

# National Committee on Uniform Traffic Control Devices

12615 West Keystone Drive \* Sun City West, AZ, 85375  
Telephone (623)680-9592 \* e-mail: ncutcd@aol.com

Attachment No. 10  
Item No.: 19A-TTC-02

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

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**TECHNICAL COMMITTEE:** Temporary Traffic Control Committee  
**ITEM NUMBER:** 19A-TTC-02  
**TOPIC:** Typical Applications for Roundabouts  
**ORIGIN OF REQUEST:** FHWA MUTCD Team  
Developed by John Leonard, TTC Chair, Dave Church, TTC Vice-Chair, and TTC Chapter 6-H Task Force  
**AFFECTED SECTIONS OF MUTCD:** Chapter 6H. Typical Applications  
New Notes Page and Figure 6H.XX, Flagging Operation on a Single-Lane Roundabout, TA-XX  
New Notes Page and Figure 6H.YY, Inside Lane Closure on a Multi-Lane Roundabout, TA-YY

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### DEVELOPMENT HISTORY:

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- Approved by TTC Technical Committee: 01/10/2019
  - Sponsor Comments Reviewed and Modifications Approved by TTC Technical Committee: 06/20/2019
  - Approved by Council: 06/21/2019

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*This is a proposal for recommended changes 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 by the FHWA through the federal rulemaking process.*

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### SUMMARY:

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The Temporary Traffic Control Technical Committee recommends two new Typical Application (TA's) to Part 6H involving work within the circulating lane(s) of single and multi-lane roundabouts: "Flagging Operation on a Single-Lane Roundabout" and "Inside Lane Closure on a Multi-Lane Roundabout".

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### DISCUSSION

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Modern roundabouts have been constructed in the United States since the early 1990's (approaching 30 years). The pavement within the roundabout intersection have needed regular maintenance treatments, including pavement replacement, since originally constructed. The current and previous editions of the MUTCD included no guidance in Part 6H (Typical

31 Applications) regarding the use of temporary traffic control for work within the circulating  
32 lane(s) of a modern roundabout. As a result, several states have developed their own typical  
33 applications to meet these needs including Virginia DOT, Pennsylvania DOT, Oregon DOT,  
34 Washington DOT, etc.

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36 Other industry resources for public agencies to utilize include ATSSA’s document “Temporary  
37 Traffic Control for Building and Maintaining Single and Multi-lane Roundabouts”, January 2013  
38 (<https://drive.google.com/file/d/0B6x5IpW9760GYIE2ZFd6TkZ1Mjg/view>) and the FHWA  
39 Work Zone Safety Grant Page through Wayne University (<http://workzone.eng.wayne.edu/>)  
40 which includes Temporary Traffic Control Plans (TTCP) software which will develop specific  
41 Typical Applications for intersection and roadway sections based on the specific work being  
42 performed as well as existing conditions. A total of 20 different TA’s can be generated through  
43 the Modern Roundabout Intersection component of the TTCP software.

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45 The Temporary Traffic Control Technical Committee has worked with the NCUTCD’s  
46 Roundabout Task Force to narrow down the number of TA’s available to two that would be most  
47 useful to practitioners “Flagging Operation on a Single-Lane Roundabout” and “Inside Lane  
48 Closure on a Multi-Lane Roundabout. These are consistent with TA’s in current use which were  
49 developed by the Virginia DOT, Pennsylvania DOT, Oregon DOT and Washington DOT.

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51 One comment provided by Janet Barlow of Accessible Design for the Blind, who is a frequent  
52 guest of the Temporary Traffic Control Technical Committee, was to include crosswalks on each  
53 approach to the roundabouts similar to what is shown in the in Chapter 3C. Roundabout  
54 Markings. The Temporary Traffic Control Technical Committee concurred with the  
55 recommendation and recommended to address this comment at the same time as addressing  
56 comments from Sponsors.

