



## Item No. 15 Town of Atherton

### **CITY COUNCIL STAFF REPORT – REGULAR AGENDA**

**TO: HONORABLE MAYOR AND CITY COUNCIL**

**FROM: ROBERT OVADIA, DIRECTOR OF PUBLIC WORKS**

**DATE: FEBRUARY 20, 2019**

**SUBJECT: AUTHORIZE MAYOR TO TRANSMIT A COMMENT LETTER TO CALTRAIN REGARDING CONSTANT WARNING TIME SYSTEM CONCERNS ASSOCIATED WITH THE CALTRAIN MODERNIZATION PROJECT**

#### **RECOMMENDATION**

Authorize the Mayor to sign the attached letter and transmit to Caltrain expressing concerns regarding the planned Constant Warning Time system for the various trains operating on the Caltrain Corridor.

#### **BACKGROUND**

Balfour-Beatty, Caltrain's contractor for the modernization project, has been part of the contractor and operator team, Denver Transit Partners (DTP), for the Denver Regional Transportation District's (RTD) construction and implementation of their new electric light rail system. The Rail Committee has been monitoring various issues in Denver as they relate to the Peninsula Corridor Electrification Project, considering that the work along the Peninsula Corridor is being done by part of the Denver contractor/operator team.

The RTD and DTP have been granted a waiver associated with the operations of the Constant Warning Time system for their project by the Federal Railroad Administration (FRA). DTP and the RTD have been unable to maintain their crossing warning system within the parameters set forth in their FRA waiver. The waiver provides for a 20 second (-5/+15) buffer for the adopted crossing warning times. Due to their inability to operate within their waiver, the RTD and DTP have been required to maintain gate crossing attendants to manage vehicular and pedestrian traffic at crossings at great expense. In the attached letter, the FRA states that crossing warning times are outside the approved buffer 18 percent of the time.

#### **FINDINGS/ANALYSIS**

The Town's Rail Committee reviewed the Constant Warning Time System concerns at their February meeting.

Maintaining gate down times within an appropriate and predictable range is critical to maintaining safety at grade crossings. If gate down times are perceived to be too long, without additional safety measures, motorists and others desiring to cross the tracks may attempt to cross the tracks at inappropriate times and at significant risk to themselves and others. Excessive down times also impact mobility within communities such as ours where there are limited opportunities to cross the rail line.

The Constant Warning Time issues associated with the DTP/RTD project are for an electric system on one set of tracks with diesel trains on a parallel set of tracks. With the implementation of the electrification project, the tracks along the Caltrain corridor will support both electric and diesel trains operated by both Caltrain and Union Pacific. The Committee is concerned that implementing a system for both train types on shared tracks, even with lessons learned from the DPT/RTD project may prove difficult for Caltrain and its contractors, resulting in both safety and financial impacts, particularly if attendants are required at the various grade crossings.

The Rail Committee is recommending that the Council authorize the Mayor to send the attached letter to Caltrain advising them of the issues faced by RTD so they can be proactive in managing its contractors to delivering a functioning system prior to initiation of service.

### **POLICY FOCUS**

The City Council's policy discussion should revolve around safety concerns associated with the Constant Warning Time System and if the Town should formally advise Caltrain of its concerns.

### **FISCAL IMPACT**

There is no fiscal impact associated with the transmittal of the letter.

### **PUBLIC NOTICE**

Public notification was achieved by posting the agenda, with this agenda item being listed, at least 72 hours prior to the meeting in print and electronically. Information about the project is also disseminated via the Town's electronic News Flash and Atherton Online. There are approximately 1,200 subscribers to the Town's electronic News Flash publications. Subscribers include residents as well as stakeholders – to include, but be not limited to, media outlets, school districts, Menlo Park Fire District, service providers (water, power, and sewer), and regional elected officials.

### **COMMISSION/COMMITTEE FEEDBACK/REFERRAL**

This item  X  has or   has not been before a Town Committee or Commission.

