

Quiet Zone Work Plan

Executive Summary

Recognizing the impacts of commuter train horns on the communities they serve, RTD will assist and facilitate the local jurisdictions' Quiet Zone applications along the Gold Line, Northwest Rail, East and North Metro Corridors. This work plan identifies the specific tasks required to process Quiet Zones along these corridors and identifies roles and responsibilities, timeframes and deliverables for each of these tasks. The work plan will be implemented on a corridor-level basis due to the specific needs of each crossing, but will be monitored on a program level to ensure consistency. This process will occur over the next several years and will coincide with the planning, design, and construction of the corridor. The beginning steps, which include collecting the crossing inventory forms and existing conditions, have already begun.

RTD is committed to funding required grade crossing safety improvements and noise mitigation due to impacts from the individual FasTracks corridor projects. The noise analysis for the corridors will be completed in accordance with FTA's "Transit Noise and Vibration Impact Assessment" (May 2006) Guidance Manual. If the grade crossing does not require safety improvements or noise mitigation, the local jurisdictions will be responsible for any additional costs associated with improvements necessary to implement a Quiet Zone. RTD will develop grade crossing inventories, diagnostic reviews and cost estimates for all grade crossings along the four commuter rail corridors and will work with local jurisdictions to determine an implementation approach for each individual grade crossing.

1. Introduction

On August 17, 2006, the Federal Railroad Administration (FRA) published Final Rules governing the use of train horns at grade crossings throughout the United States. Historically, and now by law, train crews must sound the locomotive's horn when approaching an at-grade crossing. Responding to the concerns of communities adjacent to railways, the law also included a methodology for establishing, maintaining and enforcing "Quiet Zones". Applications for Quiet Zones can only be made by local governments. Quiet Zones are segments of the rail line where train crews are exempt from sounding the horn, although horn use is permissible for railroad or safety related reasons.

2. Responsible Rail Amendment

On October 16, 2007, the RTD Board unanimously adopted the Responsible Rail Amendment. The amendment contains two provisions, one pertaining to vehicle technology provisions and the other to the Quiet Zone evaluation process (see below). The following guidance from the amendment will direct RTD's actions throughout the local jurisdiction's Quiet Zone Application process.

RTD is committed to assisting local jurisdictions in their Quiet Zone application process.

RTD will work with the railroads and local communities to address the noise concerns of residents along the Northwest and North Metro Rail line, and other RTD rail corridors, by taking the following actions in conjunction with the current Environmental Evaluations:

- *Immediately crafting and publishing a timeline for the evaluation of "Quiet Zones" along the Northwest and North Metro Rail line and other opportunities for reducing train noise in the corridor;*
- *Within the above timeline, conducting a full evaluation of the infrastructure expenses and other costs associated with efforts to implement "Quiet Zones" along the Northwest Rail and North Metro line and other mechanisms for reducing train noise in the corridor;*

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- *Within the above timeline, identifying all possible financial resources for covering the infrastructure expenses and other costs associated with efforts to implement “Quiet Zones” along the Northwest and North Metro Rail line and other mechanisms for reducing train noise in the corridor; and,*
- *Creating a mechanism for keeping concerned individuals and communities apprised of the above activities and to solicit their input.*

3. Process

Roles and Responsibilities

RTD

RTD will facilitate the Quiet Zone application process by assisting the local jurisdictions and coordinating with the necessary parties throughout the application process. Responsibilities include, but are not limited to, inventory of grade crossings, cost estimates and implementation pros & cons, timely coordination with applicable parties, the design and construction of project required Supplemental Safety Measures (SSMs), and/or Alternate Safety Measures (ASMs). RTD will also assist the jurisdictions with the Notice of Intent and Notice of Establishment. See “implementation steps” for a more detailed list of responsibilities.

Again, it must be noted that RTD cannot apply for a Quiet Zone. That action has to be carried out by a municipality. RTD, per the Responsible Rail Amendment will support local governments in the process by providing both technical resources and project specific funding for the necessary crossing improvements.

Local Jurisdictions

Local jurisdictions play a key role in implementing Quiet Zones along the FasTracks corridors. It is anticipated that each local jurisdiction will identify a single Point of Contact (POC) who will be responsible for working closely with RTD to identify information about existing crossings (and future projects anticipated in these areas), disseminate and collect necessary information within their jurisdiction, assist in the determination of appropriate upgrades for crossings (as necessary), participate in diagnostic reviews, review design plans, identify funding for additional upgrades (if required), etc.

