



## City Council Staff Report

**From: City Manager**

**Report Type: CONSENT CALENDAR**

**Lead Department: Transportation**

**Meeting Date: December 9, 2024**

Report #:2411-3779

### **TITLE**

Improvement Projects Providing Enhancing the Churchill Avenue Railroad At-Grade Crossing

### **RECOMMENDATION**

This report is intended to provide information and updates on several ongoing improvement projects near and at the Churchill Avenue rail-grade crossing along the Caltrain corridor. Staff recommends the City Council accept this report.

### **EXECUTIVE SUMMARY**

Planned improvements significantly enhance the Churchill Avenue crossing, providing notable benefits to safety, security, traffic flow, and the overall livability of the community. With grade separation at the Meadow and Charleston Road crossings being prioritized and the rising cost of the infrastructure projects, the timing for grade separation at Churchill Avenue is likely to be impacted. In the interim, the enhanced crossing improvements will serve as practical and effective measures. This staff report outlines improvements to the at-grade crossing currently under way and being considered to enhance the crossing in a cost-effective manner in near future and may be in place for several years.

The City is currently working on several improvements such as pre-signal and striping improvements as part of a Section 130 Churchill/Alma Safety Improvements Project, Churchill Avenue enhanced bikeways connecting Embarcadero bike path along railroad tracks to Stanford Trail. Caltrain is advancing its electrification project, deploying a positive train control system, improving markings, collaborating with navigation systems for better mapping, and enhancing fencing along the corridor. Quiet Zones are also currently being evaluated. As part of its Corridor-Wide Safety Enhancements initiative, Caltrain also plans to introduce further safety measures.

### **BACKGROUND & ANALYSIS**

The City and Caltrain have collaborated on several projects affecting Churchill Avenue. This staff report provides a summary of ongoing initiatives designed to enhance key aspects in the area, including:

1. Enhanced Safety
2. Improved Livability
3. Increased Security
4. Better Traffic Conditions

Below is a brief overview of the key projects:

### **Churchill Avenue Safety Improvements Project (Section 130)**

The California Department of Transportation Division of Rail, in cooperation with the Peninsula Corridor Joint Power Board (also known as Caltrain or JPB) and the City of Palo Alto, proposed a railroad crossing improvement project at Churchill Avenue in Palo Alto to enhance the safety at the Churchill Avenue Railroad Crossing. The intersection was identified by the California Public Utilities Commission (CPUC) for safety improvements as part of Section 130 federal funding for safety improvements at this railroad crossing.

The project scope includes:

- Installation of a pre-signal for eastbound traffic on Churchill Avenue
- New traffic signals at the intersection
- Signal timing modifications
- Pedestrian and cyclist improvements, such as:
  - Enlarged pedestrian queuing areas
  - A widened pedestrian railroad crossing
  - Advanced stop bars
  - Improved bike lane markings
  - High-visibility crosswalks

The project design was completed by BKF Engineers after seeking community input. The Conceptual Plan for the project was reviewed and approved by the City Council on May 3, 2021 (SR #12062<sup>1</sup>). The construction contract was awarded by the City Council on June 3, 2023 (SR # 2304-1277<sup>2</sup>) and the project is currently under construction with the project construction managed by the City's Public Works Staff. The construction is expected to be complete in fall of 2025. The total estimated costs of the improvements which includes work performed by both agencies, i.e. Caltrain and the City of Palo Alto are nearly \$5.0 million.

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<sup>1</sup> City Council, May 3, 2021, Agenda Item #10, SR #12062  
<https://portal.laserfiche.com/Portal/DocView.aspx?id=107&repo=r-704298fc&searchid=7eb2e936-99c0-4b84-9572-156530393e30>

<sup>2</sup> City Council, June 5, 2023, Agenda Item # 4 , SR# 2304-1277  
<https://portal.laserfiche.com/Portal/DocView.aspx?id=66090&repo=r-704298fc&searchid=f925150a-6527-4ba7-a9a2-11d704ca5470>

## **Quiet Zone Project – Caltrain Corridor in Palo Alto**

Office of Transportation staff is currently working on a Quiet Zone Study at three rail crossings: Churchill Avenue, Meadow Drive, and Charleston Road. The project will reduce the noise at each of these crossings resulting in improving the livability of the residents along the Caltrain corridor. On March 4, 2024 (SR # 2311-2269<sup>3</sup>), the City Council approved an agreement with Kimley Horn and Associates to perform the Quiet Zone Study for the implementation of Quiet Zones at the project crossings in Palo Alto.

The Federal Railroad Administration (FRA) regulations require a quiet zone study to review the Quiet Zone Risk Index (QZRI) qualifying for quiet zone or Supplemental Safety Measures (SSM) at each crossing. The Consultant has completed the initial review of the existing conditions and developed options for improvements at these crossings. The findings of the report were brought to the Rail Committee for staff to seek direction in furthering the next steps for implementing Quiet Zone on August 20, 2024 (Staff Report # 2405-3805<sup>4</sup>).

The staff is currently collaborating with consultants to develop conceptual plans for these improvements. A diagnostic meeting was held with representatives from the FRA, CPUC, Caltrain, and the City to discuss proposed enhancements and concepts for implementing a Quiet Zone at these crossings. Staff intends to conduct outreach and seek feedback from the Rail Committee before presenting the conceptual improvements to the Council for approval.

