

# **Changes to the Federal MUTCD**

(2003 compared to 2009)

## **Preface**

Because of the length of time between the 2003 and 2009 versions of the MUTCD, this summary of the major changes is very extensive.

Its intended use is as a reference document, because there are over 900 new standards that have been added to the 2009 version. We have highlighted in this document the revisions to the Standard, Option, and Guidance statements, as well as the Tables and Figures that are of significant interest to CDOT.

# **Changes to the Federal MUTCD**

(2003 compared to 2009)

A listing of some of the “key changes” that CDOT Traffic staff has identified for state highways.

**For a complete list of revisions, see** <http://mutcd.fhwa.dot.gov/pdfs/2009/2009mutcdtxtcl.pdf>  
<http://mutcd.fhwa.dot.gov/pdfs/2009/2009mutcdtblcl.pdf>  
<http://mutcd.fhwa.dot.gov/pdfs/2009/2009mutcdfigcl.pdf>

## **General**

Paragraph numbering has been added and paragraph cross references has been added.

## **Introduction**

### **Paragraph**

**1-3 Standard Revised** to include private roads open to public travel.

Toll roads under the jurisdiction of public agencies or authorities or public-private partnerships shall be considered to be public highways.

Parking areas, including the driving aisles within those parking areas that are either publicly or privately owned shall not be considered to be “open to public travel”.

**12 Standard Revised** and definitions for of Standard, Guidance, Option, and Support moved to Paragraph 1 of Section 1A.13.

**23 Standard Revised** to state that when a non-compliant traffic control device is being replaced or refurbished because it is damaged, missing, or no longer serviceable for any reason, it shall be replaced with a compliant device (except as provided in Paragraph 24).

### **Table**

**I-2 Target Compliance Dates Established by the FHWA**  
**New Table.**

## Chapter 1A

### 1A.03 Design of Traffic Control Devices

**Standard Relocated to 2A.06** regarding adherence to the adopted symbols and colors for signs, or following procedures for experimentation and change. Options associated with this standard were also moved to 2A.06.

### 1A.07 Responsibility for Traffic Control Devices

**Standard Revised (Para 1-2)** to include private roads open to public travel.

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

**New Standard (Para 1-2)** to include private roads open to public travel.

**New Standard (Para 7)** regarding signs and other devices that do not have any traffic control purpose that are placed within the highway right-of-way.

### 1A.09 Engineering Study and Engineering Judgment

Extensive revisions and additions to Guidance and Support in this section.

### 1A.10 Interpretations, Experimentations, Changes, and Interim Approvals

**Standard Revised (Para 3)** to mandate that all requests for any interpretation, permission to experiment, interim approval, or change be submitted electronically.

**New Standard (Para 17)** governing requests by a jurisdiction, toll facility operator, or owner of a private road open to public travel that desires to use a traffic control device for which FHWA has issued an interim approval.

### 1A.11 Relation to Other Publications

Extensive revisions and additions to the list of “other publications that are useful sources of information” in the Support section.

### 1A.12 Color Code

**Standard Revised (Para 3)** to assign the color purple to “lanes restricted to use only by vehicles with registered electronic toll collection accounts”.

### 1A.13 Definitions of Headings, Words, and Phrases in this Manual

**Standard Revised (Para 1-2)** to clarify definitions of Standard, Guidance, Option, and Support as used in the Manual.

**Standard Revised (Para 3)** to include headings. Also, other extensive changes, including additions, deletions and revisions.

*1A.14 of 2003 MUTCD has been relocated to Section 1A.15 of the 2009 MUTCD*

### 1A.14 Meanings of Acronyms and Abbreviations in this Manual

**New Section** defining acronyms and abbreviations used in the Manual.

### 1A.15 Abbreviations Used on Traffic Control Devices (formerly Section 1A.14)

**Standard Revised (Para 2)** regarding acceptable word message abbreviations for portable changeable message signs.

**Guidance Added (Para 6)** that unless necessary to avoid confusion, periods, commas, apostrophes, question marks, ampersands, and other punctuation marks or characters that are not letters or numerals should not be used in any abbreviation.

**Table**

**1A-1**

**Acceptable Abbreviations**

Key changes include numerous word deletions/additions, as well as revisions to abbreviations.

**1A-2**

**Abbreviations That Shall be Used Only on Portable Changeable Message Signs**

Key changes include numerous word deletions/additions, as well as revisions to abbreviations.

## Chapter 2A

### 2A.01 Function and Purpose of Signs

**Support Revised** to update the sign requirements contained in each chapter of Part 2.

### 2A.02 Definitions

**Support Revised** to clarify that definitions and acronyms related to signs are listed in Sections 1A.13 and 1A.14.

### 2A.03 Standardization of Application

**Standard Revised** to include private roads opens to public travel.

### 2A.06 Design of Signs

**Standard Relocated (Para 9)** from 1A.03

**Standard Revised (Para 14)** to clarify that Internet web site and e-mail addresses shall not be displayed on any sign, plaque or changeable message signs, except what's listed in Paragraph 16.

**New Standard (Para 17)** to clarify the use of pictographs.

*2A.07 of 2003 MUTCD has been relocated to Chapter 2L of the 2009 MUTCD*

### 2A.07 Retroreflectivity and Illumination (formerly Section 2A.08)

**Standard Revised (Para 7-8)** to clarify the use of LEDs within sign background, except as provided in Paragraphs 11 and 12.

**New Option (Para 11-12)** to clarify the use of LEDs for STOP and YIELD signs, as well as STOP/SLOW and STOP paddles.

*2A.08 of 2003 MUTCD has been relocated to Section 2A.07 of the 2009 MUTCD*

### 2A.08 Maintaining Minimum Retroreflectivity (formerly Section 2A.09)

*2A.09 of 2003 MUTCD has been relocated to Section 2A.08 of the 2009 MUTCD*

### 2A.09 Shapes (formerly Section 2A.10)

*2A.10 of 2003 MUTCD has been relocated to Section 2A.09 of the 2009 MUTCD*

### 2A.10 Sign Colors (formerly Section 2A.11)

*2A.11 of 2003 MUTCD has been relocated to Section 2A.10 of the 2009 MUTCD*

### 2A.11 Dimensions (formerly Section 2A.12)

**Standard Revised (Para 2)** to specify conditions for the use of smaller sign sizes than what is shown in the Minimum columns for conventional roads in the various sign size tables.

**Guidance Added (Para 4-5)** regarding when to use the sign sizes in the Freeway, Expressway and Oversized columns, and taking into account engineering judgment.

**New Guidance (Para 8)** specifying the criteria for plaque sizes with larger sized signs.

*2A.12 of 2003 MUTCD has been relocated to Section 2A.11 of the 2009 MUTCD*

**2A.12**     Symbols *(formerly Section 2A.13)*

**New Standard (Para 8-10)** outlines the use of symbols on signs.

*2A.13 of 2003 MUTCD has been relocated to Section 2A.12 of the 2009 MUTCD*

**2A.13**     Word Messages *(formerly Section 2A.14)*

**New Guidance (Para 4-5)** stating that word messages should not have punctuation, nor characters that are NOT letters, numerals or hyphens.

**New Standard (Para 6)** specifies how fractions are to be displayed on signs.

**New Guidance (Para 8-9)** on how abbreviations and interstate routes, minus the shield, are to be displayed on signs.

**New Standard (Para 11)** – Text regarding sign lettering for places, streets and highways to have upper and lower-case lettering *was changed from Option to Standard.*

**New Support (Para 12)** explains how letter heights are specified or determined.

**New Standard (Para 13-14)** specifying the height of the lower-case lettering in reference to the upper-case lettering when a mixed-case legend is used, and prohibits manipulation of the unique letter forms for each of the Standard Alphabet series.

*2A.14 of 2003 MUTCD has been relocated to Section 2A.13 of the 2009 MUTCD*

**2A.14**     Sign Borders *(formerly Section 2A.15)*

*2A.15 of 2003 MUTCD has been relocated to Section 2A.14 of the 2009 MUTCD*

**2A.15**     Enhanced Conspicuity for Standard Signs

**New Section**, outlining the methods that may be used, as appropriate, to enhance the conspicuity of a standard regulatory, warning, or guide sign.

**2A.18**     Mounting Height

**Standard Revised (Para 1)** to include object markers.

**Standard Revised (Para 4-5)** to clarify sign mounting height criteria.

**New Standard (Para 7-8)** specifying the standard and conditional mounting heights of signs installed above a pedestrian sidewalk or pathway.

**Standard Revised (Para 10-11)** to clarify conditional height criteria for directional signs on freeways and expressways, and specify mounting height criteria for large signs on multi-breakaway posts.

**Standard Revised (Para 14)** to clarify exceptions to vertical clearance requirements for overhead signs.

**2A.19**     Lateral Offset

**Standard Revised (Para 1)** to include object markers.

**Option Revised (Para 10-11)** to clarify sign offset exceptions for conventional roads and in business, commercial or residential areas.

**New Guidance (Para 12)** regarding overhead sign supports and post-mounted sign and object marker supports installed near pedestrian facilities.

### **Table**

*2A-3 of 2003 MUTCD has been relocated to 2A-4 of the 2009 MUTCD*

**2A-3**      **Minimum Maintained Retroreflectivity Levels**

The word “should” has been replaced by “shall” in the asterisk note. The W2-7, W2-8, and W11-16 through W11-22 signs have been added to the list of bold symbol signs.

*2A-4 of 2003 MUTCD has been relocated to 2A-5 of the 2009 MUTCD*

**2A-4**      **Use of Sign Shapes** (formerly Table 2A-3)

The double asterisk note has been revised.

**2A-5**      **Common Uses of Sign Colors** (formerly Table 2A-4)

A row has been added for “ETC-Account Only” and the information that was shown on a single row for Changeable Message Signs has been revised and is now shown on seven different rows. Yellow has been removed as an option for Legend for School signs. The asterisk note at the bottom of the table has been deleted and four new asterisk notes have been added.

### **Figure**

*2A-1 of 2003 MUTCD has been relocated to Figure 2A-2 of the 2009 MUTCD*

**2A-1**      **Examples of Enhanced Conspicuity for Signs**

New Figure

*2A-2 of 2003 MUTCD has been relocated to Figure 2A-3 of the 2009 MUTCD*

**2A-2**      **Examples of Heights and Lateral Locations of Sign Installations** (formerly Figure 2A-1)

The various drawings have been assigned letter designations and Drawing G has been added. In Drawings A, D, and E, the lateral offsets have been revised from 6’ to 12’, and in Drawing B, the shoulder width is specified. In Drawing F, the height is now shown from the top of the island rather than from the roadway. In Drawing H, the shoulder width is no longer specified, the height is now shown from the roadway rather than the shoulder, and the legend on the sign is now shown in upper-case and lower-case letters.

