STATE OF CALIFORNIA Gavin Newsom, *Governor*

PUBLIC UTILITIES COMMISSION
320 W. 4th St, Suite 500
Los Angeles, CA 90013

May 24, 2023

Re: Project Initiation Document – High Street (CPUC #001D-10.40/ ALA-1484)

To: Bruce Roberts & Todd Rogers, Caltrans Division of Local Assistance

The attachment to this letter details the recommendations of the California Public Utilities Commission (CPUC) Rail Crossings and Engineering Branch staff for the Railroad-Highway Grade Crossing Program (Section 130) High Street crossing safety improvements.

The attachment identifies both railroad and local agency scopes of work to be contracted by Caltrans Division of Local Assistance. The City of Oakland (City), Alameda County Transportation Commission (Alameda CTC), and the Union Pacific Railroad (UPRR) have participated in the development of this project proposal. The participants agree with the proposal, are in concurrence to proceed with the funding, and are committed to the implementation of the project. The City, Alameda CTC, and UPRR will be responsible to design and construct their identified scope of work items. The CPUC will review and authorize crossing improvements, and Caltrans will facilitate concurrent progression of contracts from approval of scope of work through project closeout.

It is the recommendation of CPUC staff to proceed with the funding of this project.

Sincerely,

Matt Cervantes, P.E.
Senior Utilities Engineer - Specialist
Rail Crossings and Engineering Branch
Rail Safety Division

Via Electronic Mail:

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California Railroad-Highway Grade Crossing Program
CPUC Project Initiation Document

PROJECT LOCATION

CPUC ID	001D-10.40 / ALA-1484	FED ID	749712Y
City	Oakland	Street Name	High Street
County	Alameda	RCEB Engineer	Siavash Mozaffari
Latitude	37.769222	Longitude	-122.219018
Public Agency Jurisdiction(s)	City, Alameda CTC	Rail Agency Jurisdiction (s)	UPRR

PURPOSE AND NEED

Background

This crossing was identified for possible funding of hazard elimination and safety improvements through the Federal Section 130 funds. The Section 130 program is a federally funded program, administered by the States, for the elimination of hazards at highway-rail at-grade crossings. This location was identified as a candidate location via a data driven methodology which includes but is not limited to: train and vehicle volumes, geometric factors, pedestrians, buses and hazmat vehicles, and incident history.

The High Street at-grade crossing is located in the City of Oakland, Alameda County. The crossing consists of a four-lane, generally northeast-southwest oriented roadway and three tracks of the UPRR Roseville Division, Niles Subdivision. The roadway has a width of 42 feet and intersects with the track at a 95-degree crossing angle. There are paved and unpaved sections of sidewalk approaches on both sides of the crossing. The track surfacing consists of concrete panels with a length of 65 feet for each of the three tracks. The crossing is currently equipped with two Commission Standard 9 (flashing light signal assembly with automatic gate arm) warning devices on the vehicular approaches. UPRR and Amtrak (ATK) currently operate trains at the crossing, with a maximum speed of 79 miles per hour (MPH).

The crossing is located approximately 300 feet northeast of the signalized intersection of High Street and Coliseum Way. The intersection traffic signals are not interconnected with the railroad track circuitry system.

On February 23, 2022, FRA coordinated a diagnostic review at the crossing site. Representatives from FRA, CPUC, Caltrans Division of Local Assistance, City of Oakland, Alameda CTC, Union Pacific signals maintenance, and Capitol Corridors Joint Powers Authority (CCJPA) were in attendance. FRA reported several long-term alternatives for crossing improvements, including: installation of additional warning devices, roadway rehabilitation, and improvements to the pedestrian approaches and crossings.

Incident History

Incident List (October 2016 to Present)

