



STATE OF WASHINGTON
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION
1300 S. Evergreen Park Dr. S.W., P.O. Box 47250 • Olympia, Washington 98504-7250
(360) 664-1160 • TTY (360) 586-8203

August 29, 2014

Chris Larson, PE, Engineering Division Manager
Chris Storey, Project Engineer
City of Tacoma
747 Market Street, Room 544
Tacoma, Washington 98402-3701

**Re: TR-141367 – East D Street, East C Street and South C Street
Notice of Intent to Establish a Railroad Quiet Zone**

Dear Mr. Larson and Mr. Storey:

Thank you for the opportunity to comment on the City of Tacoma's (City) proposed quiet zone, as described in Docket TR-141367.

The Utilities and Transportation Commission (UTC) received notice on July 1, 2014, from the City of Tacoma of its intent to establish a railroad quiet zone at the following crossings:

- East D Street USDOT 396639A
- East C Street USDOT 396640U
- South C Street USDOT 945989J

The City is proposing a quiet zone at these crossings which will be in effect 24 hours, seven days per week. The notice provided to the commission does not specify the length of the proposed quiet zone, so UTC staff assumes that the City is proposing a quiet zone extending one-quarter mile on each side of the crossing, which is the minimum length required per Code of

Chris Larson, P.E.
Chris Storey
August 29, 2014
Page 2

Federal Regulations (CFR) Title 49, §2.36(a)(1)22. In addition, the City's notice does not specifically identify the type of supplemental safety measures to be installed at the crossings. The City's notice states, "medians or four quadrant gates depending on funding".

UTC staff entered information about the crossings into the Federal Railroad Administration's (FRA) Quiet Zone Calculator and received a risk index of 21,129.36, with no supplementary safety measures proposed. The current Nationwide Significant Risk Threshold (NSRT) is 14,347.00, which places this quiet zone above the current threshold and ineligible to be designated as a quiet zone. The City proposes to install median barriers or four-quadrant gates as supplementary safety measures to reduce the risk index. With installation of either or both of these supplementary safety measures, the risk is significantly reduced below the NSRT, which qualifies this corridor as a quiet zone, see the attached calculation sheets.

To calculate the risk index, the FRA calculator utilizes data from the crossing inventory data on file and assumes that it is up-to-date. The inventory data for these crossings was last updated on August 15, 2012. Commission staff bases these comments on the current inventory data on file.

As you know, the UTC may comment on quiet zone proposals, but does not approve or disapprove them because states have been preempted in this area by federal rule. Based on UTC staff's participation and observations at the January 22, 2013, diagnostic review, UTC staff reiterates that all median barriers must be at least 100 feet in length to qualify as a supplemental safety measure. All of the affected crossings had nearby driveways that impacted the ability to install 100 feet of median barriers on approaches to the crossings. If driveway closures or roadway modifications are implemented then installation of the minimum length of medians is feasible. If driveway closures or roadway modifications are not fully implemented, then the City could consider alternative safety measures.

UTC staff recommends that the City review FRA's publication, "Guidance on the Use of Traffic Channelization Devices at Highway-Rail Grade Crossings," prior to installing the median barriers. The median barriers selected must meet all FRA requirements to qualify as supplemental safety measures.

Sound Transit operates up to ten times per week day on this rail line, as well as Tacoma Rail. Frequent operations of commuter rail present additional safety concerns in quiet zones. The UTC encourages the City of Tacoma to ensure that all requirements are met when installing and maintaining supplemental safety measures at the crossings. In addition, once the quiet zone is established, closely monitor these crossing for any near hits or accidents that may impact the status of the quiet zone.

Chris Larson, P.E.
Chris Storey
August 29, 2014
Page 3

Thank you for the opportunity to provide comments. Please feel free to contact Kathy Hunter at 360-664-1257 or at khunter@utc.wa.gov if you have any questions or would like additional information.

Sincerely,



Steven W. King
Executive Director and Secretary

Attachments

cc: Eric Beckman, Sound Transit
Dale King, Tacoma Rail
FRA Associate Administrator for Safety
Mike Rowswell, WSDOT
Associate Administrator for Safety and Christine Adams, FRA

No supplementary safety measures

Print This Page

Home | Help | Contact | logoff khunter@utc.wa.gov

Cancel

Change Scenario:

CITY OF TA_43302

Continue

Create New Zone
 Manage Existing Zones
 Log Off

Crossing	Street	Traffic	Warning Device	Pre-SSM	SSM	Risk	
396639A	EAST "D" ST.	4480	Gates	0	0	30,125.37	MODIFY
396640U	EAST C ST.	2500	Gates	0	0	13,828.42	MODIFY
945989J	SOUTH C STREET	1751	Gates	0	0	19,434.29	MODIFY

* Only Public At Grade Crossings are listed.

