-speed rail trains in a blended system predominantly within the existing Caltrain right-of-way, install safety improvements and communication radio towers, and build a Light Maintenance Facility (LMF) east of the Caltrain corridor on the existing Brisbane Baylands site. This alternative would not include additional passing tracks.

## Alternative B

Alternative B would operate high-speed trains in a blended system predominantly within the existing Caltrain right-of-way, install safety improvements and communication radio towers, and build a Light Maintenance Facility (LMF) west of the Caltrain corridor. This alternative would include six miles of additional passing tracks stretching from the City of San Mateo to Redwood City.

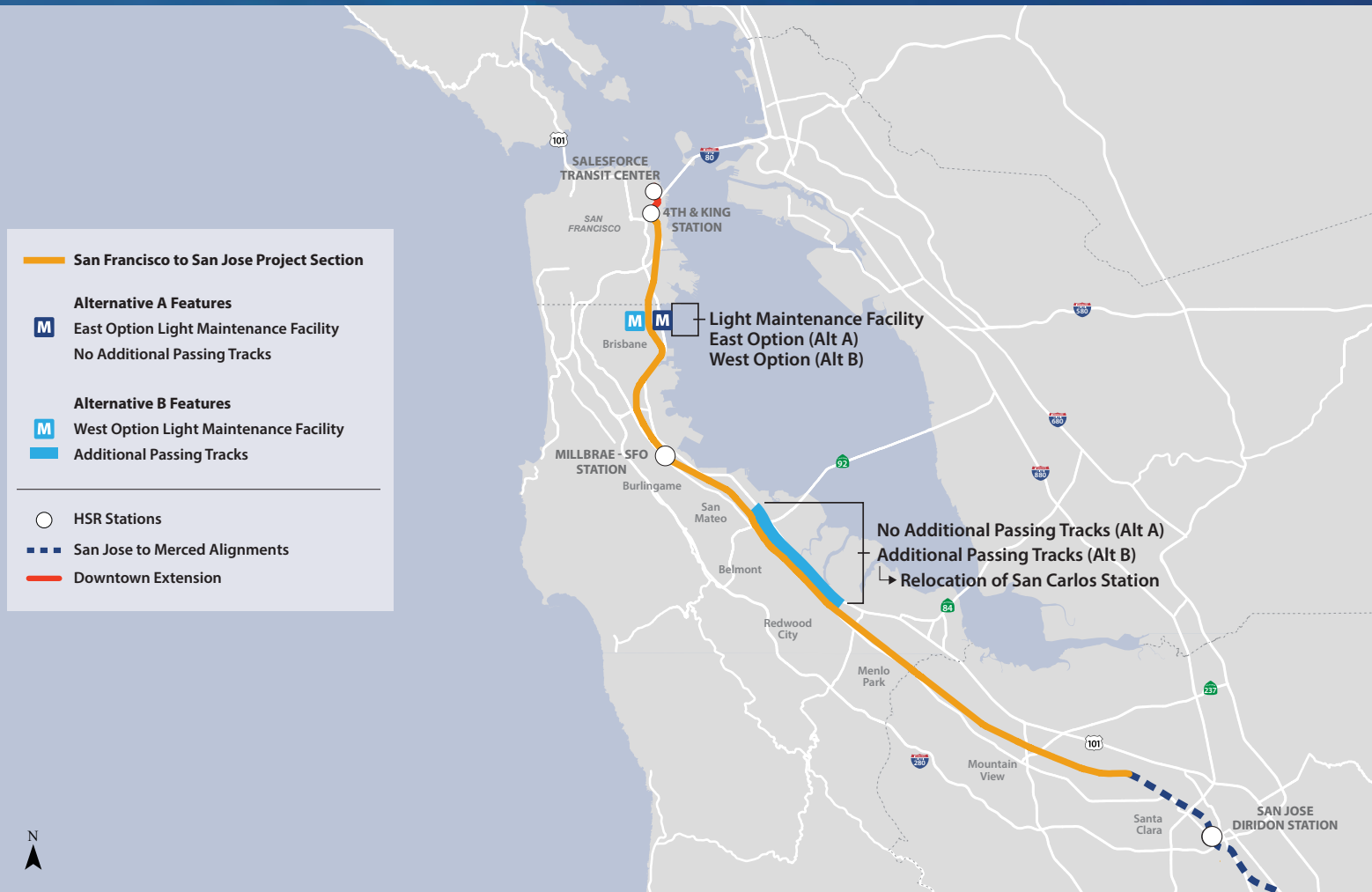
## Planned High-Speed Rail Stations 4th & King and Millbrae - SFO Stations

Under both alternatives, high-speed rail stations would be located at the 4th & King Street Station in San Francisco and Millbrae Station. Both stations would undergo improvements to accommodate high-speed rail, including modifications to existing tracks and platforms, new booths and fare gates, and a station hall at Millbrae Station. The downtown extension (DTX) to the Salesforce Transit Center has been environmentally cleared and is being implemented by the Transbay Joint Powers Authority (TJPA). While the DTX will not be evaluated through the Authority's environmental analysis, the Authority plans to use infrastructure implemented by TJPA as it becomes available. The 4th & King Station is being analyzed as a temporary terminus in the Authority's environmental document to ensure high-speed rail service to San Francisco.