Audit/Finance Committee (meets every other month)

Bicycle/Pedestrian Committee (meets as needed)

PMC - Civic Center Advisory Committee (meets as needed)

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- Environmental Programs Committee (meets every other month)
- Park and Recreation Committee (meets each month)
- Planning Commission (meets each month)
- Rail Committee (meets every other month)

**ATTACHMENTS**

Draft Letter



## **Town of Atherton**

**91 Ashfield Road  
Atherton, California 94027**

**Phone: (650) 752-0570**

**Fax: (650) 688-6539**

**Jim Hartnett**

**Executive Director**

Caltrain

1250 San Carlos Avenue

San Carlos, CA 94070

February \_\_, 2019

**RE: Caltrain Modernization Project  
- Constant Warning Time System Concerns**

Dear Mr. Hartnett:

The Town of Atherton is writing this letter to bring to your attention some concerns regarding the planned Constant Warning Time system for the various trains operating on the Caltrain Corridor. A properly functioning warning system is imperative to maintain safety along the corridor and to reduce mobility impacts to communities at grade crossings. Balfour-Beatty, Caltrain's contractor for the modernization project, has been part of the contractor and operator team, Denver Transit Partners (DTP), for the Denver Regional Transportation District's (RTD) construction and implementation of their new electric light rail system. The RTD and DTP have been unable to address the significant level of non-compliance with the conditions associated with the waiver granted for their project by the Federal Railroad Administration (FRA) for over 2 ½ years.

DTP and the RTD have been unable to maintain their crossing warning system within the parameters set forth in their FRA waiver. The waiver provides for a 20 second (-5/+15) buffer for the adopted crossing warning times. Due to their inability to operate within their waiver, the RTD and DTP have been required to maintain gate crossing attendants to manage vehicular and pedestrian traffic at crossings at great expense. In the attached letter, the FRA states that crossing warning times are outside the approved buffer 18 percent of the time. The FRA gave the RTD 30 days to respond to provide an action plan to address their deficiencies within one year.

We are relaying our concerns so Caltrain can be vigilant in managing its contractors to deliver a system that functions properly from the outset. The transition to electric trains is critical in Caltrain's plans in improving service along its corridor, which is supported by this community. Maintaining gate down times within an appropriate and predictable

range is critical to maintaining safety at crossings. If gate down times are perceived to be too long, without additional safety measures, motorists and others desiring to cross the tracks may attempt to cross the tracks at inappropriate times and at significant risk to themselves and others. Excessive down times also impact mobility within communities such as ours where there are limited opportunities to cross the rail line.

The issues outlined above with the DTP/RTD project are for an electric system on one set of tracks with diesel trains on a parallel set of tracks. With the implementation of the modernization project, the tracks along the Caltrain corridor will support both electric and diesel trains operated by both Caltrain and Union Pacific. We are concerned that implementing a system for both train types on shared tracks, even with lessons learned from the DPT/RTD project may prove difficult for Caltrain and its contractors, resulting in both safety and financial impacts, particularly if attendants are required at the various grade crossings.

These issues may be exacerbated as Caltrain moves forward with implementing its Business Plan that is currently under development and the initiation of High Speed Rail service along the corridor. We have been advised that headways between trains could be as little as two to three minutes in each direction during peak periods. Gate downtimes associated with these headways could potentially be greater than gate up times if the constant warning system does not function appropriately.

We are bringing these issues to your attention so that Caltrain can be proactive in managing its contractors to deliver a functioning system prior to initiation of service. We appreciate that you and your staff view safety and reliability as critical components to providing service in the corridor.

Sincerely,

Bill Widmer  
Mayor  
Town of Atherton

Attachments:

1. FRA letter to Regional Transportation District dated November 15, 2018



U.S. Department  
of Transportation

**Federal Railroad  
Administration**

1200 New Jersey Avenue, SE  
Washington, DC 20590

**NOV 15 2018**

Mr. Henry J. Stopplecamp  
Assistant General Manager, Capital Programs  
Regional Transportation District  
1560 Broadway, Suite 700  
Denver, CO 80202

**Re: Docket Number FRA-2016-0028**

Dear Mr. Stopplecamp:

Since early 2016, the Federal Railroad Administration (FRA) has worked to support Denver Regional Transportation District's (RTD) development and implementation of its Eagle Project, including the initiation of commuter rail operations on the East Corridor (A Line) and Northwest Electrified Segment (B Line), as well as positive train control (PTC) system testing on the Gold Line (G Line). However, on numerous occasions since the start of this work, FRA has expressed concern to both RTD and its partner, Denver Transit Partners (DTP), about the significant level of noncompliance the agency has identified with the conditions of the waiver granted to RTD in the above-identified docket and other applicable Federal railroad safety regulations.

