AGENDA ITEM

30. California High-Speed Rail Authority Draft Environmental Impact Report – Informational Update

Receive information from staff on the California High-Speed Rail Authority Draft Environmental Impact Report.

Agendas are posted on the City's website on the Friday preceding each Council Meeting. Background material can be viewed at City Hall or on the City's website www.cityofsanmateo.org. Any supplemental material distributed to the Council after the posting of the agenda will be available for review in the City Clerk's Office.

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TO: City Council
FROM: Drew Corbett, City Manager
PREPARED BY: Public Works Department
MEETING DATE: August 17, 2020
SUBJECT: California High-Speed Rail Authority Draft Environmental Impact Report – Informational Update

RECOMMENDATION:
Receive information from staff on the California High-Speed Rail Authority Draft Environmental Impact Report.

BACKGROUND:
On July 10, 2020, the California High-Speed Rail Authority (Authority) announced the availability of the Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) for the San Francisco to San Jose Project Section (Project Section, or project) of the California High-Speed Rail (HSR) System. The Draft EIR/EIS has been prepared and is being made available pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The Authority is the lead agency for the project under both CEQA and NEPA, and there is a 45-day public comment period on the Draft EIR/EIS, which ends on August 24, 2020. Staff has been reviewing the EIR, and this agenda report summarizes some of the impacts to the City.

The Project Section would modernize the rail corridor between San Francisco and San Jose and would provide HSR service from the Salesforce Transit Center in San Francisco to the San Jose Diridon Station. Initially, HSR trains would stop at the 4th and King Street Station in San Francisco (an interim HSR station), and once the Transbay Joint Powers Authority completes its Downtown Extension Project, HSR trains would reach the Salesforce Transit Center in San Francisco.

During 2012, Caltrain, the Authority, and 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 Project Section would primarily follow the existing Caltrain right-of-way through urban areas in San Francisco, San Mateo, and Santa Clara Counties including the cities and communities of San Francisco, Brisbane, South San Francisco, San Bruno, Millbrae, Burlingame, San Mateo, Belmont, San Carlos, Redwood City, North Fair Oaks, Atherton, Menlo Park, Palo Alto, Mountain View, Sunnyvale, Santa Clara, and San Jose.

This Draft EIR/EIS evaluates the impacts and benefits of the No Project Alternative and two project alternatives (Alternative A and Alternative B). Each alternative includes HSR stations in San Francisco, Millbrae, and San Jose, and an Light Maintenance Facility (LMF) in Brisbane. The Authority’s Preferred Alternative under NEPA, which also serves as the proposed project for CEQA, is Alternative A, a predominantly two-track blended system with no additional passing track that includes service at one future station (Salesforce Transit Center, which would serve as an HSR station when the Transbay Joint Powers Authority completes its Downtown Extension Project), three existing Caltrain stations to be shared
Alternative B is similar to Alternative A, but includes a 6-mile-long, four-track passing track (starting in San Mateo at approximately 9th Avenue and extending to Redwood City to approximately Whipple Avenue), the West Brisbane LMF, and an aerial viaduct approaching the San Jose Diridon Station. Alternative A is the Authority’s preferred alternative, but Alternative B will have substantially more impacts to the City of San Mateo such as:

- 2.8 miles of the 6 miles of passing track being in San Mateo
- Requiring of modification of the grade separations at 25th Avenue, 28th Avenue, 31st Avenue and 42nd Avenue
- More right-of-way impacts pertaining to temporary easements, permanent easements, and acquisitions

POTENTIAL IMPACTS TO LOCAL TRAFFIC
The Draft EIR studied twenty-seven (27) intersections within the City of San Mateo for AM and PM peak periods. Both Alternative A and B were compared against the No Project scenario (baseline) during the 2040 buildout year. Of the twenty-seven (27) intersections studied, nineteen (19) are shown to experience an increased delay in either the AM or PM peak periods in 2040 for both Alternative A and B when compared to the baseline. In addition, eight (8) out of the twenty-seven (27) intersections experience increased delays in either the AM or PM peak periods of ten seconds or more. Intersections such as South Delaware Street/East Third Avenue, South B Street/Ninth Avenue and South B Street/Fifth Avenue experience anywhere from 20 – 40+ seconds of increased delay from the project.

