



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

Mr. Darin Atteberry
City Manager
City of Fort Collins
P.O. Box 580
Fort Collins, CO 80522

Re: Docket Number FRA-2015-0022

Dear Mr. Atteberry:

First, let me thank you for your patience as you and your constituents have awaited a decision from the Federal Railroad Administration (FRA) regarding the City's request for a waiver from certain requirements related to a proposed Quiet Zone for the Mason Street corridor in Fort Collins.

Safety is the FRA's number one priority, as well as the mission of the agency. Protecting the public's safety at and near grade crossings is an important part of that mission.

In the United States, someone is hit by a train approximately every 3 hours. Combined, highway-rail crossing and trespasser deaths account for roughly 95 percent of all rail-related deaths. Nationally, approximately 450 trespasser fatalities, and nearly as many injuries, occur each year. Last year alone, preliminary data show that almost 270 fatalities occurred in grade crossing collisions.

Research shows that the use of train horns, flashing lights, and gates at grade crossings are an extremely effective combination in preventing accidents, injuries and deaths. The use of the locomotive horn while trains are approaching public highway-rail grade crossings provides an important safety warning to pedestrians and motorists who are on or approaching the crossings. We know that horns, gates, and other safety additions are effective – in fact, FRA contracted a nationwide study showing there is a 66-percent increase in crossing collisions at crossings equipped with automatic warning devices consisting of flashing lights and gates where train horns are **not** routinely sounded.¹

It is within this broader context that FRA responds to the City of Fort Collins (City), Colorado's, March 2, 2015, request for a waiver of compliance from certain provisions of Title 49 Code of Federal Regulations (CFR) Part 222, Use of Locomotive Horns at Public Highway-Rail Grade Crossings. Specifically, the City requested a waiver from the Federal

¹ "Analysis of the Safety Impact of Train Horn Bans at Rail-Highway Grade Crossings: An Update Using 1997-2001 Data," August 13, 2003. <https://www.fra.dot.gov/eLib/details/L02685>

railroad safety regulations at 49 CFR § 222.35(b) so that automatic gates would not be required at 7 out of 12 public highway-rail grade crossings in a proposed new quiet zone.

The City wants to establish a 1.17-mile long quiet zone through the Mason Street corridor. The corridor is located on the main track of BNSF Railway's (BNSF) Powder River Division, Front Range Subdivision, between Milepost (MP) 74.63 and MP 73.46. There are 12 public highway-rail grade crossings in the proposed quiet zone. Two crossings are equipped with automatic flashing lights and gates, seven are equipped with automatic flashing lights, and three are passive crossings equipped with stop signs. The City proposes to close the three passive crossings and to use highway traffic signals tied into the railroad circuitry to provide additional traffic control at the seven crossings equipped with flashing lights only. The City proposes not to add any additional automatic gates.

FRA's Railroad Safety Board (Board) traveled to Fort Collins on April 19, 2015, to view and inspect the site for the proposed waiver and quiet zone. FRA's safety staff and inspectors have also spent time in the Fort Collins community, monitoring rail traffic and crossings. FRA has also engaged with multiple members of the Fort Collins community, including the City Manager, and Colorado's congressional delegation.

After careful consideration of the City's waiver request, the results of the field investigation, and the findings of FRA's technical staff, the Board has determined that granting the City's request for regulatory relief at this time is not consistent with railroad safety.

This determination is based on the following findings and data points:

- As required by statute, a designated "Quiet Zone" must provide an equivalent level of safety – in other words, a Quiet Zone designation is not an acknowledgement that a lower level of safety is acceptable in some locations – rather, the designation is only possible when a determination has been made, on a corridor basis, that the crossings within the Quiet Zone are as safe without the train horn, as they are with the train horn. This determination for new Quiet Zones is made based on the presence of both flashing lights and gates, and typically include additional improvements such as medians to prevent vehicles from entering the crossing when a train is approaching. In this case, the City has not yet provided sufficient evidence that their proposal will provide a level of safety at least equivalent to flashing lights with gates and the sounding of the locomotive horn.² Many of the automatic warning devices that are currently installed and would be used in the City's proposed quiet zone are not compliant with federal guidance – specifically, provisions of part 8 of the Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD), as required by 49 CFR § 222.35(g). (The MUTCD is the federal handbook of national standards for all traffic control devices.)

For example, Mountain Avenue is a four-lane street with angled parking in the middle that divides the roadway. The flashing light signals are located on all four corners of the Mountain Avenue and Mason Street intersection. As this is a divided roadway,

² In its request, several times, the City mentions it is not "feasible" to install flashing lights with gates due to the unique configuration of the Mason Street corridor. However, the City has not demonstrated that the use of flashing lights in conjunction with highway traffic signals provides the same level of safety that is provided by flashing lights and gates.

flashing light signals should be located on both sides of the approach to Mason Street (i.e., a signal on the right hand corner and in the divided portion of the roadway) or placed above the roadway. There are also a number of locations where the flashing light signals either obscure other traffic signs or signals or are obscured by other traffic signals such as on the southeast corner of the Mason Street and Olive Street intersection.