Click for [Supplementary Safety Measures \[SSM\]](#)

Click for ASM spreadsheet: * Note: The use of ASMs requires an application to and approval from the FRA.

Summary	
Proposed Quiet Zone:	CITY OF TACOMA
Type:	New 24-hour QZ
Scenario:	CITY OF TA_43302
Estimated Total Cost:	\$0.00
Nationwide Significant Risk Threshold:	14347 .00
Risk Index with Horns:	12667.48
Quiet Zone Risk Index:	21129.36

Step by Step Instructions:

Step 1: To specify New Warning Device (For Pre-Rule Quiet Zone Only) and/or SSM, click the [MODIFY](#) Button

Step 2: Select proposed warning device or SSM. Then click the [UPDATE](#) button. To generate a spreadsheet of the values on this page, click on [ASM](#) button—This spreadsheet can then be used for ASM calculations.

Step 3: Repeat Step (2) until the [SELECT](#) button is shown at the bottom right side of this page. Note that the [SELECT](#) button is shown ONLY when the Quiet Zone Risk Index falls below the NSRT or the Risk Index with Horn.

Step 4: To save the scenario and continue, click the [SELECT](#) button

Mountable medians with reflective traffic channelization devices

Print This Page

Home | Help | Contact | logoff khunter@utc.wa.gov

Cancel

Change Scenario: CITY OF TA_43302

Continue

- Create New Zone
- Manage Existing Zones
- Log Off

Crossing	Street	Traffic	Warning Device	Pre-SSM	SSM	Risk	
396639A	EAST "D" ST.	4480	Gates	0	12	7,531.34	MODIFY
396640U	EAST C ST.	2500	Gates	0	12	3,457.11	MODIFY
945989J	SOUTH C STREET	1751	Gates	0	12	4,858.57	MODIFY

* Only Public At Grade Crossings are listed.

Step by Step Instructions:

Step 1: To specify New Warning Device (For Pre-Rule Quiet Zone Only) and/or SSM, click the MODIFY Button

Step 2: Select proposed warning device or SSM. Then click the UPDATE button. To generate a spreadsheet of the values on this page, click on ASM button—This spreadsheet can then be used for ASM calculations.

Step 3: Repeat Step (2) until the SELECT button is shown at the bottom right side of this page. Note that the SELECT button is shown ONLY when the Quiet Zone Risk Index falls below the NSRT or the Risk Index with Horn.

Step 4: To save the scenario and continue, click the SELECT button

ALERT: Quiet Zone qualifies because SSM has been applied in each crossing.

Click for Supplementary Safety Measures [SSM]

Click for ASM spreadsheet: ASM * Note: The use of ASMs requires an application to and approval from the FRA.

Summary	
Proposed Quiet Zone:	CITY OF TACOMA
Type:	New 24-hour QZ
Scenario:	CITY OF TA_43302
Estimated Total Cost:	\$39,000.00
Nationwide Significant Risk Threshold:	14347 .00
Risk Index with Horns:	12667.48
Quiet Zone Risk Index:	5282.34
Select	

Non-traversable curb medians with or without channelization devices

Print This Page

Home | Help | Contact | logoff khunter@utc.wa.gov

Cancel | Change Scenario: | Continue

Create New Zone
Manage Existing Zones
Log Off

Crossing	Street	Traffic	Warning Device	Pre-SSM	SSM	Risk	
396639A	EAST "D" ST.	4480	Gates	0	13	6,025.07	MODIFY
396640U	EAST C ST.	2500	Gates	0	13	2,765.68	MODIFY
945989J	SOUTH C STREET	1751	Gates	0	13	3,886.86	MODIFY

* Only Public At Grade Crossings are listed.

Step by Step Instructions:

Step 1: To specify New Warning Device (For Pre-Rule Quiet Zone Only) and/or SSM, click the **MODIFY** Button

Step 2: Select proposed warning device or SSM. Then click the **UPDATE** button. To generate a spreadsheet of the values on this page, click on **ASM** button—This spreadsheet can then be used for ASM calculations.

Step 3: Repeat Step (2) until the **SELECT** button is shown at the bottom right side of this page. Note that the **SELECT** button is shown **ONLY** when the Quiet Zone Risk Index falls below the NSRT or the Risk Index with Horn.

