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November 9, 2018

**UP QZ #: WA033001**

Rob Brown, P.E.  
City Traffic Engineer  
Transportation Engineering/Public Works Department  
220 Fourth Ave, South  
Kent, WA 98032

**Subject:** Notice of Intent to Establish a Quiet Zone  
City of Kent, WA – UP Seattle Subdivision

State Of WASH.  
UTIL. AND TRANSP.  
COMMISSION

11/13/18 11:19

Received  
Records Management

Dear Mr. Brown:

Union Pacific (UP) is in receipt of the City of Kent, WA (City) Notice of Intent (NOI) dated September 10, 2018 to create a new quiet zone (QZ) at the crossings listed below. The QZ is proposed to be created in accordance with 49 CFR 222.39(a)(3), SSMs were at some crossings in the QZ to bring the Quiet Zone Risk Index (QZRI) to a level at or below the Risk Index with Horns.

**Proposed QZ Crossings**

DOT	Crossing Type	Milepost	Street Name
396581U	Public	166.65	Willis Street/SR 516
396580M	Public	166.88	Meeker Street
396579T	Public	166.99	Smith Street
396578L	Public	167.25	James Street
396575R	Public	169.02	212 <sup>th</sup> Street

Please recognize that UP is of the opinion that sounding the locomotive horn at highway-rail grade crossings enhances safety whereas QZs increase risk to motorists, pedestrians and trespassers. Train horns are intended to alert the motoring and pedestrian public to train movement. At a minimum, a diagnostic to evaluate the proposed QZ is recommended and safety treatments should be implemented at each crossing which can include supplemental safety measures (SSMs) and/or alternative safety measures (ASMs).

UP interprets the FRA Train Horn Rule (Rule), 49 CFR Part 222, as a guideline of minimum safety measures to be implemented at QZs. In the interest of safety, each crossing to be considered for a QZ should be evaluated individually rather than basing the selection of crossings to achieve an averaged risk below the Nationwide Significant Risk Threshold or the Risk Index with Horn.

UP has reviewed the NOI per the requirements outlined in the Train Horn Rule 49 CFR Part 222 (Rule) and comments as follows.

**1. Constant Warning Time on Industrial Spur**

The NOI states the industrial spur lines at Willis Street, Meeker Street, and Smith Street will not be part of the proposed QZ. Since the industrial spur line is located within the same warning devices as the main line and under the same FRA DOT identification number at each of these crossings, the spur track must be addressed in the QZ. The Rule states that each public highway-rail grade crossing in a new QZ must be equipped with constant warning time devices, if reasonably practical. If the diagnostic team determines that constant warning time is not reasonably practical on the spur track, it should be documented in the diagnostic team notes along with the reason(s) why and included with the NOI and notice of establishment (NOE) submissions.

**2. DOT# 396581U Willis Street/SR 516**

- The City proposes installing SSM improvements at this crossing. The plans depict 150 feet of mountable median curb with delineator posts on the eastbound approach to the crossing. For the westbound approach, the City proposes extending the existing median by 100 feet and installing delineators for a total length of 120 feet.
- There is a traffic signal located approximately 160 feet west of the crossing at the Interurban Trail and 74<sup>th</sup> Avenue South intersection that has the potential to cause westbound traffic to queue over the track. The traffic signal is interconnected with the railroad warning system. UP requests information related to the City's plans to address queuing observations noted in the diagnostic and adequacy of preemption timing.
- It is noted that the roadway shoulders are located inside the crossing gates and pedestrians walking eastbound on the north side of the street and westbound on the south side of the street could encounter a lowered gate. UP requests further information regarding the City's plans to address pedestrian activity at and around the crossing.
- The City's plans depict a "new fence by others" to be installed parallel to the Interurban Trail in the southwest quadrant of the crossing. The City is responsible to ensure the installation of the fencing prior to QZ establishment. UP requests further information related to fencing or other treatments to address pedestrian traffic in the southeast quadrant of the crossing.