Lead Local Jurisdictions

Because of the length of the proposed Quiet Zones along these corridors, the local jurisdictions along each corridor will need to identify a Lead Jurisdiction that will be responsible for signing the Notice of Intent and Notice of Quiet Zone Establishment. An Intergovernmental Agreement (IGA) between RTD and the Lead Jurisdiction will be drafted and signed to establish the parameters of the Quiet Zone application process. The other jurisdictions within the corridor must have individual IGAs with the Lead Jurisdiction. Please note that this is for application purposes only. The POC from each local jurisdiction will be engaged in all decisions made concerning crossings in their jurisdiction.

Federal Railroad Administration

The FRA will be part of the diagnostic team, helping identify safety concerns associated with each at-grade crossing within the proposed Quiet Zone. Additionally, the FRA will review any applications and all supporting documentation and is the agency which renders approval for any improvements.

Colorado Public Utilities Commission

The Colorado Public Utilities Commission (PUC) will be part of the diagnostic team, helping identify safety concerns associated with each at-grade crossing within the proposed Quiet Zone. Additionally, the PUC is the agency which reviews the Letter of Intent and administers the application for any improvements to the grade crossing.

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Railroads

Representatives from the Union Pacific (UP) and Burlington Northern Santa Fe (BNSF) railroads will be part of diagnostic team, helping identify safety concerns associated with each at-grade crossing within the proposed Quiet Zone.

Emergency Service (EMS) Providers

Local EMS providers should be part of the diagnostic team, helping identify safety concerns associated with each at-grade crossing within the proposed Quiet Zone. The local jurisdictions will be responsible for the identification of these providers.

Colorado Department of Transportation (CDOT)

CDOT will be part of the diagnostic team, helping identify safety and roadway concerns associated with any at-grade crossings along state highways.

4. Coordination

Coordination is the key to success for the implementation of Quiet Zones. RTD will coordinate with all necessary parties including local governments, federal and local agencies and the overall public outreach during the application process.

RTD will work with the Corridor Consultant Team to determine the appropriate methods for public outreach on the Quiet Zones. Because each corridor's public involvement process is a little different, a programmatic approach to corridor level public involvement is inappropriate. RTD will develop overall program-level Quiet Zone Fact Sheets and information, but will work with the individual corridors to disseminate specific corridor-level information, analysis results, and mitigation measures.

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5. Implementation Steps

The following table (Table 1) is a detailed account of the implementation steps, as well as the roles and responsibilities, action items and deliverables for these steps. Timeframes are also identified for each of the FasTracks corridors. The timeframe for submitting a Notice of Intent for the Quiet Zone designation is primarily driven by the level of design. Subsequently, the construction timeframe is then based upon the contracting method used by RTD, completion of final design, and construction schedule.

Table 1: Implementation Steps

Implementation Steps	Roles and Responsibilities	Action Items	Deliverables	Timeframe
1. Conduct Program-Wide Quiet Zone Workshop	RTD – Skeen/Boot to organize and facilitate in coordination with all local jurisdictions	Develop agenda Identify location Invite attendees Develop presentation materials/ identify speakers, etc.	Presentation materials	All Corridors: 1 st Qtr 2008
2. Inventory crossings	RTD - Skeen/Boot to work with Corridor Teams to conduct grade crossing inventory. Local Jurisdictions – Provide RTD crossing information as necessary (i.e., concerning existing and future improvements)	Conduct crossing inventories (e.g., gather existing data, photos, drawings, etc.) Schedule and hold initial meeting with FRA and railroads Coordinate with local jurisdictions Contact FRA and railroads for updated circuitry information for crossings	None (all information will be compiled in Step #3 below)	East: 1 st Qtr 2008 Gold: 1 st Qtr 2008 Northwest Rail: 1 st Qtr 2008 North Metro: 1 st Qtr 2008
3. Update FRA Grade Crossing Inventory Form with complete and	RTD – Skeen/Boot to work with the Corridor teams	Complete inventory forms	Completed inventory forms	East: 1 st Qtr 2008