Step 4: To save the scenario and continue, click the **SELECT** button

ALERT: Quiet Zone qualifies because SSM has been applied in each crossing.

Click for [Supplementary Safety Measures \[SSM\]](#)

Click for ASM spreadsheet: **ASM** * Note: The use of ASMs requires an application to and approval from the FRA.

Summary	
Proposed Quiet Zone:	CITY OF TACOMA
Type:	New 24-hour QZ
Scenario:	CITY OF TA_43302
Estimated Total Cost:	\$45,000.00
Nationwide Significant Risk Threshold:	14347 .00
Risk Index with Horns:	12667.48
Quiet Zone Risk Index:	4225.87
Select	

Print This Page

Four-quadrant gates, upgrade from two quadrant gates, no vehicle presence detection

Home | Help | Contact | logoff khunter@utc.wa.gov

Cancel

Change Scenario:

CITY OF TA_43302

Continue

Create New Zone

Manage Existing Zones

Log Off

Crossing	Street	Traffic	Warning Device	Pre-SSM	SSM	Risk	
396639A	EAST "D" ST.	4480	Gates	0	4	5,422.57	MODIFY
396640U	EAST C ST.	2500	Gates	0	4	2,489.12	MODIFY
945989J	SOUTH C STREET	1751	Gates	0	4	3,498.17	MODIFY

* Only Public At Grade Crossings are listed.

Step by Step Instructions:

Step 1: To specify New Warning Device (For Pre-Rule Quiet Zone Only) and/or SSM, click the MODIFY Button

Step 2: Select proposed warning device or SSM. Then click the UPDATE button. To generate a spreadsheet of the values on this page, click on ASM button—This spreadsheet can then be used for ASM calculations.

Step 3: Repeat Step (2) until the SELECT button is shown at the bottom right side of this page. Note that the SELECT button is shown ONLY when the Quiet Zone Risk Index falls below the NSRT or the Risk Index with Horn.

Step 4: To save the scenario and continue, click the SELECT button

ALERT: Quiet Zone qualifies because SSM has been applied in each crossing.

Click for Supplementary Safety Measures [SSM]

Click for ASM spreadsheet: ASM * Note: The use of ASMs requires an application to and approval from the FRA.

Summary	
Proposed Quiet Zone:	City of Tacoma
Type:	New 24-hour QZ
Scenario:	CITY OF TA_43302
Estimated Total Cost:	\$300,000.00
Nationwide Significant Risk Threshold:	14347 .00
Risk Index with Horns:	12667.48
Quiet Zone Risk Index:	3803.29
<u>Select</u>	

Four quadrant gates, upgrade from two quadrant gates, with medians and vehicle presence detection

Print This Page

Home | Help | Contact | logoff khunter@utc.wa.gov

Cancel | Change Scenario: CITY OF TA_43302 | Continue

Create New Zone
 Manage Existing Zones
 Log Off

Crossing	Street	Traffic	Warning Device	Pre-SSM	SSM	Risk	
396639A	EAST "D" ST.	4480	Gates	0	7	2,410.03	MODIFY
396640U	EAST C ST.	2500	Gates	0	7	1,106.27	MODIFY
945989J	SOUTH C STREET	1751	Gates	0	7	1,554.74	MODIFY

* Only Public At Grade Crossings are listed.

Step by Step Instructions:

Step 1: To specify New Warning Device (For Pre-Rule Quiet Zone Only) and/or SSM, click the **MODIFY** Button

Step 2: Select proposed warning device or SSM. Then click the **UPDATE** button. To generate a spreadsheet of the values on this page, click on **ASM** button—This spreadsheet can then be used for ASM calculations.

Step 3: Repeat Step (2) until the **SELECT** button is shown at the bottom right side of this page. Note that the **SELECT** button is shown **ONLY** when the Quiet Zone Risk Index falls below the NSRT or the Risk Index with Horn.

Step 4: To save the scenario and continue, click the **SELECT** button

ALERT: Quiet Zone qualifies because SSM has been applied in each crossing.

Click for [Supplementary Safety Measures \[SSM\]](#)

Click for ASM spreadsheet: **ASM** * Note: The use of ASMs requires an application to and approval from the FRA.

Summary	
Proposed Quiet Zone:	City of Tacoma
Type:	New 24-hour QZ
Scenario:	CITY OF TA_43302
Estimated Total Cost:	\$420,000.00
Nationwide Significant Risk Threshold:	14347 .00
Risk Index with Horns:	12667.48
Quiet Zone Risk Index:	1690.35
Select	