



National Committee on Uniform Traffic Control Devices

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ATTACHMENT NO. 8

Item No.: 16B-BIK-01

(BTC version 2.4 - final {verified})

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

TECHNICAL COMMITTEE: Bicycle Technical Committee
ITEM NUMBER: 16B-BIK-01
TOPIC: Shared Lane Markings - Added Technical Guidance
ORIGIN OF REQUEST: Bicycle Technical Committee
**AFFECTED SECTIONS
OF MUTCD:** 9C.07 Shared Lane Markings

DEVELOPMENT HISTORY:

- Approved by Bicycle Technical Committee: 06/08/2016
- Concurrence by Markings Technical Committee: 06/08/2016
- Approved by NCUTCD Council: 01/06/2017

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 through the federal rulemaking process.

SUMMARY:

The purpose of these recommended changes is to provide updated Standards, Guidance and Options for the placement of Shared Lane Markings.

DISCUSSION

The Shared Lane Marking was introduced in the 2009 Manual. Since then, the marking has been installed on many roadways throughout the United States. Current Guidance recommends the marking be placed at least 11 feet from the face of curb or pavement edge on roadways with on-street parallel parking and 4 feet from face of curb or pavement edge on roadways without parking. As noted in Chapter 14 of the ITE *Traffic Control Devices Handbook, 2nd Edition*, the 11 feet was determined from an experimental study in San Francisco consisting of vehicle width and open door extent (9.5 feet), space from the curb or pavement edge (1 foot), clearance between bicycle handlebar (0.5 feet) and distance to center of bicycle (1 foot).

Since 2009, experience has shown that:

- The combination of vehicle width and door extent, space from the curb or edge of pavement to the parked vehicle, and shy distance to a bicycle in many cases totals more than 11 feet.

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- At typical bicyclist speeds, the clearance distance of 0.5 feet from bicycle handlebar to open car door may be too close to avoid startling the bicyclist, resulting in an unintentional evasive maneuver or swerve to avoid an open car door.
 - The Uniform Vehicle Code and traffic laws in nearly all states note that bicyclists in a narrow lane may legally occupy the full lane to discourage unsafe close passing by motor vehicles, or to avoid hazardous conditions along the lane edge or when traveling at the same speed as other vehicles in that lane. Also, the 2009 Manual introduced an Option to use the Bicycle May Use Full Lane sign (R4-11) in addition to or instead of the Shared Lane Marking. If the Shared Lane Marking is used with the R4-11, the recommended offsets of 11 feet and 4 feet could place the marking at the right edge of a narrow lane. This placement at the edge of the travel lane conflicts with the intended meaning of using the full lane as conveyed by the R4-11 sign.

52 For these reasons, the Bicycle Technical Committee proposes the following
53 recommended changes.

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55 **RECOMMENDED MUTCD CHANGES**

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57 The following presents the proposed changes to the current MUTCD within the context of the
58 current MUTCD language. Proposed additions to the MUTCD are shown in blue underline and
59 proposed deletions from the MUTCD are shown in ~~red strikethrough~~.

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61 **PART 9. TRAFFIC CONTROL FOR BICYCLE FACILITIES**

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63 **CHAPTER 9C. MARKINGS**

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65 **Section 9C.07 Shared Lane Markings**

66 Option:

67 01 The Shared Lane Marking shown in Figure 9C.09 may be used to:

- 68 A. Assist bicyclists with lateral positioning in a shared lane with on-street parallel parking
69 in order to reduce the chance of a bicyclist's impacting the open door of a parked
70 vehicle,
- 71 B. Assist bicyclists with lateral positioning in lanes that are too narrow for a motor vehicle
72 and a bicycle to travel side by side within the same traffic lane,
- 73 C. Alert road users of the lateral location bicyclists are likely to occupy within the traveled
74 way,
- 75 D. Encourage safe passing of bicyclists by motorists, and
- 76 E. Reduce the incidence of wrong-way bicycling.

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78 01a Green colored pavement may be applied as a background underlay to enhance the
79 conspicuity of Shared Lane Markings.

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81 Guidance:

82 02 *The Shared Lane Marking should not be placed on roadways that have a speed limit above*
83 *35 mph.*

84 **Standard:**
85 ~~03 Shared Lane Markings shall not be used on shoulders or in designated bicycle lanes.~~

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87 *Guidance:*

88 04 *If used in a shared lane with on-street parallel parking, Shared Lane Markings should be*
89 *placed so that the centers of the markings are ~~at least 11~~ a minimum of 12 feet from the face of the*
90 *curb, or from the edge of the pavement where there is no curb.*

91 05 *If used on a street without on-street parking that has an outside travel lane that is less than*
92 *14 feet wide, ~~the centers of the Shared Lane Marking should be at least~~ Shared Lane Markings*
93 *should be placed so that the centers of the markings are a minimum of 4 feet from the face of the*
94 *curb-or edge line, or from the edge of the pavement where there is no curb.-or edge line.*

95 06 *If used in non-intersection locations; the Shared Lane Marking should be spaced at*
96 *intervals not less than 50 feet and not greater than 250 feet. ~~placed immediately after an~~*
97 *~~intersection and spaced at intervals not greater than 250 feet thereafter.~~*

98 06a *If used, the first Shared Lane Marking downstream from an intersection should be placed*
99 *no more than 50 feet from the intersection.*

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101 *Option:*

102 06b *Shared Lane Markings may be placed so that the centers of the markings are in the center of*
103 *the travel lane where travel lanes are too narrow for bicyclists and motor vehicles to operate side*
104 *by side.*

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106 07 *Section 9B.06 describes a Bicycles May use Full Lane sign that may be used in addition to*
107 *or instead of the Shared Lane Marking to inform road users that bicyclists might occupy the*
108 *travel lane.*

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110 *Guidance:*

111 07a *If the Bicycles May Use Full Lane sign (R4-11) is used as an addition to Shared Lane*
112 *Marking, the marking should be placed so that the centers of the markings are in the*
113 *approximate center of the travel lane.*

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115 **Standard:**

116 07b **Shared Lane Markings shall not be used in:**

117 **A. Shoulders**

118 **B. Bicycle lanes (including buffered or separated bicycle lanes)**

119 **C. Shared-use paths**

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Figure 9C-xx. Examples of Shared Lane Markings



a. Without background underlay



b. With background underlay

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