**3. DOT# 396580M Meeker Street**

- The City proposes non-SSM improvements at this crossing. The diagnostic notes indicate four quadrant gates were recommended.
- For the eastbound approach to the crossing, 100 feet of mountable median with delineator posts is proposed. There is a commercial driveway within 60 feet of the gate arm in the southwest quadrant. The driveway provides access to a commercial loading dock. Large trucks may have difficulty accessing the dock with the proposed installation of delineators. This may result in delineators being damaged or knocked down. If delineators are damaged or missing, UP reserves the right to sound the horn until the QZ is compliant by replacing or repairing delineators.

- For the westbound approach, 30 feet of mountable median with delineator posts is proposed. The length of the proposed median will reduce the turning radius for northbound traffic on 6<sup>th</sup> Avenue North which may result in delineators being damaged or knocked down. If delineators are damaged or missing, UP reserves the right to sound the horn until the QZ is compliant by replacing or repairing delineators.
- There is a traffic signal stop line located approximately 175 feet west of the crossing at the Interurban Trail which may cause traffic to queue over the track. This traffic signal is not interconnected to the railroad warning system. UP requests further information related to any discussions or plans to address the potential for traffic queuing at this crossing.
- The diagnostic notes reference the non-ADA compliant and narrow sidewalk in the northeast quadrant. The NOI indicates the City plans to install ADA-compliant detectable warning surfaces on all four pedestrian approaches. The width of the sidewalk in the northeast quadrant is not addressed.

**4. DOT# 396579T Smith Street**

- The City proposes installing non-SSM improvements at this crossing. The plans depict 100 feet of mountable median curb with delineator posts on the eastbound approach to the crossing. For the westbound approach, 75 feet of mountable median curb with delineator posts is proposed.
- There is a traffic signal stop line located approximately 205 feet west of the crossing at the Interurban Trail which may cause westbound traffic to queue over the track. This traffic signal is not interconnected to the railroad warning system. UP requests further information related to any discussions or plans to address the potential for traffic queuing at this crossing.
- It is noted that the sidewalks are located inside the gates and pedestrians walking eastbound on the north side of the street and westbound on the south side of the street could encounter a lowered gate as they proceed over the crossing. UP requests further information regarding the City's plans to address pedestrian activity at and around the crossing.

**5. DOT# 396578L James Street**

- The City proposes SSMs at this crossing.
- For the eastbound approach, the City proposes 80 feet of mountable curb with delineator posts. Appendix A.3.b of the Rule states that medians or channelization devices must extend at least 100 feet from the gate arm, or if there is an intersection within 100 feet of the gate, the median or channelization device must extend at least 60 feet from the gate arm. The proposed SSM channelization device extends 80 feet with a 15 foot gap. The gap may allow a motorcycle or small vehicle to drive around less than 100 feet from the gate. The FRA typically allows shorter median for parallel streets or commercial driveways. Please provide additional information regarding diagnostic team discussion related to the gap.
- For the westbound approach to the crossing, the City proposes revising the 60 feet of the existing mountable meeting with mountable median and delineator posts. The revised median will also be extended towards the gate arm by 40 feet of mountable median with delineator posts, for a total length of 100 feet of mountable median with delineator posts.
- There is a traffic signal stop line located approximately 105 feet west of the crossing at the Interurban Trail which may cause westbound traffic to queue over the track. The traffic signal is interconnected with the railroad warning system. UP requests information related to City's plans to address the potential for traffic queuing and adequacy of preemption timing.

**6. DOT# 396576X 228<sup>th</sup> Street**

The NOI stated that this crossing is not considered part of the QZ and will be closed in November of 2018. Please confirm when the crossing has been closed.

