ATTACHMENT NO. 2

National Committee on Uniform Traffic Control Devices

Edit Committee Recommendations
Approved by the NCUTCD Council June 20, 2008

TECHNICAL COMMITTEE: NCUTCD Edit Committee
TOPIC Introduction & Part 1A,
FHWA NPA 1/02/08
STATUS/DATE OF ACTION: 03/14/2008, 03/18/2008,
TECH COMM DRAFTS 05/30/2008
TECH COMM APPROVAL: June NCUTCD Meeting
TRANSMITTED TO SPONSORS:
COUNCIL APPROVAL:
ORIGIN OF REQUEST: Task Force
MUTCD SECTIONS: Introduction, Part 1A, Figures 1A-1 & 1A-2
Tables I-1, 1A-1, 1A-2, & 1A-3

SUMMARY: The FHWA published a Notice of Rulemaking in the Federal Register on January 2, 2008, covering the MUTCD Revisions for the 2009 Manual. The Edit Committee has reviewed this proposed Part of the NPA providing the following comments on behalf of the National Committee on Uniform Traffic Control Devices.

FHWA – Presented as the NPA with Deletions, Insertions & Comments
Deletion = Red strike-through
Insertion = Blue Underline
Comments = Green Highlight

Edit Committee Comments and Recommendations
Retain Existing MUTCD Text = Red Without Strike through
Deletion of NPA Text = Blue Strike-Through
Revision to NPA = Yellow Highlighting
Reason for NPA Revisions = Black with Yellow Highlighting
Comments on Changes to be Considered = Purple

The FHWA has made a number of editorial changes throughout the NPA to improve the text of the Manual. The Edit Committee suggest that the addition of left-hand and right-hand to replace left edge or left side and right edge or side is an unnecessary revision to the MUTCD that is not needed and represents no area
of confusion. Therefore, the Edit Committee recommends that this editorial revision not be implemented.

INTRODUCTION

All of the text-related items on the “list of known errors” in the 2003 edition were incorporated. They are considered editorial unless otherwise noted.

Cross references to Chapters, Sections, Figures, and Tables have been updated as necessary to maintain accuracy.

The number or letter designations for items in listings within paragraphs have been updated as necessary to maintain an accurate sequence.

The word “centerline” was replaced by the phrase “center line” in 56 places in the 2003 MUTCD text in order to be consistent with “edge line.”

The title of the “Standard Highway Signs and Markings” book was revised in 34 places in the 2003 MUTCD text to reflect the updated name of the book.

The Manual on Uniform Traffic Control Devices (MUTCD) is approved by the Federal Highway Administrator as the National Standard in accordance with Title 23 U.S. Code, Sections 109(d), 114(a), 217, 315, and 402(a), 23 CFR 655, and 49 CFR 1.48(b)(8), 1.48(b)(33), and 1.48(c)(2).

Addresses for Publications Referenced in the MUTCD

AAA
1000 AAA Drive
Heathrow, FL 32746
www.aaa.biz added to provide a complete list of addresses associated with the documents listed in Section 1A.11

American Association of State Highway and Transportation Officials (AASHTO)
444 North Capitol Street, NW, Suite 249
Washington, DC 20001
www.transportation.org

American National Standards Institute (ANSI)
1819 L Street, NW, 6th Floor
Washington, DC 20036
www.ansi.org added to provide a complete list of addresses associated with the documents listed in Section 1A.11

American Railway Engineering and Maintenance-of-Way Association (AREMA)
8201 Corporate Drive, Suite 1125
Landover, MD 20785-2230
www.arema.org

Federal Highway Administration Report Center
Facsimile number: 301.577.1421
report.center@fhwa.dot.gov

Illuminating Engineering Society (IES)
120 Wall Street, Floor 17
New York, NY 10005
www.iesna.org

Institute of Makers of Explosives
1120 19th Street, NW, Suite 310
Washington, DC 20036-3605
www.ime.org

Institute of Transportation Engineers (ITE)
1099 14th Street, NW, Suite 300 West
Washington, DC 20005-3438
www.ite.org

International Organization for Standards
c/o Mr. Gerard Kuso
Austrian Standards Institute
Heinestraße 38
Postfach 130
A-1021
Wien, Austria
www.iso.ch

ISEA—The International Safety Equipment Association (ISEA) edited to increase accuracy
1901 North Moore Street, Suite 808
Arlington, VA 22209
www.safetyequipment.org

National Committee on Uniform Traffic Laws and Ordinances (NCUTLO)
107 South West Street, Suite 110
Alexandria, VA 22314
www.ncutlo.org

Occupational Safety and Health Administration (OSHA)
U.S. Department of Labor
200 Constitution Avenue, NW
Washington, DC 20210
www.osha.gov

Transportation Research Board (TRB)
The National Academies
2101 Constitution Avenue, NW
Washington, DC 20418
www.nas.edu/trb

U.S. Architectural and Transportation Barriers Compliance Board (The U.S. Access Board)
1331 F Street, NW, Suite 1000
Washington, DC 20004-1111
Acknowledgments

The Federal Highway Administration gratefully acknowledges the valuable assistance that it received from the National Committee on Uniform Traffic Control Devices and its over 200 voluntary members in the development of this Manual.
MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

INTRODUCTION

Standard:

Traffic control devices shall be defined as all signs, signals, markings, and other devices used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, pedestrian facility, or bikeway, public facility, or private property open to public travel by authority of a public agency or official having jurisdiction.

The Manual on Uniform Traffic Control Devices (MUTCD) is incorporated by reference in 23 Code of Federal Regulations (CFR), Part 655, Subpart F and shall be recognized as the national standard for all traffic control devices installed on any street, highway, or bicycle trail bikeway, public facility, or private property open to public travel in accordance with 23 U.S.C. 109(d) and 402(a). The policies and procedures of the Federal Highway Administration (FHWA) to obtain basic uniformity of traffic control devices shall be as described in 23 CFR 655, Subpart F.

In accordance with 23 CFR 655.603(a), for the purposes of applicability of the MUTCD, private property open to public travel shall include toll roads and roads within shopping centers, parking lot areas, airports, sports arenas, and other similar business and/or recreation facilities that are privately owned, but where the public is allowed to travel without access restrictions. Private gated properties where public access is restricted and private highway-rail grade crossings shall not be considered to be private property open to public travel.

Any traffic control device design or application provision contained in this Manual shall be considered to be in the public domain. Traffic control devices contained in this Manual shall not be protected by a patent, trademark, or copyright, except for the Interstate Shield and any other items owned by FHWA.

Support:

The need for uniform standards was recognized long ago. The American Association of State Highway Officials (AASHO), now known as the American Association of State Highway and Transportation Officials (AASHTO), published a manual for rural highways in 1927, and the National Conference on Street and Highway Safety (NCSHS) published a manual for urban streets in 1930. In the early years, the necessity for unification of the standards applicable to the different classes of road and street systems was obvious. To meet this need, a joint committee of AASHO and NCSHS developed and published the original edition of this Manual on Uniform Traffic Control Devices (MUTCD) in 1935. That committee, now called the National Committee on Uniform Traffic Control Devices (NCUTCD), though changed from time to time in name, organization, and personnel, has been in continuous existence and has contributed to periodic revisions of this Manual. The FHWA has administered the MUTCD since the 1971 edition. The FHWA and its predecessor organizations have participated in the development and publishing of the previous editions. There were eight nine edited to increase accuracy previous editions of the MUTCD, and several of those editions were revised one or more times. Table I-1 traces the evolution of the MUTCD, including the two manuals developed by AASHO and NCSHS.

Standard:

The U.S. Secretary of Transportation, under authority granted by the Highway Safety Act of 1966, decreed that traffic control devices on all streets and highways open to public travel in accordance with 23 U.S.C. 109(d) and 402(a) in each State shall be in substantial conformance with the Standards issued or endorsed by the FHWA.

Support:
23 CFR 655.603 adopts the MUTCD as the national standard for any street, highway, or bicycle trail open to public travel in accordance with 23 U.S.C. 109(d) and 402(a). The “Uniform Vehicle Code (UVC)” is one of the publications referenced in the MUTCD. The UVC contains a model set of motor vehicle codes and traffic laws for use throughout the United States.

Guidance:

The States are encouraged to should adopt Section 15-116 of the UVC, which states that, “No person shall install or maintain in any area of private property used by the public any sign, signal, marking, or other device intended to regulate, warn, or guide traffic unless it conforms with the State manual and specifications adopted under Section 15-104.”

Support:

The Standard, Guidance, Option, and Support material described in this edition of the MUTCD provide the transportation professional with the information needed to make appropriate decisions regarding the use of traffic control devices on streets and highways. The material in this edition is organized to better differentiate between Standards that must be satisfied for the particular circumstances of a situation, Guidances that should be followed for the particular circumstances of a situation, and Options that may be applicable for the particular circumstances of a situation.

Throughout this Manual the headings Standard, Guidance, Option, and Support are used to classify the nature of the text that follows. Figures, tables, and illustrations, or certain items contained therein, supplement the text and might constitute a Standard, Guidance, Option, or Support. The user needs to refer to the appropriate text to classify the nature of the figure, table, or illustration, or certain item contained therein.

Standard:

When used in this Manual, the text headings shall be defined as follows:

1. Standard—a statement of required, mandatory, or specifically prohibitive practice regarding a traffic control device. All Standard statements are labeled, and the text appears in bold type. The verb “shall” is typically used. The verb “should” is not used in Standard statements. Standard statements are sometimes modified by Options.

2. Guidance—a statement of recommended, but not mandatory, practice in typical situations, with deviations allowed if engineering judgment or engineering study indicates the deviation to be appropriate. All Guidance statements are labeled, and the text appears in unbold italics type. The verb “should” is typically used. The verb “shall” is not used in Guidance statements. Guidance statements are sometimes modified by Options.

Reason: The NCUTCD previously recommended that the Guidance Statements be printed in “Italics” or other distinctive font to distinguish the Guidance Statements from Option and Support Statements. That recommendation is reiterated for the 2009 Edition of the MUTCD.

3. Option—a statement of practice that is a permissive condition and carries no requirement or recommendation. Option statements sometimes contain allowable modifications to a Standard or Guidance statement. All Option statements are labeled, and the text appears in unbold type. The verb “may” is typically used. The verbs “shall” and “should” are not used in Option statements.

4. Support—an informational statement that does not convey any degree of mandate, recommendation, authorization, prohibition, or enforceable condition. Support
Support:
Throughout this Manual all dimensions and distances are provided in the International System of Units, a modernized version of the Metric system, and their English equivalent units are shown in parentheses.

Guidance:
Before laying out distances or determining sign sizes of devices, the public agency should decide whether to use the International System of Units (Metric) or the English equivalent units. The chosen units should be specified on plan drawings. The chosen unit of measurement should be made known to those responsible for designing, installing, or maintaining traffic control devices.

Signs with Metric legends are shown in the figures that illustrate sign images only if the design of the sign with Metric units differs from the design of the sign with English equivalent units in a manner that is in addition to just the legend itself. If the only design difference between the Metric sign and the English sign is the legend, only the English sign is illustrated.

Except when a specific numeral is required or recommended added to increase accuracy by the text of a Section of this Manual, numerals shown displayed edited to increase consistency on the sign images of devices in the figures that specify quantities such as times, distances, speed limits, and weights should be regarded as examples only. When installing any of these sign devices, the numerals should be appropriately altered to fit the specific signing situation.

Support:
The following information will be useful when reference is being made to a specific portion of text in this Manual.

There are ten Parts in this Manual and each Part is comprised of one or more Chapters. Each Chapter is comprised of one or more Sections. Parts are given a numerical identification, such as Part 2 – Signs. Chapters are identified by the Part number and a letter, such as Chapter 2B – Regulatory Signs. Sections are identified by the Chapter number and letter followed by a decimal point and a number, such as Section 2B.03 – Size of Regulatory Signs.

Each Section is comprised of one or more paragraphs. The paragraphs are indented and are not identified by a number or letter. Paragraphs are counted from the beginning of each Section without regard to the intervening text headings (Standard, Guidance, Option, or Support). Some paragraphs have lettered or numbered items. As an example of how to cite this Manual, the phrase “Not less than 12 m (40 ft) beyond the stop line” that appears in Section 4D.14 of this Manual would be referenced in writing as “Section 4D.14, P1, A.1,” and would be verbally referenced as “Item A.1 of Paragraph 1 of Section 4D.14.” The last sentence was updated to maintain accuracy.