**2A-3**      **Examples of Locations for Some Typical Signs at Intersections** (formerly Figure 2A-2)

The various drawings have been assigned letter designations. In Drawing B, the missing dimension for the lateral offset to the STOP sign has been added.

**2A-4**      **Relative Locations of Regulatory, Warning, and Guide Signs on an Intersection**

**Approach**  
New Figure

## Chapter 2B

### 2B.02 Design of Regulatory Signs

**New Standard (Para 1)** – Text regarding design of regulatory signs *was changed from Support to Standard.*

### 2B.03 Size of Regulatory Signs

**Standard Revised (Para 1)** to indicate that exceptions to the sizes for regulatory signs in Table 2B-1 are located in Section 2A-11.

**New Standard (Para 3)** governing the minimum sizes for regulatory signs facing traffic on multi-lane conventional roads.

**New Standard (Para 6-8)** governing the minimum size of STOP signs.

**New Guidance (Para 9)** regarding minimum sizes for regulatory signs facing traffic on exit and entrance ramps.

*2B.04 of 2003 MUTCD has been relocated to Section 2B.05 of the 2009 MUTCD*

### 2B.04 Right-of-Way at Intersections

**New Section** outlining establishing the right-of-way at intersections (*NOTE: Some of the text was relocated to this Section from Section 2B.05 of the 2003 MUTCD.*)

**Guidance Revised (Para 2-5)** to list the factors to consider when engineering judgment is used to establish intersection control, as well as the criteria for using STOP and YIELD signs.

**Standard Revised (Para 10-13)** to clarify when to use YIELD or STOP signs with any traffic control signal, and when to use a portable or part-time STOP or YIELD sign.

**Option Added (Para 14-15)** to specify when to use portable or part-time (folding) STOP signs.

*2B.05 of 2003 MUTCD has been relocated to Section 2B.06 of the 2009 MUTCD*

### 2B.05 STOP Sign (R1-1) and ALL WAY Plaque (R1-3P) (formerly Section 2B.04)

**Standard Revised (Para 1-6)** regarding the use of R1-1 signs and R1-3P plaques, and prohibiting the use of Supplemental plaques with legends such as 2-WAY, 3-WAY, or 4-WAY.

**New Guidance (Para 8)** to clarify when to use plaques with the appropriate alternative messages, such as TRAFFIC FROM LEFT (RIGHT) DOES NOT STOP or ONCOMING TRAFFIC DOES NOT STOP.

**New Option (Para 9)** to clarify when to use the EXCEPT RIGHT TURN plaque below an R1-1 sign.

*2B.06 of 2003 MUTCD has been relocated to Section 2B.10 of the 2009 MUTCD*



**2B.06** **STOP Sign Applications** *(formerly Section 2B.05)*  
**Guidance Revised (Para 1)** regarding when to consider (based on engineering judgment) using STOP signs on minor street approaches.

**2B.09** **YIELD Sign Applications**  
**Option Revised (Para 1)** to clarify when to install YIELD signs.

**Standard Revised (Para 2-3)** to clarify use and placement of YIELD signs at roundabouts. Also specifies that other than for all of the approaches to a roundabout, YIELD signs shall not be placed on all of the approaches to an intersection.

**2B.10** **STOP Sign or YIELD Sign Placement** *(formerly Section 2B.06)*  
**Standard Revised (Para 2-6)** to consolidate the criteria for STOP and YIELD sign placement, and list the items that are allowed to be affixed or mounted to the fronts or backs of STOP or YIELD signs and their supports.

**Guidance Revised (Para 7-8)** to recommend STOP and YIELD sign location, and conditions for mounting signs back-to-back with STOP or YIELD signs.

**New Option (Para 9)** for using TO ONCOMING TRAFFIC plaque below a YIELD sign.

**Guidance Revised (Para 12-16)** to describe criteria for locating stop lines in reference to STOP signs, STOP signs in reference to crosswalks, and criteria for YIELD signs on raised splitter islands of multi-lane roundabouts.

**Option Revised (Para 17-18)** for placement of YIELD signs on raised splitter islands of single-lane roundabouts, and overhead STOP and YIELD sign installations.

**New Standard (Para 19)** specifying that only one STOP or YIELD sign shall be placed on the same sign support facing in the same direction.

**New Option (Para 20)** outlining the proper use of the NO MERGE AREA plaque.

**2B.11** **Yield Here to Pedestrian Signs and Stop Here For Pedestrians Signs (R1-5 Series)**  
**Standard Revised (Para 1)** to specify that R1-5 series signs shall be used if yield (stop) lines are used in advance of a marked crosswalk that crosses an uncontrolled multi-lane approach.

**Guidance Revised (Para 2-3)** regarding placement of the R1-5 series signs in advance of crosswalks that cross an uncontrolled, multi-lane approach.

**New Option (Para 4-5)** regarding use of R1-5 series signs in advance of crosswalks that cross an uncontrolled, multi-lane approach where yield (stop) lines are not used, and use of in-street and overhead YIELD TO PEDESTRIANS warning signs with downward pointing arrow plaques with R1-5 series signs.

**New Standard (Para 6)** regarding use of post-mounted Pedestrian Crossing signs in combination with R1-5 series signs.

**New Option (Para 7-8)** allowing the use of the Pedestrian Crossing sign with an AHEAD or distance supplemental plaque, or in-street pedestrian crossing signs, in conjunction with a R1-5 series sign.

- 2B.12** **In-Street and Overhead Pedestrian Crossing Signs (R1-6, R1-6a, R1-9, and R1-9a)**  
**Option Revised (Para 1-2)** to include R1-9 and R1-9a overhead signs and allow highway agencies to develop and apply criteria for determining the applicability of R1-6 and R1-6a in-street crossing signs.
- New Standard (Para 3-5)** to specify the proper placement and mounting of R1-6 and R1-6a in-street and R1-9 and R1-9a overhead crossing signs.
- Standard Revised (Para 8-11)** to include the use and layout of R1-9 and R1-9a overhead signs and sign support specifications for R1-6 and R1-6a in-street crossing signs that are not installed on a physical island.
- New Standard (Para 13)** to define the vertical clearances for R1-6 and R1-6a in-street crossing signs.
- New Option (Para 15)** to allow the use of pedestrian crossing sign types and the YIELD HERE TO sign together at the same crosswalk.
- 2B.13** **Speed Limit Sign (R2-1) (formerly Section 2B.18)**  
**Standard Revised (Para 1-4)** to better define how speed limits are established, and where to position the R2-1 signs.
- New Support (Para 6-7)** detailing how the maximum speed limits for rural and urban roads are established.
- New Option (Para 8)** regarding the use of CITYWIDE, NEIGHBORHOOD, RESIDENTIAL and UNLESS OTHERWISE POSTED plaques along with SPEED LIMIT signs on the streets that enter a city, neighborhood, or residential area to indicate the speed limit that is applicable to the entire city, neighborhood, or residential area unless otherwise posted.
- Guidance Revised (Para 9-13)** to include: Guidelines on the use the REDUCED SPEED LIMIT AHEAD sign; examples of significant changes that should be considered when re-evaluating non-statutory speed limits on roads; and parameters for speed studies at signalized intersection approaches.
- New Support (Para 14)** on the value of using advanced warning signs and traffic control devices versus reduced speed limit zones approaching signalized intersections.
- New Guidance (Para 15)** to explain the proper use of advisory speed plaques below a warning sign for certain roadway conditions.
- 2B.14** **Truck Speed Limit Plaque (R2-2P)**  
Change R2-2 sign classification to R2-2P plaque.
- 2B.15** **Night Speed Limit Plaque (R2-3P)**  
Change R2-3 sign classification to R2-3P plaque.
- 2B.16** **Minimum Speed Limit Plaque (R2-4P)**  
Change R2-4 sign classification to R2-4P plaque.

**2B.17 Higher Fines Signs and Plaque (R2-6P, R2-10, and R2-11)**

**New Standard (Para 1-2)** – Text regarding use of R2-6, R2-10 and R2-11 signs **was changed from Option to Standard**. FINES DOUBLE plaques must now be mounted **below** an applicable regulatory or warning sign

**Standard Revised (Para 4)** to specify that FINES DOUBLE signs/plaques be rectangular in shape and to delete information related to school, work zone or other applicable designated zone plaques (this information relocated to Section 7B).

**Option Revised (Para 6-8)** to add Alternate legends for R2-10 and R2-11 signs.

**New Support (Para 9)** to identify sections containing information regarding other signs and plaques associated with increased fines for traffic violations in temporary traffic control/school zones.

*2B.18 of 2003 MUTCD has been relocated to Section 2B.13 of the 2009 MUTCD*

**2B.18 Movement Prohibition Signs (R3-1 through R3-4, R3-18, and R3-27)**  
**(formerly Section 2B.19)**

The term “Movement” replaced “Turns” to accommodate the new “No Straight Through” R3-27 sign.

**New Guidance (Para 8)** regarding the use of at least one R3-27 sign at a highway segment where traveling straight is prohibited.

**New Standard (Para 14)** prohibiting use of R3-2, R3-4, and R3-18 signs at roundabout approaches.

*2B.19 of 2003 MUTCD has been relocated to Section 2B.18 of the 2009 MUTCD*

**2B.19 Intersection Lane Control Signs (R3-5 through R3-8)** **(formerly Section 2B.20)**

**New Guidance (Para 4-5)** to clarify usage of using R3-5 through R3-8 signs overhead, as well as alternate non-overhead sign mounting, at signalized intersection approaches.

*2B.20 of 2003 MUTCD has been relocated to Section 2B.19 of the 2009 MUTCD*

**2B.20 Mandatory Movement Lane Control Signs (R3-5, R3-5a, R3-7, and R3-20)**  
**(formerly Section 2B.21)**

**Standard Revised (Para 1)** regarding locations for R3-5, R3-5a, R3-7, and R3-20 signs.

**New Standard (Para 4)** specifying that when R3-5 and R3-5a signs are used overhead at an intersection approach of three or more travel lanes, that they be mounted over the specific lanes to which they apply.

