TODAY’S PROPOSED BOARD ACTION

• Concur with the staff recommendation to identify Alternative A as the Preferred Alternative in the San Francisco to San Jose Project Section Draft EIR/EIS

» Identifying a preferred alternative aligns with federal law, including MAP-21 (2012) and FAST Act (2015), and with the CEQA requirement for a proposed project

» This process is consistent with the Authority’s guidance

» Identifying a preferred alternative in the Draft EIR/EIS allows the public and agencies to focus their review

» All alternatives will be analyzed at an equal level of detail and described in the published Draft EIR/EIS.

» Identifying a Preferred Alternative does not constitute the adoption or approval of a preferred alternative
PREFERRED ALTERNATIVE PROCESS

**STEP ONE**
Range of Alternatives

**STEP TWO**
Evaluation of Alternatives

**STEP THREE**
Authority collects feedback on staff-recommended Preferred Alternative

Board Identification of the Preferred Alternative
PREFERRED ALTERNATIVE

REFINING THE ALTERNATIVES
PROJECT ALTERNATIVES DEVELOPMENT PROCESS

2005-2008
- Programmatic Documents
- NOP/NOI Issued for 4-Track System
- Public Scoping
- Technical Working Group Meetings
- Community Working Group Meetings
- Stakeholder Engagement

2009

2010
- Preliminary Alternatives Analysis Report
- Supplemental Alternatives Analysis Report
- Stakeholder Engagement

2012
- 2012 Business Plan Adopted, calling for a Blended System along the Peninsula
- Senate Bill 1029 Passed, Providing Funding for Caltrain Electrification as part of the Blended System
- Nine-Party MOU
- Final Programmatic Documents

2013
- New MOU with PCJPB Committing to Blended System

2016
- New NOI/NOP issued for Blended System
- Public Scoping
- Supplement to 2012 Nine-Party MOU

2015-Ongoing
- Community Open House Meetings
- Environmental Justice Outreach
- Community/Technical Working Group Meetings

2018
- 2018 Business Plan

REFINING THE ALTERNATIVES
SAN FRANCISCO TO SAN JOSE COMMUNITY OUTREACH
2016 – 2019

Community Working Groups
(14)

CSCG/LPMG (82)

Open Houses
(9)

Community, Stakeholder & Environmental Justice Outreach
(360+)

Board Meeting
September 2019

REFINING THE ALTERNATIVES
# INTERFACING WITH NORTHERN CALIFORNIA AGENCIES

2018 - 2019

* = coordination with agency on topic

<table>
<thead>
<tr>
<th>AGENCY</th>
<th>ALIGNMENTS</th>
<th>WATER MANAGEMENT</th>
<th>TRANSPORTATION/ROADS</th>
<th>ENGINEERING/DESIGN</th>
<th>LAND USE</th>
<th>JOINT OUTREACH</th>
<th>2018 BUSINESS PLAN</th>
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REFINING THE ALTERNATIVES
PREFERRED ALTERNATIVE

CHARACTERISTICS OF ALTERNATIVES
SAN FRANCISCO – SAN JOSE
PROJECT ALTERNATIVES A AND B

CHARACTERISTICS OF ALTERNATIVES

San Francisco to San Jose Project Section

Alternative A Features
- East Option Light Maintenance Facility
- No Additional Passing Tracks

Alternative B Features
- West Option Light Maintenance Facility
- Additional Passing Tracks

- HSR Stations
- San Jose to Merced Alignments
- Downtown Extension

Light Maintenance Facility
East Option (Alt A)
West Option (Alt B)

No Additional Passing Tracks (Alt A)
Additional Passing Tracks (Alt B)

Relocation of San Carlos Station
SAN FRANCISCO TO SAN JOSE
Common Project Elements – Alternatives A & B

High-Speed Rail stations[1]
» San Francisco 4th and King
» Millbrae

Up to 110 mph speeds
» Track modifications to support higher speeds

Peak operations
» 4 High-Speed Rail trains and 6 Caltrain trains per hour/per direction

[1] Salesforce Transit Center has been environmentally cleared by Transbay Joint Powers Authority and will not be part of the California High-Speed Rail Authority’s environmental analysis. San Jose Diridon Station is being evaluated as part of the San Jose to Merced Project Section but will be included in both project sections’ environmental analysis.