Standard:
In accordance with 23 CFR 655.603(b)(1)(3), States or other Federal agencies that have their own MUTCDs or Supplements to the National MUTCD shall revise these MUTCDs or Supplements to be in substantial conformance with changes to the National MUTCD within 2 years of issuance of the effective date of the Final Rule for the changes. Substantial conformance of such State or other Federal agency MUTCDs or Supplements shall be as defined in 23 CFR 655.603(b)(1). Unless a particular device is no longer serviceable, non-compliant devices on existing highways and bikeways shall be brought into compliance with the current edition of the National MUTCD as part of the systematic upgrading of substandard traffic control devices (and installation of new required traffic control devices)
required pursuant to the Highway Safety Program, 23 U.S.C. § 402(a). In cases involving Federal-aid projects for new highway or bikeway construction or reconstruction, the traffic control devices installed (temporary or permanent) shall be in conformance with the most recent edition of the National MUTCD before that highway is opened or re-opened to the public for unrestricted travel [23 CFR 655.603(d)(2) and 23 CFR 655.603(d)(3)]. The FHWA has the authority to establish other target compliance dates for implementation of particular changes to the MUTCD [23 CFR 655.603(d)(1)]. These target compliance dates established by the FHWA shall be as follows:

The Edit Committee recommends that the Compliance Dates to implement particular changes to the MUTCD should be located in the appropriate section (MN MUTCD approach) but also suggest that a reference be provided in the Introduction to referencing a list of all compliance dates on the MUTCD webpage.

Reasons: Locating the Compliance Dates closer to the applicable Sections of the MUTCD is recommended because:

1. Some MUTCD Users refer to only a specific Part of the MUTCD so having Compliance Dates in each of these Parts would make them more aware of the requirements.

2. Most designers work with CADD Libraries of signs on their files where they may miss an update in the MUTCD requirements. Locating the dates closer to the requirements would help avoid this oversight.

3. Local jurisdictions are not always that aware of Compliance Dates. Locating them closer to the MUTCD provisions would increase that awareness.

Section 2A.06 Design of Signs—e-mail addresses prohibited on signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2A.12 Symbols—use of symbols from one type of sign on a different type of sign—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2A.13 Word Messages—ratio of letter height to legibility distance for sign letter sizes should be based on 1:30 ratio—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2A.19 Lateral Offset—crashworthiness of sign supports—January 17, 2013 for roads with posted speed limit of 80 km/h (50 mph) or higher.

Section 2B.03 Size of Regulatory Signs—increased sign sizes and other changes to Table 2B-1 in 2003 MUTCD—10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013. edited to increase clarity now that the effective date is known.

Section 2B.03 Size of Regulatory Signs—increased sign sizes and other changes to Table 2B-1 in 2009 MUTCD—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.03 Size of Regulatory Signs—required sign sizes for multi-lane roadways in new Table 2B-2 in 2009 MUTCD—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.04 STOP Sign (R1-1) – 4 WAY plaque requirement—January 17, 2004. no longer relevant.
Section 2B.06 STOP Sign Placement—signs mounted on back of STOP sign—10 years from the effective date of the Final Rule for the 2003 MUTCD. 

Section 2B.09 YIELD Sign Applications—changes in YIELD sign application criteria from the 1988 MUTCD—January 17, 2011.

Section 2B.10 STOP sign or YIELD Sign Placement—signs mounted prohibition of items on back of STOP or YIELD signs and Guidance on other signs back-to-back with STOP or YIELD signs not obscuring shape and deletion of exception for DO NOT ENTER signs—10 years from the effective date of the Final Rule for the 2003 2009 MUTCD.

Section 2B.11 Yield Here To Pedestrians Signs and Stop Here For Pedestrians Signs (R1-5, R1-5a Series)—new Section in 2003 MUTCD added to increase accuracy—10 years from the effective date of the Final Rule for the 2002 MUTCD December 22, 2013.

Section 2B.12 In-Street and Overhead Pedestrian Crossing Signs (R1-6, R1-6a, R1-9, and R1-9a)—new Overhead Pedestrian Crossing (R1-9 or R1-9a) signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.12 In-Street and Overhead Pedestrian Crossing Signs (R1-6, R1-6a, R1-9, and R1-9a)—special support requirements for in-street signs—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.13 Speed Limit Sign (R2-1)—color of changeable message legend of YOUR SPEED legend—10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013. edited to increase clarity now that the effective date is known

Section 2B.19 Intersection Lane Control Signs (R3-5 through R3-8)—overhead lane-use signs should be provided for lane drops and shared through/turn lanes at signalized locations—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.25 Reversible Lane Control Signs (R3-9d, R3-9f through R3-9i)—removal of R3-9c and R3-9e signs—10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013. edited to increase clarity now that the effective date is known

Sections 2B.26 through 2B.30 Regulatory Signs for Preferential Only Lanes Signs (R3-10 through R3-15)—10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013. edited to increase clarity now that the effective date is known

Section 2B.27 Preferential Only Lanes for High Occupancy Vehicles (HOVs)—new section in Millennium Edition—January 17, 2007, no longer relevant

Section 2B.28 Preferential Only Lane Sign Applications and Placement—10 years from the effective date of the Final Rule for the 2002 MUTCD. deleted because it is now incorporated into the Sections 2B.26 through 2B.30 compliance date

Section 2B.31 Regulatory Signs for Toll Plazas—regulatory signs for toll plazas—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.32 Regulatory Signs for Managed Lanes and ETC Only Lanes—regulatory signs for managed lanes and ETC only lanes—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.33 Jughandle Signs (R3-23, R3-24, R3-25, and R3-26 Series)—regulatory signs for jughandles—10 years from the effective date of the Final Rule for the 2009 MUTCD.
Section 2B.35 DO NOT PASS WHEN SOLID LINE IS ON YOUR SIDE Sign (R4-15)—new R4-15 sign—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.37 ONE WAY Signs (R6-1, R6-2)—placement requirement at intersecting alleys—January 17, 2008, no longer relevant

Section 2B.43 Slow Vehicle Turn-Out Signs (R4-12, R4-13, and R4-14)—new slow vehicle turn-out signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.46 Selective Exclusion Signs—new legends for various selective exclusion signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.47 ONE WAY Signs (R6-1, R6-2)—new requirement for ONE WAY signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.49 Divided Highway Crossing Signs (R6-3, R6-3a)—required use of Divided Highway Crossing signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Sections 2B.50 and 2B.51 Roundabout Signs—new regulatory signs for roundabouts—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.54 Design of Parking, Standing, and Stopping Signs—new signs for fee parking—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.59 Traffic Signal Signs (R10-1 through R10-32P)—changes to R10-1 through R10-4 series of pedestrian signs, and new signs and new designs for various traffic signal signs in Figure 2B-30—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.60 Photo Enforced Signs and Plaques (R10-18, R10-19P, R10-19aP)—new Section in 2003 MUTCD deleted to increase accuracy—10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013, edited to increase clarity now that the effective date is known

Section 2B.61 Ramp Metering Signs (R10-28 and R10-29)—new ramp metering signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.63 Weigh Station Signs (R13 Series)—new design and legend for R13-1 sign—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.67 Hazardous Material Signs (R14-2, R14-3)—change in sign legend—10 years from the effective date of the Final Rule for the 2002 MUTCD December 22, 2013, edited to increase clarity now that the effective date is known

Section 2B.69 Headlight Use Signs (R16-5 through R16-12)—new headlight use signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2B.70 Miscellaneous Regulatory Signs—new R16-4 sign—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.03 Design of Warning Signs—use of fluorescent yellow-green background color for pedestrian, bicycle, school, and playground signs and their related supplemental plaques—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.04 Size of Warning Signs—increased sizes of W4-1, W5-2, W6-3, and W12-1 signs—January 17, 2008, no longer relevant

Section 2C.04 Size of Warning Signs—sizes of W1 Series Arrows signs, W7 Series runways, truck signs, superseded by new Section 2F.12 W12-2p W12-2a edited to increase accuracy low clearance signs, and W10-1 advance grade crossing sign—10 years from the effective date of the Final Rule for the 2002 MUTCD December 22, 2013, edited to increase clarity now that the effective date is known
Section 2C.04 Size of Warning Signs—size of warning signs on multi-lane roads and changes in sizes in Table 2C-2—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.05 Placement of Warning Signs—revisions in Table 2C-4—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Sections 2C.06 through 2C.14 Horizontal Alignment Warning Signs—revised requirements regarding various horizontal alignment signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.13 Truck Rollover Warning Signs (W1-13, W1-13a)—new Section in 2003 MUTCD added to increase accuracy—10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013, edited to increase clarity now that the effective date is known.

Section 2C.14 Advisory Exit and Ramp Speed Signs (W13-2 and W13-3)—elimination of Curve Speed (W13-5) warning sign—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.19 NARROW BRIDGE Sign (W5-2)—elimination of symbol sign—10 years from the effective date of the Final Rule for the 2002 MUTCD December 22, 2013, edited to increase clarity now that the effective date is known.

Section 2C.21 Divided Highway Sign (W6-1)—removal of W6-1a and W6-1b word message signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.22 Divided Highway Ends Sign (W6-2)—removal of W6-2a and W6-2b word message signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.23 Freeway or Expressway Ends Signs (W19 Series)—new W19 series signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.29 PAVEMENT ENDS Sign (W8-3)—removal of symbol sign—January 17, 2011.

Section 2C.30 Shoulder and Uneven Lanes Signs (W8-4, W8-9, and W8-9a W8-17, and W8-23)—removal of new symbol design for W8-17 signs—January 17, 2011 10 years from the effective date of the Final Rule for the 2009 MUTCD, new item supersedes previous item.

Section 2C.31 Surface Condition Signs (W8-5, W8-7, W8-8, W8-13, and W8-14)—new W8-14 symbol sign—10 years from the effective date of the Final Rule for the 2009 MUTCD.


Section 2C.34 Weather Condition Signs (W8-18, W8-19, W8-21, and W8-22)—new signs for weather conditions—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.35 Advance Traffic Control Signs (W3-1, W3-2, W3-3, W3-4)—removal of W3-1a, W3-2a, W3-3a word message signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.36 Advance Ramp Control Signal Signs (W3-7 and W3-8)—new signs for ramp metering—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.37 Reduced Speed Reduction Limit Ahead edited to increase consistency Signs (W3-5, W3-5a)—removal of R2-5 Series Reduced Speed Ahead signs and use of W3-5 or W3-5a warning signs instead—15 years from the effective date of the Final Rule for the
Section 2C.39 Merge Signs (W4-1, W4-5)—Entering Roadway Merge sign (W4-1a W4-5) 10 years from the effective date of the Final Rule for the 2009 MUTCD. December 22, 2013. edited to increase clarity now that the effective date is known.

Section 2C.40 Added Lane Signs (W4-3, W4-6)—Entering Roadway Added Lane sign (W4-3a W4-6) 10 years from the effective date of the Final Rule for the 2009 MUTCD. December 22, 2013. edited to increase accuracy now that the effective date is known.

Section 2C.41 Lane Ends Signs (W4-2, W4-7, W9-1, W9-2)—new design of W4-2 sign 10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013. edited to increase clarity now that the effective date is known.

Section 2C.42 RIGHT (LEFT) LANE EXIT ONLY AHEAD Sign (W9-7)—new W9-7 sign 10 years from the effective date of the Final Rule for the 2009 MUTCD.

Sections 2C.43 and 2C.44 Toll Facility Signs—new signs for toll facilities 10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.45 Two-Way Traffic Sign (W6-3)—transition from one-way street 5 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2008. edited to increase clarity now that the effective date is known.

Section 2C.48 Intersection Warning Signs (W2-1 through W2-8)—new design of Circular Intersection (W2-6) sign 10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013. edited to increase clarity now that the effective date is known.


Section 2C.52 Nonvehicular Signs (W11-2, W11-3, W11-4, W11-6, W11-7, W11-9, and W11-16 through W11-22)—elimination of crosswalk lines from crossing signs and use of diagonal downward pointing arrow (W16-7P) supplemental plaque if at the crossing January 17, 2011.

Section 2C.52 Nonvehicular Signs (W11-2, W11-3, W11-4, W11-6, W11-7, W11-9, and W11-16 through W11-22)—required use of fluorescent yellow-green background color for school signs and their related supplemental plaques 10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.52 Nonvehicular Signs (W11-2, W11-3, W11-4, W11-6, W11-7, W11-9, and W11-16 through W11-22)—recommended use of fluorescent yellow-green background color for pedestrian, bicycle, and playground signs and their related supplemental plaques 10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.52 Nonvehicular Signs (W11-2, W11-3, W11-4, W11-6, W11-7, W11-9, and W11-16 through W11-22)—new W11-16 through W11-22 symbol signs for various large animals 10 years from the effective date of the Final Rule for the 2009 MUTCD.
Section 2C.54  NEW TRAFFIC PATTERN AHEAD Sign (W23-2)—new W23-2 sign—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.61  Advance Street Name Plaque (W16-8P, W16-8aP)—requirement to use a combination of lower-case letters with initial upper-case letters—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2C.65  PHOTO ENFORCED Plaque (W16-10P)—new Section in 2003 MUTCD added to increase accuracy—10 years from the effective date of the Final Rule for the 2003 MUTCD. December 22, 2013. edited to increase clarity now that the effective date is known.