	Date	FTL	INJ	Suicide	Incident Summary
1	5/16/2018	0	0	No	On May 16, 2018 at 12:12 hours, an eastbound vehicle stopped on the tracks prior to the gates descending. A southbound UP train struck the rear end of the truck as the motorist attempted to move through the crossing.
2	9/15/2019	0	0	No	On September 15, 2019 at 10:58 hours a UP train struck an occupied vehicle at the High Street grade crossing with no injuries reported. The vehicle stopped on the crossing prior to the gates activating.
3	10/17/2019	0	0	No	On October 17, 2019 at approximately 12:29 hours, a northbound ATK train struck a vehicle fouling the tracks at the High Street grade crossing, with no injuries reported. Video confirmed that the vehicle was fouling the tracks prior to the train entering the crossing and was unable to move off of the tracks due to traffic queues downstream of the crossing.
4	3/4/2020	0	0	No	On March 4, 2020 at approximately 09:00 hours, an ATK train struck a vehicle at the High Street grade crossing with no injuries reported. According to the FRA report, the motorist drove around the lowered gate before stopping in the crossing area while fouling the tracks. The vehicle was unable to clear the track area due to traffic queues.
5*	9/5/2020	0	1	No	On September 05, 2020 at 18:31 hours a northbound ATK train struck an occupied vehicle at a grade-crossing, with 1 injury to the vehicle occupant reported. ATK reported, and video confirmed, that the driver was fouling the track area and was unable to clear the track area due to traffic queues.
6	12/9/2021	0	0	No	On December 9, 2021 at 07:21 hours a vehicle was pushed into the High St crossing and struck an Amtrak passenger train. ATK reported that the vehicle was involved in a rear-end collision that pushed it into the track area. The ATK train struck the front end of the vehicle.
7	4/1/2022	0	0	No	On April 1, 2022 at 15:30 hours a northbound UP train struck a vehicle at the High Street grade crossing with no injuries reported. The accident FRA report states that the vehicle went around an activated gate and was struck by the train.
8	5/15/2022	0	0	No	On May 15, 2022 at 12:36 hours a UPRR train struck an abandoned vehicle at the High Street grade crossing, with no injuries reported.

**Incident is not reported in the FRA Highway-Rail Grade Crossing Accident/Incident Report*

Purpose

The purpose of the project is to improve the safety at the High Street crossing by mitigating existing potential hazards to reduce the chance of future incidents. Potential hazards identified at High Street include:

- Reduced visibility of curb-mounted railroad warning devices for vehicles in the number 1 lanes on both vehicular approaches.
- Queues due to the signalized intersection of Coliseum Way and High Street southwest of the crossing.

- Occasional queues due to the signalized intersection of San Leandro Street and High Street northeast of the crossing.
- Vehicles fouling the tracks during activation.
- Damaged or obsolete centerline delineators.
- Traffic delays or stalling due to vehicles entering and exiting driveways near the crossing.
- Roadway maintenance required on vehicle approaches and departures.
- Roadway flooding during rainy conditions.
- Reduced pedestrian visibility of crossing conditions due to fencing at northwest quadrant.
- ADA non-compliant sidewalk approaches, including unpaved and uneven segments.
- Inadequate facilities for the significant pedestrian and bicycle traffic observed at the crossing.

The CPUC identifies each candidate location. After review of the specifics of the location, CPUC recommends improvements related to the crossing. These are generally broken into two types of improvements: vehicular and pedestrian.

At this location, the vehicular related safety improvements include installation of queue-cutter signals and additional railroad warning devices. A queue-cutter may mitigate the queueing observed at the intersection to the southwest by giving motorists active control through the track area and a defined stopping location. A traffic study with queue analysis was discussed to indicate if a queue-cutter is recommended under peak traffic conditions for both crossing approaches, and to determine placement of the queue loops if necessary. These queue mitigations would help to address the concern of vehicles fouling the track when the nearby intersection traffic is stopped and during peak traffic conditions.

Additional railroad warning devices may be recommended, depending on the consensus of queue-cutters for the crossing. Commission Standard 9-A (flashing light signal assembly with automatic gate arm and additional flashing light signals over the roadway on a cantilevered arm) warning devices are recommended to provide better indication to traffic in the center lane approaches. Due to existing overhead utilities conflicts, a CPUC Standard 9-A device may only be feasible in the northwest quadrant. The diagnostic team will determine if CPUC Standard 9-A devices are warranted in conjunction with queue-cutter signals at the crossing.

Additional civil improvements to the roadway approaches were discussed at the field meeting. Existing delineators have been damaged and should be replaced in order to discourage turns into the nearby driveways that may cause traffic to slow or stop while on the crossing. Traffic studies should include observations of driveway use to guide the diagnostic team to determine entrance and exit restrictions. The roadway approaches also require maintenance, with refreshed signage and striping. Any profile and grading at the crossing approaches should address the drainage concerns that cause flooding north of the crossing during rainy weather. The City may also consider additional illumination on the crossing approaches; street-lighting may be incorporated onto queue-cutter signal structures.

