



# National Committee on Uniform Traffic Control Devices

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Item No.: 20B-RR-01

## NCUTCD Proposal for Changes to the Manual on Uniform Traffic Control Devices

**TECHNICAL COMMITTEE:** Railroad/Light Rail Transit Committee  
**ITEM NUMBER:** 20B-RR-01  
**TOPIC:** Grade Crossings Within or In Close Proximity to Circular  
Intersections  
**ORIGIN OF REQUEST:** Technical Committee  
**AFFECTED SECTIONS  
OF MUTCD:** Section 8C.12

### DEVELOPMENT HISTORY:

- Approved by Technical Committee: 06/19/2020
- Approved by NCUTCD Council: MM/DD/YYYY

*This is a proposal for recommended changes to the MUTCD that has been developed by a technical committee of the NCUTCD. The NCUTCD is distributing it to its sponsoring organizations for review and comment. Sponsor comments will be considered in revising the proposal prior to NCUTCD Council consideration. This proposal does not represent a revision of the MUTCD and does not constitute official MUTCD standards, guidance, or options. If approved by the NCUTCD Council, the recommended changes will be submitted to FHWA for consideration for inclusion in a future MUTCD revision. The MUTCD can be revised only by the FHWA through the federal rulemaking process.*

### SUMMARY:

Road authorities are increasingly using circular intersections as a traffic solution near grade crossings within the United States and elsewhere. As they are being considered, there should be a consistent understanding of how to evaluate all proposed intersections at or near railroad crossings.

### DISCUSSION:

The Technical Committee noticed that the language in the current Section 8C.09 paragraph 05 was quite different than what is contained within the guideline for Circular Intersections. The Technical Committee recommended that the language related to selection and design of all types of intersections should be consistent throughout Part 8. The purpose of these edits is to create consistent language within Part 8 and to provide better guidance.

### RECOMMENDED MUTCD CHANGES

36 The following present the proposed changes to the current MUTCD within the context of the  
37 current MUTCD language. Proposed additions to the MUTCD are shown in blue underline and  
38 proposed deletions from the MUTCD are shown in ~~red strikethrough~~. Changes previously  
39 approved by NCUTCD Council (but not yet adopted by FHWA) are shown in green double  
40 underline for additions and ~~green double strikethrough~~ for deletions. In some cases, background  
41 comments may be provided with the MUTCD text. These comments are indicated by [black font  
42 in brackets highlighted light blue].

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#### 44 **Section 8C.17. Grade Crossings Within or In Close Proximity to Circular Intersections**

45 Support:

46 01 At circular intersections, such as roundabouts and traffic circles, that include or are within  
47 close proximity to a grade crossing, a queue of vehicular traffic could cause highway vehicles to  
48 stop on the grade crossing.

49 **Standard:**

50 02 Where a grade crossing is located within the circulatory roadway of a circular  
51 intersections, ~~include or are~~ is within 200 feet of a circular intersection of a grade crossing  
52 or where queuing from a circular intersection may extend to the grade crossing, an  
53 engineering study shall be conducted ~~made to determine if queuing could impact the grade~~  
54 crossing. Factors to be considered shall, at a minimum, include traffic volumes, highway  
55 vehicle mix, highway vehicle and train approach speeds, frequency of trains, and queue  
56 lengths.

57 02a If traffic queues impact the grade crossing, provisions shall be made to keep highway  
58 traffic clear of, or clear highway traffic from the grade crossing prior to the arrival of rail  
59 traffic.

60 *Guidance:*

61 02b The Diagnostic Team should review the findings of the engineering study and determine the  
62 appropriate actions to keep highway traffic clear of, or clear traffic from the grade crossing  
63 prior to the arrival of rail traffic.

64 Support:

65 03 Among the actions that can be taken to keep highway traffic clear of, ~~the grade crossing~~  
66 clear of traffic or ~~to~~ clear traffic from the grade crossing prior to the arrival of rail traffic are the  
67 following:

- 68 A. Elimination of the circular intersection,
- 69 B. Geometric design revisions,
- 70 C. Grade crossing regulatory and warning devices,
- 71 D. Highway traffic signals,
- 72 E. Traffic metering devices,
- 73 F. Changeable message ~~Activated~~ signs, or
- 74 G. Queue detection systems, or
- 75 H. A combination of these or other actions.

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