Figure: Blended service simulation
SAN FRANCISCO TO SAN JOSE
Common Project Elements – Alternatives A & B

- Remove holdout rule at Broadway and Atherton Caltrain Stations
- Safety modifications at Caltrain-only stations and at-grade crossings
- Corridor fencing
- Uses Caltrain electrification infrastructure and tracks
- Predominantly within the existing railroad right-of-way
- At-grade tracks with quad gates at each road crossing

Figure: Blended service illustration

CHARACTERISTICS OF ALTERNATIVES
GRADE CROSSING FEATURES

Quad road barriers
8ft high right-of-way fence

Channelization
PASSING TRACKS EVALUATION TIMELINE

2011-2012
Shift to Blended System
- Feedback from Alternatives Analysis
- 2012 Business Plan
- MTC 9-party MOU
- SB 1029/SB 557

2013
2012-2014 Caltrain Blended Service Study
- Five Passing Track Options: North, Short-Middle-4, Long-Middle-4, Middle-3, South
- Dismissed: North and South due to poor performance

2014
2016-2017 Joint HSR/Caltrain Blended System Planning Analysis
- Three Passing Track Options: Short-Middle-4, Long-Middle-4, Middle-3, No passing tracks
- Dismissed: Long Middle-4 and Middle-3 due to community impacts

2015

2016
2017
2018
2019
2020
2021

2017-2021 HSR EIR/EIS Evaluation
- Alt. A – No additional passing tracks
- Alt. B – Short-Middle-4 passing tracks

Evaluation of future need for passing tracks

2018-2019 Caltrain Business Plan

2016-2017 Joint HSR/Caltrain Blended System Planning Analysis

2012-2014 Caltrain Blended Service Study

2011-2012 Shift to Blended System

CHARACTERISTICS OF ALTERNATIVES
PASSING TRACKS
Alternatives Carried Forward

• Alternative A: No Additional Passing Track Option

• Alternative B: Short-Middle 4-Track Passing Track Option (6 miles)
  » San Mateo to Redwood City
  » Adjacent to 1.8 miles of residential uses
  » Relocates San Carlos Caltrain station

Note: “Middle” means middle of the corridor
LIGHT MAINTENANCE FACILITY

Alternatives Considered

- Port of San Francisco
- East Brisbane/West Brisbane
- San Francisco International Airport
LIGHT MAINTENANCE FACILITY

Alternatives Eliminated

• Port of San Francisco
  » Regionally and locally important infrastructure
  » Permanent disruption to major circulation elements
  » Displaces Marine Eco-Industrial Center planned uses
  » More wetland/water impacts than Brisbane East LMF
  » Substantially higher costs than Brisbane LMF options

• San Francisco International Airport
  » Regionally important facility
  » Displaces airport operational land uses
  » Airport constrained from expansion by San Francisco Resolution 69.08
  » More wetland/water impacts than Brisbane East LMF
  » Substantially higher costs than Brisbane LMF options
LIGHT MAINTENANCE FACILITY

Alternatives Carried Forward

Brisbane

Alternative A  
East

Alternative B  
West

Figure: Maps of the proposed footprint for the Brisbane LMF, Alternative A (left) and Alternative B (right)
PREFERRED ALTERNATIVE

IDENTIFYING A PREFERRED ALTERNATIVE
ENVIRONMENTAL AND COMMUNITY RESOURCES AND ISSUES IN DRAFT EIR/EIS

- Aesthetics and Visual Quality
- Air Quality and Global Climate Change
- Biological and Aquatic Resources
- Cultural Resources
- Displacements
- Electromagnetic Fields and Electromagnetic Interference
- Emergency Vehicle Access/Response Time
- Environmental Justice
- Geology, Soils, Seismicity, and Paleontological Resources
- Hazardous Materials and Waste
- Hydrology and Water Resources
- Land Use and Development
- Noise and Vibration
- Parks, Recreation, and Open Space
- Public Utilities and Energy
- Regional Growth
- Transportation
ENVIRONMENTAL AND COMMUNITY DIFFERENTIATORS

- Aesthetics and Visual Quality
- Emergency Vehicle Access/Response Time
- Environmental Justice
- Land Use and Development

- Biological and Aquatic Resources
- Displacements
- Transportation
PREFERRED ALTERNATIVE CRITERIA

System Performance, Operations, & Costs
- Alignment Length
- Operational Speed
- Travel Time
- Capital Costs
- Operations & Maintenance Costs
- Caltrain Travel Time

Community Factors
- Displacements
- Aesthetics and Visual Quality
- Land Use and Development
- Transportation
- Emergency Vehicle Access/Response Time
- Environmental Justice

Environmental Factors
- Biological and Aquatic Resources

Preferred Alternative Criteria
IDENTIFYING A PREFERRED ALTERNATIVE

California High-Speed Rail Authority (Authority) staff recommends that the Board of Directors (Board), acting in its capacity as the state lead agency under the California Environmental Quality Act (CEQA) and the Federal lead agency under the National Environmental Policy Act (NEPA) pursuant to NEPA assignment, identify Alternative A as the Alternative Preferred in the San Francisco to San Jose Project Section Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS). Staff’s recommendation is based on the preliminary engineering, environmental impact analysis, and extensive public, stakeholder, and agency input received to date.