Section 2C.67  NEW Plaque (W16-15P)—new W16-15P plaque—2 years from the effective date of the Final Rule for the 2009 MUTCD.

Sections 2C.68 and 2C.69  Toll Facility Plaques—new plaques for toll facilities—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2D.05  Lettering Style—elimination of the practice for names of places, streets, and highways on conventional road guide signs of using all upper-case letters—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2D.08  Arrows—requirements for design and positioning of down arrows on overhead guide signs—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2D.25  TOLL Auxiliary Sign (M4-15)—requirement for use of TOLL auxiliary sign—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2D.26  Electronic Toll Collection (ETC) Only Auxiliary Signs (M4-16 and M4-20)—requirement for use of ETC Only auxiliary sign—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2D.35  Combination Lane Use/Destination Overhead Guide Sign (D15-1)—design of combined lane-use/destination overhead guide signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2D.45  Street Name Signs (D3-1 or D3-1a)—symbol sizes, 150 mm (6 in) letter sizes height for lettering on ground, post-mounted edited to increase consistency now that the effective date is known January 9, 2012.

Section 2D.45  Street Name Signs (D3-1 or D3-1a)—200 mm (8 in) letter sizes height on ground, post-mounted edited to increase consistency signs on multi-lane streets with speed limits greater than 60 km/h (40 mph) and 300 mm (12 in) letter sizes height on overhead mounted edited to increase consistency signs—15 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2018. edited to increase clarity now that the effective date is known.

Section 2D.45  Street Name Signs (D3-1 or D3-1a)—pictograph on street name sign should be to right of street name—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2D.45  Street Name Signs (D3-1 or D3-1a)—limitations on alternative colors for street name signs—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2D.46  Advance Street Name Signs (D3-2)—new Section in 2000 MUTCD and revisions in 2003 MUTCD—15 years from the effective date of the Final Rule for the 2002 MUTCD December 22, 2018. edited to increase clarity now that the effective date is known.
Section 2D.45  General Service Signs (D9 Series)—Traveler Info Call 511 (D12-5) sign, Channel 0 Monitored (D12-3) sign—10 years from the effective date of the Final Rule for the 2003 MUTCD. This item is now shown as compliance dates for Sections 2F.07 and 2F.08.

Section 2D.47  Signing on Conventional Roads on Approaches to Interchanges—requirement for multi-lane approaches to interchanges to have guide signs to identify which direction of turn is to be made for access to each direction of the freeway or expressway—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2D.52  Community Wayfinding Signs—community wayfinding signs—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2D.53  Truck, Passing, or Climbing Lane Signs (D17-1 and D17-2)—new designs for truck lane signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2D.54  Slow Vehicle Turn-Out Sign (D17-7)—new D17-7 sign—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2D.55  Signing on Conventional Roads on Approaches to Interchanges—requirement for multi-lane approaches to interchanges to have guide signs to identify which direction of turn is to be made for access to each direction of the freeway or expressway—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2E.19  Arrows for Interchange Guide Signs—requirements for design and positioning of down arrows on overhead guide signs—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2E.20  Diagrammatic Signs—new design and placement requirements for diagrammatic signs—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2E.21  Signing for Interchange Lane Drops—new requirements for use of EXIT ONLY and down arrows for lane drops—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2E.25  Freeway and Expressway Guide Signing—black-on-yellow LEFT sign panel requirements—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2E.27  Interchange Exit Numbering—required use of the reference location exit numbering system—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Sections 2E.29, 2E.32, and 2E.36  Freeway and Expressway Guide Signing—black-on-yellow LEFT sign panel requirements—10 years from the effective date of the Final Rule for the 2009 MUTCD.


Sections 2E.31 through 2E.54  Preferential Only Lane Guide Signs—new Section (2E.59) in the 2003 Edition MUTCD—10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013, edited to increase clarity now that the effective date is known.

Sections 2E.51 through 2E.54  Preferential Lane Guide Signs—new provisions in the 2009 MUTCD for preferential lane guide signing—10 years from the effective date of the Final Rule for the 2009 MUTCD.
Sections 2E.55 through 2E.60  Toll Facility and Toll Plaza Signs—new provisions regarding toll facility and toll plaza signing—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2E.61  Guide Signs for Managed Lanes—new provisions for guide signs for managed lanes—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2F.02  General Service Signs for Conventional Roads—new designs for the D9-10 and D9-16 signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2F.04  Interstate Oasis Signing—Interstate Oasis signing—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2F.05  Rest Area and Other Roadside Area Signs—new D9-21 and D9-22 signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.


Section 2F.08  TRAVEL INFO CALL 511 Sign (D12-5)—December 22, 2013.

Section 2F.10  Brake Check Area Signs (D5-13 and D5-14)—new signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2F.11  Chain Up Area Signs (D5-15 and D5-16)—new signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2F.12  Truck Escape Ramp Signs (D17-3, D17-4, and D17-5)—new sign designs (colors)—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2G.03  Logos and Logo Sign Panels—design and location of RV Access message on logo sign panels—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2G.05  Size of Lettering—minimum height of letters and numerals on specific service signs—January 17, 2011.

Section 2G.05  Size of Lettering—letter sizes for word legend only logo sign panels—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 2I.01  Reference Location Signs (D10-1 through D10-3) and Intermediate Reference Location Signs (D10-1a through D10-3a)—location and spacing of Reference Location signs and design of Intermediate Reference Location signs—10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013.

Section 2I.03  Reference Location Signs and Enhanced Reference Location Signs (D10-4, D10-5)—design of Enhanced Reference Location signs and Intermediate Enhanced Reference Location signs—10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013.

Section 2J.04  General Design Requirements for Recreational and Cultural Interest Area Symbol Guide Signs—new designs for various recreational and cultural interest area signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.
Section 2K.03 Evacuation Route Signs (EM-1 and EM-1a)—new design and size of EM-1 sign—15 years from the effective date of the Final Rule for the 2002 MUTCD December 22, 2018. edited to increase clarity now that the effective date is known

Section 3C.01 Object Marker Design and Placement Height—width of stripes on Type 3 striped marker—10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013. edited to increase clarity now that the effective date is known

Chapter 2M Changeable Message Signs—new provisions for changeable message signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Reason: The GMI Committee requested this change at January meeting

Section 3B.01 Yellow Centerline Pavement Markings and Warrants—new section in Millennium Edition—January 3, 2003. no longer relevant

Section 3B.03 Other Yellow Longitudinal Pavement Markings—spacing requirements for pavement marking arrows in two-way left-turn lanes—5 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2008. edited to increase clarity now that the effective date is known

Sections 3B.04 and 3B.05 White Longitudinal Pavement Markings—dotted lines required for acceleration, deceleration, and auxiliary lanes—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 3B.05 Other White Longitudinal Pavement Markings—required locations for channelizing lines at exit and entrance ramp gores—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 3B.07 Warrants for Use of Edge Lines—new section in Millennium Edition—January 3, 2003. no longer relevant

Section 3B.09 Lane Reduction Transition Markings—use of dotted lines for lane reductions—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 3B.16 Stop and Yield Lines—stop lines shall not be used for yield conditions—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 3B.17 Do Not Block Intersection Markings—new Section—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 3B.18 Crosswalk Markings—gap between transverse lines of a crosswalk—10 years from the effective date of the Final Rule for the 2002 MUTCD December 22, 2013. edited to increase clarity now that the effective date is known

Section 3B.20 Pavement Word, Symbol, and Arrow Markings—typical spacing of lane-use arrows in two-way left-turn lanes shown in Figure 3B-7—5 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2008. edited to increase clarity now that the effective date is known

Section 3B.20 Pavement Word, Symbol, and Arrow Markings—lane-use arrows should be used for certain conditions and should be located in certain positions—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 3B.20 Pavement Word, Symbol, and Arrow Markings—ONLY marking should be used with turn arrows in dropped lanes—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 3B.20 Pavement Word, Symbol, and Arrow Markings—lane reduction arrow should be used where speed is 70 km/h (45 mph) or above—5 years from the effective date of the Final Rule for the 2009 MUTCD.
Section 3B.22 Speed Reduction Markings—new Section—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 3B.24 Preferential Lane Word and Symbol Markings—preferential lane markings for ETC only lanes—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 3B.25 Preferential Lane Longitudinal Markings for Motor Vehicles—markings for buffer-separated and counter-flow preferential lanes—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 3B.26 Chevron and Diagonal Crosshatching Markings—requirement to use chevron markings in gores rather than optional diagonal markings—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Sections 3B.27 and 3B.28 Speed Hump Markings and Advance Speed Hump Markings—if used, shall be as depicted—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 3B.29 Markings for Toll Plazas—recommended use of solid lane lines and required design of optional purple markings—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Chapter 3C Roundabout Markings—changes from existing requirements and recommendations—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 3D.03 Delineator Application—delineators should be used with guardrail or longitudinal barriers—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4C.04 Warrant 3, Peak Hour—signal should be actuated if this is only warrant met—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4C.05 Warrant 4, Pedestrian Volume—signal should also control side street or driveway if installed at such location based on this warrant only—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4C.06 Warrant 5, School Crossing—signal should also control side street or driveway if installed at such location based on this warrant only—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4D.01 General—location of signalized midblock crosswalks—10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013. edited to increase clarity now that the effective date is known

Section 4D.04 Signal Indications – Design, Illumination, Color, and Shape—strobes shall not be used—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4D.05 4D.10 Application of Steady Signal Indications—Item B.4 in the third paragraph of the Standard edited to increase consistency—5 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2008. edited to increase clarity now that the effective date is known

Section 4D.11 Number of Signal Faces on an Approach—various recommendations for signal displays for approaches with speeds of more than 60 km/h or more than 40 mph—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4D.12 Visibility, Aiming, and Shielding of Signal Faces—backplates should be used for approaches with speeds of more than 60 km/h or more than 40 mph—15 years from the effective date of the Final Rule for the 2009 MUTCD.
Section 4D.13  Lateral Positioning of Signal Faces—overhead-mounted separate flashing yellow arrow and flashing red arrow turn signal faces shall be over the turn lane—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4D.17  Signal Indications for Left-Turn Movements—General—a protected only mode left-turn movement that does not begin and terminate at the same time as the adjacent through movement shall not be provided on an approach unless an exclusive left-turn lane exists—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4D.19  Signal Indications for Protected Only Mode Left-Turn Movements—elimination of the use of a circular red signal indication in a protected only left-turn signal face for an approach where the CIRCULAR GREEN and left-turn GREEN ARROW signal indications do not begin and terminate together—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4D.21  Signal Indications for Right-Turn Movements—General—a protected only mode right-turn movement that does not begin and terminate at the same time as the adjacent through movement shall not be provided on an approach unless an exclusive right-turn lane exists—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4D.23  Signal Indications for Approaches With Shared Left-Turn/Right-Turn Lanes and No Through Movement—required signal displays for approaches with a shared left-turn/right-turn lane and no through movement—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4D.24  Yellow Change and Red Clearance Intervals—red clearance interval should be provided when indicated by engineering practices, and durations of yellow change and red clearance intervals shall be determined using engineering practices—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4D.25  Preemption and Priority Control of Traffic Control Signals—signals with railroad preemption should have backup power—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4D.27  Accessible Pedestrian Signals—new section in Millennium Edition—January 17, 2005. no longer relevant

Section 4D.28  Accessible Pedestrian Signals—accessible pedestrian signals shall have both audible and vibrotactile features—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4D.29  Accessible Pedestrian Signals—speech walk messages shall only be used where it is infeasible to install two pushbuttons more than 3 m (10 ft) apart on same corner—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4D.30  Countdown Pedestrian Signals—new Section in 2003 MUTCD added to increase accuracy—10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013 edited to increase clarity now that the effective date is known

Section 4D.31  Flashing Operation of Traffic Control Signals—Transition Out of Flashing Mode—duration of steady red clearance interval in change from red-red flashing mode to steady (stop-and-go) mode—10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013.

Section 4D.32  Use of Signs at Signalized Locations—overhead lane-use signs should be provided for lane drops and shared through/tturn lanes at signalized locations—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4E.06  Accessible Pedestrian Signals—new section in Millennium Edition—January 17, 2005. no longer relevant

Section 4E.07  Countdown Pedestrian Signals—new Section in 2003 MUTCD added to increase accuracy—10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013 edited to increase clarity now that the effective date is known
known for countdown pedestrian signal hardware; 2 years from the effective date of the Final Rule for the 2002 MUTCD for operational requirements of countdown pedestrian signals, second portion is no longer relevant

Section 4E.07 Countdown Pedestrian Signals—addition of pedestrian change interval
countdown displays to existing pedestrian signal heads—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4E.08 Pedestrian Detectors—required positioning of pedestrian pushbuttons—15 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4E.08 Pedestrian Detectors—new requirements in this Section except positioning of pedestrian pushbuttons—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4E.09 Accessible Pedestrian Signal Detectors—new section in Millennium Edition—January 17, 2005. no longer relevant

Section 4E.09 Accessible Pedestrian Signal Detectors—locator tone shall be provided with accessible pedestrian signal pushbutton and other new requirements for accessible pedestrian signal pushbuttons—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4E.10 Pedestrian Intervals and Signal Phases—pedestrian clearance time sufficient to travel to far side of the traveled way—5 years from the effective date of the Final Rule for the 2003 MUTCD. edited to increase clarity now that the effective date is known

Section 4E.10 Pedestrian Intervals and Signal Phases—pedestrian change interval shall not extend into yellow change and red clearance intervals—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4E.10 Pedestrian Intervals and Signal Phases—slower recommended walking speed for calculating pedestrian clearance time—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4E.10 Pedestrian Intervals and Signal Phases—if pedestrian clearance time only enough to get to median, additional pedestrian signal faces, pushbuttons, and signs shall be provided in median—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Chapter 4F Pedestrian Hybrid Signals—new Chapter—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4G.04 Emergency-Vehicle Hybrid Signals—new Section—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4I.02 Design of Freeway Entrance Ramp Control Signals—two signal faces for each lane with staggered release ramp metering signals—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4J.02 Design and Location of Movable Bridge Signals and Gates—use of vertical stripes on gates—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Chapter 4K Toll Plaza Traffic Signals—new Chapter—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4L.03 Warning Beacon—beacons with toll plaza canopy signs should be distinctly separate from lane-use signals—10 years from the effective date of the Final Rule for the 2009 MUTCD.
Section 4M.01 Application of Lane-Use Control Signals—requirement to use lane-use control signals over the centers of controlled lanes at toll plazas—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 4N.02 In-Roadway Warning Lights at Crosswalks—requirement for sign with each pushbutton and requirement for additional pedestrian detector in median if period of operation is only enough to get to median—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 5C.05 NARROW BRIDGE Sign (W5-2)—elimination of symbol sign—10 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2013.

Section 6D.01 Pedestrian Considerations—all new provisions for pedestrian accessibility—5 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2008.

Section 6D.02 Accessibility Considerations—new Section in 2003 MUTCD—added to improve clarity—5 years from the effective date of the Final Rule for the MUTCD December 22, 2008.

Section 6D.03 Worker Safety Considerations—all workers within the right-of-way shall wear high-visibility apparel requirements—3 years from the effective date of the Final Rule for the 2003 2009 MUTCD.

Section 6E.02 High-Visibility Safety Apparel—all flaggers within the right-of-way shall wear high-visibility apparel requirements for flaggers—3 years from the effective date of the Final Rule for the 2003 2009 MUTCD.

Sections 6E.04 through 6E.06 Automated Flagger Assistance Devices—new Sections—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 6F.03 Sign Placement—crashworthiness of sign supports—January 17, 2005.

Section 6F.30 NEW TRAFFIC PATTERN AHEAD Sign (W23-2)—new W23-2 sign—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 6F.57 Portable Changeable Message Signs—new requirements—5 years from the effective date of the Final Rule for the 2009 MUTCD.


Section 6F.61 Cones—width of retroreflective stripes—5 years from the effective date of the Final Rule for the 2003 MUTCD December 22, 2008.

Section 6F.66 Longitudinal Channelizing Barricades—crashworthiness—January 17, 2005.

Section 6F.70 Temporary Lane Separators—new Section—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 6F.82 Crash Cushions—crashworthiness—January 17, 2005.

Typical Applications 37, 38, 39, 42, and 44—arrow board required for each lane closed—2 years from the effective date of the Final Rule for the 2009 MUTCD.
Section 7B.07  Sign Color for School Warning Signs—required use of fluorescent yellow-green background color for school signs and their related supplemental plaques—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 7B.10  School Advance Crossing Assembly (S1-1 with Supplemental Plaque)—use of AHEAD (W16-9P) plaque or distance plaque (W16-2P or W16-2aP)—January 17, 2011.

Section 7B.11  School Crosswalk Warning Crossing Assembly (S1-1 with Diagonal Downward Pointing Arrow)—elimination of crosswalk lines from crossing signs and use of diagonal downward pointing arrow (W16-7P) supplemental plaque—January 17, 2011.

Section 7B.12  School Bus Stop Ahead Sign (S3-1)—new S3-1 sign—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 7B.13  SCHOOL BUS TURN AHEAD Sign (S3-2)—new S3-2 sign—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 7B.15  Reduced Speed School Zone Speed Limit—edited to increase consistency

Section 7B.16  END SCHOOL ZONE Sign (S5-2)—required use of S5-2 sign—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 7D.04  Uniform of Adult Crossing Guards and Student Patrols—new requirements for high-visibility apparel for adult crossing guards—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 8B.03  Highway-Rail Grade Crossing (Crossbuck) Sign (R15-1) and Number of Tracks Sign Plaque (R15-2P)—retroreflective strip on crossbuck support—January 17, 2011.

Sections 8B.04 and 8B.05  STOP or YIELD Signs at Grade Crossings—required use of STOP or YIELD signs with Crossbuck signs at passive grade crossings—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 8B.06  Highway-Rail Grade Crossing Advance Warning Signs (W10 Series)—removal of existing W10-6 series signs—January 17, 2006, no longer relevant

Section 8B.13  Emergency Notification Sign (I-13)—new design—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 8C.04  Automatic Gates—use of vertical stripes—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 8C.06  Wayside Horn Systems—new Section—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 8C.08  Traffic Control Signals at or Near Highway-Rail Grade Crossings—pre-signals—10 years from the effective date of the Final Rule for the 2002 MUTCD December 22, 2013, edited to increase clarity now that the effective date is known

Section 8C.08  Traffic Control Signals at or Near Highway-Rail Grade Crossings—signals with railroad preemption should have backup power—10 years from the effective date of the Final Rule for the 2009 MUTCD.
Section 8C.09 Highway-Rail Grade Crossing(s) Within or In Close Proximity to Roundabouts, Traffic Circles, or Circular Intersections—requirements for grade crossings near roundabouts—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Chapter 8E Pathway-Rail Grade Crossings—new Chapter—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 9B.01 Application and Placement of Signs—minimum 2.4 m (8 ft) vertical clearance of overhead traffic control devices over shared-use paths—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 9B.04 Bicycle Lane Signs (R3-17, R3-17a, R3-17b)—deletion of preferential lane symbol (diamond) for bicycle lane signs—January 17, 2006. no longer relevant

Section 9B.06 Bicycles May Use Full Lane Sign (R4-11)—new R4-11 sign—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 9B.09 Selective Exclusion Signs—new signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 9B.18 Bicycle Warning and Combined Bicycle/Pedestrian Signs (W11-1 and W11-15)—elimination of crosswalk lines from crossing signs and use of diagonal downward pointing arrow (W16-7P) supplemental plaque if at the crossing—January 17, 2011.

Section 9B.19 Other Bicycle Warning Signs—BIKEWAY NARROWS replaced by PATH NARROWS—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 9B.20 Bicycle Guide Signs (D1-1b, D1-1c, D1-2b, D1-2c, D1-3b, D1-3c, D11-1, D11-1c)—new designs for guide and destination signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 9B.21 Bicycle Route Signs (M1-8, M1-8a, M1-9)—new designs for bike route number signs—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 9B.24 Reference Location Signs (D10-1 through D10-3) and Intermediate Reference Location Signs (D10-1a through D10-3a)—new Section—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 9B.25 Mode-Specific Guide Signs for Shared-Use Paths (D11-1a, D11-1b, D11-2, D11-3, D11-4)—new Section—10 years from the effective date of the Final Rule for the 2009 MUTCD.

Chapter 9C Markings—deletion of preferential lane symbol (diamond) for bicycle pavement markings—January 17, 2007. no longer relevant

Section 9C.07 Shared Lane Marking—new Section—5 years from the effective date of the Final Rule for the 2009 MUTCD.


Section 10C.02 Highway-Rail Grade Crossing Advance Warning Signs (W10 Series)—required use of No Signal or SIGNAL AHEAD plaques with W10-1 through W10-4 signs—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 10C.15 Highway Rail Grade Crossing Advance Warning Signs (W10 Series)—removal of existing W10-6 series signs—January 17, 2006. no longer relevant
Section 10C.15 Highway-Rail Grade Crossing Advance Warning Signs (W10 Series)—
required use of No Signal or SIGNAL AHEAD plaques with W10-1 through W10-4
signs—5 years from the effective date of the Final Rule for the 2009 MUTCD.

Section 10C.21 Emergency Notification Sign (I-13)—new design—10 years from the
effective date of the Final Rule for the 2009 MUTCD.

Section 10D.01 Introduction—audible device requirement—5 years from the
effective date of the Final Rule for the 2009 MUTCD.

Section 10D.05 Wayside Horn Systems—new Section—5 years from the effective date of
the Final Rule for the 2009 MUTCD.

Section 10D.08 Use of Traffic Control Signals for Control of Light Rail Transit Vehicles at
Grade Crossings—recommended design of light rail transit signal indications—15
years from the effective date of the Final Rule for the 2009 MUTCD.

Section 10D.10 Highway-Light Rail Transit Grade Crossing(s) Within or In Close
Proximity to Roundabouts, Traffic Circles, or Circular Intersections—requirements for
grade crossings near roundabouts—5 years from the effective date of the Final Rule for
the 2009 MUTCD.

Chapter 10F Pathway-Light Rail Transit Grade Crossings—new Chapter—5 years from
the effective date of the Final Rule for the 2009 MUTCD.

Option:

In order for maintenance personnel to understand what to do when replacing a damaged non-
compliant traffic control device, agencies may establish a policy regarding whether to replace the
device in kind or to replace it with a compliant device.

Support:

Often it is desirable to upgrade to a compliant device at the time of this maintenance of a
damaged device. However, it might be appropriate to replace the damaged non-compliant device
in kind at the time of this maintenance activity if engineering judgment indicates that:

A. One compliant device in the midst of a series of adjacent non-compliant devices could
potentially be confusing to road users; and/or

B. The anticipated schedule for replacement of the whole series of non-compliant devices
will result in achieving timely compliance with the MUTCD.

CHAPTER 1A. GENERAL

Section 1A.01 Purpose of Traffic Control Devices

Support:

The purpose of traffic control devices, as well as the principles for their use, is to promote
highway safety and efficiency by providing for the orderly movement of all road users on streets,

Traffic control devices notify road users of regulations and provide warning and guidance
needed for the reasonably safe, uniform, and efficient operation of all elements of the traffic
stream in a manner intended to minimize the occurrences of crashes.
Reason: It was recommended by RWSTC and approved by Council on January 2007 that “reasonably safe” could be retained in this Section since it pertains to the general purpose of traffic control devices but should be deleted where it referred to a specific device. However, the deletion in this Section is not totally objectionable. The additional clause on “crashes” is unnecessary and superfluous text and should be deleted.

Standard:

Traffic control devices or their supports shall not bear any advertising message or any other message that is not related to traffic control.

Support:

Tourist-oriented directional signs and Specific Service signs are not considered advertising; rather, they are classified as motorist service signs.

Section 1A.02 Principles of Traffic Control Devices

Support:

This Manual contains the basic principles that govern the design and use of traffic control devices for all streets, [bikeways, public facilities, and private property] open to public travel regardless of type or class or the public agency [or official] having jurisdiction. This Manual’s text specifies the restriction on the use of a device if it is intended for limited application or for a specific system. It is important that these principles be given primary consideration in the selection and application of each device.

Guidance:

To be effective, a traffic control device should meet five basic requirements:

A. Fulfill a need;
B. Command attention;
C. Convey a clear, simple meaning;
D. Command respect from road users; and
E. Give adequate time for proper response.

Design, placement, operation, maintenance, and uniformity are aspects that should be carefully considered in order to maximize the ability of a traffic control device to meet the five requirements listed in the previous paragraph. Vehicle speed should be carefully considered as an element that governs the design, operation, placement, and location of various traffic control devices.