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accurate current conditions for all crossings (public, private, and pedestrian)	and local jurisdictions to complete and compile all information required in the inventory forms.			Gold: Completed Northwest Rail: 1 st Qtr 2008 North Metro: 1 st Qtr 2008
4. Conduct Grade Crossing Safety Evaluation Analyses	RTD – Corridor Teams will conduct safety analyses and determine proposed crossing improvements to meet FRA safety standards Local Jurisdictions – Work closely with Skeen/Boot and the Corridor teams to identify proposed crossing improvements	Review and summarize inventory information Conduct analyses Meet with Local Jurisdictions and the Corridor teams to develop preliminary concepts for Quiet Zone implementation at each of the crossings Develop summary materials for Diagnostic Reviews	List of proposed safety improvements for each crossing Packages of information specific to each crossing to be used to facilitate diagnostic reviews	East: Completed Gold: Completed Northwest Rail: 2 nd Qtr 2008 North Metro: 2 nd Qtr 2008
5. Review corridor-specific noise analyses to determine areas requiring mitigation.	RTD – Skeen/Boot to work with Corridor Consultants to review noise impacts around crossings and potential mitigation as necessary	Compile results of analyses Coordinate with Local Jurisdictions	List of grade crossings requiring noise mitigation	East: Completed Gold: Completed Northwest Rail: 2 nd Qtr 2008 North Metro: 2 nd Qtr 2008
6. Prepare materials for Diagnostic Reviews	RTD – Engineering will develop standard cross sections and distribute to corridor teams Corridor teams will create	Create and compile packets for diagnostic reviews	Packets for diagnostic reviews	East: 1 st Qtr 2008 Gold: 1 st Qtr 2008 Northwest Rail: 2 nd Qtr 2008

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	conceptual designs at each crossing for diagnostic reviews RTD – Skeen/Boot will compile packets for diagnostic reviews			North Metro: 2 nd Qtr 2008
7. Identify lead local jurisdiction for each corridor that will be responsible for signing the Notice of Intent.	RTD - Skeen/Boot to work with the Corridor Project Managers and Local Government Teams to identify lead agency for submittal of Notice of Intent	Identify lead local jurisdictions	List of lead jurisdictions for each Quiet Zone	East: 1 st Qtr 2008 Gold: 1 st Qtr 2008 Northwest Rail: 2 nd Qtr 2008 North Metro: 2 nd Qtr 2008
8. Begin establishing Interagency Agreements (IGAs) with local jurisdictions to determine how Quiet Zones will be implemented and funded).	RTD - Skeen/Boot to work with the Corridor Project Managers to develop IGAs	Establish IGAs that address roles and responsibilities and cost sharing	Completed IGAs with each local jurisdiction	East: 1 st Qtr 2008 Gold: 1 st Qtr 2008 Northwest Rail: 2 nd Qtr 2008 North Metro: 2 nd Qtr 2008
9. Conduct Diagnostic Reviews of crossings.	RTD – Skeen/Boot to coordinate. FRA, PUC, Railroads, and Local Jurisdictions – Participate in reviews.	Schedule and participate in Diagnostic Reviews Summarize feedback received during reviews and provide to RTD Corridor Teams and Local Jurisdictions.	Summary of the determinations made per crossing during the diagnostic reviews	East: 1 st Qtr 2008 Gold: 1 st Qtr 2008 Northwest Rail: 1 st Qtr 2008 North Metro: 1 st Qtr 2008
10. Based on feedback from the diagnostic review, determine which	RTD – Corridor Teams will analyze and determine	Meet with Local Jurisdictions and the Corridor teams to	List of proposed improvements for each	East: 1 st Qtr 2008

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<p>qualifying conditions will be used:</p> <ul style="list-style-type: none"> SSMs at each crossing or selected crossings to reduce risk index to at least the level of the risk index with horns (no annual FRA reviews are necessary); or Alternate safety measures (ASMs) at selected crossings or risk index reduced to a level equal to or less than the Nationwide Significant Risk Threshold (annual FRA reviews which may not keep Quiet Zone qualified unless additional improvements are made) 	<p>proposed crossing improvements to meet FRA safety standards and Quiet Zone standards.</p> <p>Local Jurisdictions – Work closely with Skeen/Boot and the Corridor teams to identify proposed crossing improvements</p>	<p>finalize requirements for each individual crossing</p>	<p>crossing to meet safety improvements and Quiet Zone standards</p>	<p>Gold: 1st Qtr 2008</p> <p>Northwest Rail: 2nd Qtr 2008</p> <p>North Metro: 2nd Qtr 2008</p>
<p>11. Conduct risk analysis using FRA's web-based Quiet Zone Calculator, complying with Diagnostic Team recommendations (if 1 or more Supplementary Safety Measures - SSM's - are to be installed at each crossing in the Quiet Zone, then <u>no risk analysis is required</u>)</p>	<p>RTD – Skeen/Boot to conduct risk analysis</p>	<p>Conduct risk analysis</p>	<p>Completed risk analysis for each crossing on each corridor</p>	<p>East: 1st Qtr 2008</p> <p>Gold: 1st Qtr 2008</p> <p>Northwest Rail: 3rd Qtr 2008</p> <p>North Metro: 3rd Qtr 2008</p>
<p>12. Establish Cost Estimate for each crossing to meet RTD safety standards for at-grade crossings. A cost estimate will also be established for improvements to</p>	<p>Skeen/Boot to work with Corridor Consultants to develop two cost estimates:</p> <p style="text-align: center;">- Cost for safety</p>	<p>Develop cost estimates</p> <p>Review with Local Jurisdictions</p>	<p>Completed cost estimates for each crossing</p>	<p>East: 2nd Qtr 2008</p> <p>Gold: 2nd Qtr 2008</p> <p>Northwest Rail: 3rd Qtr 2008</p>