Upon receiving the Board’s concurrence, Alternative A will be identified as the Preferred Alternative in the Draft EIR/EIS. Identification of the Preferred Alternative and Board concurrence is neither an approval or a final decision. The Authority may change the preferred alternative depending on the comments received during public and agency review of the Draft EIR/EIS, which the Authority anticipates releasing in Spring 2020 for public and agency review and comment. Staff will take those comments into consideration while developing the Final EIR/EIS and, subsequently, Staff will return to the Board to request final project approval of an alternative once the Final EIR/EIS has been prepared.

Background
The 2005 Tier 1 California High-Speed Train Final Program EIR/EIS deferred selection of a corridor between the San Francisco Bay Area and Central Valley until completion of a second, more focused Program EIR/EIS. The 2008 Bay Area to Central Valley Program EIR/EIS evaluated two network alternatives for linking the Bay Area and Central Valley—the Frontrunner Pass and the Altamont Pass—and four alignment alternatives between San Francisco and San Jose—Interstate 5 (I-5) 280, U.S. Highway (US) 101, and the Caltrain corridor (exclusive or shared guideway). The Authority and Federal Railroad Administration (FRA) selected the Frontrunner Pass network alternative and advanced the shared use Caltrain corridor between San Francisco and San Jose for further study in Tier 2 project-level EIR/EIS. Those decisions were reconfirmed, following litigation, by the 2010 Bay Area
ALTERNATIVE A – STAFF-RECOMMENDED PREFERRED ALTERNATIVE
### SUMMARY OF ALTERNATIVES EVALUATION – SYSTEM PERFORMANCE, OPERATIONS, AND COST FACTORS

#### Best-performing alternative

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>ALT A</th>
<th>ALT B</th>
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<tbody>
<tr>
<td>Alignment Length</td>
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<td>No Difference</td>
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<tr>
<td>Maximum Operating Speed</td>
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<td>No Difference</td>
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<td>HSR Peak Hour Average Representative Travel Time San Francisco to San Jose (minutes)</td>
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<td>Proposition 1A Service Travel Time Compliance</td>
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<tr>
<td>Estimated Capital Costs (2017$)</td>
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<tr>
<td>Estimated Annual Operations and Maintenance Costs (2017$)</td>
<td>No Difference</td>
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<tr>
<td>Caltrain Peak Hour Average Representative Travel Time</td>
<td>✓</td>
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**[1]** Operational service time includes station stops, schedule pad, and other operating parameters.
**SUMMARY OF ALTERNATIVES EVALUATION – COMMUNITY FACTORS**

- Best-performing alternative (fewest/least community impacts)

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>ALT A</th>
<th>ALT B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential displacements</td>
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<tr>
<td>Commercial and industrial displacements</td>
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<tr>
<td>Community and public facilities displacement</td>
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<td>Number of key viewpoints with decreased visual quality</td>
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<tr>
<td>Temporary interference with local vehicle circulation</td>
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<tr>
<td>Pedestrian Access from Downtown San Carlos to Caltrain Station</td>
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<tr>
<td>Temporarily increases emergency response time in south San Mateo, Belmont, San Carlos, and northern Redwood City due to short-term road closures</td>
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<tr>
<td>Construction-related disruption to Caltrain Service</td>
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<tr>
<td>Permanent Effect on Planned Mixed-Use Development (residential uses allowed) in Brisbane</td>
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**IDENTIFYING A PREFERRED ALTERNATIVE**
### SUMMARY OF ALTERNATIVES EVALUATION – ENVIRONMENTAL FACTORS

- **Best-performing alternative (fewest environmental impacts)**

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>ALT A</th>
<th>ALT B</th>
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</thead>
<tbody>
<tr>
<td>Total permanent impacts on wetlands and other waters of the U.S.</td>
<td></td>
<td>⬤</td>
</tr>
<tr>
<td>Permanent impacts on endangered callippe silverspot butterfly habitat</td>
<td></td>
<td>⬤</td>
</tr>
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</table>
Features
- Blended service with up to 10 TPH north of Tamien (6 Caltrain + 4 HSR) and up to 10 TPH south of Tamien (2 Caltrain + 8 HSR)
- Three skip stop patterns with 2 TPH – most stations are served by 2 or 4 TPH, with a few receiving 6 TPH
- Some origin-destination pairs are not served at all

Passing Track Needs
- Less than 1 mile of new passing tracks at Millbrae associated with HSR station plus use of existing passing tracks at Bayshore and Lawrence

