

PUBLIC UTILITIES COMMISSION

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SAN FRANCISCO, CA 94102



July 23, 2020

Governor's Office of Planning & Research

Jul 23 2020

Mark McLoughlin
California High Speed Rail Authority
770 L Street, Suite 620 MS-1
Sacramento, CA 95814

STATE CLEARINGHOUSE

Re: Draft Environmental Impact Report (DEIR)
San Jose to Merced High-Speed Train Project DEIR/EIS
SCH# 2009022083

Dear Mr. McLoughlin:

The California Public Utilities Commission's (Commission) Rail Crossing Engineering Branch (RCEB) is taking this opportunity to address the California High-Speed Rail Authority's (CHSRA) Draft Environmental Impact Report/Environmental Impact Statement (DEIR) for the San Jose to Merced High Speed Train (HST) project. RCEB staff offers the following comments.

Commission Requirements and Policy

The Commission has jurisdiction over the safety of highway-rail crossings (crossings) in California. The Commission has exclusive power over the design, alteration, and closure of crossings, pursuant to Public Utilities Code Section 1201 et al . Based on Commission Rules of Practice and Procedure, Rule 3.9, an application to the Commission is required to construct a railroad across a public road. The HST project is subject to a number of other rules and regulations involving the Commission. The design criteria of the proposed project will need to comply with the California Manual on Uniform Traffic Control Devices (MUTCD) and Commission General Orders (GO's). The following GO's, among others, may be applicable:

- GO 26-D (regulations governing clearances on railroads and street railroads with reference to side and overhead structures, parallel tracks, crossing of public roads, highways and streets)
- GO 72-B (rules governing the construction and maintenance of crossings at grade of railroads with public streets, roads and highways)
- GO 75-D (regulations governing standards for warning devices for at-grade highway-rail crossings)
- GO 88-B (rules for altering public highway-rail crossings)
- GO 95 (rules for overhead electric Line construction)

- GO 176 (Rules for Overhead 25 kV Railroad Electrification Systems for a High-Speed Rail System)

Specific Project Comments

- RCEB recommends the entire High Speed Rail corridor be grade separated with no at-grade highway-rail crossings. Grade separated crossings provide a greater level of safety, for both the roadway users as well as railroad employees, than at-grade highway-rail crossings.
- Union Pacific Railroad (UP) owns much of the rail corridor in the project area. UP concurrence is required for all modifications.
- High Speed Rail platforms within the station are required to comply with GO 26-D clearance requirements.
- RCEB recommends all pedestrian underpasses have a minimum vertical clearance of 10 feet.
- Please send updated details on the intrusion protection system and how it functions at at-grade crossings. RCEB is unclear how any type of system can prevent pedestrians from entering the proposed at-grade rail crossings as trains approach. The combination of very high train speeds, potential for second trains traveling through crossings, and pedestrian impatience is a safety concern to RCEB.
- Alternative 4 At-Grade Crossing General Concerns:
 - There have been 30 train incidents along the corridor between San Jose and Gilroy since March 2014. Adding high speed trains traveling at 110 mph at-grade along this corridor will likely lead to detrimental impacts to safety.
 - Caltrain's proposed electrified train detection system potentially leads to longer gate down times for at-grade crossings. Longer gate down times commonly lead to motorist and pedestrian frustration resulting in questionable behavior including, but not limited to, gate drive-around, bypassing lowered gates, and rushing through the crossing to beat a train.
 - An increased volume of trains along the rail corridor due to electrification will lead to increased train horn noise for Alternative 4. The train engineers will begin sounding the train horns earlier on approach to rail crossings due to the much higher proposed train speeds to comply with FRA train horn requirements, resulting in much more noise pollution throughout the rail corridor. RCEB does not support quiet zones and believes train horns provide a substantial rail crossing safety benefit.
 - RCEB requests additional details on the intrusion protection system and its application at at-grade rail crossings.
 - Structures for proposed grade separated High Speed Rail tracks adjacent to rail crossings, which will remain at-grade, can cause visibility issues to the