## **Churchill Avenue Enhanced Bikeway Project**

The Churchill Avenue Enhanced Bikeway is a Council-approved project and was identified as a priority project in the Trails and Shared Use Pathways element of the City's 2012 Bicycle and Pedestrian Transportation Plan. This connection provides a comfortable off-street bicycle route linking the Stanford Perimeter trail, Palo Alto Unified School District, and the Castilleja- Park-Wilkie bicycle boulevards to downtown Palo Alto and Caltrain. These connections are of local and regional significance. Completing a missing link in a shared-use path will invite new bicycle travel, with associated reductions in greenhouse gas emissions, and traffic congestion. This project also includes safety improvements at the intersection of El Camino Real and Churchill Avenue.

The project is currently in the procurement process and is anticipated to be awarded

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<sup>3</sup> City Council, March 4, 2024, Agenda Item # , SR 2311-2269

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<sup>4</sup> Rail Committee, August 20, 2024, Agenda Item # 1, SR # 2405-3085)

<https://portal.laserfiche.com/Portal/DocView.aspx?id=87322&repo=r-704298fc>

shortly, with construction anticipated in 2025. PAUSD has approved the required easements and construction within the school frontage. In addition, staff plans to conduct public outreach prior to any construction activity in the area. Also, note that the Project striping at the intersection of El Camino Real and Churchill Avenue will also include bike lane marking along El Camino Real which is more recently proposed as part of the Caltrain repaving project during construction.

The project scope includes:

- Extending the existing bicycle path on Churchill Ave from Castilleja to the Stanford Perimeter Trail
- Add high-visibility crosswalks at Castilleja
- New lighting and curb improvements at Castilleja
- Restriping and repaving on Churchill
- Landscaping/tree planting along school frontage
- Remove pork chop island - Add a right turn-only storage lane on westbound Churchill to northbound El Camino Real
- Enhanced bicycle and pedestrian crosswalks at all 3 crossings of the intersection of El Camino Real

### **Caltrain Project - Security Enhancements**

The City of Palo Alto and Caltrain have been concerned about rail corridor security near the Churchill Avenue crossing. City and Caltrain staff met with Congresswoman Anna Eshoo and former Congresswoman Jackie Speier to raise concerns about the mental health challenges and security fencing in the Vicinity of Churchill Avenue Crossing. The Congress, considering the sensitivity to this area, earmarked funding in the amount of \$800,000 to enhance fencing.

Caltrain staff is currently working on the design of the necessary improvements that involve replacing the existing fencing with 9.5 feet of fencing that includes winglets on approx. 3,150 linear feet along the corridor between Churchill Avenue and Caltrain's Palo Alto Station. The project is currently in the procurement process and is expected to start construction in early 2025.

### **Caltrain Electrification Project and Rail Signal Improvements**

The Caltrain Modernization Program (CalMod), sometimes referred to as the Caltrain Electrification Project electrified 51 miles (82 km) of tracks between 4th and King station and Tamien station that includes the Churchill Avenue crossing and installed a Positive Train Control (PTC) Management system along the tracks. PTC is designed to fulfill federal safety mandates for passenger rail and is part of the Federal Railroad Administration (FRA) waiver to use EMUs on tracks shared with freight traffic. Funding for the project came from various federal, state, and local sources.

The CalMod project improves Caltrain system performance and curtails long-term environmental impacts by reducing noise, improving regional air quality, and lowering greenhouse gas emissions. The System is expected to help accommodate increased system ridership through improved system operations. During the implementation of this system, Caltrain found a glitch in the new system. The proximity of the crossings to stations was causing additional gate activations when a northbound train stopped at the station.

Caltrain is working on fixing this issue and will be installing a subsequent system called the Crossing Optimization Project, which will implement wireless, real-time communication between trains and the gates. This system will remove the additional gate activations and improve communications and gate time activations currently experienced at the crossings. Caltrain is currently working to install and test this subsequent system by the end of 2024 and is working to expedite.

### **Caltrain Corridor Wide Crossing Safety Improvements**

Caltrain is developing a Corridor Wide Grade Crossing Safety Improvement Strategy that includes several safety improvement considerations to address both vehicle and pedestrian safety. These safety improvement considerations include

- Pavement markings
- Roadway delineators and barriers
- Signage & Lighting
- Intrusion Detection technologies
- Working with GPS and Mapping Companies

The Churchill Avenue grade crossing has been identified as a top priority for these improvements. These improvements would potentially be made in addition to the planned traffic signal and pedestrian /cyclist enhancements in the Churchill Avenue Safety Improvement (Section 130) project.

An informational report providing updates on ongoing projects within the vicinity of Churchill Avenue was provided to the Rail Committee at its September 17, 2024 meeting (SR 3409-3451<sup>5</sup>). These projects along the corridor affecting Churchill Avenue will not only enhance safety, and security but also positively impact traffic and livability of the residents along the corridor.

### **FISCAL/RESOURCE IMPACT**

Funding for the projects managed by the City are programmed in the 2025-2029 Capital

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<sup>5</sup> Rail Committee, September 17, 2024, Informational Item # 1, SR # 2409-3451 & 3453)  
<https://portal.laserfiche.com/Portal/Browse.aspx?id=71765&repo=r-704298fc>

Improvement Plan through various Capital Improvement Projects. Caltrain Electrification is a fully funded project managed by the Peninsula Corridor Joint Powers Board. (PCJPB)

#### **STAKEHOLDER ENGAGEMENT**

The Rail Committee and the City Council meetings are open to the public, offering community members opportunities to provide comments and feedback. The Rail Committee meetings are regularly conducted, and their information is posted on the City Calendar. Residents who have subscribed to City Meetings notifications receive notifications about the Rail Committee meetings. Additionally, notifications about the Rail Committee and the City Council meetings are disseminated through the City's YouTube Channel.

#### **ENVIRONMENTAL REVIEW**

This report is an informational item. A future decision to approve the construction of a potential project would be subject to CEQA.

#### **APPROVED BY:**

Philip Kamhi, Chief Transportation Official