San Jose Diridon Station is addressed in the San Jose to Merced Project Section staff-recommended State's Preferred Alternative.



# WHAT ARE THE ALTERNATIVES CONSIDERED?



## What is a Light Maintenance Facility?

A Light Maintenance Facility (LMF) is where trains are cleaned, serviced, and stored so they can be dispatched to high-speed rail terminal stations at the start of the day. Alternatives A and B both include a LMF in Brisbane. The Alternative A LMF would be built east of the Caltrain corridor while the Alternative B LMF would be built west of the corridor. There are also plans for development at the Baylands site and the Authority continues to engage with the City of Brisbane and local property owners on how to best align the Authority's and others' plans for the area.

## Are Additional Passing Tracks Needed?

Caltrain has several four-track segments where trains can pass one another. Alternative B would add approximately six miles of new passing tracks extending from San Mateo to Redwood City. This would require relocating the Caltrain San Carlos Station approximately 2,260 ft south of its current location, as well as modification of several bridges, underpasses, overpasses, culverts, and retaining walls. No additional passing tracks would be built under Alternative A.

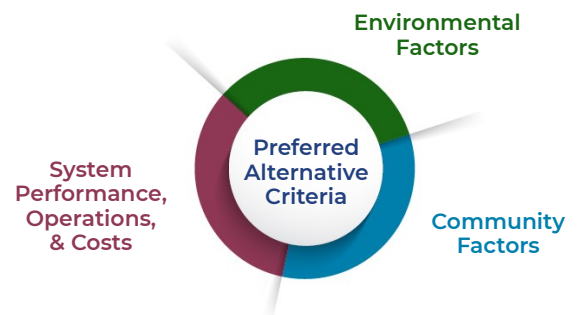
An operational analysis by the Authority and Caltrain found that projected levels of blended service could be accommodated without the additional passing tracks in Alternative B. For this reason, Alternative A is the staff's recommendation.

## WHY IS STAFF RECOMMENDING ALTERNATIVE A AS THE STATE'S PREFERRED ALTERNATIVE?

Teams of rail and environmental planners, engineers, and other specialists in the design and operation of high-speed rail services have undertaken a complex analysis of the two alternatives. The results indicate that each alternative has tradeoffs – advantages and disadvantages. Nevertheless, Alternative A was identified as the staff-recommended State's Preferred Alternative because it provides the best overall balance between system performance, community, and environmental factors. The factors that differentiate the two alternatives are presented in the tables below.

## HOW WERE THE ALTERNATIVES EVALUATED?

Alternatives A and B were evaluated by comparing the alternatives across three criteria.<sup>[1]</sup>



### System Performance, Operations, and Costs.

The best-performing alternative is marked with an **asterisk**.

CRITERIA	ALT A	ALT B
Alignment length (miles)	42.9	
Maximum Operating Speed (mph)	Up to 110	
HSR Peak Hour Average Representative Travel Time San Francisco to San Jose (minutes)	47	45*
Proposition 1A Service Travel Time Compliance	✓	✓
Estimated Capital Costs (2017\$)	\$2.6 billion*	\$3.5 billion
Estimated Annual Operations and Maintenance Costs (2017\$)	\$78 million	
Caltrain Peak Hour Average Representative Travel Time (minutes)	63*	65

<sup>1</sup> Resources or topics for which potential impacts do not substantially differentiate the alternatives are not included on this fact sheet, but they still remain an important part of the evaluation and may be of importance to the public, stakeholders, and agencies. These include: archaeological resources; air quality and climate change; electromagnetic fields and interference; geology, soils, and seismicity; hazardous materials and waste; hydrology and water quality; paleontological resources; socioeconomic and communities (apart from displacements); regional growth; station planning; and vibration. All of these analyses will be included in the Draft environmental documents.

## Community Factors.

The best-performing alternative(s) (fewest/least community impacts) are marked with an **asterisk**.