- The City's quiet zone risk analysis does not comply with 49 CFR Part 222, Appendix D, Determining Risk Levels.³
- The City provides its own risk analysis to justify the granting of the waiver. Unfortunately, this analysis does not sufficiently address the issue of whether the proposed use of flashing lights in conjunction with highway traffic signals provides an equivalent level of safety as flashing lights and gates.
- The Board also notes that during its site visit, numerous pedestrians were observed crossing the tracks on Mason Street at locations other than the public crossings. While this is a frequent occurrence in many communities across the country, it is also incredibly dangerous – many pedestrians are hit or killed by oncoming train traffic each year after falling on tracks, or because they do not realize the train is approaching due to use of earbuds or other distracting devices. In addition to the measures described above, the Board believes that the City can improve safety within the proposed quiet zone by taking actions (such as fencing) to prevent pedestrians from crossing the railroad tracks at locations other than protected grade crossings in order to make this area a viable candidate for a quiet zone.

Finally, FRA notes that the waiver request is not a joint request from the City and BNSF, as required in 49 CFR § 222.15(a). As a result, under 49 CFR § 222.15(b), the City must specify the steps it has taken to try to reach agreement with BNSF and to explain why applying the joint submission requirement would not be likely to contribute significantly to public safety concerns. In its request, the City describes its communication and collaboration with BNSF on a recent railroad safety project, and refers to the results of its own quiet zone risk analysis to support its assertion that a joint petition is not necessary for public safety. The Board agrees with the City and, thus, finds that the waiver petition provides the information specified by 49 CFR § 222.15(b).

FRA realizes that the frequent sounding of train horns is a challenging issue for the leaders and residents of Fort Collins, and we are ready and available to help the City develop a successful quiet zone plan while ensuring the safety of pedestrians, motorists, and others who live and work near the railroad.

³ FRA regulations require new quiet zone crossings to be equipped with flashing lights and gates, 49 C.F.R. 222.35(b). Therefore, the Quiet Zone Risk Index (QZRI) formula that 49 CFR Part 222 requires uses the FRA/DOT accident prediction formula for crossings equipped with flashing lights and gates to determine the QZRI for new quiet zones. The City varied from the QZRI formula 49 CFR Part 222 requires by using an accident prediction formula for crossings equipped with flashing lights only to calculate the QZRI. The City also varied from the QZRI formula that 49 CFR Part 222 requires by using a lower cost for an injury (\$46,500). The City based the cost of an injury on the average train speed on the corridor instead of the cost FRA requires in Appendix D to 49 CFR Part 222 (\$1,167,000). This is 25 times less than cost required in Appendix D to 49 CFR Part 222 and greatly reduces the City's calculated Quiet Zone Risk Index. This is a major deviation from the requirements in 49 CFR Part 222.

FRA believes the City has a variety of options available to it if it continues to seek a Quiet Zone designation.

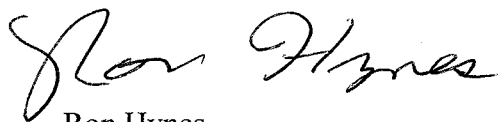
FRA recommends that the City pursue the installation of flashing lights with gates that are compliant with the MUTCD at all public highway-rail grade crossings in the quiet zone. Given the level of pedestrian activity in the area due to the various commercial and institutional establishments along Mason Street, FRA also believes that the City should take action (such as fencing) to prevent pedestrians from crossing the track at locations other than authorized crossings. FRA realizes that these improvements can be expensive. There are opportunities for Federal assistance available to communities seeking to make safety improvements at grade crossings. Those programs include:

- Transportation Investment Generating Economic Recovery (TIGER) Competitive Grant Program. (The Town of Windsor, Colorado, which is approximately 17 miles from Fort Collins, applied for and won a FY 13 TIGER grant in the amount of \$3.3 million for safety improvements at grade crossings, aiding the town's endeavors to establish a Quiet Zone.)
- Railroad Rehabilitation and Improvement Financing (RRIF) Program, which provides direct loans and loan guarantees to finance development of railroad infrastructure.
- The FAST Act's (P.L. 114-94) new Consolidated Rail Infrastructure and Safety Improvement grants, which authorizes grants for a wide range of passenger and freight rail infrastructure projects, such as grade crossing improvements.

Finally, the FRA takes seriously that this has been a frustrating challenge for the City. In order to continue our work to assist the City in finding a solution, FRA Administrator Sarah Feinberg has directed staff at FRA to work with staff at the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) to come together to form a Fort Collins Working Group – a first of its kind internal DOT group – in order to further assist the city with next steps. Members of the working group will be reaching out to the City in the coming days and weeks with suggested next steps.

In the meantime, for all correspondence regarding this waiver, please refer to Docket Number FRA-2015-0022. If you have any questions, please contact Mr. Patrick Warren, Deputy Associate Administrator for Safety, at (202) 493-1366 or Patrick.Warren@dot.gov.

Sincerely,



Ron Hynes
Director, Office of Technical Oversight