## 57 58 **RECOMMENDED MUTCD CHANGES**

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60 The following present the proposed changes to the current MUTCD within the context of the  
61 current MUTCD language. Proposed additions to the MUTCD are shown in blue underline and  
62 proposed deletions from the MUTCD are shown in ~~red strikethrough~~. Changes previously  
63 approved by NCUTCD Council (but not yet adopted by FHWA) are shown in green double  
64 underline for additions and ~~green double strikethrough~~ for deletions. In some cases, background  
65 comments may be provided with the MUTCD text. These comments are indicated by  
66 **[highlighted light blue in brackets]**.

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**CHAPTER 6H TYPICAL APPLICATIONS**  
**Notes for Figure 6H-XX – Typical Application XX**  
**Flagging Operation on a Single-Lane Roundabout**

**Standard:**

1. **Flaggers shall follow the procedures provided in Sections 6E.07 and 6E.08.**
2. **When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility. See Figure 6H-29. Crosswalk Closures and Pedestrian Detours (TA-29).**
3. **At night, flagger stations shall be illuminated, except in emergencies.**

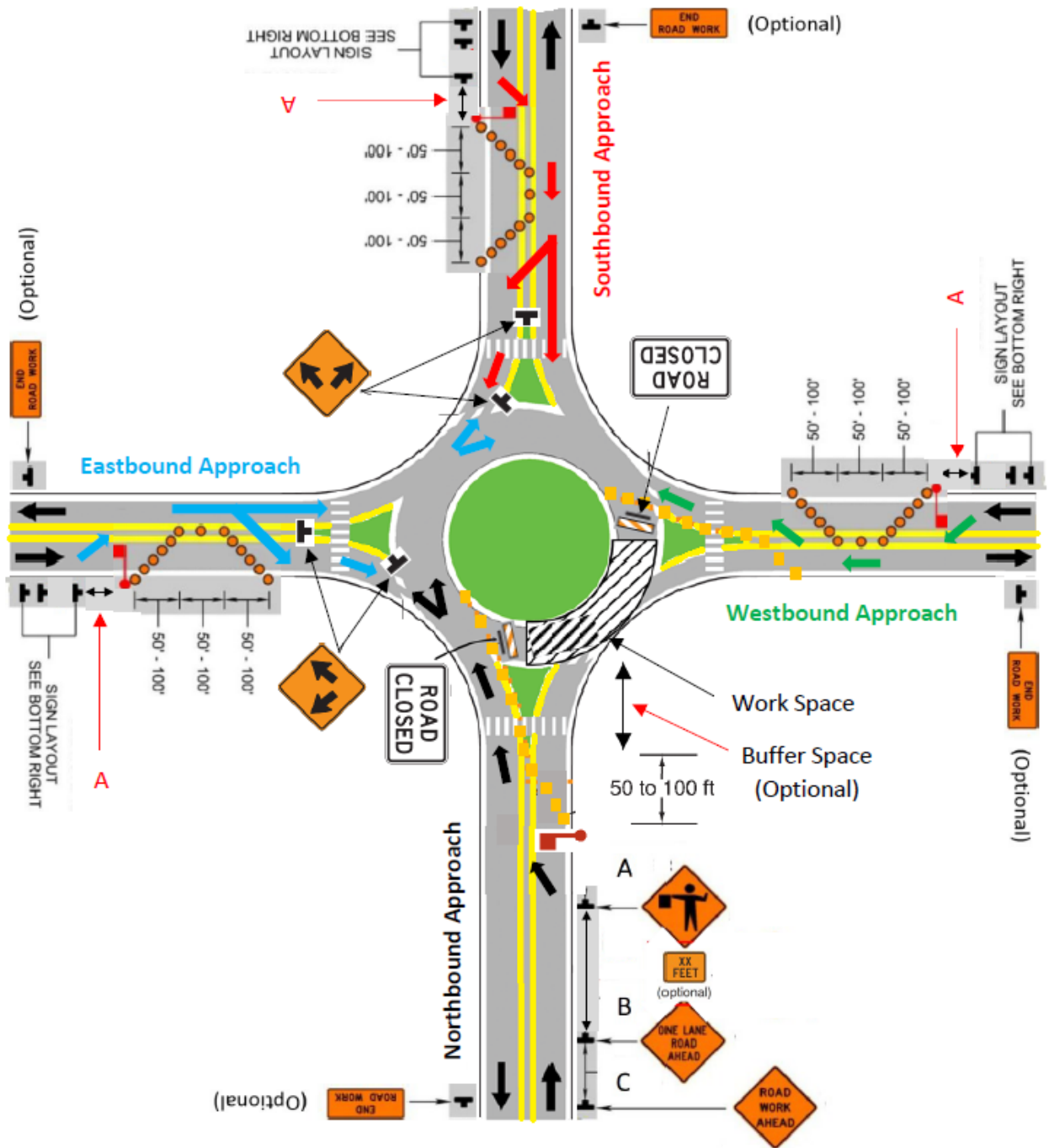
**Guidance:**

4. *Flaggers on each approach to the intersection should coordinate with each other so that traffic may proceed through the roundabout from only one entry point at any one time.*
5. *When designing the temporary traffic control and installing the channelizing devices for work activities at roundabouts, accommodations for the turning radius of wider heavy commercial vehicles should be considered.*
6. *Since the geometrics of the roundabout will temporarily be altered, consideration should be given to establishing a truck detour for the duration of the project.*
7. *For intermediate or long term work, the roundabout should be closed if traffic cannot be accommodated, and traffic detoured with appropriate detour signing provided. See Figure 6H-8, Road Closure with an Off-Site Detour (TA-8).*
8. *Conflicting pavement markings should be removed for long-term projects. For short-term and intermediate-term projects where this is not practical, the channelizing devices in the area where the pavement markings conflict should be placed at a maximum spacing of 1/2 S feet where S is the speed in mph. Temporary markings should be installed where needed.*
9. *When used, the BE PREPARED TO STOP sign should be located between the Flagger sign and the ONE LANE ROAD sign.*
10. *The buffer space should be extended so that the two-way traffic taper is placed before a horizontal (or crest vertical) curve to provide adequate sight distance for the flagger and a queue of stopped vehicles.*
11. *Care should be exercised when establishing the limits of the work zone to ensure adequate sight distance in advance of the transition.*

**Option:**

12. *Periodic adjustments to the channelizing devices may be allowed in an active work zone to accommodate the turning movements of tractor trailer vehicles and other large vehicles.*
13. *On the approaches where traffic flow will be split, two pilot vehicles may be used to guide traffic through the roundabout.*

**Figure 6H-XX. Flagging Operation on a Single-Lane Roundabout (TA-XX)**



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Notes for Figure 6H-YY --Typical Application YY  
Inside Lane Closure on a Multi-Lane Roundabout

Standard:

1. When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility. See Figure 6H-29. Crosswalk Closures and Pedestrian Detours (TA-29).

Guidance:

2. Care should be exercised when establishing the limits of the work zone to sight distance in advance of the transition.
3. When designing the temporary traffic control and installing the channelizing devices for work activities at roundabouts, accommodations for the turning radius of wider heavy commercial vehicles should be considered.
4. Since the geometrics of the roundabout will temporarily be altered, consideration should be given to establishing a truck detour for the duration of the project.
5. For intermediate or long term work, the roundabout should be closed if traffic cannot be accommodated, and traffic detoured with appropriate detour signing provided. See Figure 6H-8, Road Closure with an Off-Site Detour (TA-8).
6. Conflicting pavement markings should be removed for long-term projects. For short-term and intermediate-term projects where this is not practical, the channelizing devices in the area where the pavement markings conflict should be placed at a maximum spacing of  $1/2 S$  feet where  $S$  is the speed in mph. Temporary markings should be installed where needed.

Option:

7. A portable changeable message sign may be utilized as part of the temporary traffic control plan to provide clear guidance to motorist on all approaches of the roundabout.
8. On a multi-lane approach, either lane may be closed.

**Figure 6H-YY. Inside Lane Closure on a Multi-Lane Roundabout (TA-YY)**