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meet Quiet Zone standards.	<p>improvements (RTD responsibility)</p> <p>- Cost for noise mitigation if necessary (RTD responsibility)</p> <p>If there is no noise mitigation required for a grade crossing, the local jurisdiction is responsible for any cost associated with improvements necessary for a Quiet Zone. If such a case exists, RTD will develop a cost estimate for the necessary Quiet Zone improvements.</p>			North Metro: 3 rd Qtr 2008
13. Coordinate with PUC on level of detail required for PUC application (see #15 below).	<p>RTD – Corridor teams to work with PUC to identify application requirements</p> <p>Local jurisdictions – review application requirements</p>	Develop draft application and discuss with PUC	None (see #15 below)	<p>East: 2nd Qtr 2008</p> <p>Gold: 2nd Qtr 2008</p> <p>Northwest Rail: 3rd Qtr 2008</p> <p>North Metro: 3rd Qtr 2008</p>
<p>14. Design Quiet Zone crossing and railroad signaling improvements</p> <ul style="list-style-type: none"> • Each highway crossing in the Quiet Zone must be equipped 	RTD – the Corridor teams to design crossing and railroad signaling improvements	Design improvements	50% design (at a minimum) for each crossing requiring improvements	<p>East: 2nd Qtr 2010 (approximately)</p> <p>Gold: 2nd Qtr 2010 (approximately)</p>

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<p>with power out indicators, constant warning time circuitry, and advance warning sign(s) that train horns are not sounded at the crossing</p> <ul style="list-style-type: none"> • Pedestrian crossings in the Quiet Zone must comply with Diagnostic Team recommendations and advance warning sign(s) that train horns are not sounded at the crossing 	<p>Local jurisdictions – review design plans and provide information concerning any additional projects in the area</p>			<p>Northwest Rail: 3rd Qtr 2010 (approximately) North Metro: 3rd Qtr 2010 (approximately)</p>
<p>15. Submit PUC Application for crossing upgrades (per Rule 4, Code of Colorado Regulations, 723-7-7204)</p> <ul style="list-style-type: none"> • PUC has 10 days to send letter identifying any application deficiencies and 15 days to process and put on notice • Once Notice of Application Filed is mailed, application is on notice for 30 days • PUC has 15 days after expiration of the notice period to deem the application either complete or incomplete. If deemed complete, the statutory timelines are started. If deemed incomplete, the Application is returned for 	<p>RTD –the Corridor teams to submit PUC crossing upgrade application. This application is necessary for the crossing improvements from a safety aspect.</p> <p>Local jurisdictions – review PUC applications</p>	<p>Coordinate with PUC</p> <p>Fill out PUC application for each crossing requiring improvements</p>	<p>Completed PUC applications</p>	<p>East: 2nd Qtr 2010 (approximately) Gold: 2nd Qtr 2010 (approximately) Northwest Rail: 3rd Qtr 2010 (approximately) North Metro: 3rd Qtr 2010 (approximately)</p>

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<p>completion and resubmittal.</p> <ul style="list-style-type: none"> • Applications deemed complete can become either an uncontested or contested application. • For uncontested applications, the PUC may use modified proceeding at the Commissioner's weekly meeting to grant or deny the application or must issue the grant or deny order by 120 days if applicant support testimony is filed with application, by 210 days if support testimony is not filed with application, or 300 days if the Commission finds extraordinary conditions For community planning purposes, the Commission will generally make a decision on an uncontested application within 60 days of the filing • For contested applications, the Commission will set the matter for hearing at Commissioner's weekly meeting for procedural determination, and a procedural schedule will be set including testimony filing dates. The Commission must issue the 				