Options & Considerations
- Service approach is consistent with PCEP and HSR EIRs
- Opportunity to consider alternative service approaches later in Business Plan process
ALTERNATIVE A – Staff-Recommended Preferred Alternative

Conclusions of Technical Analysis

- Fewest major visual impacts
- Fewest displacements
- Fewest road closures
- Fewest impacts on wetlands and habitats
- Fewest impacts on natural resources
- Lowest capital cost
- Slower HSR, faster Caltrain peak hour travel time
- Policy-level alignment with the Caltrain Business Plan
PREFERRED ALTERNATIVE OUTREACH (2019)

- July 9 – San Mateo County Board of Supervisors
- July 17 – City/County Staff Coordinating Group
- July 18 – City of Brisbane
- July 22 – San Francisco CWG
- July 23 – San Francisco County Transportation Authority
- July 23 – City of Millbrae
- July 24 – San Mateo County CWG
- July 25 – Local Policy Maker Group
- August 6 – Santa Clara Open House
- August 8 – Transbay Joint Powers Authority
- August 12 – San Francisco Open House
- August 19 – Redwood City Open House
- September 4 – City of Santa Clara
- September 10 – Santa Clara County Board of Supervisors
KEY THEMES

• Passing tracks
  » Support for minimal impacts (Alt. A)
  » Support higher service levels and infrastructure investment
    » Improve high-speed rail and Caltrain speeds
    » Accommodate future Caltrain plans
    » Construction costs lower now than in future

• Concerns from City and property owner about LMF impacts on proposed development in Brisbane

• Coordination with plans for future Caltrain service and other concurrent projects (e.g., Downtown Extension in SF)

• Interest in grade separations to reduce noise, traffic, and safety issues.

• Workforce development opportunities with the LMF and system construction
COMMUNITY WORKING GROUPS

Most important differentiating factors:

- Caltrain travel time
- Residential displacements
- HSR travel time
- Capital costs
- Commercial/industrial displacements
- Community/public facility displacements

Interest in

» Passing tracks for future growth of Caltrain service

Questions about

» Capital costs of infrastructure improvements
» Level of coordination with Caltrain
» Future commercial and population growth
» Workforce development at the LMF to prioritize EJ populations

Appreciation for

» Focus of Alternative A on fewest community impacts

Concerns about

» Size of and potential impact on development from the LMF in Brisbane
» System constraints with a lack of passing tracks
**OPEN HOUSES**

<table>
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<th>72% support Alternative A fully or with some concerns</th>
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<tr>
<td>Most important differentiating factors:</td>
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<tr>
<td>• HSR travel time</td>
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<tr>
<td>• Capital costs</td>
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<tr>
<td>• Caltrain travel time</td>
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<tr>
<td>• Residential displacements</td>
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<tr>
<td>• Alignment with Caltrain Business Plan</td>
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</table>

### Interest in

- Planning for future operational requirements for both Caltrain and HSR
- Faster implementation of HSR service

### Questions about

- Construction-related traffic impacts
- Improvements to at-grade crossings
- Job opportunities during construction

### Appreciation for

- Improved transportation and mobility statewide
- Valley-to-Valley link
- Fewer environmental and property impacts of Alt. A

### Concerns about

- Compatibility with Caltrain Business Plan and potential service expansion
- Traffic congestion at at-grade crossings
- Noise
CITIES, COUNTRIES, AND OTHER PARTNERS

Interest in

» Coordination of planning efforts with partners in San Francisco, Millbrae
» Quiet zones
» Mitigations to address disruptions during construction

Questions about

» Collaboration with Caltrain
» Air quality and visual impacts
» Availability of funding to complete the statewide system
» Opportunities to move LMF to another city

Appreciation for

» The reduced footprint of Alternative A
» Collaboration with Caltrain on blended system planning

Concerns about

» Feasibility/cost of remediating the LMF location
» Noise impacts
» Gate down times
» Impact to proposed development in Millbrae and Brisbane
SAN FRANCISCO TO SAN JOSE TIMELINE

2019
- **July**: CWG Meetings

2019
- **August**: Open Houses on Staff-Recommended Preferred Alternative

2020
- **Sept.**: Board Meeting Identification of Preferred Alternative

2020
- **Spring**: Publish Draft EIR/EIS
  - Ongoing Communication/Engagement
  - Public Hearings

2021
- **Spring**: Close of 45-day Public Comment Period
- **Spring/Summer**: Complete and Certify EIR/EIS
  - Community Open Houses & Briefings
  - Project Approval

COMMUNITY FEEDBACK
Concur with the staff recommendation to identify Alternative A as the Preferred Alternative in the San Francisco to San Jose Project Section Draft EIR/EIS

- NOTE: Identifying the Preferred Alternative does not constitute the adoption or approval of a Preferred Alternative