National Committee on
Uniform Traffic Control Devices

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ATTACHMENT NO. 15

Markings No. 2

TECHNICAL COMMITTEE: Markings

TOPIC: Definition of a wide vs a normal line

TASK FORCE: Mark Nahra (Chair), Rob Dingess, Kevin Goforth, Eric Hedman, Jim Kellenberger, Brian Walsh and Kathy Zahul

STATUS: Approved by MTC on January 9, 2014
Distributed as sponsor ballot in Spring 2014
Reviewed by Task Force on June 19, 2014
Approved by MTC on June 26, 2014
Approved by Council on June 28, 2014

ORIGIN OF REQUEST: Joint task force between RW Signs and Markings Committee focused on Combining Pavement Marking Applications with Signing for Horizontal Curves. Language changes proposed for 3A.06 coordinated with approved RW/Joint Task force language changes to 2C.06 that were approved at the June 2013 meeting.

AFFECTED PORTIONS OF MUTCD: Section 3A.06 Functions, Widths, and Patterns of Longitudinal Pavement Markings

Summary:

A joint task force consisting of members of the Regulatory Warning Sign Technical Committee and the Markings Technical Committee was assembled after the January 2012 meeting to review section 2C.06 and related MUTCD sections in light of recent safety research that recommended safety enhancements to reduce crash frequency and severity in horizontal curves on two lane rural roads. Safety research (Safety Effects of Wider Edge Lines on Rural, Two-lane Highways, Park, et al, 2012) noted consistent findings lending support to the positive safety effects of wider edge lines installed on rural, two-lane highways. Applying the research, the task force recommended that by combining signage with wider pavement markings, changes to table 2C.05 could be made that adjusted recommendations and requirements by offering options combining pavement markings with signing that increased guidance for the vehicle operators in horizontal curves. At the June, 2013 NCUTCD meeting, the National Committee approved language changes to 2C.06 Horizontal Alignment Warning Signs.

The Markings Technical Committee at the same January 2012 NCUTCD meeting formed a task force to review whether there should be clarification of the definition of wide pavement markings. The wide line task force recommended changes in coordination with the joint RW/Markings task force. The proposed language changes shown herein clarify the definition of a wide line and coordinates guidance language between the markings section 3A.06 and previously approved Regulatory Warning Signs section 2C.06.

Recommended Changes to the MUTCD:

The proposed changes to Section 3A.06 Functions, Widths, and Patterns of Longitudinal Pavement Markings, are shown in the following pages. **Additions** are indicated by blue underline, ~~deletions~~ are indicated by red single strikethrough. Proposed changes based on sponsor comments are highlighted in [yellow]. Explanations on why changes in the language are recommended are presented in brackets immediately after the section title and highlighted in [green].

CHAPTER 3A. GENERAL

Section 3A.06 Functions, Widths, and Patterns of Longitudinal Pavement Markings

Standard:

01 **The general functions of longitudinal lines shall be:**

A. A double line indicates maximum or special restrictions,

B. A solid line discourages or prohibits crossing (depending on the specific application),

C. A broken line indicates a permissive condition, and

D. A dotted line provides guidance or warning of a downstream change in lane function.

02 **The widths and patterns of longitudinal lines shall be as follows:**

A. Normal line— 4 to 6 inches wide.

B. Wide line—8 inches or more in width, ~~at least 1.5 times the width of a normal line.~~

C. Double line—two parallel lines separated by a discernible space.

D. Broken line—normal line segments separated by gaps.

E. Dotted line—noticeably shorter line segments separated by shorter gaps than used for a broken line. The width of a dotted line extension shall be at least the same as the width of the line it extends.

Support:

03 The width of the line indicates the degree of emphasis.

Guidance:

04 *Broken lines should consist of 10-foot line segments and 30-foot gaps, or dimensions in a similar ratio of line segments to gaps as appropriate for traffic speeds and need for delineation.*

~~Support:~~

~~05 Patterns for dotted lines depend on the application (see Sections 3B.04 and 3B.08.)~~

~~*Guidance:*~~

06 *A dotted line used as a lane line (see Section 3B.08) should consist of 3-foot line segments and 9-foot gaps. A dotted line for extensions within an intersection, ~~or~~ taper area, or interchange ramp area (see Section 3B.12) should consist of 2-foot line segments and 2- to 6-foot gaps*

07 ~~Support:~~

~~The marking applications identified below have been shown to be beneficial when applied in combination with horizontal alignment warning signs to enhance safety around curves and areas with run off the road accident history:~~

~~A. Wide Edge lines,~~

~~B. Delineators,~~

~~C. Raised Retroreflective Pavement Markers,~~

~~D. Longitudinal Rumble Strips or Stripes,~~

~~E. Speed Reduction Markings,~~

~~F. Profiled Pavement Markings,~~

~~G. or other treatments with demonstrated safety benefits in reducing horizontal curve crashes such as Safety Edge, High Friction Surface Treatments~~

Lines 28 – 39 is similar language to what was approved at the June 2013 NCUTCD Meeting for Section 2C.06 Horizontal Alignment Warning Signs. FHWA also proposes to re-organize various sections of Chapter 3A so that Lines 2 – 27 will become a revised Section 3A.04, renamed as "Functions, Widths, and Patterns of Longitudinal Pavement Markings". Lines 28 – 39 would become part of a revised Section 3A.06, "Applications of Markings, Delineation, and Rumble Strips in Combination with Horizontal Alignment Warning Signs".