- automatic warning devices. Such designs will need to ensure motorists maintain proper visibility of railroad automatic warning devices.
- Proposed 4 quad gate systems are required to comply with GO 75-D, including vehicle detection within the crossing.
 - Many of the at-grade crossings adjacent to Monterey Road have steep approaches which can lead to long vehicles high centering on the tracks. The grade must be reduced for at-grade designs.
 - Commission Standard 9 automatic pedestrian gates would be required on all sidewalk approaches. The conceptual at-grade crossing designs in Appendix 2-A only include swing gates and do not include Commission Standard 9 automatic pedestrian gates on the sidewalk approaches. Complete pedestrian treatment includes Commission Standard 9 automatic pedestrian gates, emergency EXIT swing gates, and channelization. The text descriptions in Appendix 2-A do state Commission Standard 9 automatic pedestrian gates are proposed but the conceptual plans do not match.
 - The rail corridor travels adjacent to Monterey Road between San Jose and Gilroy. The close proximity leads to motorists queuing onto the tracks regularly. Required mitigation measures would include:
 - Advance railroad preemption with gate down detection circuit, supervised circuit, and advance pedestrian clearance phase.
 - Pre-signals. Installing pre-signals likely eliminates right turn on red movements over the railroad crossings. The location of the pre-signals may conflict with proposed locations of exit gates in a 4 quadrant gate system.
 - RCEB recommends pedestrian approaches travel over the tracks at a 90 degree angle. Many of the existing at-grade rail crossings on this corridor have sidewalks skewed as they travel over the tracks. This condition results in a longer distance for pedestrians to travel over the tracks and can lead to wheelchair wheels getting stuck in the tracks.
 - Adjacent driveways and frontage roads to at-grade crossings can cause queues onto the tracks. RCEB recommends all nearby driveways and frontage roads be closed.
- Comments at specific rail crossings:
 - The Auzerais Ave, San Jose crossing has adjacent driveways in the northwest and northeast quadrants. Both driveways must be closed.
 - The West Virginia St, San Jose crossing has an adjacent driveway in the northeast quadrant. There is a cut out in the raised concrete median to allow access to this driveway, which can cause queuing. RCEB recommends the median cutout be removed by filling the median in.
 - The Skyway Dr, San Jose crossing has a bus stop in the southwest quadrant. Buses which stop at the crossing obstruct visibility of the railroad automatic

warning devices. The crossing does not currently comply with American Railway Engineering and Maintenance of Way Association (AREMA) guidelines of having visible set a flashing light signals from each approach lane. A Commission Standard 9-A in the southwest quadrant would be required. Overhead utilities may conflict with the installation of the new warning device and should be relocated. Limited right of way in the southwest quadrant makes installing a Commission Standard 9-A and complete pedestrian treatments challenging.

- The Branham Lane, San Jose crossing has high motorist traffic. RCEB recommends this crossing be grade separated under all scenarios.
- Fox Lane private crossing is used by school children to access properties on the west side of the tracks. School buses stop on Monterey Road to load and unload the school children. While the Commission applauds the decision to close this crossing as it has had multiple incidents in the past 15 years, CHSRA must take great care on the details of closing the crossing. RCEB recommends vandal resistant fencing be installed and CHSRA work with the school district to relocate the bus stop.
- The Live Oak, San Jose crossing has a high volume of truck traffic which may lead to queuing on the tracks.
- The Tilton Ave, Morgan Hill crossing provides access to a residential area and a high school. Modification of the crossing must consider school traffic.
- The Main Ave, Morgan Hill crossing has a nearby intersection to the west with Depot St which can lead to queuing onto the tracks. RCEB recommends Depot St be closed at the intersection with a Cul-de-Sac.
- The San Pedro Ave, Morgan Hill crossing has an adjacent driveways in the northwest and southwest quadrants which may cause queuing onto the tracks. The driveways must be closed as part of the project.
- The Tennant Ave, Morgan Hill crossing does not currently comply with AREMA guidelines of having visible set a flashing light signals from each approach lane. A Commission Standard 9-A for eastbound traffic would be required. Overhead utilities may conflict with the installation of the new warning device and should be relocated.
- The San Martin Ave, San Martin crossing has an adjacent intersection with Depot St to the east which can lead to queuing onto the tracks. RCEB recommends access to Depot St be closed at the intersection or the intersection be signalized with advance railroad preemption.
- The Church Ave, Unincorporated Santa Clara crossing has a STOP control at Monterey Rd, which leads to queuing on the tracks. The Church Ave and Monterey Rd intersection would be required to be signalized with advance railroad preemption.