**7. DOT# 396575R 212<sup>th</sup> Street**

- The City proposes SSMs at this crossing.
- For the east bound approach, the City's plans depict installation of delineators on 86 feet of mountable median, a 20 foot gap for the Interurban Trail and then 10 more feet of mountable median with delineators. Appendix A.3.b of the Rule states that medians or channelization devices must extend at least 100 feet from the gate arm, or if there is an intersection within 100 feet of the gate, the median or channelization device must extend at least 60 feet from the gate arm. The gap for the Interurban Trail may allow a motorcycle or small vehicle to drive around less than 100 feet from the gate. The FRA typically allows shorter median for parallel streets or commercial driveways. Please provide additional information regarding diagnostic team discussion related to the gap.
- For the westbound approach, the City proposes extending existing mountable median towards the crossing gate arm for a total length of 120 feet and installing delineator posts for the full length.
- There is a traffic signal stop line located approximately 70 feet west of the crossing at the Interurban Trail which may cause westbound traffic to queue over the track. The traffic signal is interconnected with the railroad warning system. UP requests information related to City's plans to address the potential for traffic queuing and adequacy of preemption timing.
- It is noted that the sidewalks are located on backside of the gate masts which are equipped with both roadway and pedestrian gates. There are no pedestrian gates in the northwest quadrant on the north side of the street and westbound on the south side of the street could encounter a lowered gate as they proceed over the crossing. UP requests further information regarding the City's plans to address pedestrian activity at and around the crossing.

**8. Other Comments**

- The City proposes implementing this QZ in accordance with 49 CFR § 222.39(a)(3). This requires use of the Federal Railroad Administration (FRA) QZ Calculator to demonstrate the QZRI is at or below the RIWH. Please insure current Annual Average Daily Traffic counts are used in the final calculations and provided to the Washington DOT for updating the FRA crossing inventory.
- As mentioned above, please reference Appendix A of the Rule which specifies the criteria for medians to qualify as SSMs. In the locations where "mountable median curb with delineators" as channelization devices is planned, the City should be aware of the susceptibility of these devices to be damaged or missing. It is noted in Appendix A that channelization devices must be frequently monitored to replace broken elements. UP reserves the right to sound the horn if the devices are found to be deficient until they are repaired.

- Upon completion of all tentative plans set forth in the NOI, a Notice of Establishment (NOE) to implement the QZ must be provided by certified mail to:
  - all railroads operating over the public highway-rail grade crossing(s) within the QZ;
  - the highway or traffic control or law enforcement authority having jurisdiction over vehicular traffic at grade crossings within the QZ;
  - the landowner having control over any private crossings within the QZ;
  - the State agency responsible for highway and road safety;
  - the State agency responsible for grade crossing safety; and
  - the FRA Associate Administrator.

The NOE will serve as notice that all safety measures comply with the Rule and plans submitted with the NOI have been implemented. We encourage communication with UP of any changes to the proposed QZ plan to allow further review and comment, as necessary.

- UP encourages an awareness program to educate the community about QZs and what to expect. Although trains will cease routine sounding of the horn at grade crossing(s) within the QZ, there are numerous situations when sounding of the horn will be required. For example, an engineer will exercise discretion to sound the horn for safety purposes when pedestrians or workers are in proximity of the crossing(s) and when necessary to comply with any other train operating rules.
- Prior to establishing the new QZ, each approach to the grade crossing(s) must be equipped with an advance warning sign advising users that train horns are not sounded at the crossing(s). These signs must conform to the standards contained in the MUTCD. Additionally, all signs and pavement markings should be inspected to be in good condition for both day and night visibility.

If you have questions or comments, please contact me at (402) 544-3992 or [msdubay@up.com](mailto:msdubay@up.com).

Sincerely,



Melinda DuBay  
Industry & Public Projects

cc: Robert Lauby-FRA Associate Administrator for Safety

*by email:*

Jeffrey Stewart-FRA  
Connie Raezer-WSDOT  
Peggy Ygbuhay-UP  
Aaron Hunt-UP