The use of federal funding also requires addressing pedestrian and bicycles pathways. Significant pedestrians and bicycle users were observed at the crossing. During the field meeting, Americans with Disabilities Act (ADA) compliant sidewalk approaches at all four quadrants were discussed to connect to the existing concrete sidewalks. Any channelization and fencing should be constructed to discourage the noted trespassing onto railroad right-of-way

while allowing railroad access to tracks and signal equipment for maintenance. Due to the high maximum speed along this three-track corridor, automatic pedestrian warning devices were discussed. A pedestrian study may indicate the extent of pedestrian treatments, which may include pedestrian CPUC Standard 9 devices with emergency egress swing gates; such treatments may require additional right-of-way to accommodate pedestrian facilities.

SCOPE OF WORK

The scope of work identified below is the basis for the design during the Preliminary Engineering Phase. The Preliminary Engineering Phase consists of updating the scope of work, completing design plans, conducting onsite and virtual meetings as needed, and submitting and approval of the CPUC General Order 88-B request. The diagnostic team is comprised of all parties involved in this project: City, Alameda CTC, UPRR, CPUC and Caltrans. If additional scope items are identified during design, or need to be modified, those items will be done upon collaboration and agreement of all diagnostic team members.

Through a cooperative agreement with the City, Alameda CTC has been delegated authority as lead local agency for this project.

Local Agency Scope of Work

- Conduct traffic study, including:
    - Queue analysis on both crossing departures/approaches.
    - Traffic patterns into and out of existing driveways near the crossing.
- Conduct pedestrian and bicycle study on crossing approaches and departures.
- Install queue-cutter signal for southwest bound motorists.
- Install queue-cutter signal for northeast bound motorists.
- Grading and roadway repair up to 150 feet on both approaches and departures.
- Construct ADA compliant sidewalk up to 100 feet at each quadrant approach.
- Install pedestrian approach tactile strips, channelizing railing, and emergency egress swing gates at all four quadrants.
- Install right-of-way fencing with maintenance access gates.
- Install additional street lighting near the crossing.
- Install signage and striping per CA MUTCD.
- Lead for CPUC General Order 88-B request submittal.

UPRR Scope of Work

- Install new concrete panel surfacing and requisite track structure to support new crossing surface, approximately 240-feet in length.
- If a queue-cutter is recommended by the diagnostic team, then install two CPUC Standard 9 (flashing light signal assembly with automatic gate arm) warning devices, one for each vehicular approach direction.
- If no queue-cutter signal is recommended, then install two CPUC Standard 9-A (Commission Standard 9 with additional flashing light signals over the roadway on a cantilevered arm) warning devices, one for each vehicular approach direction.
- Install four CPUC Standard 9 warning devices at the pedestrian approaches.
- Install additional sidelights directed towards the driveways.
- Install new signal house and circuitry.

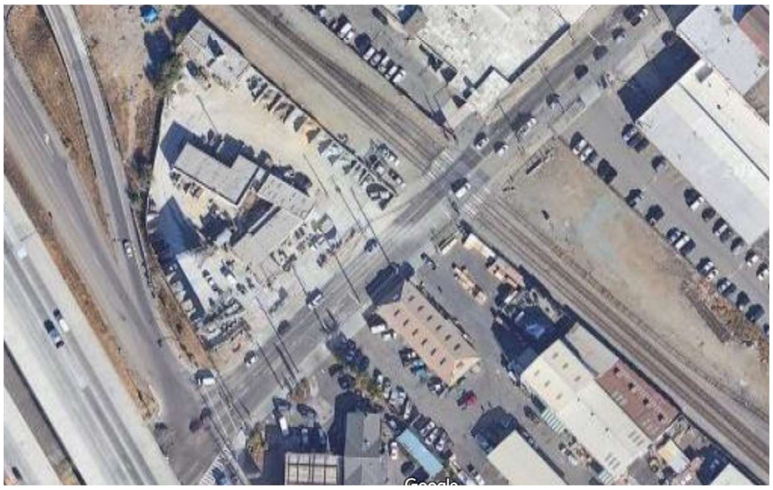
[redacted]