**New Guidance (Para 5-6)** – Paragraph 5, regarding the use of post-mounted R3-5/R3-5a signs on an approach with two or fewer through lanes along with supplemental plaques **was changed from Standard to Guidance**. Paragraph 6 was added regarding the proper locations for the R3-7 word message sign.

**New Option (Para 11)** for locating post-mounted R3-20R and R3-20L signs.

*2B.21 of 2003 MUTCD has been relocated to Section 2B.20 of the 2009 MUTCD*

**2B.21**     **Optional Movement Lane Control Sign (R3-6) (formerly Section 2B.22)**  
**Standard Revision (Para 1)** to allow R3-6 signs to be placed in advance of the intersection.

**Standard Revised (Para 5)** to require that the R3-6 sign be mounted over the specific lane to which it applies if used where the number of lanes available to through traffic on an approach is three or more.

**New Guidance (Para 6)** recommends adding supplemental plaques for post-mounted R3-6 signs on an approach with two or fewer through lanes.

**New Standard (Para 8)** prohibits using the ONLY text with R3-6 signs.

*2B.22 of 2003 MUTCD has been relocated to Section 2B.21 of the 2009 MUTCD*

**2B.22**     **Advance Intersection Lane Control Signs (R3-8 Series) (formerly Section 2B.23)**  
**New Option (Para 4)** allowing repeating R3-8 series signs closer to intersections for emphasis.

**New Standard (Para 5)** to require that the R3-8 sign be post-mounted in advance of the intersection if used where the number of lanes available to through traffic on an approach is three or more.

*2B.23 of 2003 MUTCD has been relocated to Section 2B.22 of the 2009 MUTCD*

**2B.23**     **RIGHT (LEFT) LANE MUST EXIT Sign (R3-33)**  
**New Option (Para 1)** gives a conditional choice to use R3-33 signs as a supplement to overhead EXIT ONLY guide signs.

**2B.25**     **BEGIN and END Plaques (R3-9cP, R3-9dP)**  
**New Option (Para 1)** for conditional use of R3-9cP and R3-9dP plaques with regulatory signs.

**New Standard (Para 2)** requiring that R3-9cP and R3-9dP plaques be mounted directly above regulatory signs.

*2B.26 of 2003 MUTCD has been relocated to Section 2G.03 of the 2009 MUTCD*

*2B.27 of 2003 MUTCD has been relocated to Section 2G.04 of the 2009 MUTCD*

**2B.27**     **Jughandle Signs (R3-23, R3-24, R3-25, and R3.26 Series)**  
**New Section** outlining the use and placement of jughandle regulatory signs.

*2B.28 of 2003 MUTCD has been relocated to Section 2G.05 of the 2009 MUTCD*

**2B.28**     **DO NOT PASS Sign (R4-1) (formerly Section 2B.29)**

*2B.29 of 2003 MUTCD has been relocated to Section 2B.28 of the 2009 MUTCD*

**2B.29**     **PASS WITH CARE Sign (R4-2) (formerly Section 2B.30)**

*2B.30 of 2003 MUTCD has been relocated to Section 2B.29 of the 2009 MUTCD*

**2B.30**     **KEEP RIGHT EXCEPT TO PASS Sign (R4-16) and SLOWER TRAFFIC KEEP RIGHT (R4-3) (formerly Section 2B.31)**  
New Option (Para 1) allowing using a R4-16 sign on multi-lane roadways.

*2B.31 of 2003 MUTCD has been relocated to Section 2B.30 of the 2009 MUTCD*

**2B.31**     **TRUCKS USE RIGHT LANE Sign (R4-5) (formerly Section 2B.32)**  
The Slow Moving Traffic Lane sign (R4-6) has been deleted from this section and the MUTCD.

Option Revised (Para 3) to allow use of R4-5 signs on multi-lane roadways.

*2B.32 of 2003 MUTCD has been relocated to Section 2B.31 of the 2009 MUTCD*

**2B.32**     **KEEP RIGHT and KEEP LEFT Signs (R4-7, R4-8) (formerly Section 2B.33)**  
Option Revised (Para 8) to specify locations where the narrow R4-7c sign may be installed.

New Standard (Para 9) prohibiting the installation of R4-7c signs on certain medians.

*2B.33 of 2003 MUTCD has been relocated to Section 2B.32 of the 2009 MUTCD*

**2B.33**     **STAY IN LANE Sign (R4-9)**  
New Section, outlining the proper use of the R4-9 sign and the recommended complimentary pavement markings.

*2B.34 of 2003 MUTCD has been relocated to Section 2B.37 of the 2009 MUTCD*

**2B.34**     **RUNAWAY VEHICLES ONLY Sign (R4-10)**  
New Section, outlining the proper use of the R4-10 sign.

*2B.35 of 2003 MUTCD has been relocated to Section 2B.38 of the 2009 MUTCD*

**2B.35**     **Slow Vehicle Turn-Out Signs (R4-12, R4-13, and R4-14)**  
New Section, outlining the proper use of and locations for the R4-12, R4-13 and R4-14 signs.

*2B.36 of 2003 MUTCD has been relocated to Section 2B.39 of the 2009 MUTCD*

**2B.36**     **DO NOT DRIVE ON SHOULDER Sign (R4-17) and DO NOT PASS ON SHOULDER Sign (R4-18)**  
New Section, outlining the proper use of the R4-17 and R4-18 signs.

*2B.37 of 2003 MUTCD has been relocated to Section 2B.40 of the 2009 MUTCD*

**2B.37**     **DO NOT ENTER Sign (R5-1) (formerly Section 2B.34)**

*2B.38 of 2003 MUTCD has been relocated to Section 2B.42 of the 2009 MUTCD*

**2B.38**     **WRONG WAY Sign (R5-1a) (formerly Section 2B.35)**

*2B.39 of 2003 MUTCD has been relocated to Section 2B.46 of the 2009 MUTCD*

**2B.39**     **Selective Exclusion Signs (formerly Section 2B.36)**

**Support Revised** to change some of the wording on exclusion signs and add three more to the list.

*2B.40 of 2003 MUTCD has been relocated to Section 2B.47 of the 2009 MUTCD*

**2B.40**     **ONE-WAY Signs (R6-1, R6-2) (formerly Section 2B.37)**

**New Standard (Para 3)** – Text regarding the proper use of R6-1 and R6-2 signs at an intersection with a divided highway that has a median width at the intersection itself of 30 feet or more ***was changed from Guidance to Standard.***

**New Standard (Para 4)** regarding the proper use and location of R6-1 and R6-2 signs and/or KEEP RIGHT (R4-7) signs at an intersection with a divided highway that has a median width at the intersection itself of less than 30 feet.

**New Standard (Para 9-10)** regarding the proper use and location of R6-1 and R6-2 signs at signalized and unsignalized T-intersections where the roadway at the top of the T-intersection is a one-way roadway.

**New Option (Para 11)**, allowing the use of R6-1 and R6-2 signs where the central island of a roundabout allows for the installation of signs.

**New Option (Para 14)** regarding the proper use of the BEGIN ONE WAY (R6-6) and END ONE WAY (R6-7) signs.

*2B.41 of 2003 MUTCD has been relocated to Section 2B.48 of the 2009 MUTCD*

**2B.41**     **Wrong-Way Traffic Control at Interchange Ramps**

**(NOTE: The text was relocated to this Section from Section 2E.50 of the 2003 MUTCD.)**

*2B.42 of 2003 MUTCD has been relocated to Section 2B.49 of the 2009 MUTCD*

**2B.42**     **Divided Highway Crossing Signs (R6-3, R6-3a) (formerly Section 2B.38)**

**New Standard (Para 1)** – Text regarding the proper use of the R6-3 and R6-3a signs ***was changed from Option to Standard,*** and new language was added regarding the use of these signs on unsignalized minor-street approaches to divided highways that have a median width at the intersection itself of 30 feet or more.

**New Standard (Para 5)** – Text regarding the proper locations for the R6-3 and R6-3a signs ***was changed from Option to Standard.***

**New Option (Para 6)** allowing the installation of an additional R6-3 and R6-3a sign on left side of the minor street approach at a divided highway crossing.

*2B.43 of 2003 MUTCD has been relocated to Section 2B.50 of the 2009 MUTCD*

**2B.43**     **Roundabout Directional Arrow Signs (R6-4, R6-4a, and R6-4b)**

**New Section**, outlining the design and proper use of R6-4 series signs.

*2B.44 of 2003 MUTCD has been relocated to Section 2B.51 of the 2009 MUTCD*

**2B.44**     **Roundabout Circulation Plaque (R6-5P)**  
New Section, outlining the proper use and installation of R6-5P plaques.

*2B.45 of 2003 MUTCD has been relocated to Sections 2B.52, 2B.53, and 2B.54 of the 2009 MUTCD*

**2B.45**     **Examples of Roundabout Signing**  
New Section, specifying the MUTCD sections containing examples of roundabout signing, as well as information regarding guide signing and pavement markings at roundabouts.

*2B.46 of 2003 MUTCD has been relocated to Section 2B.55 of the 2009 MUTCD*

**2B.46**     **Parking, Standing, and Stopping Signs (R7 and R8 Series) (formerly Section 2B.39)**  
Support Revised adding examples of parking, stopping and standing signs/plaques.

*2B.47 of 2003 MUTCD has been relocated to Section 2B.57 of the 2009 MUTCD*

**2B.47**     **Design of Parking, Standing, and Stopping Signs (formerly Section 2B.40)**  
Standard Revised (Para 2-3) to include the color schemes for the R8-4, R8-7 and R8-3 signs and the alternate design for the R7-201P plaque.

Standard Revised (Para 8) to specify the proper use of the VAN ACCESSIBLE (R7-8P) plaque and the design of the R7-8P plaque and R7-8 sign.

New Guidance (Para 16) for using Pay Parking (R7-22) and Pay Station (R7-20) signs.

New Standard (Para 17) requiring that appropriate time limit be posted on Pay Parking (R7-21 or R7-21a) and Pay Station (R7-20) signs.

Option Revised (Para 18-19) to include the NO STOPPING ON PAVEMENT (R8-5) and NO STOPPING EXCEPT ON SHOULDER (R8-6) signs, and several word message supplemental plaques.

*2B.48 of 2003 MUTCD has been relocated to Section 2B.58 of the 2009 MUTCD*

**2B.48**     **Placement of Parking, Stopping, and Standing Signs (formerly Section 2B.41)**

*2B.49 of 2003 MUTCD has been relocated to Section 2B.59 of the 2009 MUTCD*

**2B.49**     **Emergency Restriction Signs (R8-4, R8-7, R8-8) (formerly Section 2B.42)**

*2B.50 of 2003 MUTCD has been relocated to Section 2B.60 of the 2009 MUTCD*

**2B.50**     **WALK ON LEFT FACING TRAFFIC and No Hitchhiking Signs (R9-1, R9-4, R9-4a) (formerly Section 2B.43)**

*2B.51 of 2003 MUTCD has been relocated to Section 2B.61 of the 2009 MUTCD*

**2B.51**     **Pedestrian Crossing Signs (R9-2, R9-3) (formerly Section 2B.44)**

*2B.52 of 2003 MUTCD has been relocated to Section 2B.62 of the 2009 MUTCD*

**2B.52** **Traffic Signal Pedestrian and Bicycle Actuation Signs (R10-1 through R10-4, and R10-24 through R10-26)**  
*(NOTE: The text was relocated to this Section from Section 2B.45 of the 2003 MUTCD.)*  
Standard Revised (Para 1) to include bicyclist actuation.

Option Revised (Para 6) to include R10-3e, R10-24, R10-25 and R10-26 signs.

*2B.53 of 2003 MUTCD has been relocated to Section 2B.63 of the 2009 MUTCD*

**2B.53** **Traffic Signal Signs (R10-5 through R10-30)** *(formerly Section 2B.45)*  
New Guidance (Para 3) for proper location of LEFT ON GREEN ARROW (R10-5), LEFT TURN YIELD ON GREEN (R10-12), and LEFT TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27) signs.

New Option (Para 4) for using an additional LEFT TURN YIELD ON GREEN (R10-12) with an AT SIGNAL (R10-31P) supplemental plaque.

Standard Revised (Para 6-8) to include conditions for using CROSSWALK STOP ON RED (R10-23) sign and EMERGENCY SIGNAL – STOP ON FLASHING RED (R10-14 or R10-14a) sign.

*2B.54 of 2003 MUTCD has been relocated to Section 2B.66 of the 2009 MUTCD*

**2B.54** **No Turn on Red Signs (R10-11 Series, R10-17a and R10-30)** *(formerly Section 2B.45)*  
New Option (Para 5-6) allowing conditional use of blank-out signs in place of NO TURN ON RED or No Right Turn symbol or word message signs, and allowing the conditional use of NO TURN ON RED EXCEPT FROM RIGHT LANE (R10-11c) and NO TURN ON RED FROM THIS LANE (R10-11d) signs at signalized approaches.

New Option (Para 8) allowing conditional use of RIGHT TURN ON RED MUST YIELD TO U-TURN (R10-30) sign.

**2B.55** **Photo Enforced Signs and Plaques (R10-18, R10-19P, R10-19aP)** *(formerly Section 2B.46)*

**2B.56** **Ramp Metering Signs (R10-28 and R10-29)**  
New Section, outlining the proper use and location of Ramp Metering Signs (R10-28 and R10-29).

**2B.57** **KEEP OFF MEDIAN Sign (R11-1)** *(formerly Section 2B.47)*

**2B.58** **ROAD CLOSED Sign (R11-2) and LOCAL TRAFFIC ONLY Signs (R11-3 Series, R11-4)** *(formerly Section 2B.48)*

**2B.60** **Weigh Station Signs (R13 Series)** *(formerly Section 2B.50)*

**2B.61** **TRUCK ROUTE Sign (R14-1)** *(formerly Section 2B.51)*

**2B.62** **Hazardous Material Signs (R14-2, R14-3)** *(formerly Section 2B.52)*

**2B.63** **National Network Signs (R14-4, R14-5)** *(formerly Section 2B.53)*



- 2B.64**     **Headlight Use Signs (R16-5 through R16-11)**  
**New Section**, outlining the proper use and location of Headlight Use Signs (R16-5 through R16-11).
- 2B.65**     **FENDER BENDER Sign (R16-4)**  
**New Section**, outlining the use of the R16-4 signs.
- 2B.66**     **Seat Belt Symbol**  
*(NOTE: The text was relocated to this Section from Section 2B.54 “Other Regulatory Signs” of the 2003 MUTCD.)*
- 2B.67**     **Barricades**  
*(NOTE: The text was relocated to this Section from Section 3F.01 of the 2003 MUTCD.)*
- 2B.68**     **Gates**  
**New Section**, specifying the proper design, location and delineation of gates used for weather or other emergency conditions.

**Table**  
**2B-1**

**Regulatory Sign and Plaque Sizes**

The phrase “or Plaque” has been added to the name of the first column and all of the plaques in this column have been labeled as being a “plaque”. A “P” has been added to the sign code of these plaques in the second column. The name of the second column has been changed from “MUTCD Code” to “Sign Designation.” The “Conventional Road” column has been split into two columns, one for single-lane roads and one for multi-lane roads. The values in the “Single Lane” column were formerly in the “Conventional Road” column unless otherwise specifically noted in this list of revisions. All of the values in the “Multi-Lane” column have been added.

**Deleted Signs:** R4-6, R7-9, R7-9a, R8-8, R8-9, R8-10, R9-5, R9-6, R9-7, R9-8, R9-9, R9-10, R9-11, R9-11a, R10-22, R15-1, and R15-8

**New Signs:** The R1-5b, R1-5c, R1-9, R1-9a, R2-10, R2-11, R3-20, R3-23 series, R3-24 series, R3-25 series, R3-26 series, R3-27, R3-33, R4-7c, R4-8a, R4-8b, R4-8c, R4-9, R4-10, R4-12, R4-13, R4-14, R4-16, R4-17, R4-18, R5-11, R6-4, R6-4a, R6-4b, R6-6, R6-7, R7-20, R7-21, R7-21a, R7-22, R7-23, R7-23a, R7-203, R9-13, R9-14, R10-11c, R10-11d, R10-14, R10-14a, R10-14b, R10-23, R10-25, R10-27 through R10-30, and R16-4 through R16-11

**New Plaques:** R1-10P, R2-5P, R2-5aP, R2-5bP, R2-5cP, R2-6aP, R2-6bP, R3-5bP, R3-5cP, R3-5dP, R3-5eP, R3-5fP, R3-5gP, R3-9cP, R3-9dP, R6-5P, R8-3bP, R8-3cP, R8-3dP, R8-3eP, R8-3fP, R8-3gP, R8-3hP, R10-19P, R10-31P, and R10-32P

The Conventional Road size for the R1-2aP, R1-5, R1-5a, R10-5, R10-8, R10-10, R10-11a, R10-11b, R10-12, R10-13, R10-17a, R10-18, and R13-1 signs and plaques has been increased. The Conventional Road size for the R2-6P plaque and the R10-15 sign has been decreased.

The Expressway size for the R13-1 sign has been increased. The Expressway size for the R2-6P plaque has been decreased. An Expressway size has been added for the R1-2aP plaque and the R10-5 sign.

The Freeway size for the R6-2 and R13-1 signs has been increased. The Freeway size for the R2-6P plaque and the R5-4 and R10-18 signs has been decreased. A Freeway size has been added for the R1-2aP plaque and the R8-7 sign.

The Minimum size for the R1-1 sign has been increased. The Minimum size for the R9-4a sign has been decreased. A Minimum size has been added for the R2-1, R4-3, R5-1a, R5-3, R5-6, and R10-5 signs and the R1-2aP plaque. The Minimum size for the R6-3 and R6-3a signs and the R7-8P plaque has been deleted.

The Oversized size for the R5-2, R5-2a, and R10-11 signs has been decreased. A new Oversized size has been added for the R1-5, R1-5a, R2-1, R2-4a, R3-8, R3-8a, R3-8b, R4-1, R4-2, R4-3, R4-5, R4-7, R4-7a, R4-7b, R4-8, R5-1, R5-1a, R5-7, R5-8, R6-1, R6-2, R6-3, R6-3a, R8-1, R8-2, R8-3, R8-3a, R8-4, R8-5, R8-6, R8-7, R9-3, R9-4, R10-6, R10-6a, and R10-18 signs and the R1-3P, R2-2P, R2-3P, R2-4P, R2-6P, and R10-19aP plaques. The Oversized size for the R10-11a and R10-11b signs has been deleted.

## **Figure**

### **2B-1**

#### **STOP and YIELD Signs and Plaques**

The speed limit, fines higher, and photo enforced signs have been deleted from the title, as all of these signs have been relocated to Figure 2B-3. The phrase “and Plaques” has been added to the title. The R1-3 plaque has been deleted and the sign code of the R1-4 plaque has been revised to R1-3P. A “P” has been added to the sign code of the R1-2aP plaque, and the R1-10P plaque has been added.

### **2B-2**

#### **Unsignalized Pedestrian Crosswalk Signs**

**New Signs:** R1-5b, R1-5c, R1-9, and R1-9a

### **2B-3**

#### **Speed Limit and Photo Enforcement Signs and Plaques**

**New Plaques:** R2-5P, R2-5aP, R2-5bP, R2-5cP, R2-6aP, R2-6bP, and R10-19P

The phrase “Turn Prohibition” has been replaced by “Photo Enforcement” in the title, as all of the turn prohibition signs have been relocated to Figure 2B-4. The phrase “and Plaques” has been added to the title.

The R2-1 and R10-18 signs and the R2-2P, R2-3P, R2-6P, and R10-19aP plaques have been relocated from Figure 2B-1.

A “P” has been added to the sign codes of the R2-2P, R2-3P, R2-4P, and R2-6P plaques. The shape of the R2-6P plaque has been revised, and a symbol has been added to the R10-18 sign. The sign code of the R10-19 plaque has been revised to R10-19aP.

### **2B-4**

#### **Movement Prohibition and Lane Control Signs and Plaques**

**New Signs:** R3-20L, R3-20R, R3-27, and R3-33

The word “Intersection” has been replaced by the phrase “Movement Prohibition and” in the title. The phrase “and Plaques” has been added to the title.

The R3-1, R3-2, R3-3, R3-4, and R3-18 signs have been relocated from Figure 2B-3.

A “P” has been added to the sign codes of the R2-5bP through R2-5gP plaques, and the phrase “Supplemental Plaque” has been deleted in six places.

*2B-5 of 2003 MUTCD has been relocated to Figure 2B-6 of the 2009 MUTCD*

**2B-5 Intersection Lane Control Sign Arrow Options for Roundabouts  
New Figure.**

*2B-6 of 2003 MUTCD has been relocated to Figure 2B-7 of the 2009 MUTCD*

**2B-6 Center and Reversible Lane Control Signs and Plaques (formerly Figure 2B-5)  
New Plaques: R3-9cP and R3-9dP.**

The sign code of the R3-9d sign has been revised to R3-9e.

The horizontal line on the R3-9e sign has been deleted.

The legend “Colorado Blvd” is now shown in upper-case and lower-case letters without a period at the end in two places.

*2B-7 of 2003 MUTCD has been relocated to Figure 2G-1 of the 2009 MUTCD*

**2B-7 Location of Reversible Two-Way Left-Turn Signs (formerly Figure 2B-6)**

*2B-8 of 2003 MUTCD has been relocated to Figure 2B-10 of the 2009 MUTCD*

**2B-8 Jughandle Regulatory Signs  
New Figure.**

*2B-9 of 2003 MUTCD has been relocated to Figure 2B-11 of the 2009 MUTCD*

**2B-9 Examples of Applications of Jughandle Regulatory and Guide Signing  
New Figure.**

*2B-10 of 2003 MUTCD has been relocated to Figure 2B-12 of the 2009 MUTCD*

**2B-10 Passing, KEEP RIGHT, and Slow Traffic Signs (formerly Figure 2B-8)  
New Signs: R4-7c, R4-8b, R4-8c, R4-12, R4-13, R4-14, R4-16, R4-17, and R4-18**

**Deleted Sign: R4-6**

The phrase “Truck Lane” has been replaced by “Slow Traffic” in the title.

*2B-11 of 2003 MUTCD has been relocated to Figure 2B-13 of the 2009 MUTCD*

**2B-11 Selective Exclusion Signs (formerly Figure 2B-9)  
The phrase “Traffic Prohibition” has been replaced by “Selective Exclusion” in the title.**

The legends on the R5-4, R5-5, R5-7, R5-8, R5-10a, R5-10b, and R5-10c signs have been revised.

**New Signs:** R5-11, R9-13, and R9-14

*2B-12 of 2003 MUTCD has been relocated to Figure 2B-14 of the 2009 MUTCD*

**2B-12 Locations of Wrong-Way Signing for Divided Highways with Median Widths of 30 Feet or Wider (formerly Figure 2B-10)**

The word “Example” has been replaced by “Locations” in the title, and left-turn pavement marking arrows have been added in the left-turn lanes.

*2B-13 of 2003 MUTCD has been relocated to Figure 2B-15 of the 2009 MUTCD*

**2B-13 ONE WAY and Divided Highway Crossing Signs (formerly Figure 2B-11)**  
New Signs: R6-6, and R6-7

*2B-14 of 2003 MUTCD has been relocated to Figure 2B-16 of the 2009 MUTCD*

**2B-14 Locations of ONE WAY Signs (formerly Figure 2B-12)**

**NOTE: In the 2003 MUTCD, Figure 2B-12 consisted of two sheets.**

The phrase “Examples of” has been deleted from the title.

The bottom half of the drawing on Sheet 1 has been deleted.

On Sheet 2, the drawing showing the mounting height and lateral offset and the bottom drawing have been deleted. On the middle drawing on Sheet 2, the south leg has been extended so that the Two-Way Traffic warning signs could be shown further from the intersection. The ONE WAY signs on the southeast corner have been added. Two END ONE WAY signs have been added. The LEFT LANE MUST TURN LEFT sign has been added.

All STOP signs and stop bars have been deleted.

*2B-15 of 2003 MUTCD has been relocated to Figure 2B-17 of the 2009 MUTCD*

**2B-15 ONE WAY Signing for Divided Highways with Median Widths of 30 Feet or Wider (formerly Figure 2B-13)**

The phrase “Examples of” has been deleted from the title.

Optional one-way signs have been added in two places within the median. The note regarding YIELD signs has been added at the bottom of the figure.

*2B-16 of 2003 MUTCD has been relocated to Figure 2B-24 of the 2009 MUTCD*

**2B-16 ONE WAY Signing for Divided Highways with Median Widths Narrower Than 30 Feet (formerly Figure 2B-14)**

The phrase “Examples of” has been deleted from the title.

The Divided Highway Crossing signs under the STOP signs have been deleted in three places.

*2B-17 of 2003 MUTCD has been relocated to Figure 2B-25 of the 2009 MUTCD*

**2B-17**     **ONE WAY Signing for Divided Highways with Median Widths Narrower Than 30 Feet and Separated Left-Turn Lanes**

*(formerly Figure 2B-15)*

The phrase “Examples of” has been deleted from the title.

The Divided Highway Crossing signs under the STOP signs have been deleted in three places.

*2B-18 of 2003 MUTCD has been relocated to Figure 2B-26 of the 2009 MUTCD*

**2B-18**     **Example of Application of Regulatory Signing and Pavement Markings at an Exit Ramp Termination to Deter Wrong-Way Entry**

*(formerly Figure 2E-39)*

The option of using a STOP sign instead of a YIELD sign for the channelized right-turn lane has been added. The note regarding the use of a stop line if a STOP sign is installed has also been added.

*2B-19 of 2003 MUTCD has been relocated to Figure 2B-27 of the 2009 MUTCD*

**2B-19**     **Example of Application of Regulatory Signing and Pavement Markings at an Entrance Ramp Terminal Where the Design Does Not Clearly Indicate the Direction of Flow**

*(formerly Figure 2E-40)*

The geometry of the ramp at the point where it intersects the mainline lanes has been revised and a dotted line has been added that extends the right-hand edge line of the mainline lanes across the downstream end of the ramp.

*2B-20 of 2003 MUTCD has been relocated to Figure 2B-29 of the 2009 MUTCD*

**2B-20**     **Roundabout Signs and Plaques**

New Figure.

*2B-21 of 2003 MUTCD has been relocated to Figure 2B-30 of the 2009 MUTCD*

**2B-21**     **Example of Regulatory and Warning Signs for a Mini-Roundabout**

New Figure.

*2B-22 of 2003 MUTCD has been relocated to Figure 2B-32 of the 2009 MUTCD*

**2B-22**     **Example of Regulatory and Warning Signs for a One-Lane Roundabout**

New Figure.

**2B-23**     **Example of Regulatory and Warning Signs for a Two-Lane Roundabout with Consecutive Double Lefts**

New Figure.

**2B-24**     **Parking and Standing Signs and Plaques (R7 Series)** *(formerly Figure 2B-16)*

New Signs: R7-20, R7-21, R7-21a, R7-22, R7-23, and R7-23a

The vertically-stacked R7-200 sign code has been changed to R7-200a, and the sign codes of the R7-2 and R7-2a have been switched.

The sign code of the R7-8a plaque has been revised to R7-8P; the R7-8b plaque has been relocated to Figure 2I-1.

The sign code of the R7-201a plaque has been revised to R7-201P, and an alternative R7-201P plaque with a red legend has been added.

The sign code of the R7-201 plaque has been revised to R7-201aP, and the color of the R7-2 time limit sign has been changed from black to red.

All plaques have a “P” added to the sign code.

**2B-25** **Parking and Stopping Signs and Plaques (R8 Series)** *(formerly Figure 2B-17)*

**New Signs:** R8-3bP, R8-3eP, R8-3fP, R8-3gP, and R8-3hP.

The sign codes for R8-3 and R8-3a have been switched.

A “P” has been added to the sign code of the R8-3c and R8-3d plaques, and the phrase “Supplemental Plaque” has been deleted in two places.

**2B-26** **Pedestrian Signs and Plaques** *(formerly Figure 2B-18)*

**New Signs:** R10-3f, R10-3g, R10-3h, R10-3i, and R10-25.

**New Plaque:** R10-32P.

The R10-4b sign was deleted and replaced by the R10-3 sign.

The sign codes for R9-3 and R9-3a and R9-4 and R9-4a have been switched.

The design of the R10-1 sign has been revised.

The design of the R10-3 sign has been revised and its sign code has been changed to R10-4.

The design of the R10-3a sign has been revised and its sign code has been changed to R10-4a.

The legends “PUSH BUTTON” and “TO CROSS” have been reversed at the bottom of the R10-3b, R10-3c, R10-3d, and R10-3e signs.

The design of the R10-4 sign has been revised, and its sign code has been changed to R10-3.

The design of the R10-4a sign has been revised and its sign code has been changed to R10-3a.

**2B-27** **Traffic Signal Signs and Plaques** *(formerly Figure 2B-19)*

**New Signs:** R10-11c, R10-11d, R10-14, R10-14a, R10-14b, R10-23, R10-27, and R10-30.

**New Plaque: R10-31P.**

The phrase “and Plaques” has been added to the title.

The design of the R10-15 sign has been revised and the design of the R10-17a sign has been slightly revised.

The designs of the R10-20aP plaques have been revised, and a “P” has been added to the sign code.

**2B-28**     **Ramp Metering Signs**  
**New Figure**

**2B-29**     **Road Closed and Weight Limit Signs** *(formerly Figure 2B-20)*  
The design of the R12-4 sign has been slightly revised.

**2B-30**     **Truck Signs** *(formerly Figure 2B-21)*  
The design of the R13-1 sign has been revised, and the asterisk and asterisk note have been added.

The M4-4 sign has been deleted, as it is more appropriately shown in Chapter 2D.

**2B-31**     **Headlight Use Signs**  
**New Figure**

**2B-32**     **Other Regulatory Signs and Symbols**  
**New Sign: R16-4.**

## **Chapter 2C** *(formerly Chapter 3C)*

*2C.01 of 2003 MUTCD has been relocated to Section 2K.01 of the 2009 MUTCD.*

*2C.02 of 2003 MUTCD has been relocated to Section 2K.02 of the 2009 MUTCD*

**2C.02     Application of Warning Signs**

**New Option (Para 3)** allowing VMS to display warning messages.

**2C.03     Design of Warning Signs**

**Standard Revised (Para 1)** to indicate exemptions to using “diamond-shape” warning signs.

**New Option (Para 2-3)** to allow using warning signs with rectangular or square shape if a specific warning sign is larger than what’s listed in Table 2C-2, and to allow minor design alterations to the warning signs.

**New Standard (Para 6)** requiring signs related to school buses and crossings and their related supplemental plaques to have black borders and lettering over fluorescent yellow-green background.

**2C.04     Size of Warning Signs**

**Standard Revised (Para 1)** to provide an exception to the sizes for warning signs shown in Table 2C-2.

**New Standard (Para 3)** specifying the minimum size for all diamond-shaped warning signs facing traffic on a multi-lane conventional road where the posted speed limit is higher than 35 mph.

**New Option (Para 5)** regarding the proper size of diamond-shaped warning signs placed on the left-hand side of a multi-lane roadway to supplement the same sign on the right-hand side of the roadway.

**New Guidance (Para 7)** regarding using Table 2C-2 for determining the size of diamond-shaped warning signs facing traffic on exit and entrance ramps on expressways and freeways.

**2C.05     Placement of Warning Signs**

**Support Revised (Para 2)** to introduce Perception-Response Time (PRT).

*2C.06 of 2003 MUTCD has been relocated to Section 2C.07 of the 2009 MUTCD*

**2C.06     Horizontal Alignment Warning Signs**

**New Section**, outlining the proper use of the horizontal alignment warning signs.

*2C.07 of 2003 MUTCD has been relocated to Section 2C.10 of the 2009 MUTCD*

**2C.07     Horizontal Alignments Signs (W1-1 through W1-5, W1-11, W1-15)**  
*(formerly Section 2C.06)*

**Standard Revised (Para 1)** requiring using Table 2C-5, not engineering judgment, to determine what horizontal curve alignment signs to use in advance of the horizontal curves. In addition, a W1-1 sign shall be used in place of a curve sign in advance of a curve with an advisory speed of 30 MPH or less.



**New Guidance (Para 3)** regarding using W1-3 and W1-4 curve signs.

**Option Revised (Para 4-7)** clarifying the conditional use of W1-5, W1-11, and W1-15 signs.

*2C.08 of 2003 MUTCD has been relocated to Section 2C.11 of the 2009 MUTCD*

**2C.08 Advisory Speed Plaque (W13-1P) (formerly Section 2C.46)**

**Standard Revised (Para 2, 5-6)** regarding the use of the Advisory Speed plaque, requiring a W13-1P plaque to be used with a warning sign, and that the advisory speed be determined by an engineering study following engineering practices.

**New Support (Para 7-8)** describing the established engineering practices that are appropriate for the determination of the recommended advisory speed for a horizontal curve.

**New Guidance (Para 9)** recommending that the advisory speed be based on free-flowing traffic conditions.

*2C.09 of 2003 MUTCD has been relocated to Section 2C.12 of the 2009 MUTCD*

**2C.09 Chevron Alignment Sign (W1-8) (formerly Section 2C.10)**

**Standard Revised (Para 1)** – Text regarding use W1-8 signs in accordance with Table 2C-5 *was changed from Option to Standard.*

**Standard Revised (Para 4)** to require that the W1-8 sign be installed a minimum of 4 feet from the elevation of the travel way edge to the bottom of the sign.

**Guidance Revised (Para 5)** to refer to Table 2C-6 for the horizontal placement of W1-8 signs along horizontal curves.

**New Standard (Para 7-8)** prohibiting placing W1-8 signs on the far side of a T-intersection facing traffic on the stem approach, or using them to mark obstructions within or adjacent to the roadway, including the beginning of guardrails or barriers.

*2C.10 of 2003 MUTCD has been relocated to Section 2C.09 of the 2009 MUTCD*

**2C.10 Combination Horizontal Alignment/Advisory Speed Signs (W1-1a, W1-2a) (formerly Section 2C.07)**

**New Option (Para 2)** regarding the use of the W1-1a or W1-2a sign to supplement the advance Horizontal Alignment warning sign and Advisory Speed plaque, based upon an engineering study.

**Standard Revised (Para 3)** to outline the proper use of the W1-1a and W1-2a signs.

*2C.11 of 2003 MUTCD has been relocated to Section 2C.13 of the 2009 MUTCD*

**2C.11 Combination Horizontal Alignment/Intersection Signs (W1-10 Series) (formerly Section 2C.08)**

**New Standard (Para 3)** specifying that the use of W1-10 signs shall be in accordance with the appropriate Turn or Curve sign information shown in Table 2C-5.

*2C.12 of 2003 MUTCD has been relocated to Section 2C.16 of the 2009 MUTCD*

**2C.12** **One-Direction Large Arrow Sign (W1-6)** *(formerly Section 2C.09)*  
**Option Revised (Para 1-2)** allowing the use of the W1-6 sign as a supplement or alternative to W1-8 signs, and to supplement a Turn or Reverse Turn sign (see Figure 2C-2).

**Standard Added (Para 4)** requiring that the W1-6 sign be used in accordance with the information shown in Table 2C-5.

**Standard Added (Para 7)** prohibiting the use of W1-6 signs directing traffic to the right on center islands of roundabouts.

*2C.13 of 2003 MUTCD has been relocated to Section 2C.17 of the 2009 MUTCD*

**2C.13** **Truck Rollover Warning Sign (W1-13)** *(formerly Section 2C.11)*  
**New Support (Para 2)** describing engineering practices that are appropriate for determining the truck rollover potential of a horizontal curve.

*2C.14 of 2003 MUTCD has been relocated to Section 2C.18 of the 2009 MUTCD*

**2C.14** **Advisory Exit and Ramp Speed Signs (W13-2 and W13-3)** *(formerly Section 2C.36)*  
**Standard Revised (Para 1)** to require that the use of W13-2 and W13-3 signs on freeway and expressway ramps follow the information shown in Table 2C-5.

**Guidance Revised (Para 2)** to recommend that the advisory speed displayed on W13-2 and W13-3 signs should be based on an engineering study. In addition, when a W1-13 sign is also installed for the ramp, the advisory exit speed should be based on the truck advisory speed for the horizontal alignment using recommended engineering practices.

**Guidance Revised (Para 5-6)** outlining the proper use of W13-3 signs.

**New Option (Para 7)** outlining the proper use of a horizontal alignment warning sign with an advisory speed plaque at or beyond the beginning of the exit curve or on the outside of the curve, and at intermediate points along the ramp.

*2C.15 of 2003 MUTCD has been relocated to Section 2C.19 of the 2009 MUTCD*

**2C.15** **Combination Horizontal Alignment/Advisory Exit and Ramp Speed Signs (W13-6 and W13-7)**  
**New Section** outlining the proper uses of W13-6 and W13-7 signs and the recommended complimentary pavement markings.

*2C.16 of 2003 MUTCD has been relocated to Section 2C.20 of the 2009 MUTCD*

**2C.16** **Hill Signs (W7-1, W7-1a)** *(formerly Section 2C.12)*

*2C.17 of 2003 MUTCD has been relocated to Section 2C.21 of the 2009 MUTCD*

**2C.17** **Truck Escape Ramp Signs (W7-4 Series)** *(formerly Section 2C.13)*

*2C.18 of 2003 MUTCD has been relocated to Section 2C.22 of the 2009 MUTCD*

**2C.18** **HILL BLOCKS VIEW Sign (W7-6)** *(formerly Section 2C.14)*

*2C.19 of 2003 MUTCD has been relocated to Section 2C.23 of the 2009 MUTCD*

**2C.19 ROAD NARROWS Sign (W5-1) (formerly Section 2C.15)**

**Option Added (Para 2)** allowing the omission of W5-1 signs on low-volume local streets with speed limits of 30 MPH or less.

*2C.20 of 2003 MUTCD has been relocated to Section 2C.25 of the 2009 MUTCD*

**2C.20 NARROW BRIDGE Sign (W5-2) (formerly Section 2C.16)**

*2C.21 of 2003 MUTCD has been relocated to Section 2C.26 of the 2009 MUTCD*

**2C.21 ONE LANE BRIDGE Sign (W5-3) (formerly Section 2C.17)**

*2C.22 of 2003 MUTCD has been relocated to Section 2C.27 of the 2009 MUTCD*

**2C.22 Divided Highway Sign (W6-1) (formerly Section 2C.18)**

**New Standard** prohibiting using a W6-1 sign instead of a Keep Right (R4-7 series) sign on the approach end of a median island.

*2C.23 of 2003 MUTCD has been relocated to Section 2C.28 of the 2009 MUTCD*

**2C.23 Divided Highway Ends Sign (W6-2) (formerly Section 2C.19)**

**New Guidance (Para 2)** – Text regarding the Two-Way Traffic sign **was changed from Option to Guidance.**

*2C.24 of 2003 MUTCD has been relocated to Section 2C.29 of the 2009 MUTCD*

**2C.24 Freeway or Expressway ends Signs (W19 Series)**

**New Section**, offering proper usage of W19-1, W19-2, W19-3, W19-4, and W19-5 signs.

*2C.25 of 2003 MUTCD has been relocated to Section 2C.30 of the 2009 MUTCD*

**2C.25 Double Arrow Sign (W12-1) (formerly Section 2C.20)**

*2C.26 of 2003 MUTCD has been relocated to Section 2C.31 of the 2009 MUTCD*

**2C.26 DEAD END/NO OUTLET signs (W14-1, W14-1a, W14-2, W14-2a) (formerly Section 2C.26)**

**Standard Added (Para 4)** specifying the design requirements for W14-1a and W14-2a signs.

*2C.27 of 2003 MUTCD has been relocated to Section 2C.32 of the 2009 MUTCD*

**2C.27 Low Clearance Signs (W12-2 and W12-2p W12-2a) (formerly Section 2C.22)**

**2C.28 BUMP and DIP Signs (W8-1, W8-2) (formerly Section 2C.23)**

*2C.29 of 2003 MUTCD has been relocated to Section 2C.36 of the 2009 MUTCD*

**2C.29 SPEED HUMP Sign (W17-1) (formerly Section 2C.24)**

*2C.30 of 2003 MUTCD has been relocated to Section 2C.38 of the 2009 MUTCD*

**2C.30 PAVEMENT ENDS Sign (W8-3) (formerly Section 2C.25)**

*2C.31 of 2003 MUTCD has been relocated to Section 2C.40 of the 2009 MUTCD*

**2C.31 Shoulder Signs (W8-4, W8-9) W8-17, W8-23, and W8-25) (formerly Section 2C.26)**

**New Option (Para 4-6)** allowing the use of a W8-17P plaque below the W8-17 sign. In addition, a W8-23 sign may be used to warn motorists that a shoulder does not exist, and the W8-25 sign may be used to warn motorists that a shoulder is ending.

*2C.32 of 2003 MUTCD has been relocated to Section 2C.41 of the 2009 MUTCD*

**2C.32 Surface Condition Signs (W8-5, W8-7, W8-8, W8-11, W8-13, and W8-14) (formerly Sections 2C.27 and 2C.28)**

**Option Added (Para 1-6)** outlining the use of the W8-5, W8-7, W8-8, W8-11, W8-13, and W8-14 signs.

*2C.33 of 2003 MUTCD has been relocated to Section 2C.42 of the 2009 MUTCD*

**2C.33 Warning Signs and Plaques for Motorcyclists (W8-15, W8-15P, and W8-16)**

**New Section**, outlining proper usage of the W8-15, and W8-16 signs and the W8-15P plaque.

*2C.34 of 2003 MUTCD has been relocated to Section 2C.44 of the 2009 MUTCD*

**2C.34 NO CENTER LINE sign (W8-12)**

**New Section**, outlining the proper use of the W8-12 sign.

*2C.35 of 2003 MUTCD has been relocated to Section 2C.45 of the 2009 MUTCD*

**2C.35 Weather Condition Signs (W8-18, W8-19, W8-21, and W8-22)**

**New Section**, outlining the proper use of the W8-18, W8-19, W8-21, and W8-22 signs.

*2C.36 of 2003 MUTCD has been relocated to Section 2C.14 of the 2009 MUTCD*

**2C.36 Advance Traffic Control Signs (W3-1, W3-2, W3-3, and W3-4) (formerly Section 2C.29)**

*2C.37 of 2003 MUTCD has been relocated to Section 2C.46 of the 2009 MUTCD*

**2C.37 Advance Ramp Control Signal Signs (W3-7 and W3-8)**

**New Section**, outlining the proper use of the W3-7 and W3-8 signs.

*2C.38 of 2003 MUTCD has been relocated to Section 2C.47 of the 2009 MUTCD*

**2C.38 Reduced Speed Limit Ahead Signs (W3-5 and W3-5a) (formerly Section 2C.30)**

**Guidance Revised** adding the use of the W3-5 or W3-5a sign to inform road users of a reduced speed zone where the speed limit is reduced by more than 10 mph.

*2C.39 of 2003 MUTCD has been relocated to Section 2C.48 of the 2009 MUTCD*

**2C.39**     **DRAW BRIDGE Sign (W3-6)**  
New Section, outlining the proper use of the W3-6 sign.

*2C.40 of 2003 MUTCD has been relocated to Section 2C.49 of the 2009 MUTCD*

**2C.40**     **Merge Signs (W4-1, and W4-5) (formerly Section 2C.31)**  
New Option (Para 8-10) outlining the proper use of the W4-5 sign with a NO MERGE AREA (W4-5P) supplemental plaque, a W4-1 sign with a W4-5P plaque. For a yield-controlled channelized right-turn movement onto a roadway without an acceleration lane, a W4-5P plaque may be mounted below a Yield Ahead (W3-2) sign and/or below a YIELD (R1-2) sign.

*2C.41 of 2003 MUTCD has been relocated to Section 2C.50 of the 2009 MUTCD*

**2C.41**     **Added Lane Signs (W4-3, W4-6) (formerly Section 2C.32)**

*2C.42 of 2003 MUTCD has been relocated to Section 2C.51 of the 2009 MUTCD*

**2C.42**     **Lane Ends Signs (W4-2, W9-1, and W9-2) (formerly Section 2C.33)**  
New Guidance (Para 3) regarding the use of the W9-1 sign.

**New Support (Para 5)** – Text with information on pavement markings with lane reduction *was changed from Option to Support.*

**New Standard** prohibiting the use of W4-2, W9-1, and W9-2 signs in “dropped lane” situations. Instead, use regulatory signs (see Section 2B.20) in “dropped lane” situations.

*2C.43 of 2003 MUTCD has been relocated to Section 2C.53 of the 2009 MUTCD*

**2C.43**     **RIGHT (LEFT) LANE EXIT ONLY AHEAD (W9-7)**  
New Section, outlining the proper usage and layout of the W9-7 sign.

*2C.44 of 2003 MUTCD has been relocated to Section 2C.54 of the 2009 MUTCD*

**2C.44**     **Two-Way Traffic Sign (W6-3) (formerly Section 2C.34)**

*2C.45 of 2003 MUTCD has been relocated to Section 2C.55 of the 2009 MUTCD*

**2C.45**     **NO PASSING ZONE Sign (W14-3) (formerly Section 2C.35)**

*2C.46 of 2003 MUTCD has been relocated to Section 2C.08 of the 2009 MUTCD*

**2C.46**     **Intersection Warning Signs (W2-1 through W2-8) (formerly Section 2C.37)**  
New Guidance (Para 3) recommending using the Circular Intersection (W2-6) symbol sign in advance of roundabouts with approaches that have a speed limit of 40 mph or higher.

**Option Added (Para 4)** regarding the use of an educational plaque with a legend such as ROUNDABOUT (W16-17P) or TRAFFIC CIRCLE (W16-12P) mounted below a W2-6 sign.

**Guidance Added (Para 9-11)** specifying a conditional use of a W2-8 sign and the proper layouts for the W2-7 and W2-8 symbol signs.

**New Support** informing that Figure 2A-4 shows the typical placement of the W2-1 through W2-8 signs.

*2C.47 of 2003 MUTCD has been relocated to Section 2C.56 of the 2009 MUTCD*

**2C.47** **Two-Direction Large Arrow Sign (W1-7)** (formerly Section 2C.38)  
**New Standard (Para 4)** prohibiting the use of the W1-7 sign in the central island of roundabouts.

*2C.48 of 2003 MUTCD has been relocated to 2C.57 of the 2009 MUTCD*

**2C.48** **Traffic Signal Signs (W25-1, W25-2)** (formerly Section 2C.39)

*2C.49 of 2003 MUTCD has been relocated to Section 2C.58 of the 2009 MUTCD*

**2C.49** **Vehicular Traffic Warning Signs (W8-6, W11-1, W11-5, W11-5a, W11-8, W11-10, W11-11, W11-12P, W11-14, W11-15, and W11-15a)** (formerly Section 2C.40)  
**Option Added (Para 5-6)** outlining the proper use of W11-15, W11-15P and W11-15a bicycle/pedestrian crossing signs.

**New Guidance (Para 8)** recommending using AHEAD or XX FEET plaques with W11-15 and W11-15a signs.

**New Standard (Para 9)** specifying that if a W11-1, W11-11, W11-15, or W11-15a sign is post-mounted at the location where a shared-path users are crossing the roadway, a diagonal pointing arrow (W16-7P) plaque must be mounted below the sign.

**New Option (Para 10)** allowing the use of crosswalk markings on roadways with W11-11, W11-11, W11-15, or W11-15a signs.

*2C.50 of 2003 MUTCD has been relocated to Section 2C.59 of the 2009 MUTCD*

**2C.50** **Non-Vehicular Warning Signs (W11-2, W11-3, W11-4, W11-6, W11-7, W11-9, and W11-16 through W11-22)** (formerly Section 2C.41)  
**New Guidance (Para 3)** – Text outlining supplementing W11-2, W11-6, W11-7, and W11-9 signs with AHEAD or XX FEET plaques **was changed from Option to Guidance.**

**Standard Revised (Para 4)** to specify that if a W11-2, W11-6, W11-7, or W11-9 sign is post-mounted at the location where a shared-path users are crossing the roadway, a diagonal downward pointing arrow (W16-7P) plaque must be mounted below the sign.

**New Option (Para 5)** allowing the placement of an overhead or post-mounted W11-2 sign with a diagonal downward pointing arrow (W16-7P) plaque at the crosswalk location where YIELD HERE TO PEDESTRIANS signs have been installed in advance of the crosswalk.

**New Standard (Para 6)** specifying that if a W11-2 sign has been post-mounted at the crosswalk location where a YIELD HERE TO PEDESTRIANS sign is used on the approach, the YIELD HERE TO PEDESTRIANS sign shall not be placed on the same post as or block the road user's view of the W11-2 sign.

**Option Added (Para 7)** allowing the use of a W11-2 sign with an AHEAD or a distance supplemental plaque in conjunction with a YIELD HERE TO PEDESTRIANS sign on the approach to the same crosswalk.

*2C.51 of 2003 MUTCD has been relocated to Section 2C.60 of the 2009 MUTCD*

**2C.51**     **Playground Sign (W15-1)** *(formerly Section 2C.42)*

**2C.52**     **NEW TRAFFIC PATTERN AHEAD Sign (W23-2)**  
New Section outlining the use of the W23-2 sign.

*2C.53 of 2003 MUTCD has been relocated to Section 2C.61 of the 2009 MUTCD*

**2C.53**     **Use of Supplemental Warning Plaques** *(formerly Section 2C.43)*  
Standard Added (Para 3) requiring that supplemental warning plaques be mounted below the sign they supplement.

**2C.54**     **Design of Supplemental Warning Plaques** *(formerly Section 2C.44)*  
Standard Revised (Para 1) to specify that supplemental warning plaques used with a regulatory sign shall have a black legend and border on a yellow background

**2C.55**     **Distance Plaques (W16-2 Series, W16-3 Series, W16-4P, W7-3aP)**  
*(formerly Section 2C.44)*

**2C.56**     **Supplemental Arrow Plaques (W16-5P, W16-6P)** *(formerly Section 2C.47)*

**2C.57**     **Hill-Related Plaques (W7-2 Series, W7-3 Series)** *(formerly Section 2C.48)*

**2C.58**     **Advance Street Name Plaque (W16-8P, W16-8aP)** *(formerly Section 2C.49)*  
New Standard (Para 2-3) specifying the lettering on W16-8P or W16-8aP plaques be composed of a combination lower-case, with initial upper-case, letters. If two street names are used on the W16-8P or W16-8aP plaques, a directional arrow pointing in the direction of the street shall be placed next to each street name. Arrows pointing to the left shall be placed to the left of the street name, and arrows pointing to the right shall be placed to the right of the street name.

New Guidance (Para 4) regarding how the street names and associated arrows should be displayed when two street names are used on W16-8P or W16-8aP plaques.

**2C.59**     **CROSS TRAFFIC DOES NOT STOP Plaque (W4-4P)** *(formerly Section 2C.50)*  
New Guidance (Para 2) regarding the use of the alternative messages on the W4-4aP and W4-4bP plaques at intersections where STOP signs control all but one approach to the intersection, unless the only non-stopped approach is from a one-way street.

**2C.60**     **SHARE THE ROAD Plaque (W16-1P)** *(formerly Section 2C.51)*  
New Standard (Para 2) prohibiting the use a W16-1P plaque alone, and outlining its proper use and layout.

