

ATTACHMENT NO. 9

Approved by NCUTCD Council – June 30, 2006

TECHNICAL COMMITTEE: Railroad and Light Rail Transit Technical Committee

DATE OF ACTION: January 20, 2006

TOPIC: MUTCD Proposed New Manual Part

ORIGIN: Railroad and Light Rail Transit Technical Committee

DISCUSSION: The RR&LRTTC has proposed the following new Chapter be added to Part 8 of MUTCD. The purpose of this new Chapter is to support the new Final Rule adopted by Federal Railroad Administration mandating the sounding of locomotive horns at highway-rail grade crossings (49 CFR 222).

STATUS: Approved by NCUTCD Council June 30, 2006

CHAPTER 8E – QUIET ZONE TREATMENTS AT HIGHWAY-RAIL GRADE CROSSINGS

Section 8E.01 Introduction

Standard:

Any traffic control devices utilized as part of a Quiet Zone as specified in 49 CFR Part 222 – Use of Locomotive Horns at Highway-Rail Grade Crossings; Final Rule - shall conform with all applicable parts of the MUTCD.

Section 8E.02 Periodic Closure System for a Public Highway-Rail Grade Crossing

Support:

The purpose of this system is to close the crossing to road users during designated Quiet Zone periods.

Standard:

The periodic closure system shall completely block highway traffic on all lanes at the crossing and all adjacent pedestrian crossings during designated quiet periods.

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Barricades and signs for the road closure shall conform to all specifications set forth in MUTCD Section 3F.01 which includes advance warning signs set forth in MUTCD Chapter 2-C.

Signs for alternate highway traffic routes shall be erected in accordance with MUTCD and shall inform road users that the street is closed, the period for which it is closed and that alternate routes must be used.

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The periodic closure system shall be equipped with a monitoring device in accordance with the current version of 49 CFR 222.

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Guidance:

Daily activation and de-activation of the periodic closure system is the responsibility of the public authority or agency authorized to establish the Quiet Zone.

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Maintenance of the periodic closure system and all of the appurtenances, hardware, and software should be the responsibility of the public authority or agency authorized to establish the Quiet Zone. The authority or agency should provide for the maintenance of the system and the appurtenances in a competent manner.

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Section 8E.03 – Four-Quadrant Gate System

Support:

The purpose of this system is to fully block highway traffic from entering and exiting the crossing when the gates are lowered.

Standard:

Application of four-quadrant gate systems shall conform to MUTCD Section 8D.05.

Section 8E.04 – Gates with Raised Medians or Raised Islands in a Quiet Zone

Support:

The purpose of raised medians or raised islands is to deny the highway user the ability to circumvent the approach lane gates by driving into the opposing (oncoming) traffic lane and maneuvering around the lowered gates to cross the tracks.

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Standard:

Opposing traffic lanes on both highway approaches to a crossing without exit gates shall be separated by either: (1) raised medians bounded by non-traversable

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curbs (minimum 6 inches high) or (2) raised islands (minimum 4 inches high) with vertical panels or tubular delineators.

Raised medians or raised islands shall comply with applicable Sections of Part 3 of the MUTCD.

Vertical panels or tubular delineators, if used, shall be installed only on a raised median or raised island.

Support:

Criteria for the design of islands are set forth in “A Policy on Geometric Design of Highway and Streets”, see MUTCD Section 1A.11.

Standard:

The horizontal gap between the lowered gate and the vertical panel or tubular delineator on a raised island or the face of a non-traversable curb on a raised median shall be 1 ft or less.

The raised median or raised island shall extend a minimum of 100 ft from the gate arm. If there is an intersection within 100 feet of the gate, the raised median or raised island shall extend at least 60 feet from the gate arm.

Guidance:

Maintenance of the raised median or raised island with vertical panels or tubular delineators should be the responsibility of the public authority or agency authorized to establish the Quiet Zone.

Support:

Refer to 49CFR222 for additional requirements limiting the use of medians or raised islands in a Quiet Zone where commercial or residential driveways exist within the length of the median or raised island.

Section 8E.05 – One Way Streets with Flashing Light Signals and Automatic Gates

Support:

The purpose of this treatment is to completely block all approaching highway lanes to the public highway-rail grade crossing.

Standard:

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The gate arms on the approach side of the crossing of a one way street or roadway shall extend across the street or roadway to within 1 ft of the far edge of the pavement. The edge of the street or roadway opposite the gate mechanism shall be configured with a non-traversable curb (minimum 6" high) extending at least 100 feet.

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If a gate is used on each side of the street or roadway, the gap between the ends of the gates when both are in the lowered position shall be no more than 2 feet.

Section 8E.06 - Permanent Closure of a Public Highway-Rail Grade Crossing

Support:

The purpose of this treatment is to permanently close the crossing to highway traffic.

Standard:

The permanent closure shall completely block highway traffic on all approach and departure lanes to the crossing and all adjacent pedestrian crossings.