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<p>grant or deny order by 120 days if applicant support testimony is filed with application, by 210 days if support testimony is not filed with application, or 300 days if the Commission finds extraordinary conditions. .For community planning purposes, the Commission will generally make a decision on a contested application within 360 days of the filing.</p>				
<p>16. Once PUC has approved the applications - Issue Notice of Intent by certified mail, return receipt requested (must be provided or Quiet Zone cannot be created)</p> <ul style="list-style-type: none"> Issued to railroad(s) operating over the proposed Quiet Zone, State agency responsible for highway and road safety, and State agency responsible for grade crossing safety (Colorado Public Utilities Commission) as a minimum. Other affected jurisdictions and stakeholders including the FRA should also be included 	<p>Skeen/Boot to author Notice of Intent, coordinate reviews, etc.</p> <p>Lead Local Jurisdiction (Public Authority) to sign and issue</p>	<p>Author Notice of Intent</p> <p>Notice of Intent must contain</p> <ol style="list-style-type: none"> list of each public, private, and pedestrian grade crossing in the Quiet Zone by U.S. DOT inventory number and street or highway name, statement of the time period the horn restrictions would be in effect (e.g. 24 hours), brief explanation of the tentative plans for implementing Quiet Zone improvements, name, title, and contact information of the point of contact person, and list of names and addresses of each party 	<p>Completed Notice of Intent</p>	<p>Schedule dependent on approval of PUC application and completion of design</p>

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		receiving the Notice of Intent.		
17. Finalize design plans, inter-agency agreements, and railroad(s) agreement (including consideration for construction, installation, and maintenance of the Quiet Zone improvements)	RTD – Skeen/Boot to coordinate with the Corridor teams and local jurisdictions to finalize all IGAs, designs, etc. This will include finalizing cost discussions if local jurisdictions are interested in funding improvements not required due to impacts from the projects.	Finalize IGAs, design plans, etc.	Final design plans, IGAs, etc.	Schedule dependent on approval of PUC application and completion of design
18. Construct, install, and test Quiet Zone crossing improvements and signage	RTD – Implement the construction, installation and testing of Quiet Zone crossing improvements and signage Local jurisdictions – Provide funding for Quiet Zone crossing improvements and signage if improvements are not required due to impacts from the projects.	Construct, install and test crossing improvements	Final construction and testing of improvements	Schedule dependent on approval of PUC application and completion of design
19. Prepare and submit a written Notice of Quiet Zone Establishment by certified mail, return receipt	RTD – Skeen/Boot to prepare Notice of Quiet Zone Establishment	Prepare Notices of Quiet Zone Establishment	Completed Notices of Quiet Zone Establishment	Schedule dependent on approval of PUC application and

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<p>requested.</p> <ul style="list-style-type: none"> • To railroad(s), highway or traffic control or law enforcement authority or authorities having jurisdiction, landowner of each private crossing, State agency responsible for highway and road safety, State agency responsible for grade crossing safety (CPUC), and FRA Associate Administrator, as a minimum. Other affected jurisdictions or stakeholders may also be notified. • The Notice of Quiet Zone Establishment must contain 1) list of each public, private, and pedestrian grade crossing in the Quiet Zone by U.S. DOT inventory number and street or highway name, 2) statement of the date and time period the horn restrictions would be in effect (e.g. 24 hours), 3) name, title, and contact information of the person responsible for monitoring compliance with the requirements of Part 222, 4) list of names and addresses of each party receiving the Notice of Quiet Zone Establishment, 5) Accurate and complete Grade Crossing Inventory Form for 	<p>Local jurisdictions – review Notice of Quiet Zone Establishment</p>			<p>completion of design</p>

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<p>each crossing (public, private, and pedestrian) in the Quiet Zone for both before the Quiet Zone and upon implementation, 6) statement affirming that the State agency responsible for grade crossing safety and all affected railroads were given the opportunity to participate in the Diagnostic Team review and a list of recommendations from the Diagnostic Team review, 7) statement affirming that the Notice of Intent was provided and the date on which it was mailed, 8) specific reference to the appropriate regulatory provision that provides the basis for Quiet Zone establishment (222.39 and 222.41), and 9) statement signed by the chief executive officer of each public authority participating in the establishment of the Quiet Zone certifying that the information submitted is accurate and complete to the best of their knowledge and belief.</p>				
<p>20. On the specified date and time, the railroad(s) silence train</p>	<p>Railroads – Notify engineers to stop sounding</p>	<p>Railroads – Notify engineers to stop sounding horns</p>	<p>None</p>	<p>Schedule dependent on approval of PUC application and</p>

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	horns			completion of design
21. Send affirmation and updated crossing inventory form to FRA every 4.5 to 5 years if SSMs have been installed at each crossing or every 2.5 to 3 years if SSMs have not been installed at all of the public crossings.	Local jurisdiction – send affirmation and updated crossing inventory forms to FRA	Update crossing inventories	Updated crossing inventory forms	Schedule dependent on approval of PUC application and completion of design