Currently, during the weekday peak commute periods, at-grade rail crossing gates in the City of San Mateo are currently down approximately 10 times per hour (5 trains per peak hour per direction) for Caltrain passenger rail service, with an average gate-down time of just under 1 minute per train. In the 2040 Project condition with HSR operating at full capacity, the at-grade rail crossings increases to a total of 20 times per hour during weekday peak commute periods (Caltrain with 6 trains per peak hour per direction and HSR with 4 trains per peak hour per direction). This will result in approximately 20 minutes of gate down time during the peak hour. During the 2040 Project condition San Mateo can experience between 52 – 114 trains per day.

However, the gate analysis uses Caltrain’s baseline growth projection and does not account for Caltrain’s future growth plans (Moderate Growth and High Growth) that have been contemplated during its preparation of the 2040 Business Plan. Although Caltrain has seen a very significant decrease in ridership as a result of the Covid-19 pandemic, if the future HSR and usage is combined with the usage identified in draft documents from Caltrain prepared as part of its 2040 Business Plan, San Mateo could see gate down times at certain locations up to 32 minutes in the High Growth Scenario during weekday, peak-hour, commute periods.

Currently, the CEQA required transportation analysis metric is Vehicle Miles Traveled (VMT), and according to the EIR as part of the 2040 Project Condition, the San Mateo County VMT will drop from 4.963 million miles traveled per year to 4.872 million miles traveled per year. Accordingly, the EIR does not consider any of the traffic/operational impacts identified above as significant impacts under CEQA, therefore no mitigation measures are required by the project. However, the EIR identifies potential traffic impact mitigation measures including signal retiming, lane restriping, additional turn lanes, and road/intersection widening as all possible measures to help alleviate the impacts.

POTENTIAL RIGHT-OF-WAY IMPACTS
As part of Alternative A, there are only two (2) parcels identified by staff through the initial review that will need to be acquired from HSR to build their “Stand Alone Radio”. One of the properties is at 21 S. Railroad Avenue and the other is located on Caltrain right-of-way. This is in large because Alternative A uses a full blended system with no passing tracks. Even though there are no right-of-way acquisitions identified, there are temporary construction easements needed for the Project throughout San Mateo where there are existing at grade crossings (e.g., 1st Avenue, 2nd Avenue).

Alternative B incorporates a six (6) mile passing track that starts approximately at 9th Avenue in San Mateo and extends to Whipple Avenue in Redwood City. Approximately 2.8 mile of the 6-mile passing track will reside in the San Mateo.
of the passing tracks there are significant temporary construction easements needed throughout San Mateo. Notable temporary construction easements are at the intersection of Hillsdale Blvd/El Camino Real, Pacific Blvd from Otay Avenue to Laurie Meadows Drive, multiple parcels fronting the west side of the tracks between 14th Avenue and 16th Avenue, South Railroad Avenue between 10th Avenue and Keswick Lane. Alternative B also identified properties that will be affected by either acquisition, permanent utility easement, or new Caltrain easement such as:

- 21 S. Railroad Avenue,
- Multiple properties fronting the west side of the tracks from 14th Avenue to 17th Avenue,
- Leslie Street from 17th Avenue to 20th Avenue,
- Pacific Blvd from 19th Avenue to Delaware Street, and
- Multiple properties along the west side of the tracks from Palm Court to 31st Avenue.

In addition, the existing grade separations at 25th Avenue, 42nd Avenue and future grade separations at 28th Avenue and 31st Avenue will need to be permanently widened and lengthened to accommodate the passing tracks.

SAFETY IMPROVEMENTS AND POTENTIAL NOISE IMPACTS
When completed HSR trains will be running at speeds up to 110 mph, which has been identified in the EIR to generate noise levels up to 75db. As a result of the high speeds of trains, safety and security modifications will be provided by HSR to create a “sealed corridor” that would reduce conflicts with automobiles and pedestrians. The modifications include quad-gates and roadway median channelization. The installation of these modifications will qualify the at-grade crossings to be established as a quiet zone with the Federal Rail Administration (FRA). The installation of these modifications does not automatically make the crossings a quiet zone, as each City will still need to go through the quiet zone process with the FRA. Current regulations require locomotive engineers to sound the train horn for a minimum of 15 seconds in advance of public, at-grade crossings, which produces a minimum sound level of 96db and is much louder than the estimated noise created by the HSR trains.