SCHEDULE

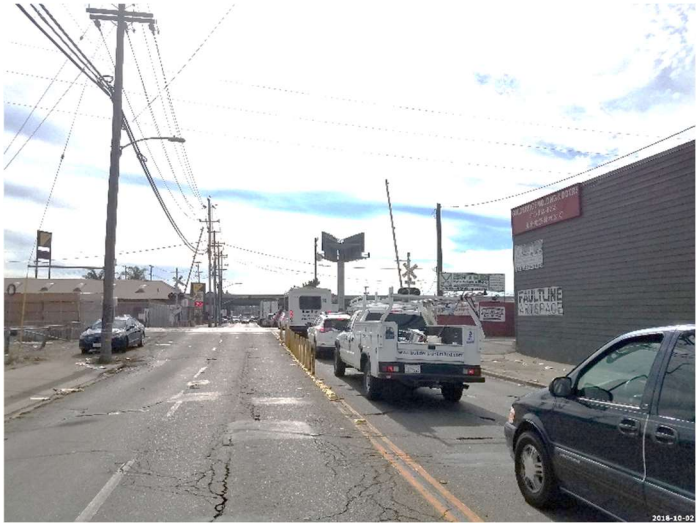
Milestone	Completion after Contract Execution	Expected Completion Date
Project Initiation Document	-	May 2023
Contract(s) Executed	-	June 2023
Project Development Team established	≤ 180 days*	December 2023
30% Plans	≤ 12 months*	June 2024
Diagnostic Field Meeting	≤ 12 months*	June 2024
Environmental Clearance (CEQA by City & RR / NEPA by Caltrans)	≤ 18 months	December 2024
Design Complete	≤ 24 months	June 2025
Right-Of-Way Certification	≤ 24 months	June 2025
Construction Phase	≤ 24 months	June 2027
End Project	≤ 48 months	July 2027

**Mandatory milestone requirement under contract.*

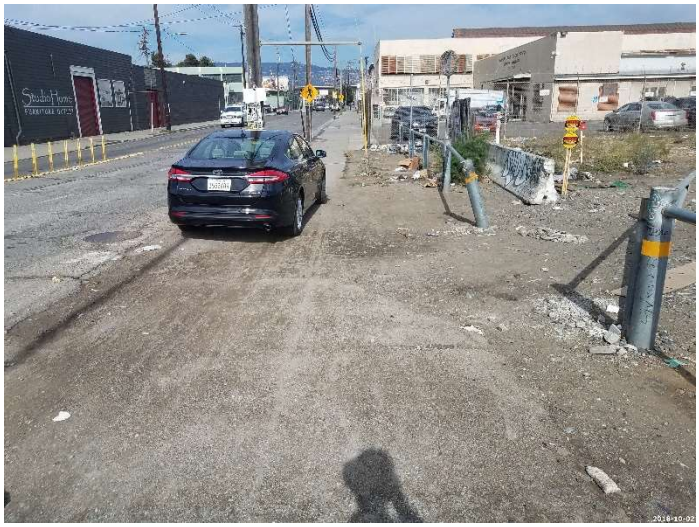
CROSSING PHOTOS


Aerial Image from Google Maps

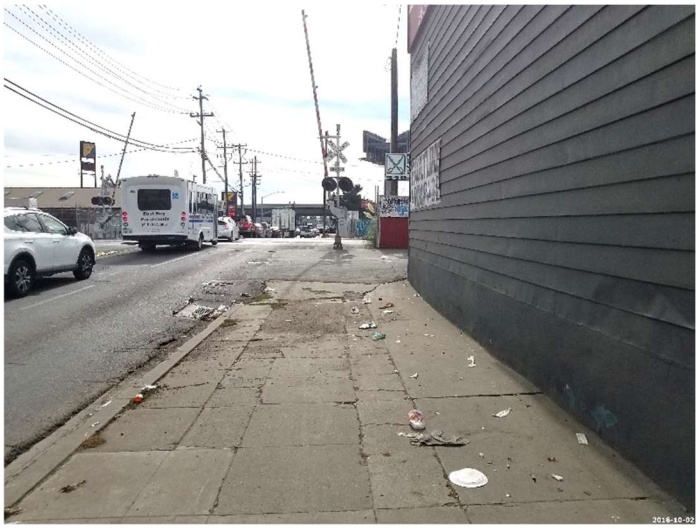
Northeast Bound Vehicular Approach


Southwest Bound Vehicular Approach


Northeast Bound Pedestrian Approach (East)


Northeast Bound Pedestrian Departure (East)

Northeast Bound Pedestrian Approach (West)



Southwest Bound Pedestrian Approach (West)

Southwest Bound Vehicular Traffic Queue

Turn Movement into Nearby Driveway

Railroad Right-of-Way, West Facing

Railroad Right-of-Way, East Facing

Signal House with Crossing Identification Signage

Emergency Notification Systems (ENS) Sign