FRA has initiated enforcement action on a substantial number of the noncompliant conditions FRA has identified, but this letter is intended to notify RTD of FRA's continued concern about this noncompliance and to explain how this noncompliance may impact RTD's related waiver requested under Title 49 Code of Federal Regulations (CFR) Part 222 and its request to begin revenue service demonstration (RSD) of its PTC system on the G line. This letter also serves to notify RTD and its partners, including DTP, that unless immediate action is taken to bring RTD's operations into compliance with the existing waiver and other applicable Federal safety requirements, FRA will take other actions it deems necessary to bring about compliance. These actions may include, but are not necessarily limited to, enhanced enforcement of all applicable FRA safety regulations against RTD and its partners and/or modification or revocation of the existing waiver.

Section 234.225 Waiver and Identified Noncompliance

As FRA has stated in previous correspondence, RTD's Conventional Track Warning System (CTWS) and the Wireless Crossing Activation System (WCAS) along the A and B Lines must independently meet the requirements of 49 CFR § 234.225. That section requires a grade crossing warning system to: (1) "activate in accordance with the design of the warning system" (i.e., to activate at specific prescribed warning times), and (2) provide at least 20 seconds' warning time for the normal operation of trains through the crossing.

In early 2016, FRA provided limited, conditional relief from 49 CFR § 234.225's requirement that the grade crossing warning system along the A Line "activate in accordance with the design of the warning system."<sup>1</sup> FRA conditioned the waiver, in part, on RTD providing grade crossing attendants (in accordance with RTD's Grade Crossing Attendant Plan) at each crossing to provide for the safety of the public and railroad employees. FRA has since extended the waiver numerous times, and most recently—in response to RTD's request for additional operational flexibility outside of what the initial waiver already provided—in a letter dated September 28, 2017, FRA approved RTD's request for a 20-second "buffer time"—i.e., allowing activation warning times to be considered "as designed" if the warnings occur up to 5 seconds before and 15 seconds after a crossing's programmed warning time (PWT). In granting this waiver and providing the 20-second buffer time, FRA took into consideration RTD's assertion that FRA's traditional allowances for warning time variances are not "readily applicable or appropriate based on the design of the system utilized on the Eagle Project."<sup>2</sup> Instead, RTD asked FRA to accept as compliant with 49 CFR § 234.225 warning times occurring within "5 seconds before and 15 seconds after" the programmed warning time for each crossing. RTD asserted that providing this 20-second buffer time would be a "more appropriate application" of 49 CFR § 234.225 given the unique design of its system.

FRA granted RTD the exact relief that it requested and additionally provided RTD with a path forward to safely discontinue the use of grade crossing attendants if the WCAS and CTWS operate as designed (i.e., with the additional flexibility of warning times 5 seconds shorter and 15 seconds longer than the specified PWTs as RTD requested).<sup>3</sup> Despite FRA approving RTD's request for additional warning time flexibility and providing a path forward to discontinue the use of grade crossing attendants, recent FRA inspections have found that neither the WCAS nor the CTWS consistently provide warning times within the acceptable ranges allowed under the waiver. For instance, during the week of August 13, 2018, FRA inspectors identified 63 instances of warning times outside the acceptable ranges allowed under the waiver. Of those 63 instances of noncompliance, 53 involved warning times provided by the WCAS with RTD's PTC system active and 10 occurred when the PTC system was cut out and the CWTS was activated. In all, FRA inspectors measured crossing activation warnings at the 13 grade crossings on the A and B line a total of 540 times over the course of that week. The resulting data demonstrates that even with the PTC system active and the WCAS being activated, approximately 10 percent of the crossing warning times did not fall within the -5/+15 second buffer allowed by the waiver. In some instances (e.g., the Holly and Monaco crossings), the warning times fell outside the acceptable ranges approximately 20–30 percent of the times measured. This level of noncompliance with the conditions of the waiver is unacceptable.

#### Section 222.35 Waiver Request and Quiet Zones

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<sup>1</sup> Letter from Robert C. Lauby, Associate Administrator for Railroad Safety, Chief Safety Officer, FRA, to Mr. Gregory D. Straight, Eagle Project Director, RTD (April 19, 2016).

<sup>2</sup> Letter from Mr. Henry J. Stoppocamp, Assistant General Manager, Capital Programs, RTD, to Mr. Robert C. Lauby, Associate Administrator for Railroad Safety, Chief Safety Officer, FRA (September 8, 2017).

<sup>3</sup> Letter from Robert C. Lauby, Associate Administrator for Railroad Safety, Chief Safety Officer, FRA, to Mr. Henry J. Stoppocamp, Assistant General Manager, Capital Programs, RTD (September 28, 2017).