SUMMARY
In summary, both alternatives are expected to cause the same increase vehicle delay in San Mateo. But, Alternative B has significantly more right-of-way impacts in the form of temporary construction easements, acquisitions, and various other easements. Staff continues to review the lengthy EIR and anticipates submitting written comments to, at a minimum, request that additional information or clarification be provided to certain aspects of the EIR. Staff will present additional information and is seeking feedback from Council on the EIR.

BUDGET IMPACT:
There are no budget impacts for receiving this informational report.

ENVIRONMENTAL DETERMINATION:
This informational report is not a project subject to CEQA, because the City Council is not taking action at this time.

NOTICE PROVIDED
All meeting noticing requirements were met.

ATTACHMENTS
None

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(650) 522-7323
California High Speed Rail Environmental Impact Report

August 17, 2020

Jay Yu
Engineering Manager
Department of Public Works
OVERVIEW

• Project Timeline
• HSR Project Alternatives
• Traffic Impacts
• Right of Way Impacts
• Safety Improvements and Noise

EIR CAN BE DOWNLOADED AT WWW.HSR.CA.GOV
TIMELINE OVERVIEW

- JULY 10, 2020: RELEASE HSR EIR
- SEPTEMBER 9TH, 2020: EIR COMMENTS DUE
- 2040: ESTIMATED FULL BUILT OUT

- DESIGN AND CONSTRUCTION
Alternatives

• **Alternative A**
  • Limits: San Jose to San Francisco
  • 4 HSR trains per direction during peak hour
  • No Passing Track
  • Maximum Speed: 110 mph
  • Fewer ROW Impact

• **Alternative B**
  • Limits: San Jose to San Francisco
  • 4 Trains Per Direction During Peak Hour
  • 2.8 Miles of Passing Tracks in San Mateo
  • Maximum Speed: 110 MPH
  • Significant ROW Impacts
San Mateo Traffic Impacts

• 27 Intersections Studied
• 19 out of 27 intersections experience a delay
• 8 out of the 27 intersection experience delays upward of 20+ seconds
# Level of Service Analysis

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Peak Hour</th>
<th>24/7 No Project</th>
<th>Alternative A</th>
<th>Alternative B</th>
</tr>
</thead>
<tbody>
<tr>
<td>GX32 Transit Center Way/First Avenue</td>
<td>AM PM</td>
<td>49.5 (NB)* &gt;100.0 (NB)*</td>
<td>F*</td>
<td>P*</td>
</tr>
<tr>
<td>GX33 South Railroad Avenue/First Avenue</td>
<td>AM PM</td>
<td>114.3 (NB)* &gt;180.0 (NB)*</td>
<td>F*</td>
<td>P*</td>
</tr>
<tr>
<td>GX34 South B Street/Second Avenue</td>
<td>AM PM</td>
<td>68.8* 101.8*</td>
<td>E*</td>
<td>P*</td>
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<tr>
<td>GX35 South B Street/Third Avenue</td>
<td>AM PM</td>
<td>63.3* 154.4*</td>
<td>E*</td>
<td>P*</td>
</tr>
<tr>
<td>GX36 South Clement Street/Third Avenue</td>
<td>AM PM</td>
<td>57.5* 167.7*</td>
<td>E*</td>
<td>F*</td>
</tr>
<tr>
<td>GX37 South B Street/Fourth Avenue</td>
<td>AM PM</td>
<td>38.4 &gt;180.0*</td>
<td>D*</td>
<td>F*</td>
</tr>
<tr>
<td>GX38 South Clement Street/Fourth Avenue</td>
<td>AM PM</td>
<td>37.0 65.5*</td>
<td>D*</td>
<td>F*</td>
</tr>
<tr>
<td>GX39 South B Street/Fifth Avenue</td>
<td>AM PM</td>
<td>53.0 &gt;180.0*</td>
<td>D*</td>
<td>F*</td>
</tr>
<tr>
<td>GX40 South Clement Street/Fifth Avenue</td>
<td>AM PM</td>
<td>47.5* &gt;180.0*</td>
<td>E*</td>
<td>F*</td>
</tr>
<tr>
<td>GX41 South B Street/Ninth Avenue</td>
<td>AM PM</td>
<td>137.7 156.7*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GX42 South Railroad Avenue/Ninth Avenue</td>
<td>AM PM</td>
<td>72.6 (NB)* 138.0 (NB)*</td>
<td>D*</td>
<td>F*</td>
</tr>
<tr>
<td>GX43 San Mateo Avenue/Scott Street</td>
<td>AM PM</td>
<td>59.5 (EB)* 61.9 (EB)*</td>
<td>E*</td>
<td>F*</td>
</tr>
<tr>
<td>GX44 South Delaware Street/Third Avenue</td>
<td>AM PM</td>
<td>120.7 &gt;180.0*</td>
<td>F*</td>
<td>P*</td>
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<tr>
<td>GX45 South Delaware Street/Fourth Avenue</td>
<td>AM PM</td>
<td>27.2 37.2</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>