CRITERIA	ALT A	ALT B
Residential displacements (# of units)	<b>10*</b>	19
Commercial and industrial displacements (# of businesses/square feet)	<b>29/211,261*</b>	108/466,084
Community and public facilities displacement (number of units)	<b>3*</b>	3
Number of key viewpoints with decreased visual quality	<b>3*</b>	5
Temporary interference with local vehicle circulation	<b>No Change*</b>	Along El Camino Real during passing track construction
Pedestrian Access from Downtown San Carlos to Caltrain Station	<b>No Change*</b>	Reduced access due to the relocation of the station 2,260 feet south of current location
Temporary increases in emergency vehicle response time in south San Mateo, Belmont, San Carlos, and northern Redwood City due to short-term road closures	<b>None*</b>	Due to passing track construction
Construction-related disruption to Caltrain Service	<b>Less than Alt. B due to no passing track construction*</b>	More than Alt. A due to passing track construction
Permanent Effect on Planned Mixed Use Development (residential uses allowed) in Brisbane	<b>2*</b>	21

## Environmental Factors.

The best-performing alternative(s) (fewest/least environmental impacts) are marked with an **asterisk**.

CRITERIA	ALT A	ALT B
Total permanent impacts on wetlands and other waters of the U.S. (acres)	<b>8.8*</b>	12.8
Permanent Impacts on endangered callippe silverspot butterfly habitat (acres)	<b>0.0*</b>	8.0



## ACRONYMS, ABBREVIATIONS, AND KEY TERMS

Term	Definition	Term	Definition
<b>Authority</b>	California High-Speed Rail Authority: State agency responsible for planning, designing, building, and operating the first high-speed rail system in the US	<b>NOP</b>	Notice of preparation: A document stating that an EIR will be prepared for a particular project; the first step in the CEQA process
<b>CEQA</b>	California Environmental Quality Act: A California law that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible	<b>Passing tracks</b>	A section of track parallel to a through line and connected to it at both ends by switches, allowing a train to bypass a segment of main rail line
<b>Dedicated</b>	An alignment with only high-speed trains	<b>PAA</b>	Preliminary Alternatives Analysis report: For the San Francisco to San Jose Project Section this document, released in 2010, provided initial details of design options throughout the project section and helps inform the environmental document
<b>EIR</b>	Environmental impact report: A document required by CEQA for certain actions; it describes the environmental effects of a proposed action	<b>PTE</b>	Permission to enter: Process through which the Authority obtains consent to access property in order to conduct environmental studies
<b>EIS</b>	Environmental impact statement: A document required by NEPA for certain actions that significantly affect the quality of the human environment; it describes the environmental effects of a proposed action	<b>ROW</b>	Right-of-way: Land reserved for use by railroads
<b>Environmental document</b>	A combined EIR/EIS document	<b>SAA</b>	Supplemental Alternatives Analysis report: For the San Francisco to San Jose Project Section, this document, released in 2010, considered feedback received on the PAA and presented a refined suite of alternatives
<b>ETO</b>	Early train operator: DB Engineering and Consulting was engaged by the Authority to assist with planning, designing, and implementing the initial operations of California's high-speed rail program	<b>Sensitive receptor</b>	Places where the occupants are more susceptible to the adverse effects of exposure to noise, such as residences, hospitals, hotels, schools, libraries, or concert halls
<b>FRA</b>	Federal Railroad Administration: Federal agency that regulates passenger and freight rail travel in the US	<b>SR</b>	State Route
<b>Hold-out rule</b>	A Caltrain requirement that if a train is stopped for passengers, an approaching train in the opposite direction on the other track must wait outside the station if passengers may be crossing the tracks	<b>Statewide Program EIR/EIS</b>	Final Program EIR/EIS for the Proposed California High-Speed Train System: This document, released in 2005, identified a high-speed train system as the preferred alternative for meeting future intercity travel needs and cleared the way for further analysis of alignment and station locations
<b>I-</b>	Interstate	<b>UPRR</b>	Union Pacific Railroad
<b>LMF</b>	Light Maintenance Facility: where trains are cleaned, serviced, and stored for supply to high-speed rail terminal stations at the start of the revenue day	<b>US</b>	U.S. Highway
<b>mph</b>	Miles per hour	<b>Viaduct</b>	An elevated structure that raises tracks above the ground; an example of an aerial alignment
<b>NEPA</b>	National Environmental Policy Act: A federal law that requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions	<b>VTA</b>	(Santa Clara) Valley Transportation Authority
<b>NOI</b>	Notice of intent: A formal announcement of intent to prepare an EIS; the first step of the NEPA process		

## HOW TO STAY INVOLVED

[www.hsr.ca.gov](http://www.hsr.ca.gov) 800-435-8670 [san francisco\\_san jose@hsr.ca.gov](mailto:san francisco_san jose@hsr.ca.gov)