Currently, RTD's request for a waiver from 49 CFR § 222.35(b)(1) (requiring grade crossing warning devices at public highway-rail grade crossings within quiet zones to provide constant warning time) is pending with FRA. As previously noted in FRA's July 19, 2018, letter to RTD, however, any waiver from this regulatory requirement would need to be predicated on the existence and use of a grade crossing warning system that reliably activates as designed (under the terms of RTD's current waiver, this means the warning system must provide a warning within -5/+15 seconds of the PWT). FRA cannot justify granting this waiver request until RTD demonstrates compliance with the conditions of the waiver and other applicable Federal railroad safety regulations.

#### Request for PTC System RSD Approval on the Gold Line

FRA also notes that RTD has asked for permission to initiate commuter rail operations using RTD's PTC system in RSD on the G Line under 49 CFR § 236.1035. FRA acknowledges RTD's efforts to rectify a recent Category 1 software failure RTD experienced, and FRA has recently approved the release of a solution on the A and B Lines, as well as continued field testing of the PTC system on the G Line.

Despite this positive progress, however, FRA remains concerned that crossing warning times on the G Line are routinely outside the -5/+15 second buffer allowed by the waiver. Recent data provided to FRA relating to WCAS crossing performance indicate that, on average, crossing warning times on the G Line are outside the -5/+15 second buffer approximately 18 percent of the time, with five individual crossings providing warning times outside the acceptable range over 20 percent of the time.

Again, this level of noncompliance with the existing waiver conditions is unacceptable. I understand that RTD continues to tune the WCAS crossing design, and I look forward to seeing further improvements in crossing performance prior to the commencement of RSD; however, FRA cannot justify approving the initiation of RSD on the G Line until RTD has satisfactorily addressed this noted noncompliance. FRA encourages RTD and its partners to act with a sense of urgency to address these significant ongoing safety concerns.

#### Other Noted Non-Compliance

RTD's noncompliance with Federal safety regulations is not limited to noncompliance with the terms of the waiver in this docket. FRA continues to remain concerned about RTD's significant noncompliance with other aspects of FRA's signal regulations identified over the last few years (e.g., the failure to perform proper route and indication locking tests as required by 49 CFR §§ 236.379 and 236.380 for over 2 years and the failure to provide a signal governing train movements into Denver Union Station in violation of 49 CFR § 236.301) and noncompliance with FRA's locomotive engineer qualification and certification regulations. I understand that, to date, despite FRA approving a block signal application which, if implemented, would correct the safety issues associated with RTD's noncompliance with 49 CFR § 236.301, RTD has yet to implement the approved modifications. As a result, the interlocking leading into Denver Union Station remains noncompliant with FRA regulations.

#### Conclusion & Required Next Steps

As noted above, the longer-than-designed warning times, particularly the warning times outside of the tolerances of the existing waiver, remain of significant concern to FRA. This safety issue has existed since the commencement of RTD's Eagle Project, and FRA has expended considerable time and resources to support and assist RTD to come into compliance. In addition, since 2016, FRA has initiated enforcement action on over 1,000 identified defective conditions involving RTD's operations and infrastructure. FRA has also issued an individual liability warning letter to the individual responsible for directing the design, construction, and testing of the Eagle Project. Despite these efforts, approximately 2 1/2 years have passed since FRA's initial grant of relief in this docket, and RTD has not made substantial progress in correcting the critical safety issues that exist involving the Eagle Project.

As a result, FRA requests that RTD develop and submit to FRA for approval, within 30 days of receipt of this letter, an action plan for correcting the identified noncompliance and ensuring that its grade crossing warning systems meet the conditions of the waiver granted in this docket and, overall, its signal system and operations meet all other applicable Federal regulatory safety requirements. The action plan must include: (a) detailed procedures for correcting the identified noncompliance; (b) a schedule demonstrating RTD's commitment to bring its grade crossing warning systems on the A, B, and G Lines into compliance within one year; (c) detailed procedures, methods, milestones, and timelines for completion; and, (d) a description of the technical resources to be employed.

If RTD fails to submit an acceptable action plan within 30 days of RTD's receipt of this letter, FRA will have no choice but to consider other actions as appropriate, potentially including enhanced enforcement, modification of the existing waiver—including by imposing additional conditions as necessary for rail safety and/or reducing the duration of the waiver—or revoking the waiver.

Sincerely,



Robert C. Lauby  
Associate Administrator for Railroad Safety  
Chief Safety Officer

cc: John F. Thompson, Denver Transit Partners