## San Mateo to Palo Alto Subsection

### Intersections Near At-Grade Crossings Along Track Alignment

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Peak Hour</th>
<th>24/7 No Project</th>
<th>Alternative A</th>
<th>Alternative B</th>
</tr>
</thead>
<tbody>
<tr>
<td>GX46 South Delaware Street/East Fifth Avenue</td>
<td>AM PM</td>
<td>116.7* &gt;180.0*</td>
<td>F*</td>
<td>No</td>
</tr>
<tr>
<td>GX47 South Clement Street/Ninth Avenue</td>
<td>AM PM</td>
<td>93.3* &gt;180.0*</td>
<td>F*</td>
<td>Yes* No</td>
</tr>
</tbody>
</table>

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City of San Mateo
Downtown
Hillsdale
North Central
Improvement
Moderate Delay
Significant Delay
No Change
Traffic Impacts
2040 Project Conditions

- Improvement
- Moderate Delay
- Significant Delay

- 3 sec
- 17 sec
- 21 sec
- 23 sec
- 42 sec
- 54 sec

Map indicating traffic conditions with colors:
- Improvement: Green
- Moderate Delay: Yellow
- Significant Delay: Red
# Staff Estimate of Gate Downtime Per Peak Hour

<table>
<thead>
<tr>
<th>Average Gate Down Time</th>
<th>2040 Baseline (6 Caltrain + 4 HSR per direction)</th>
<th>Moderate Growth (8 Caltrain + 4 HSR per direction)</th>
<th>High Growth (12 Caltrain + 4 HSR per direction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSR EIR Citywide Average Estimate&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>20 min</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2040 Caltrain Business Plan Average&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>16.5 min</td>
<td>20.4 min</td>
<td>26.7 min</td>
</tr>
<tr>
<td>Range&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>(14 – 19 min)</td>
<td>(16 min – 25 min)</td>
<td>(22 – 32 min)</td>
</tr>
</tbody>
</table>

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<sup>(1)</sup> More information can be found in HSR EIR Volume 1 – Chapter 3 – Table 3.2-7

<sup>(2)</sup> Information provided by the 2040 Caltrain Business Plan

<sup>(3)</sup> Includes 9 at grade crossings (Peninsula, Villa Terrace, E. Bellevue, 1st – 5th Avenue and 9th Avenue
Even though there are operational level of service impact as a result of this project. Under CEQA, LOS is no longer an impact. Therefore the project does not provide any mitigations.
Alternative A
ROW Impact

Legend

Alternative A Footprint Component
- HSR Right-of-Way
- HSR Permanent Easement
- Roadway Right-of-Way
- Other Impacted Property
- Existing Caltrain Right-of-Way
- Existing Caltrain Easement
- New Caltrain Easement
- Permanent Utility Easement
- Temporary Construction Easement
- Temporary Utility Easement

Potential location for a radio tower
Temporary Construction Easements
Properties impacted by permanent utility easements and New Caltrain easement.

**Legend**

- HSR Right-of-Way
- HSR Permanent Easement
- Roadway Right-of-Way
- Other Impacted Property
- Existing Caltrain Right-of-Way
- Existing Caltrain Easement
- New Caltrain Easement
- Permanent Utility Easement
- Temporary Construction Easement
- Temporary Utility Easement
More Information about right-of-way impacts at:

WWW.MAPHSRNORCAL.ORG/SANFRANCISCO-SANJOSE/
Safety Improvements and Noise

• Installation of quad gates at nine (9) existing at-grade crossings

• Installation of these modifications does not automatically make the crossings a quiet zone.

• City will still need to go through the quiet zone process with the Federal Rail Administration.

• Existing train horn 96db

• Future HSR trains 75db
Thank You

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