Support:

The definition of the word “speed” varies depending on its use. The definitions of specific speed terms are contained in Section 1A.13.

Guidance:

The actions required of road users to obey regulatory devices should be specified by State statute, or in cases not covered by State statute, by local ordinance or resolution. Such statutes, ordinances, and resolutions should be edited to increase clarity consistent with the “Uniform Vehicle Code” (see Section 1A.11).

The proper use of traffic control devices should provide the reasonable and prudent road user with the information necessary to reasonably safely efficiently and lawfully use the streets, highways, pedestrian facilities, and bikeways efficiently and lawfully.

Reason: Editorially revised to provide improved wording.
Support:
Uniformity of the meaning of traffic control devices is vital to their effectiveness. The meanings ascribed to devices in this Manual are in general accord with the publications mentioned in Section 1A.11.

Section 1A.03 Design of Traffic Control Devices
Guidance:
Devices should be designed so that features such as size, shape, color, composition, lighting or retroreflection, and contrast are combined to draw attention to the devices; that size, shape, color, and simplicity of message combine to produce a clear meaning; that legibility and size combine with placement to permit adequate time for response; and that uniformity, size, legibility, and reasonableness of the message combine to command respect.

Standard:
All symbols shall be unmistakably similar to or mirror images of the adopted symbol signs, all of which are shown in the “Standard Highway Signs and Markings” book (see Section 1A.11). Symbols and colors shall not be modified unless otherwise stated herein. All symbols and colors for signs not shown in the “Standard Highway Signs and Markings” book shall follow the procedures for experimentation and change described in Section 1A.10.

Guidance:
Aspects of a device’s standard design should be modified only if there is a demonstrated need.
Support:
An example of modifying a device’s design would be to modify the Side Road (W2-2) Combination Horizontal Alignment/Intersection (W1-10) sign to show a second offset intersecting side roads on both sides rather than on just one side of the major road within the curve.
Option:
Highway agencies may develop word message signs to notify road users of special regulations or to warn road users of a situation that might not be readily apparent. Unlike symbol signs and colors, new word message signs may be used without the need for experimentation. With the exception of symbols and colors, minor modifications in the specific design elements of a device may be made provided the essential appearance characterisitics are preserved. Although the standard design of symbol signs cannot be modified, it may be appropriate to change the orientation of the symbol to better reflect the direction of travel.

Section 1A.04 Placement and Operation of Traffic Control Devices
Guidance:
Placement of a traffic control device should be within the road user’s view so that adequate visibility is provided. To aid in conveying the proper meaning, the traffic control device should be appropriately positioned with respect to the location, object, or situation to which it applies. The location and legibility of the traffic control device should be such that a road user has adequate time to make the proper response in both day and night conditions.
Traffic control devices should be placed and operated in a uniform and consistent manner.
Unnecessary traffic control devices should be removed. The fact that a device is in good physical condition should not be a basis for deferring needed removal or change.
Section 1A.05  Maintenance of Traffic Control Devices

Guidance:

Functional maintenance of traffic control devices should be used to determine if certain devices need to be changed to meet current traffic conditions.

Physical maintenance of traffic control devices should be performed to retain the legibility and visibility of the device, and to retain the proper functioning of the device.

Support:

Clean, legible, properly mounted devices in good working condition command the respect of road users.

Section 1A.06  Uniformity of Traffic Control Devices

Support:

Uniformity of devices simplifies the task of the road user because it aids in recognition and understanding, thereby reducing perception/reaction time. Uniformity assists road users, law enforcement officers, and traffic courts by giving everyone the same interpretation. Uniformity assists public highway officials through efficiency in manufacture, installation, maintenance, and administration. Uniformity means treating similar situations in a similar way. The use of uniform traffic control devices does not, in itself, constitute uniformity. A standard device used where it is not appropriate is as objectionable as a nonstandard device; in fact, this might be worse, because such misuse might result in disrespect at those locations where the device is needed and appropriate.

Section 1A.07  Responsibility for Traffic Control Devices

Standard:

The responsibility for the design, placement, operation, maintenance, and uniformity of traffic control devices shall rest with the public agency or the official having jurisdiction. 23 CFR 655.603 adopts the Manual on Uniform Traffic Control Devices as the national standard for all traffic control devices installed on any street, highway, or bicycle trail, public facility, or private property open to public travel. When a State or other Federal agency manual or supplement is required, that manual or supplement shall be in substantial conformance with the National Manual on Uniform Traffic Control Devices MUTCD. 23 CFR 655.603 also states that traffic control devices on all streets, and highways, public facilities, and private property open to public travel in each State shall be in substantial conformance with standards issued or endorsed by the Federal Highway Administrator.

Support:

The Introduction of this Manual contains information regarding the meaning of substantial conformance and the applicability of the MUTCD to private property open to public travel.

The “Uniform Vehicle Code” (see Section 1A.11) has the following provision in Section 15-104 for the adoption of a uniform manual:

“(a) The [State Highway Agency] shall adopt a manual and specification for a uniform system of traffic control devices consistent with the provisions of this code for use upon highways within this State. Such uniform system shall correlate with and so far as possible conform to the system set forth in the most recent edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, and other standards issued or endorsed by the Federal Highway Administrator.”
“(b) The Manual adopted pursuant to subsection (a) shall have the force and effect of law.”

All States have officially adopted the National MUTCD either in its entirety, with supplemental provisions, or as a separate published document.

Guidance:
These individual State Manuals should be reviewed for specific provisions relating to that State.

Reason: Added to clarify to the casual reader that there is a need to review the specific State Manuals for local requirements.

The National MUTCD has also been adopted by the National Park Service, the U.S. Forest Service, the U.S. Military Command, the Bureau of Indian Affairs, the Bureau of Land Management, and the U.S. Fish and Wildlife Service.

Guidance:
Additionally, States are encouraged to adopt Section 15-116 of the “Uniform Vehicle Code,” which states that, “No person shall install or maintain in any area of private property used by the public any sign, signal, marking, or other device intended to regulate, warn, or guide traffic unless it conforms with the State manual and specifications adopted under Section 15-104.”

Section 1A.08 Authority for Placement of Traffic Control Devices

Standard:
Traffic control devices, advertisements, announcements, and other signs or messages within the highway right-of-way shall be placed only as authorized by a public authority or the official having jurisdiction, for the purpose of regulating, warning, or guiding traffic.

When the public agency or the official having jurisdiction over a street or highway has granted proper authority, others such as contractors and public utility companies shall be permitted to install temporary traffic control devices in temporary traffic control zones. Such traffic control devices shall conform with the Standards of this Manual.

All regulatory traffic control devices shall be supported by laws, ordinances, or regulations.

Support:
Provisions of this Manual are based upon the concept that effective traffic control depends upon both appropriate application of the devices and reasonable enforcement of the regulations.

Although some highway design features, such as curbs, median barriers, guardrails, impact attenuators (crash cushions), speed humps or tables, and textured pavement, have a significant impact on traffic operations and safety, they are not considered to be traffic control devices and provisions regarding their design and use are generally not included in this Manual.

Certain types of signs and other devices that do not have any traffic control purpose are sometimes placed within the highway right-of-way by or with the permission of the public agency or the official having jurisdiction over the street or highway. Most of these signs and other devices are not intended for use by road users in general, and their message is only important to individuals who have been instructed in their meanings. These signs and other devices are not considered to be traffic control devices and provisions regarding their design and use are not included in this Manual. Among these signs and other devices are the following:

A. Devices whose purpose is to assist highway maintenance personnel. Examples include markers to guide snowplow operators, devices that identify culvert and drop inlet
locations, and devices that precisely identify highway locations for maintenance or mowing purposes.

B. Devices whose purpose is to assist fire or law enforcement personnel. Examples include markers that identify fire hydrant locations, signs that identify fire or water district boundaries, speed measurement pavement markings, and small indicator lights to assist in enforcement of red light violations.

C. Devices whose purpose is to assist utility company personnel and highway contractors, such as markers that identify underground utility locations.

D. Signs posting local non-traffic ordinances.

E. Signs giving civic organization meeting information.

Guidance:

Standard:

Signs and other devices that do not have any traffic control purpose that are placed within the highway right-of-way by or with the permission of the public agency or the official having jurisdiction over the street or highway shall not be located where they will not interfere with, or detract from, traffic control devices.

Reason: Revised from Guidance to Standard inserting “shall not” because of the importance of not blocking other control devices and the requirement provides the jurisdictions more leverage in relocating these other devices.

Guidance:

Any unauthorized traffic control device or other sign or message placed on the highway right-of-way by a private organization or individual constitutes a public nuisance and should be removed. All unofficial or nonessential traffic control devices, signs, or messages should be removed.

Section 1A.09 Engineering Study and Engineering Judgment

Standard:

This Manual describes the application of traffic control devices, but shall not be a legal requirement for their installation.

Reason: This Standard is a general provision for all devices in the Manual whereas the requirements for each specific device is specified in the Sections addressing that device. It is superfluous to impose this general requirement relative to all devices and then require the device in another part of the manual. This Standard is not consistent with the Guidance Statement below.

Guidance:

The decision to use a particular device at a particular location should be made consistent with the principles of this Manual and, if required by this Manual, on the basis of either an engineering study or the application of engineering judgment. Thus, while this Manual provides Standards, Guidance, and Options for design and application of traffic control devices, this Manual should not be considered a substitute for engineering judgment.

Engineering judgment should be exercised in the selection and application of traffic control devices, as well as in the location and design of the roads and streets that the devices complement. Jurisdictions with responsibility for traffic control that do not have engineers on their staffs who are trained and/or experienced in traffic control devices added to increase accuracy should seek engineering assistance from others, such as the State transportation agency, their county, a nearby large city, or a traffic engineering consultant.

Section 1A.10 Interpretations, Experimentations, Changes, and Interim Approvals
Standard:
Design, application, and placement of traffic control devices other than those adopted in this Manual shall be prohibited unless the provisions of this Section are followed.

Support:
Continuing advances in technology will produce changes in the highway, vehicle, and road user proficiency; therefore, portions of the system of traffic control devices in this Manual will require updating. In addition, unique situations often arise for device applications that might require interpretation or clarification of this Manual. It is important to have a procedure for recognizing these developments and for introducing new ideas and modifications into the system.

Support:
Except as noted in the Option below, Requests for any interpretation, permission to experiment, interim approval, or change are shall be sent electronically to the Federal Highway Administration (FHWA), Office of Transportation Operations, MUTCD team.

Guidance:

Requests should be submitted electronically to the following e-mail address:
MUTCDofficialrequest@dot.gov.

Option:
Although electronic submittal is strongly preferred by the FHWA, Requests for interpretations, permission to experiment, interim approvals, or changes may instead be mailed to the Office of Transportation Operations, HOTO-1, Federal Highway Administration, 1200 New Jersey Avenue, SE, Washington, DC 20590, if electronic submittal is not possible.

Reason: There is no reason that this has to be a Standard and that it has to be submitted electronically. It may not be convenient for some local jurisdictions. Make it Guidance and also allow mailings.

Support:
Communications regarding other MUTCD matters that are not related to official requests will receive quicker attention if they are submitted electronically to the MUTCD Team Leader or to the appropriate individual MUTCD team member. Their e-mail addresses are available through the links contained on the “Who’s Who” page on the MUTCD website at http://mutcd.fhwa.dot.gov/team.htm.

An interpretation includes a consideration of the application and operation of standard traffic control devices, official meanings of standard traffic control devices, or the variations from standard device designs.

Guidance:
Requests for an interpretation of this Manual should contain the following information:
A. A concise statement of the interpretation being sought;
B. A description of the condition that provoked the need for an interpretation;
C. Any illustration that would be helpful to understand the request; and
D. Any supporting research data that is pertinent to the item to be interpreted.

Support:
Requests to experiment include consideration of field deployment for the purpose of testing or evaluating a new traffic control device, its application or manner of use, or a provision not specifically described in this Manual.
A request for permission to experiment will be considered only when submitted by the public agency or private toll facility responsible for the operation of the road or street on which the experiment is to take place.

A diagram indicating the process for experimenting with traffic control devices is shown in Figure 1A-1.

Guidance:

The request for permission to experiment should contain the following:

A. A statement indicating the nature of the problem.

B. A description of the proposed change to the traffic control device or application of the traffic control device, how it was developed, the manner in which it deviates from the standard, and how it is expected to be an improvement over existing standards.

C. Any illustration that would be helpful to understand the traffic control device or use of the traffic control device.

D. Any supporting data explaining how the traffic control device was developed, if it has been tried, in what ways it was found to be adequate or inadequate, and how this choice of device or application was derived.

E. A legally binding statement certifying that the concept of the traffic control device is not protected by a patent or copyright. (An example of a traffic control device concept would be countdown pedestrian signals in general. Ordinarily an entire general concept would not be patented or copyrighted, but if it were it would not be acceptable for experimentation unless the patent or copyright owner signs a waiver of rights acceptable to the FHWA. An example of a patented or copyrighted specific device within the general concept of countdown pedestrian signals would be a manufacturer’s design for its specific brand of countdown signal, including the design details of the housing or electronics that are unique to that manufacturer’s product. As long as the general concept is not patented or copyrighted, it is acceptable for experimentation to incorporate the use of one or more patented devices of one or several manufacturers.)

F. The time period and location(s) of the experiment.

G. A detailed research or evaluation plan that must provide for close monitoring of the experimentation, especially in the early stages of its field implementation. The evaluation plan should include before and after studies as well as quantitative data describing the performance of the experimental device.

H. An agreement to restore the site of the experiment to a condition that complies with the provisions of this Manual within 3 months following the end of the time period of the experiment. This agreement must also provide that the agency sponsoring the experimentation will terminate the experimentation at any time that it determines significant safety concerns are directly or indirectly attributable to the experimentation. The FHWA’s Office of Transportation Operations has the right to terminate approval of the experimentation at any time if there is an indication of safety concerns. If, as a result of the experimentation, a request is made that this Manual be changed to include the device or application being experimented with, the device or application will be permitted to remain in place until an official rulemaking action has occurred.

I. An agreement to provide semiannual progress reports for the duration of the experimentation, and an agreement to provide a copy of the final results of the experimentation to the FHWA’s Office of Transportation Operations within 3 months following completion of the experimentation. The FHWA’s Office of Transportation Operations has the right to terminate approval of the experimentation if reports are not provided in accordance with this schedule.

Support:
A change includes consideration of a new device to replace a present standard device, an additional device to be added to the list of standard devices, or a revision to a traffic control device application or placement criteria.

Guidance:

Requests for a change to this Manual should contain the following information:

A. A statement indicating what change is proposed;
B. Any illustration that would be helpful to understand the request; and
C. Any supporting research data that is pertinent to the item to be reviewed.

Support: revisions to the interim approval process were to improve clarity

Requests for Interim approval include consideration of allowing interim use, pending official rulemaking, of a new traffic control device, a revision to the application or manner of use of an existing traffic control device, or a provision not specifically described in this Manual. The FHWA issues an Interim Approval by official memorandum signed by the Associate Administrator for Operations and posts this memorandum on the MUTCD website. If granted, The issuance by FHWA of an interim approval will typically result in the traffic control device or application being placed into the next scheduled rulemaking process for revisions to this Manual. The device or application will be permitted to remain in place, under any conditions established in the interim approval, until an official rulemaking action has occurred.

Interim approval is considered based on the results of successful experimentation, results of analytical or laboratory studies, and/or review of non-U.S. experience with a traffic control device or application. Interim approval considerations include an assessment of relative risks, benefits, and costs, impacts, and other factors.

Interim approval allows for optional use of a traffic control device or application and does not create a new mandate or recommendation for use. Interim approval includes conditions that jurisdictions agree to comply with in order to use the traffic control device or application until an official rulemaking action has occurred.

Standard:

A jurisdiction desiring to use a traffic control device for which FHWA has issued an interim approval shall request permission from FHWA.

Guidance:

The request for permission to place a traffic control device under an interim approval should contain the following:

A. A statement indicating the nature of the problem.
B. A description of the proposed change to the traffic control device or application of the traffic control device, how it was developed, the manner in which it deviates from the standard, and how it is expected to be an improvement over existing standards.
C. The location(s) where the device will be used, and any illustration that would be helpful to understand the traffic control device or use of the traffic control device, such as a list of specific locations or highway segments or types of situations, or a statement of the intent to use the device jurisdiction-wide;

B. An agreement to abide by the specific conditions for use of the device as contained in the FHWA’s interim approval document;
C. An agreement to maintain and continually update a list of locations where the device has been installed; and
D. An agreement to;
1. Restore the site(s) of the interim approval to a condition that complies with the provisions in this Manual within 3 months following the issuance of a Final Rule on this traffic control device; and

2. This agreement must also provide that the agency sponsoring the interim approval will Terminate use of the device or application installed under the interim approval at any time that it determines significant safety concerns are directly or indirectly attributable to the device or application. The FHWA’s Office of Transportation Operations has the right to terminate the interim approval at any time if there is an indication of safety concerns.

Option:
A State may submit a request for the use of a device under interim approval for all jurisdictions in that State, as long as the request contains the information listed in the Guidance above.

Standard Guidance:
Once an interim approval is granted to any jurisdiction for a particular traffic control device or application, subsequent jurisdictions shall be granted interim approval for that device or application by submitting a letter to the FHWA’s Office of Transportation Operations indicating they will abide by Item F above and the specific conditions contained in the original interim approval.

A local jurisdiction using a traffic control device or application under an interim approval that was granted by FHWA either directly to that jurisdiction or on a statewide basis based on the State’s request should inform the State of the locations of such use.

Option:
A device or application installed by a jurisdiction under an interim approval may remain in place, under any conditions established in the interim approval, until an official rulemaking action has occurred.

Support:
A diagram indicating the process for incorporating new traffic control devices into this Manual is shown in Figure 1A-2.

Procedures for revising this Manual are set out in the Federal Register of June 30, 1983 (48 FR 30145). deleted because these procedures are no longer used

For additional information concerning interpretations, experimentation, changes, or interim approvals, write to the FHWA, 400 Seventh Street, SW, HOTO, Washington, DC 20590, or visit the MUTCD website at http://mutcd.fhwa.dot.gov.

Section 1A.11 Relation to Other Publications

Standard:
To the extent that they are incorporated by specific reference, the latest editions of the following publications, or those editions specifically noted, shall be a part of this Manual: “Standard Highway Signs and Markings” book (FHWA); and “Color Specifications for Retroreflective Sign and Pavement Marking Materials” (appendix to subpart F of Part 655 of Title 23 of the Code of Federal Regulations).

Support:
The “Standard Highway Signs and Markings” book includes standard alphabets and symbols for highway deleted to increase consistency signs and pavement markings.
For information about the above publications, visit the Federal Highway Administration’s MUTCD website at http://mutcd.fhwa.dot.gov, or write to the FHWA, 400 Seventh Street, SW, 1200 New Jersey Avenue, SE, HOTO, Washington, DC 20590.

The 2000 FHWA publication entitled “Roundabouts—An Informational Guide” (FHWA-RD-00-067) is available at http://www.tfhrc.gov/safety/00068.htm, or write to the FHWA, 1200 New Jersey Avenue, SE, HSA-1, Washington, DC 20590.


Other publications that are useful sources of information with respect to the use of this Manual are listed below. See Page i of this Manual for ordering information for the following publications (later editions might also be available as useful sources of information):


27. “Occupational Safety and Health Administration Regulations (Standards - 29 CFR), General Safety and Health Provisions - 1926.20,” amended June 30, 1993, Occupational Safety and Health Administration (OSHA)


Reason: This is the reference document supporting Part 2M, Changeable Message Signs.


33. PROWAG Public Rights of Way Guidelines

34. AASHTO Guide for the Planning, Design and Operations of Pedestrian Facilities

Section 1A.12 Color Code

Support:
The following color code establishes general meanings for 10 colors of a total of 13 colors that have been identified as being appropriate for use in conveying traffic control information.

Central values and edited to increase accuracy, as there are no central values specified for the various colors. Tolerance limits for each color are contained in 23 CFR Part 655, Appendix to Subpart F and are available from the Federal Highway Administration’s 400 Seventh Street, SW, HOTQ, Washington, DC 20590, and at FHWA’s MUTCD website at http://mutcd.fhwa.dot.gov or by writing to the FHWA, Office of Safety Research and Development (HRD-T-301), 6300 Georgetown Pike, McLean, VA 22101.

The three two colors for which general meanings have not yet been assigned are being reserved for future applications that will be determined only by FHWA after consultation with the States, the engineering community, and the general public. The meanings described in this Section are of a general nature. More specific assignments of colors are given in the individual Parts of this Manual relating to each class of devices.

Standard:

The general meaning of the 13 colors shall be as follows:

A. Black—regulation
B. Blue—road user services guidance, tourist information, and evacuation route
C. Brown—recreational and cultural interest area guidance
D. Coral—unassigned
E. Fluorescent Pink—incident management
F. Fluorescent Yellow-Green—pedestrian warning, bicycle warning, playground warning, school bus and school warning
G. Green—indicated movements permitted, direction guidance
H. Light Blue—unassigned
I. Orange—temporary traffic control
J. Purple—unassigned electronic toll collection (ETC)
K. Red—stop or prohibition
L. White—regulation
M. Yellow—warning

Section 1A.13 Definitions of Words and Phrases in This Manual

Standard:

Unless otherwise defined herein in this Section, or in the other Parts of this Manual, definitions contained words or phrases shall have the meaning(s) as defined in the most recent editions of the “Uniform Vehicle Code,” “AASHTO Transportation Glossary (Highway Definitions),” and other publications specified listed in Section 1A.11 are also incorporated and adopted by reference.

It is the recommendation of the Edit Committee that all definitions shall only be included in Section 1A.13 and nowhere else, for the ease of users finding the applicable definition. It is suggested that the following support statement appear in the Introduction of each part referring users to Section 1A.13 for appropriate definitions:

Definitions and acronyms pertaining to this Part are provided in Sections 1A.13 and 1A.14.
The following words and phrases, when used in this Manual, shall have the following meanings:

1. **Active Grade Crossing Warning System**—the flashing-light signals, with or without warning gates, together with the necessary control equipment used to inform road users of the approach or presence of trains at highway-rail or highway-light rail transit grade crossings.

2. **Alley**—a street or highway intended to provide access to the rear or side of lots or buildings in urban areas and not intended for the purpose of through vehicular traffic.

3. **Approach**—all lanes of traffic moving towards an intersection or a midblock location from one direction, including any adjacent parking lane(s).

4. **Arterial Highway (Street)**—a general term denoting a highway primarily used by through traffic, usually on a continuous route or a highway designated as part of an arterial system.

5. **Average Annual Daily Traffic (AADT)**—the total volume of traffic passing a point or segment of a highway facility in both directions for one year divided by the number of days in the year. Normally, periodic daily traffic volumes are adjusted for hours of the day counted, days of the week, and seasons of the year to arrive at average annual daily traffic.

   **Average Daily Traffic (ADT)**—The average 24 hour volume being the total volume during a stated period divided by the number of days in that period. Normally, it would be periodic daily traffic volumes over several days not adjusted for days of the week or seasons of the year.

   **Reason:** It was requested that ADT be added since it is used in the MUTCD and this edition of the Manual is defining AADT.

6. **Average Day**—a day representing traffic volumes normally and repeatedly found at a location. Where volumes are primarily influenced by employment, the average day is typically a weekday. When volumes are primarily influenced by entertainment or recreation, the average day is typically a weekend day.

7. **Barrier-Separated Lane**—a preferential lane or other special purpose lane that is separated from the adjacent general purpose lane(s) by a physical barrier.

8. **Beacon**—a highway traffic signal with one or more signal sections that operates in a flashing mode.

9. **Bicycle**—a pedal-powered vehicle upon which the human operator sits.

10. **Bicycle Lane**—a portion of a roadway that has been designated for preferential or exclusive use by bicyclists by pavement markings and, if used, signs for preferential or exclusive use by bicyclists.

   **Reason:** Revised to be consistent with Section 9A.03.

11. **Bikeway**—a generic term for any road, street, path, or way that in some manner is specifically designated for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes. Repeated from Section 9A.03 since “bikeway” is now used in the Introduction.

12. **Buffer-Separated Lane**—a preferential lane or other special purpose lane that is separated from the adjacent general purpose lane(s) by a pattern of standard longitudinal pavement markings that is wider than a normal or wide lane line marking. The buffer area might include channelizing devices such as tubular...
markers, rumble strips, textured pavement, or traversable curbs, but does not include a physical barrier.

**Reason: Added to complete possible acceptable methods.**

13. **Centerline Center Line Markings**—the yellow pavement marking line(s) that delineates the separation of traffic lanes that have opposite directions of travel on a roadway. These markings need not be at the geometrical center of the pavement.

14. **Changeable Message Sign**—a sign that is capable of displaying more than one message (one of which might be a “blank” display), changeable manually, by remote control, or by automatic control. These signs are referred to as Dynamic Message Signs in the National Intelligent Transportation Systems (ITS) Architecture.

15. **Channelizing Line Markings**—a wide or double solid white line used to form islands where traffic in the same direction of travel is permitted on both sides of the island.

16. **Circular Intersection**—an intersection that has an island, generally circular in design, located in the center of the intersection where traffic passes to the right of the island. Circular intersections include roundabouts, rotaries, and traffic circles.

17. **Circulatory Roadway**—the roadway within a circular intersection on which traffic travels in a counterclockwise direction around an island in the center of the circular intersection.

18. **Clear Zone**—the total roadside border area, starting at the edge of the traveled way, that is available for an errant driver to stop or regain control of a vehicle. This area might consist of a shoulder, a recoverable slope, and/or a nonrecoverable, traversable slope with a clear run-out area at its toe.

19. **Collector Highway**—a term denoting a highway that in rural areas connects small towns and local highways to arterial highways, and in urban areas provides land access and traffic circulation within residential, commercial, and business areas and connects local highways to the arterial highways.

20. **Concurrent Flow HOV Preferential Lane**—an HOV a preferential lane that is operated in the same direction as the adjacent mixed flow lanes, separated from the adjacent general purpose freeway lanes by a standard lane stripe, painted buffer, or barrier.

21. **Contiguous Lane**—a lane, preferential or otherwise, that is separated from the adjacent lane(s) only by a normal or wide lane line marking.

22. **Conventional Road**—a street or highway other than a low-volume road (as defined in Section 5A.01), expressway, or freeway.

23. **Contraflow Counter-flow Lane**—a lane operating in a direction opposite to the normal flow of traffic designated for peak direction of travel during at least a portion of the day. **Contraflow Counter-flow** lanes are usually separated from the off-peak direction lanes by plastic pylons, tubular markers or other flexible channelizing devices, or by moveable or permanent barrier.

24. **Crashworthy**—a characteristic of a roadside appurtenance that has been successfully crash tested in accordance with a national standard such as the National Cooperative Highway Research Program Report 350, “Recommended Procedures for the Safety Performance Evaluation of Highway Features.”

25. **Crosswalk**—(a) that part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway measured from the curbs or in the absence of curbs, from the edges of the traversable roadway, and in the absence of a sidewalk on one side of the roadway, the part of a roadway included within the extension of the lateral lines of the sidewalk at right angles to the centerline; (b) any portion of a roadway at an intersection or elsewhere distinctly indicated as a pedestrian crossing by pavement.
marking added to increase clarity lines on the surface, which **may** might be supplemented by contrasting pavement texture, style, or color.

26. Crosswalk Lines—white pavement marking lines that identify a crosswalk.

27. Delineator—a retroreflective device mounted on the roadway surface or at the side of the roadway in a series to indicate the alignment of the roadway, especially at night or in adverse weather.

28. Detectable—having a continuous edge within 150 mm (6 in) of the surface so that pedestrians who have visual disabilities can sense its presence and receive usable guidance information.

29. Dynamic Envelope—the clearance required for the train and its cargo overhang due to any combination of loading, lateral motion, or suspension failure.

30. Edge Line Markings—white or yellow pavement marking lines that delineate the right or left edge(s) of a traveled way.

31. **Electronic Toll Collection (ETC)**—a system for collection of toll fees via equipment that communicates wirelessly with transponders mounted in vehicles (moving or stopped) to automatically deduct the toll fee from a pre-paid toll account.

32. End-of-Roadway Marker—a device used to warn and alert road users of the end of a roadway in other than temporary traffic control zones.

33. Engineering Judgment—the evaluation of available pertinent information, and the application of appropriate principles, Standards, Guidance, and practices as contained in this Manual and other sources, for the purpose of deciding upon the applicability, design, operation, or installation of a traffic control device. Engineering judgment shall be exercised by an engineer, or by an individual working under the supervision of an engineer, through the application of procedures and criteria established by the engineer. Documentation of engineering judgment is not required.

34. Engineering Study—the comprehensive analysis and evaluation of available pertinent information, and the application of appropriate principles, Standards, Guidance, and practices as contained in this Manual and other sources, for the purpose of deciding upon the applicability, design, operation, or installation of a traffic control device. An engineering study shall be performed by an engineer, or by an individual working under the supervision of an engineer, through the application of procedures and criteria established by the engineer. An engineering study shall be documented.

35. Expressway—a divided highway with partial control of access.

36. **Flagger**—a person who actively controls the flow of vehicular traffic into and/or through a temporary traffic control zone using hand-signaling devices or an Automated Flagger Assistance Device (AFAD).

37. Flashing—an operation in which **a** light source, such as a signal indication, is turned on and off repetitively, **revised to account for other types of flashing lights such as** TTC warning lights, RR flashing lights, gate lights, and lights on STOP/SLOW paddles.

38. Freeway—a divided highway with full control of access.

39. **Gate**—an automatically-operated or manually-operated traffic control device that is used to physically obstruct road users such that they cannot proceed past a particular point on a roadway or pathway, or such that they cannot enter a particular ramp, lane, roadway, or facility.

40. Guide Sign—a sign that shows route designations, destinations, directions, distances, services, points of interest, or other geographical, recreational, or cultural information.
41. **High-Occupancy Vehicle (HOV)**—a motor vehicle carrying at least two or more persons, including carpools, vanpools, and buses.

42. **Highway**—a general term for denoting a public way for purposes of travel by vehicular travel, including the entire area within the right-of-way.

43. **Highway-Light Rail Transit Grade Crossing**—the general area where a highway and a light rail transit’s right-of-way cross at the same level, within which are included the light rail transit tracks, highway, and traffic control devices for traffic traversing that area.

44. **Highway-Rail Grade Crossing**—the general area where a highway and a railroad’s right-of-way cross at the same level, within which are included the railroad tracks, highway, and traffic control devices for highway traffic traversing that area.

45. **Highway Traffic Signal**—a power-operated traffic control device by which traffic is warned or directed to take some specific action. These devices do not include signals at toll plazas, power-operated signs, steadily-illuminated pavement markers, warning lights (see Section 6F.79), or steady burning electric lamps.

46. **HOV Lane**—any preferential lane designated for exclusive use by high-occupancy vehicles for all or part of a day—including a designated lane on a freeway, other highway, street, or independent roadway on a separate right-of-way.

47. **Hybrid Signal**—a special type of highway traffic signal that is intentionally placed in a dark mode (no indications displayed) between periods of operation and, when operated, displays both steady and flashing traffic control signal indications.

48. **Inherently Low Emission Vehicle (ILEV)**—any kind of vehicle that, because of inherent properties of the fuel system design, will not have significant evaporative emissions, even if its evaporative emission control system has failed.

49. **Interchange**—a system of interconnecting roadways providing for traffic movement between two or more highways that do not intersect at grade.

50. **Intermediate Interchange**—an interchange with an urban or rural route that is not a major or minor interchange as defined herein.

51. **Intersection**—intersection is defined as follows:

   (a) The area embraced within the prolongation or connection of the lateral curb lines, or if none, the lateral boundary lines of the roadways of two highways that join one another at, or approximately at, right angles, or the area within which vehicles traveling on different highways that join at any other angle might come into conflict.

   (b) The junction of an alley or driveway with a roadway or highway shall not constitute an intersection.

   (c) If a highway includes two roadways that are 9 m (30 ft) or more apart, then every crossing of each roadway of such divided highway by an intersecting highway shall be a separate intersection; in the event such intersecting highway also includes two roadways that are 9 m (30 ft) or more apart, then every crossing of two roadways of such highways shall be a separate intersection (see definition of Median). However, regardless of the distance between the separate intersections as defined herein, where a stopping point has not been designated on the roadway (within the median) between the separate intersections, the two intersections and the roadway (median) between them shall be deemed to be one intersection.

   (d) Where a stopping point is designated on a roadway approaching an intersection as defined in Items (a) and (c) above, a vehicle of which any part is legally
beyond said designated stopping point shall be deemed to be legally in the
intersection.

e) A vehicle, which is deemed to have or which has legally entered the intersection
as defined in Items (a) and (c) above, upon departing said intersection shall be
deemed to still be legally in the intersection until:

(1) The rear of the vehicle and any attached trailer(s) clears the intersection; or
(2) Where a marked or unmarked associated crosswalk is present, the rear of
the vehicle and any attached trailer(s) clears said crosswalk.

52. Island—a defined area between traffic lanes for control of vehicular movements or
for pedestrian refuge. It includes all end protection and approach treatments.
Within an intersection area, a median or an outer separation is considered to be an
island.

53. Lane Line Markings—white pavement marking lines that delineate the separation
of traffic lanes that have the same direction of travel on a roadway.

54. Lane-Use Control Signal—a signal face displaying indications to permit or prohibit
the use of specific lanes of a roadway or to indicate the impending prohibition of
such use.

55. Legend—see sign legend

56. Logo—a distinctive emblem, symbol, or trademark that identifies a commercial
business and/or the product or service offered by the business.

57. Longitudinal Markings—pavement markings that are generally placed parallel and
adjacent to the flow of traffic such as lane lines, centerlines, center lines, edge lines,
channelizing lines, and others.

58. Major Interchange—an interchange with another freeway or expressway, or an
interchange with a high-volume multi-lane highway, principal urban arterial, or
major rural route where the interchanging traffic is heavy or includes many road
users unfamiliar with the area.

59. Major Street—the street normally carrying the higher volume of vehicular traffic.

60. Managed Lane—a highway lane or set of lanes, or a highway facility, for which
variable operational strategies such as direction of travel, tolling, pricing, and/or
vehicle type or occupancy requirements are implemented and managed in real-time
in response to changing conditions.

61. Median—the area between two roadways of a divided highway measured from edge
of traveled way to edge of traveled way. The median excludes turn lanes. The
median width might be different between intersections, interchanges, and at
opposite approaches of the same intersection.

62. Minor Interchange—an interchange where traffic is local and very light, such as
interchanges with land service access roads. Where the sum of the exit volumes is
estimated to be lower than 100 vehicles per day in the design year, the interchange is
classified as local.

63. Minor Street—the street normally carrying the lower volume of vehicular traffic.

64. Multi-lane—more than one lane moving in the same direction. A multi-lane street,
highway, or roadway has a basic cross-section comprised of two or more through
lanes in one or both directions. A multi-lane approach has two or more lanes
moving towards the intersection, including turning lanes.

65. Object Marker—a device used to mark obstructions within or adjacent to the
roadway.
66. Occupancy Requirement—any restriction that regulates the use of a facility or one or more lanes of a facility for any period of the day based on a specified number of persons in a vehicle.

67. Occupant—a person driving or riding in a car, truck, bus, or other vehicle.

68. Open Road Electronic Toll Collection—a system designed to allow electronic toll collection (ETC) from vehicles traveling at normal highway speeds.

69. Opposing traffic—vehicles that are traveling in the opposite direction. At an intersection, vehicles that are entering an intersection from an approach that is approximately straight ahead would be considered to be opposing traffic, but vehicles that are entering an intersection from the left or the right from an approach that is approximately perpendicular would not be considered to be opposing traffic.

70. Pathway—a general term denoting a public way for purposes of travel by authorized users outside the traveled way and physically separated from the roadway by an open space or barrier and either within the highway right-of-way or within an independent alignment. Pathways include shared-use paths, but are exclusive of sidewalks.

71. Paved—a bituminous surface treatment, mixed bituminous concrete, or Portland cement concrete roadway surface that has both a structural (weight bearing) and a sealing purpose for the roadway.

72. Pedestrian—a person afoot on foot, in a wheelchair, on skates, or on a skateboard.

73. Pedestrian Facilities—a general term denoting improvements and provisions made to accommodate or encourage walking.

74. Pictograph—a pictorial representation used to identify a governmental jurisdiction, an area of jurisdiction, a governmental agency, a military base or branch of service, or a governmental-approved university or college, or a government-approved institution.

Reason: The government approved institution has been deleted because Institutions can cover a broad range of establishments and it appears desirable to limit the application at this time.

75. Platoon—a group of vehicles or pedestrians traveling together as a group, either voluntarily or involuntarily, because of traffic signal controls, geometrics, or other factors.

76. Preferential Lane—a highway lane reserved for the exclusive use of one or more specific types of vehicles, or road user groups, or number of occupants.

Reason: It is not road user groups that could be the local hoofers, etc., it is the occupants.

77. Principal Legend—place names, street names, and route numbers placed on guide signs.

78. Private Property Open to Public Travel—toll roads and roads within shopping centers, parking lot areas, airports, sports arenas, and other similar business and/or recreation facilities that are privately owned but where the public is allowed to travel without access restrictions. Private gated properties where access is restricted and private highway-rail grade crossings shall not be included in this definition.

79. Public Facility—any parking lot, parking garage, or accessway to or within such facilities, under the jurisdiction of and maintained by a public agency and where the public is invited to travel without access restrictions.

