

**ATTACHMENT NO. 4**

**RRLRT ITEM 2**

**TECHNICAL COMMITTEE:** Railroad / Light Rail Transit Technical Committee

**TOPIC:** Revision of signing and marking requirements for grade crossings

**STATUS/DATE OF ACTION:** Send for Sponsor Comment

**TC Drafts:** 06/30/2010

**RR/LRT TC Approval:** 07/01/2010

**Transmitted to Sponsors:** 10/28/2010

**Council Approval:** 01/21/2011

**ORIGIN OF REQUEST:** RR/LRT TC

**AFFECTED SECTIONS OF MUTCD:** 8B.03 Change, 8B.05 Change, 8B.06 Change, 8B.17 Delete, 8B.27 Change

**SUMMARY:**

The purpose of these changes is to revise signing and marking traffic control requirements at grade crossings.

- 1) Require Number of Tracks (R15-2P) supplemental plaque at all grade crossings with two or more tracks, even if automatic gates are present.
- 2) Delete the requirement for low speed as a criterion for the installation of STOP or YIELD signs at highway-LRT grade crossings, and clarify the use of YIELD signs.
- 3) Reduce the number of locations where Grade Crossing Advance Warning Signs (W10 Series) are required at highway-LRT grade crossings.
- 4) Delete the LOOK sign (R15-8). It is not needed at active crossings because the active devices advise road users of approaching trains. It is not needed at passive crossings because the STOP and YIELD Crossbuck Assemblies require road users to look both ways before crossing. The sign will be redesigned and moved to Chapter 8D. Pathway Grade Crossings.
- 5) Reduce the number of locations where pavement markings will be required at highway-LRT grade crossings.

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**DISCUSSION**

The proposed changes have been reviewed by the RR/LRT TC. It is recommended that the proposed changes be sent for sponsor comment.

**RECOMMENDED CHANGES TO THE MUTCD**

**Note:** Existing MUTCD text to be deleted is shown in ~~double-strikethrough red~~. New text to be added is shown in underline blue.

**1) Revised Section 8B.03:**

**Standard:**

05 ~~If automatic gates are not present and if~~ there are two or more tracks at a grade crossing, the number of tracks shall be indicated on a supplemental Number of Tracks (R15-2P) plaque (see Figure 8B-1) of inverted T shape mounted below the Crossbuck sign in the manner shown in Figure 8B-2.

**2) Revised Section 8B.05:**

*Guidance:*

02 *The use of only STOP or YIELD signs for road users at highway-LRT grade crossings should be limited to those crossings where the need and feasibility is established by an engineering study. Such crossings should have all of the following characteristics:*

- A. *The crossing roadways ~~should be~~ are secondary in character (such as a minor street with one lane in each direction, an alley, or a driveway) with low traffic volumes and low speed limits. The specific thresholds of traffic volumes and speed limits should be determined by the local agencies.*
- ~~B. LRT speeds do not exceed 25 mph.~~
- C. *The line of sight for an approaching LRT operator is adequate from a sufficient distance such that the operator can sound an audible signal and bring the LRT equipment to a stop before arriving at the crossing.*
- D. *The road user has sufficient sight distance at the stop line to permit the vehicle to cross the tracks before the arrival of the LRT equipment. A YIELD sign may be used where conditions are such that a stop is not always required.*
- E. *If at an intersection of two roadways, the intersection does not meet the warrants for a traffic control signal as provided in Chapter 4C.*
- F. *The LRT tracks are located such that highway vehicles are not likely to stop on the tracks while waiting to enter a cross street or highway.*

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**3) Revised Section 8B.06:**

**Standard:**

- 01 A Grade Crossing Advance Warning (W10-1) sign (see Figure 8B-4) shall be used on each highway in advance of every highway-rail grade crossing, ~~and every highway-LRT grade crossing in semi-exclusive alignments~~, except in the following circumstances:
  - A. On an approach to a grade crossing from a T-intersection with a parallel highway if the distance from the edge of the track to the edge of the parallel roadway is less than 100 feet and W10-3 signs are used on both approaches of the parallel highway;
  - B. On low-volume, low-speed highways crossing minor spurs or other tracks that are infrequently used and road users are directed by an authorized person on the ground to not enter the crossing at all times that approaching rail traffic is about to occupy the crossing;
  - C. In business or commercial areas where active grade crossing traffic control ~~devices~~ systems are in use; or
  - D. Where physical conditions do not permit even a partially effective display of the sign.
  - E. At LRT grade crossings, where crossbuck signs are not used,

~~A Grade Crossing Advanced Warning sign shall be used on each highway in advance of every highway-LRT grade crossing where a Crossbuck sign, either in a Crossbuck Assembly or in combination with flashing-light signals, is placed at the crossing.~~

**4) Deleted Section 8B.17:**

~~**Section 8B.17 LOOK Sign (R15-8)**~~

~~**Option:**~~

~~At grade crossings, the LOOK (R15-8) sign (see Figure 8B-1) may be mounted as a supplemental plaque on the Crossbuck support, or on a separate post in the immediate vicinity of the grade crossing on the railroad or LRT right-of-way.~~

~~**Guidance:**~~

~~A LOOK sign should not be mounted as a supplemental plaque on a Crossbuck Assembly that has a YIELD or STOP sign mounted on the same support as the Crossbuck.~~

**5) Revised Section 8B.27:**

**Standard:**

- 01 All grade crossing pavement markings shall be retroreflectorized white. All other markings shall be in accordance with Part 3.

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- 02 **On paved roadways, pavement markings in advance of a grade crossing shall consist of an X, the letters RR, a no-passing zone marking (on two-lane, two-way highways with center line markings in compliance with Section 3B.01), and certain transverse lines as shown in Figures 8B-6 and 8B-7.**
- 03 **Identical markings shall be placed in each approach lane on all paved approaches to highway-rail grade crossings where signals or automatic gates are located, and at all other highway-rail grade crossings where the posted or statutory highway speed is 40 mph or greater.**
- 04 **Pavement markings shall not be required at highway-rail grade crossings where the posted or statutory highway speed is less than 40 mph if an engineering study indicates that other installed devices provide suitable warning and control.**
- 05 **Pavement markings shall not be required at highway-rail grade crossings in urban areas if an engineering study indicates that other installed devices provide suitable warning and control.**
- 06 **Pavement markings shall be placed in each approach lane on all paved approaches to highway-LRT grade crossings where a Crossbuck sign, either in a Crossbuck Assembly or in combination with flashing-light signals with or without gates, is placed at the crossing.**

**DISCUSSION IN RESPONSE TO SPONSOR COMMENTS:**

VOTE: For:  
Opposed:  
Abstentions: