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 No.: 25A-PED-01

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

COMMITTEE / TASK FORCE:	Pedestrian Joint Task Force
ITEM NUMBER:	25A-PED-01
TOPIC:	TWLTL at Marked Crosswalks
ORIGIN OF REQUEST:	Pedestrian Joint Task Force Working Group:
AFFECTED SECTIONS OF MUTCD:	3B.05, 3C.02

DEVELOPMENT HISTORY:

Approved by Pedestrian JTF:	01/08/2025, 05/22/2025
Approved by MTC:	06/11/2025
Approved by NCUTCD Council:	06/12/2025

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 modifies Section 3B.05 Pavement Markings for Two-Way Left-Turn Lanes (TWLTL) and 3C.02 Applications of Crosswalk Markings to treat marked crosswalks similar to intersections and grade crossings. Guidance is added to discontinue continuous TWLTL where marked crosswalks are present. Based upon sponsor comments, proposed changes to Section 3B.05 to address TWLTL guidance clarifications will be developed as a separate proposed change.

DISCUSSION:
Pedestrian crosswalks that traverse two-way left turn lanes (TWLTL) present complexities for road users. Unlike a left turn lane, the conflict for pedestrians can come from either direction in a TWLTL.

This proposal revises Sections 3B.05 Markings for Two-Way Left-Turn Lanes and 3C.02 Crosswalk Markings. The new guidance language builds off the existing concept in the MUTCD which ends TWLTLs at intersections. It is also consistent with existing language in Section 8A.06 Uniform Provisions, paragraph 5 which provides guidance on discontinuing two-way left-turn lanes (TWLTLs) in the immediate vicinity of grade crossings:

"*If the roadway at a grade crossing includes a two-way left-turn lane (see Section 3B.05), the two-way left turn lane should be discontinued in the immediate vicinity of the grade crossing by installing median islands, by designating the lane for left turns in one direction only, or by installing yellow diagonal markings in the lane (see Figure 3B-5). If yellow diagonal markings are used, the use of channelizing devices (see Section 3I.01), such as supplemental tubular markers, should also be considered.*"

This same application can also be useful for pedestrians crossing a roadway that is 3 or more lanes wide and looking for adequate gaps. The TWLTL creates ambiguity as vehicles may approach and enter the lane and conflict area from either direction.

The opportunity to integrate raised medians to enhance pedestrian crossings on roadways with TWLTL has been researched. FHWA-RD-01-100 outlines the benefits of raised median as a pedestrian improvement, particularly for lower vehicle volume and speed. Research in the Transportation Research Forum notes raised medians provide a pedestrian refuge area, reduce head-on crashes, and reduce the number of conflicting maneuvers at driveways.

To address this change, a guidance statement is added to Section 3B.05. References to this section are added to the crosswalk marking chapter Section 3C.02. Based upon sponsor comments, other paragraph and Figure 3B-7 changes were removed from this proposed change and will become subject of a future comprehensive proposal regarding TWLTLs.

REFERENCES:

Zegeer, C., Stewart, R., Huang, H., Lagerwey, P., Feaganes, J. and Campbell, B., *Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations*, FHWA-HRT-04-100, Federal Highway Administration, Washington, DC, September 2005, Figures 18 & 19, Table 11.

Alluri, P., Gan, A., and Haleem, K., *Safety Impacts of Converting Two-Way Left-Turn Lanes to Raised Medians and Associated Design Concern*, Transportation Research Forum, Volume 55, Number 2, Paris, TX, 2016.

RECOMMENDED MUTCD CHANGES:

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

PART 3
MARKINGS

CHAPTER 3B. PAVEMENT AND CURB MARKINGS

Section 3B.05 Pavement Markings for Two-Way Left-Turn Lanes

Standard:

01 **If a two-way left-turn lane that is never operated as a reversible lane is used, the lane line pavement markings on each side of the two-way left-turn lane shall consist of a normal width broken yellow line and a normal width solid yellow line to delineate the edges of a lane that can be used by traffic in either direction as part of a left-turn maneuver. These markings shall be placed with the broken line toward the two-way left-turn lane and the solid line toward the adjacent traffic lane as shown in Figure 3B-7.**

Guidance:

02 White two-way left-turn lane-use arrows should be used at or just downstream from the beginning of a two way left-turn lane.

Option:

03 Additional two-way left-turn lane-use arrow markings may be used at other locations along a two-way left-turn lane where engineering judgment determines that such additional markings are needed to emphasize the proper use of the lane.

Standard:

04 **A single-direction lane-use arrow shall not be used in a lane bordered on both sides by yellow two-way left-turn lane longitudinal markings.**

Guidance:

05 *Signs should be used in conjunction with the two-way left-turn markings (see Section 2B.32).*

05a *A two-way left turn lane should be discontinued at a marked crosswalk.*

06 *Two-way left-turn lane markings should not extend to intersections (see definition in Section 1C.02) ~~or marked crosswalks~~.*

Option:

07 Two-way left-turn lanes may be transitioned to mandatory left-turn lanes as shown in Figure 3B-7 or painted median islands where they approach an intersection.

Support:

08 Section 8A.06 contains guidance information for discontinuing a two-way left-turn lane in the immediate vicinity of a highway-rail or highway-LRT grade crossing.

CHAPTER 3C. CROSSWALK MARKINGS

Section 3C.02 Applications of Crosswalk Markings

Guidance:

01 *At locations controlled by traffic control signals, crosswalk markings should be installed.*

Option:

02 Crosswalk markings may be omitted if engineering judgment indicates they are not needed to direct pedestrians to the proper crossing path(s).

Guidance:

03 *On approaches controlled by STOP or YIELD signs, crosswalk markings should be installed where engineering judgment indicates they are needed to direct pedestrians to the proper crossing path(s).*

04 *At uncontrolled approaches, an engineering study should be performed before a marked crosswalk is installed. The following criteria should be considered:*

- *A. Total number of approach lanes,*
- *B. The presence of a median or a two-way left-turn lane,*
- *C. The distance from adjacent signalized intersections or other controlled crossings,*
- *D. Projected pedestrian and bicyclist volumes,*
- *E. Pedestrian and bicyclist paths of travel,*
- *F. Pedestrian ages and abilities,*
- *G. Pedestrian and bicyclist delays,*
- *H. Location or frequency of public transit stops,*
- *I. Average daily traffic (ADT),*
- *J. Speed limit or the 85th-percentile speed,*
- *K. The horizontal and vertical geometry of the crossing location,*
- *L. The possible consolidation of multiple crossing points,*
- *M. The availability of street lighting, and*
- *N. Other appropriate factors.*

Standard:

05 **Crosswalk markings shall be provided at legally established crosswalks at non-intersection locations.**

Guidance:

06 *The installation of other traffic control devices and other measures designed to reduce traffic speeds, shorten crossing distances, enhance driver awareness of the crossing, and/or provide active warning of pedestrian presence, should be considered in addition to a new marked crosswalk and signs across an uncontrolled roadway where any of the following conditions exist:*

- *A. The roadway has four or more lanes of travel without a raised median or pedestrian refuge island and an ADT of 12,000 vehicles per day or greater; or*
- *B. The roadway has four or more lanes of travel with a raised median or pedestrian refuge island and an ADT of 15,000 vehicles per day or greater, or*
- *C. The posted speed limit is 40 mph or greater, or*
- *D. A crash study reveals that multiple-threat crashes are the predominant crash type on a multi-lane approach, or*
- *E. When adequate visibility cannot be provided by parking prohibitions.*

Support:

06a Section 3B.05 contains information on discontinuing a two-way left-turn lane marking at marked crosswalks.

07 Chapter 4J contains information on pedestrian hybrid beacons.

08 Chapter 4L contains information on rectangular rapid flashing beacons.

09 Section 4S.03 contains information regarding Warning Beacons to provide active warning of a pedestrian's presence.

10 Section 4U.02 contains information regarding In-Roadway Warning Lights at crosswalks.

11 Chapter 7C contains information on school crosswalks.

12 Chapter 7D contains information regarding school crossing supervision.

13 Section 9E.13 contains information on crosswalk markings for shared-use path crossings.