



# National Committee on Uniform Traffic Control Devices

13236 North 7th Street, Suite 4-259, Phoenix, Arizona 85022  
Phone/Text: 231-4-NCUTCD (231-462-8823)  
E-mail: secretary@ncutcd.org Website: https://ncutcd.org

Item Number: 25B-RR-01

## NCUTCD RECOMMENDATION FOR CHANGES TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

**COMMITTEE / TASK FORCE:** Railroad and Light Rail Transit Technical Committee  
**ITEM NUMBER:** 25B-RR-01  
**TOPIC:** Removal of Defined Length and Width of Retroreflective Strip  
**ORIGIN OF REQUEST:** Railroad and Light Rail TC  
**AFFECTED SECTIONS OF MUTCD:** 8D.03, Figure 8D-1

### DEVELOPMENT HISTORY:

Approved by RRLRT TC: .....06/12/2025, 01/07/2026  
Approved by NCUTCD Council: .....01/09/2026

*This is a recommended change to the MUTCD that has been approved by the NCUTCD Council. This proposal does not represent a revision of the MUTCD and does not constitute official MUTCD standards, guidance, or options. It will be submitted to FHWA for consideration for inclusion in a future MUTCD revision. The MUTCD can be revised only through the federal rulemaking process.*

### SUMMARY:

This proposal is for the change in section 8D.03 to provide for the requirement of the width of reflective material to include the entire gate arm and be determined by the width of the gate section rather than an arbitrary length.

### DISCUSSION:

The 2009 edition required that the gate arm be fully reflectorized. The 11th edition added a minimum width of 4 inches for the reflective material on the first 32 feet of the gate arm, which in most cases exceeded the actual width of part of the gate arm itself. A significant number of gate arms less than 32 feet have a reduced section at the tip which the requirement of 4-inch retroreflective tape material is not practical.

The common configuration of railroad gate arms includes a first section and a gate tip section which is less than 4 inches. Longer gate arms generally consist of three sections. The first section can accommodate the 4-inch reflective tape. The second section can accommodate 3-inch reflective tape. The gate tip section can accommodate 2-inch reflective tape.

In many locations the gate arms are designed for high wind locations, and the width of the gate arm is limited to prevent damage to gate mechanisms and vehicles during wind events. Increasing the width of the gate arm may also present a larger hazard in a crash scenario.

39 **RECOMMENDED MUTCD CHANGES:**

40 The following present the proposed changes to the current MUTCD within the context of the  
41 current MUTCD language. Proposed additions to the MUTCD are shown in blue underline and  
42 proposed deletions from the MUTCD are shown in ~~red-strikethrough~~. Changes previously  
43 approved by NCUTCD Council (but not yet adopted by FHWA) are shown in green double  
44 underline for additions and ~~green double strikethrough~~ for deletions. In some cases,  
45 background comments may be provided with the MUTCD text. These comments are indicated  
46 by bracketed white text in shaded green.

47  
48 **PART 8**

49 **RAILROAD AND LIGHT RAIL TRANSIT**

50  
51 **CHAPTER 8D. FLASHING-LIGHT SIGNALS, AUTOMATIC GATES, AND TRAFFIC**  
52 **CONTROL SIGNALS**

53  
54 **Section 8D.03 Automatic Gates**

55 Support:

56 01 An automatic gate is a traffic control device used in conjunction with flashing-light signals.

57 **Standard:**

58 02 The automatic gate (see Figure 8D-1) shall consist of a drive mechanism and a fully  
59 retroreflective red-and-white-striped gate arm with lights. When in the down position, the gate arm  
60 shall extend across the approaching lanes of highway traffic.

61 03 In the normal sequence of operation, unless constant warning time detection or other advanced  
62 system requires otherwise, the flashing-light signals and the lights on the gate arm (in its normal  
63 upright position) shall be activated immediately upon detection of approaching rail traffic. The gate  
64 arm shall start its downward motion not less than 3 seconds after the flashing-light signals start to  
65 operate, shall reach its horizontal position at least 5 seconds before the arrival of the rail traffic, and  
66 shall remain in the down position until the rail traffic completely clears the grade crossing.

67 04 When the rail traffic clears the grade crossing, and if no other rail traffic is detected, the gate  
68 arm shall ascend to its upright position, following which the flashing-light signals and the lights on  
69 the gate arm shall cease operation.