- The Masten Ave, Unincorporated Santa Clara crossing has a small storage space which leads to queuing on the tracks by large trucks. RCEB recommends a pre-signal be installed at the crossing.
- The Rucker Ave, Unincorporated Santa Clara crossing has a STOP control at Monterey Rd, which leads to queuing on the tracks. The Rucker Ave and Monterey Rd intersection would be required to be signalized with advance railroad preemption.
- The Buena Vista Ave, Unincorporated Santa Clara crossing has a STOP control at Monterey Rd, which leads to queuing on the tracks. The Buena Vista Ave and Monterey Rd intersection would be required to be signalized with advance railroad preemption.
- The Leavesley Rd, Gilroy crossing has pre-signals which are not activated. RCEB recommends a far side pre-signal be installed in the northwest quadrant and the pre-signal reactivated. There is little room for a far side pre-signal, Commission Standard 9-E EXIT gate, sidewalk, Commission Standard 9 automatic pedestrian gates, and EXIT swing gate in the northwest quadrant. The southwest quadrant requires additional space to install a Commission Standard 9 automatic pedestrian gates, and EXIT swing gate. Motorists traveling north on Monterey Rd and turning right onto Leavesley Rd often stop on the tracks mistakenly believing there is a merge and they are required to yield to Leavesley Rd traffic. RCEB recommends bollards be placed between the northbound Monterey Rd right turn pocket and Leavesley Rd in the southeast quadrant to improve right turn movements through the crossing.
- The IOOF Ave, Gilroy crossing is next to a middle school. Modification of the crossing must consider school traffic.
- The Lewis St, Gilroy crossing has an adjacent driveway in the northwest quadrant and a frontage road in the southwest quadrant. Both the driveway and frontage road must be closed.
- The Martin St, Gilroy crossing has a frontage road in the northwest quadrant. The frontage road must be closed.
- The 6th St, Gilroy crossing has adjacent driveways in the northwest and southwest quadrants. Both driveways must be closed.
- The 10th St, Gilroy crossing does not currently comply with AREMA guidelines of having visible set a flashing light signals from each approach lane. RCEB would require a Commission Standard 9-A for westbound traffic be installed. 10th St provides access to Highway 101 and has heavy traffic.
- The Luchessa Ave, Gilroy crossing has an intersection with Automall Pkwy within 200 feet to the east. RCEB recommends advance railroad preemption be installed according to California MUTCD guidelines.

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- The Bloomfield Ave, Unincorporated Santa Clara County crossing is adjacent to a STOP controlled intersection with Bolsa Rd. RCEB recommends advance railroad preemption be installed according to California MUTCD guidelines.

The comments above are a cursory review of the at-grade crossings and should not be construed as a complete review or with RCEB concurring with alternative 4 with at-grade high speed rail crossings. RCEB continues to recommend the entire high speed rail corridor be grade separated with no at-grade rail crossings as that configuration provides the largest safety considerations to the public.

The Commission is the responsible agency under CEQA section 15381 with regard to this project. As such, we greatly appreciate and thank you for the opportunity to work with the CHSRA to improve public safety as it relates to crossings in the San Jose to Merced segment of the HST system in California. We request that RCEB be kept informed of all developments associated with the HST project. Meetings should be arranged with the Commission's RCEB staff to discuss relevant safety issues and conduct diagnostic reviews of any proposed and impacted crossing locations along the proposed alignment in the San Jose to Merced HST project.

If you have any questions please contact Felix Ko via email at felix.ko@cpuc.ca.gov.

Sincerely,

Felix Ko
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California Public Utilities Commission
Rail Safety Division
Rail Crossings and Engineering Branch