80. Public Road—any road, or street, or public facility under the jurisdiction of and maintained by a public agency and open to public travel.

81. Raised Pavement Marker—a device with a height of at least 10 mm (0.4 in) mounted on or in a road surface that has a height generally not exceeding approximately 25
mm (1 in) above the road surface and that is intended to be used as a positioning guide or to supplement or substitute for pavement markings or to mark the position of a fire hydrant.

82. Regulatory Sign—a sign that gives notice to road users of traffic laws or regulations.

83. Retroreflectivity—a property of a surface that allows a large portion of the light coming from a point source to be returned directly back to a point near its origin.

84. Right-of-Way [Assignment]—the permitting of vehicles and/or pedestrians to proceed in a lawful manner in preference to other vehicles or pedestrians by the display of sign or signal indications.

85. Road—see Roadway.

86. Road User—a vehicle operator, bicyclist, or pedestrian, including persons with disabilities, within the highway, on a public facility, or on private property open to public travel including persons with disabilities.

Reason: Deleted since definition of pedestrian includes people with disabilities.

87. Roadway—that portion of a highway improved, designed, or ordinarily used for vehicular travel and parking lanes, but exclusive of the sidewalk, berm, or shoulder even though such sidewalk, berm, or shoulder is used by persons riding bicycles or other human-powered vehicles. In the event a highway includes two or more separate roadways, the term roadway as used herein shall refer to any such roadway separately, but not to all such roadways collectively.


89. Roundabout Intersection—a circular intersection with yield control of all entering traffic, channelized approaches, and appropriate geometric curvature, such that travel speeds on the circulatory roadway are typically less than 50 km/h (30 mph) at entry, which permits a vehicle on the circulatory roadway to proceed, and with deflection of the approaching vehicle counter-clockwise around a central island.

90. Rumble Strip—a series of intermittent, narrow, transverse areas of rough-textured, slightly raised, or depressed road surface that is installed extend across the travel lane to alert road users to unusual traffic conditions or are located along the shoulder or within islands formed by pavement markings to alert road users that they are leaving the travel lanes or are located along roadway center lines, edited to be consistent with the various uses of this phrase in Parts 3 and 6.

Reason: Added to cover present usage.

91. Rural Highway—a type of roadway normally characterized by lower volumes, higher speeds, fewer turning conflicts, and less conflict with pedestrians.

92. Safe-Positioned—the positioning of emergency vehicles at an incident in a manner that attempts to protect both the responders performing their duties and road users traveling through the incident scene, while minimizing, to the extent practical, disruption of the adjacent flow of traffic.

Reason: Added to clarify intent.

93. School—a public or private educational institution recognized by the State education authority for one or more grades K through 12 or as otherwise defined by the State.

94. School Zone—a designated roadway segment approaching, adjacent to, and beyond school buildings or grounds, or along which school related activities occur, where special traffic law enforcement activities or increased fines for traffic violations are authorized.

Reason: Editorial revision read better and clarify intent.
95. Shared Roadway—a roadway that is officially designated and marked as a bicycle route, but which is open to motor vehicle travel and upon which no bicycle lane is designated.

96. Shared-Use Path—a bikeway outside the traveled way and physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent alignment. Shared-use paths are also used by pedestrians (including skaters, users of manual and motorized wheelchairs, and joggers) and other authorized motorized and non-motorized users.

97. Sidewalk—that portion of a street between the curb line, or the lateral line of a roadway, and the adjacent property line or on easements of private property that is paved or improved and intended for use by pedestrians.

98. Sign—any traffic control device that is intended to communicate specific information to road users through a word or symbol legend. Signs do not include highway traffic control signals, pavement markings, delineators, or channelization devices.

99. Sign Assembly—a group of signs, located on the same support(s), that supplement one another in conveying information to road users.

100. Sign Illumination—either internal or external lighting that shows similar color by day or night. Street or highway lighting shall not be considered as meeting this definition.

101. Sign Legend—all word messages, logos, pictographs, and symbol designs that are intended to convey specific meanings. The border, if any, on a sign is not considered to be a part of the legend.

102. Sign Panel—a separate panel or piece of material containing a word or symbol legend that is affixed to the face of a sign.

103. Signing—individual signs or a group of signs, not necessarily on the same support(s), that supplement one another in conveying information to road users.

104. Speed—speed is defined based on the following classifications:

   (a) Advisory Speed—a recommended speed for all vehicles operating on a section of highway and based on the highway design, operating characteristics, and conditions.
   (b) Average Speed—the summation of the instantaneous or spot-measured speeds at a specific location of vehicles divided by the number of vehicles observed.
   (c) Design Speed—a selected speed used to determine the various geometric design features of a roadway.
   (d) 85th-Percentile Speed—the speed at or below which 85 percent of the motor vehicles travel.
   (e) Operating Speed—a speed at which a typical vehicle or the overall traffic operates. Operating speed might be defined with speed values such as the average, pace, or 85th-percentile speeds.
   (f) Pace Speed—the highest speed within a specific range of speeds that represents more vehicles than in any other like range of speed. The range of speeds typically used is 10–16 km/h or 10 mph speed range representing the speeds of the largest percentage of vehicles in the traffic stream.

Reason: The Pace statistic was based on a 10 mph speed increment with the percentage in pace established on that 10 mph. To be equivalent, the metric value should be 16 km/h.
(g) High Speed – when used in a general context within the provisions of this Manual shall mean highway speeds of 70-80 km/h (45-50 mph) or greater unless otherwise specified.

(h) Low Speed – when used in a general context within the provisions of this Manual shall mean highway speeds of 50 km/h (30 mph) or less unless otherwise specified.

Reason: The terms high and low speed are used extensively throughout the Manual and need to be defined. The other option would be to specify speed either above (high) or below (low) a certain speed rather than using text that says either “high” or “low”.

(g) Posted Speed—the speed limit determined by law or regulation added to increase accuracy and shown displayed edited to increase consistency on Speed Limit signs.

(h) Statutory Speed—a speed limit established by legislative action that typically is applicable for highways with specified design, functional, jurisdictional and/or location characteristic and is not necessarily shown displayed edited to increase consistency on Speed Limit signs.

105. Speed Limit—the maximum (or minimum) speed applicable to a section of highway as established by law or regulation. added to increase accuracy

106. Speed Measurement Markings—a white transverse pavement marking placed on the roadway to assist the enforcement of speed regulations.

107. Speed Zone—a section of highway with a speed limit that is established by law or regulation, added to increase accuracy but which might be different from a legislatively specified statutory speed limit.

108. Splitter Island—a median island used to separate opposing directions of traffic entering and exiting a roundabout.

109. Stop Line—a solid white pavement marking line extending across approach lanes to indicate the point at which a stop is intended or required to be made.

110. Street—see Highway.

111. Symbol—the approved design of a pictorial representation of a specific traffic control message for signs, pavement markings, traffic control signals, or other traffic control devices, as shown in the MUTCD.

112. Temporary Traffic Control Zone—an area of a highway where road user conditions are changed because of a work zone or incident by the use of temporary traffic control devices, flaggers, uniformed law enforcement officers, or other authorized personnel.

113. Traffic—pedestrians, bicyclists, ridden or herded animals, vehicles, streetcars, and other conveyances either singularly or together while using for purposes of travel any highway, public facility, or private property open to public travel for purposes of travel.

114. Traffic Control Device—a sign, signal, marking, or other device used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, public facility, private property open to public travel, pedestrian facility, or shared-use path by authority of a public agency or official having jurisdiction.

115. Traffic Control Signal (Traffic Signal)—any highway traffic signal by which traffic is alternately directed to stop and permitted to proceed.
116. Train—one or more locomotives coupled, with or without cars, that operates on rails or tracks and to which all other traffic must yield the right-of-way by law at highway-rail grade crossings.

117. Transverse Markings—pavement markings that are generally placed perpendicular and across the flow of traffic such as shoulder markings, word and symbol markings, stop lines, crosswalk lines, speed measurement markings, parking space markings, and others.

118. Traveled Way—the portion of the roadway for the movement of vehicles, exclusive of the shoulders, berms, sidewalks, and parking lanes.

119. Turn Bay—a lane for the exclusive use of turning vehicles that is formed on the approach to the location where the turn is to be made. In most cases where turn bays are provided, drivers who desire to turn must move out of a through lane into the newly formed turn bay in order to turn. A through lane that becomes a turn lane is considered to be a drop lane rather than a turn bay.

120. Urban Street—a type of street normally characterized by relatively low speeds, wide ranges of traffic volumes, narrower lanes, frequent intersections and driveways, significant pedestrian traffic, and more businesses and houses.

121. Vehicle—every device in, upon, or by which any person or property can be transported or drawn upon a highway, except trains and light rail transit operating in exclusive or semiexclusive alignments. Light rail transit operating in a mixed-use alignment, to which other traffic is not required to yield the right-of-way by law, is a vehicle.

122. Warning Light—a portable, powered, yellow, lens-directed, enclosed light that is used in a temporary traffic control zone in either a steady burn or a flashing mode.

123. Warning Sign—a sign that gives notice to road users of a situation that might not be readily apparent.

124. Warrant—a warrant describes threshold conditions to the engineer in evaluating the potential safety and operational benefits of traffic control devices and is based upon average or normal conditions. Warrants are not a substitute for engineering judgment. The fact that a warrant for a particular traffic control device is met is not conclusive justification for the installation of the device.

125. Worker—a person on foot whose duties place him or her within the right-of-way of a street, or highway or pathway, such as street, or highway or pathway construction and maintenance forces, survey crews, utility crews, responders to incidents within the street, or highway or pathway right-of-way, and law enforcement personnel when directing traffic, investigating crashes, and handling lane closures, obstructed roadways, and disasters within the right-of-way of a street, or highway or pathway.

Reason: Added pathway since these workers can also be subjected to potential harm.

126. Wrong-Way Arrow—a slender, elongated, white pavement marking arrow placed upstream from the ramp terminus to indicate the correct direction of traffic flow. Wrong-way arrows are intended primarily to warn wrong-way road users that they are going in the wrong direction.

127. Yield Line—a row of solid white isosceles triangles pointing toward approaching vehicles extending across approach lanes to indicate the point at which the yield is intended or required to be made.

Section 1A.14 Meanings of Acronyms and Abbreviations in This Manual

This section added to assist readers
The following acronyms and abbreviations, when used in this Manual, shall have the following meanings:

1. AAA — American Automobile Association
2. AADT — annual average daily traffic
3. AASHTO — American Association of State Highway and Transportation Officials
4. ADT — average daily traffic
5. AFAD — Automated Flagger Assistance Device
6. ANSI — American National Standards Institute
7. AREMA — American Railway Engineering and Maintenance-of-Way Association
8. CFR — Code of Federal Regulations
9. CMS — changeable message sign
10. dBA — A-weighted decibels
11. EPA — Environmental Protection Agency
12. ETC — electronic toll collection
13. EV — electric vehicle
14. FHWA — Federal Highway Administration
15. FRA — Federal Railroad Administration
16. FTA — Federal Transit Administration
17. HOT — high occupancy tolls
18. HOTM — Highways-Office of Travel Management
19. HOTO — Highways-Office of Transportation Operations
20. HOV — high-occupancy vehicle
21. IES — Illuminating Engineering Society
22. ILEV — inherently low emission vehicle
23. ISEA — International Safety Equipment Association
24. ITE — Institute of Transportation Engineers
25. ITS — intelligent transportation systems
26. km/h — kilometers per hour
27. LED — light emitting diode
28. LP — liquid petroleum
29. MPH or mph — miles per hour
30. MUTCD — Manual on Uniform Traffic Control Devices
31. NCHRP — National Cooperative Highway Research Program
32. NCUTCD — National Committee on Uniform Traffic Control Devices
33. OSHA — Occupational Safety and Health Administration
34. PRT — perception-response time
35. RV — recreational vehicle
36. TDD — telecommunication devices for the deaf
37. TRB — Transportation Research Board
38. TTC — temporary traffic control
39. U.S. or US — United States
41. VPH or vph — vehicles per hour

Reason: Periods deleted from acronyms.
Section 1A.14 1A.15  Abbreviations Used on Traffic Control Devices

Standard:
When the word messages shown in Table 1A-1 need to be abbreviated in connection with traffic control devices, the abbreviations shown in Table 1A-1 shall be used.

Reason: These other organizations are mentioned in the MUTCD in a similar manner as the ones listed above.

Table 1A-2. Abbreviations That Shall Only be Used on Portable Changeable Message Signs (Sheet 1 of 2 and Sheet 2 of 2) should be relocated to Part 6F – Portable Changeable Message Signs.