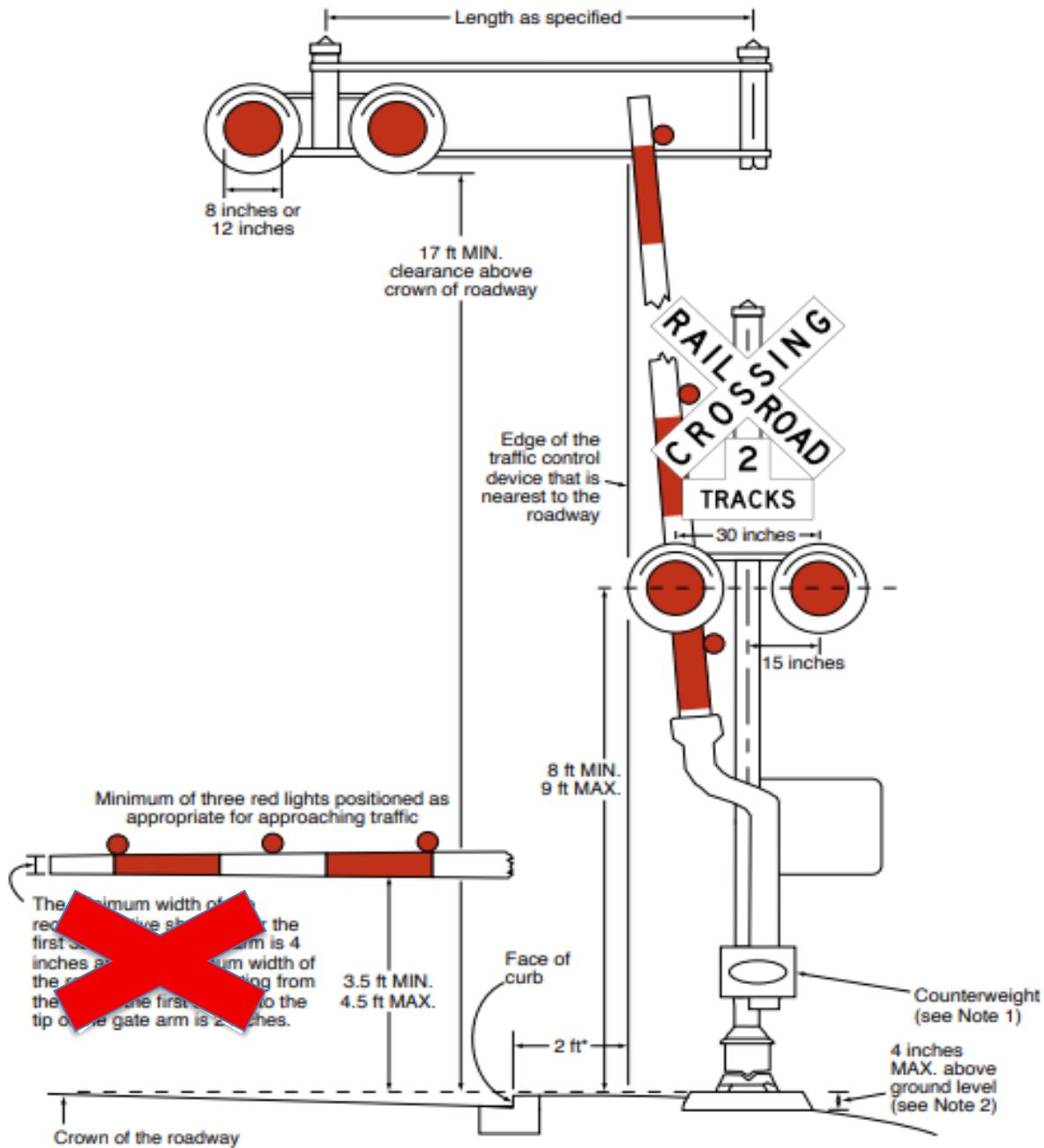
70 05 Gate arms shall be fully retroreflective on both sides along the entire length and shall have  
71 vertical stripes alternately red and white at 16-inch intervals measured horizontally. The height of  
72 the retroreflective sheeting when the automatic gate is in the down position shall be at least 4 inches.  
73 ~~The width (which becomes the height of the retroreflective sheeting when the automatic gate is in~~  
74 ~~the down position) of the retroreflective sheeting on the front of the gate arm shall be at least 4~~  
75 ~~inches for the first 32 feet of gate arm length measured from the center of the gate mast. The front of~~  
76 ~~the gate arm beyond 32 feet to the tip of the gate shall have retroreflective sheeting at least 2 inches~~  
77 ~~in width.~~

78 Option:

79 05a Where a section of the gate arm is less than 4 inches in height when the automatic gate is in the down  
80 position, the retroreflective sheeting on that portion of the gate arm may be reduced to the height of the  
81 gate arm, but at no point less than 2 inches.

82 Paragraphs 06-19 omitted - no changes

**Figure 8D-1. Composite Drawing of Active Traffic Control Devices for Grade Crossings Showing Clearances**



\*For locating this reference line on an approach that does not have a curb, see Section 8D.01.

**Notes:**

1. Where gates are located in the median, additional median width may be required to provide the minimum clearance for the counterweight supports.
2. The top of the signal foundation should be no more than 4 inches above the surface of the ground and should be at the same elevation as the crown of the roadway. Where site conditions would not allow this to be achieved, the shoulder side slope should be re-graded or the height of the signal post should be adjusted to meet the 17-foot vertical clearance requirement.