**2C.61**     **Photo Enforced Plaque (W16-10P)** *(formerly Section 2C.53)*

**2C.62**     **NEW Plaque (W16-15P)**  
New Section outlining the use of the R16-15P plaque.

**2C.63** **Object Marker Design and Placement Height** (formerly Section 3C.01)  
**Standard Revised (Para 2)** to prohibit borders on object markers and add a Type 4 object marker description.

**Guidance Added (Para 7)** suggesting that object markers should not present a vertical or horizontal clearance obstacle for pedestrians. (NOTE: The text was relocated from last paragraph of Section 3A.03 of the 2003 MUTCD.)

**New Support (Para 9)** to identify a section containing information on using object markers on shared-use paths.

**2C.64** **Object Markers for Obstructions Within the Roadway** (formerly Section 3C.02)  
**Option Added (Para 2)** allowing the installation of a Type 1 or Type 3 object marker at or near the approach end of a median island.

**2C.65** **Object Markers for Obstructions Adjacent to the Roadway** (formerly Section 3C.03)  
**Standard Added (Para 3-4)**, specifying the proper usage of object markers for obstructions adjacent to roadways.

**2C.66** **Object Markers for Ends of Roadways** (formerly Section 3C.04)  
**Standard Revised (Para 2)** specifying conditional use for the Type 4 object marker.

**Table**  
**2C-1**

**Categories of Warning Signs and Plaques**

The phrase “and Plaques” has been added to the title of the figure and to the title of the fourth column.

The title of the last column has been changed from “MUTCD Codes” to “Sign Designations.”

The “Supplemental Plaques” category is now called the “Other Supplemental Plaques” category.

A “Weather” group has been added to the “Roadway Related” category.

A “New” group has been added to the “Traffic Related” category.

“Location” and “New” groups have been added to the “Other Supplemental Plaques” category.

The “Change in Speed” group in the “Traffic Related” category and the “Speed” and “Hill-Related” groups in the “Other Supplemental Plaques” category have been deleted, as these signs and plaques have been relocated to the “Roadway Related” category.

The “Traffic Circle” group in the “Other Supplemental Plaques” category has been deleted, as this plaque has been relocated to the “Traffic Related” category.

**2C-2** **Warning Sign and Plaque Sizes**

All of the information in the first three columns of the new table is new.



The “Conventional Road” column has been split into two columns, one for single-lane roads and one for multi-lane roads.

W10 series signs and the W13-5 sign have been deleted.

The Conventional Road size has been increased for the W1-13, W8-4, W8-6, W8-7, W8-8, W8-9, W8-12, W8-13, W9-1, and W9-2 signs. The Conventional Road size has been decreased for the W3-1, W3-2, W3-3, W12-1, and W12-2a signs.

The Expressway size has been increased for the W8-4 sign. The Expressway size has been decreased for the W1-10 and W12-1 signs. The Expressway size has been added for the W1-6 sign. The Expressway size has been deleted for the W12-2a, W17-1, W25-1, and W25-2 signs.

The Freeway size has been decreased for the W1-1, W1-2, W1-3, W1-4, W1-5, W7-1, and W7-1a signs. The Freeway size has been added for the W1-6 sign. The Freeway size has been deleted for the W2-1, W2-2, W2-3, W2-4, W2-5, W2-6, W4-5, W4-6, W7-6, W8-3, W8-7, W11 series, W12-1, W12-2a, W14-1, W14-2, W15-1, W17-1, W25-1, and W25-2 signs.

The Minimum size has been increased for the W9-1 and W9-2 signs. The Minimum size has been deleted for the W1 series, W3-5, W3-5a, W4-5, W4-6, W6-1, W6-2, W6-3, W7-6, W8-12, W11-9, W12-1, W13-2, W13-3, W25-1, and W25-2 signs.

The Oversized size has been added for the W1-1, W1-1a, W1-2, W1-2a, W1-3, W1-4, W1-5, W1-8, W1-11, W1-13, W1-15, W2 series, W7-1, W7-1a, W7-6, W8-1, W8-2, W8-4, W8-5, W8-6, W8-7, W8-8, W8-9, W8-13, W9-1, W9-2, W11 series, W14-1, W14-2, W15-1, and W17-1 signs. The Oversized size has been deleted for the W25-1 and W25-2 signs.

#### **2C-4 Guidelines for Advance Placement of Warning Signs**

The distances in the Condition A column have been increased for the speeds in the 30 through 55 mph range.

The distance in the Condition B (10 mph) column has been increased for the speed of 65 mph.

The distances in the Condition B (20 mph) column have been increased for the speeds of 50 and 60 mph.

The distances in the Condition B (30 mph) column have been increased for the speeds of 50, 55, 60, 70, and 75 mph.

The distances in the Condition B (40 mph) column have been increased for the speeds of 55, 60, 70, and 75 mph.

The distances in the Condition B (50 mph) column have been increased for the speeds of 65, 70, and 75 mph.

The sign legibility distance of 175 feet has been replaced by 180 feet in Footnotes 1, 2, and 3. References to the 2001 AASHTO policy have been changed to the 2004 AASHTO policy in Footnotes 2 and 3.

**2C-5 Horizontal Alignment Sign Selection**

The word “Usage” has been replaced by the word “Selection” in the title. The former table that related sign usage to the advisory speed and number of alignment changes has been replaced by a completely new table that relates sign usage to the difference between the speed limit and the advisory speed.

**2C-6 Typical Spacing of Chevron Alignment Signs on Horizontal Curves  
New Table**

**Table**

**2C-5 Horizontal Alignment Sign Selection**

The former table that related sign usage to the advisory speed and number of alignment changes has been replaced by a completely new table that relates sign usage to the difference between speed limit and advisory speed.

**Figure**

**2C-1 Horizontal Alignment Signs and Plaques**

The W13-1P plaque and the W13-2 and W13-3 signs have been relocated from Figure 2C-5.

**New Signs:** W1-10a, W1-10b, W1-10c, W1-10d, W13-6, and W13-7.

*2C-2 of 2003 MUTCD has been relocated to Figure 2C-4 of the 2009 MUTCD*

**2C-2 Example of Warning Signs for a Turn  
New Figure**

*2C-3 of 2003 MUTCD has been relocated to Figure 2C-5 of the 2009 MUTCD*

**2C-3 Example of Advisory Speed Signing for an Exit Ramp (formerly Figure 2C-7)**

The example signing shown in this figure has been significantly revised. The notes have been added.

*2C-4 of 2003 MUTCD has been relocated to Figure 2C-6 of the 2009 MUTCD*

**2C-4 Vertical Grade Signs and Plaques (formerly Figure 2C-2)  
Deleted Sign: W7-1a.**

The sign code of the W7-1b sign has been changed to W7-1a.

A “P” has been added to the sign code of the W7-2, W7-2b, W7-3, W7-3a, W7-3b, W7-4d, W7-4e, and W7-4f plaques.

*2C-5 of 2003 MUTCD has been relocated to Figure 2C-7 of the 2009 MUTCD*

**2C-5 Miscellaneous Warning Signs (formerly Figure 2C-3)  
Deleted Signs: W6-1a, W6-1b, and W6-2a**

**New Signs:** W19-1, W19-2, W19-3, W19-4, and W19-5.

The sign code of the W12-2p sign has been changed to W12-2a.

*2C-6 of 2003 MUTCD has been relocated to Figure 2C-8 of the 2009 MUTCD*

**2C-6**     **Roadway and Weather Condition and Advance Traffic Control Signs and Plaques**  
***(formerly Figure 2C-4)***

**New Signs:** W3-6, W3-7, W3-8, W8-11, W8-14, W8-15, W8-16, W8-17, W8-18, W8-19, W8-21, W8-22, W8-23, W8-25, and W23-2.

**New Plaques:** W8-5P, W8-5aP, W8-5bP, W8-5cP, W8-15P, and W8-17P.

The phrases “and Weather” and “and Plaques” have been added to the title. The thin red line along the outside edges of the stop and yield sign symbols on the W3-1 and W3-2 signs has been deleted.

*2C-7 of 2003 MUTCD has been relocated to Figure 2C-3 of the 2009 MUTCD*

**2C-7**     **Reduced Speed Limit Ahead Signs** ***(formerly Figure 2C-5)***

The W13-1 plaque and the W13-2 and W13-3 signs have been relocated to Figure 2C-1.

**Deleted Sign:** W13-5

*2C-8 of 2003 MUTCD has been relocated to Figure 2C-9 of the 2009 MUTCD*

**2C-8**     **Merging and Passing Signs and Plaques** ***(formerly Figure 2C-6)***

**New Sign:** W9-7

**New Plaque:** W4-5P

**Deleted Plaque:** W16-9P (shown more appropriately in Figure 2C-12)

*2C-9 of 2003 MUTCD has been relocated to Figure 2C-10 of the 2009 MUTCD*

**2C-9**     **Intersection Warning Signs and Plaques** ***(formerly Figure 2C-8)***

**New Signs:** W2-7L, W2-7R, and W2-8.

**New Plaques:** W4-4aP, W4-4bP, and W16-17P.

*2C-10 of 2003 MUTCD has been relocated to Figure 2C-11 of the 2009 MUTCD*

**2C-10**     **Vehicular Traffic Warning Signs and Plaques** ***(formerly Figure 2C-9)***

**New Signs:** W11-15 and W11-15a.

**New Plaques:** W11-15P.

The asterisks and the asterisk note have been added.

*2C-11 of 2003 MUTCD has been relocated to Figure 2C-12 of the 2009 MUTCD*

**2C-11**     **Non-Vehicular Warning Signs** ***(formerly Figure 2C-10)***

**New Signs:** W11-16 through W11-22

The asterisks and the asterisk note have been added.

**2C-12**     **Supplemental Warning Plaques** ***(formerly Figure 2C-11)***

The legends on the W16-8P and W16-8aP plaques have been changed to upper-case and lower-case letters.

The W16-11 plaque has been relocated to Figure 2G-4

**New Plaques:** W16-10P, W16-15P, and W16-18P.

**2C-13** **Object Markers** *(formerly Figure 3C-1)*

The titles of the four types of object markers have been revised. The designations of the Type 3 object markers have been revised.

## Chapter 2D

### 2D.01 Size of Signs

**New Standard (Para 1)** to require the sizes of conventional road guide signs with standardized designs be listed in Table 2D-1.

**New Support (Para 2)** specifying information regarding the applicability of the various columns in Table 2D-1 contained in Section 2A.11.

**New Option (Para 3)** allowing the use of signs larger than those shown in Table 2D-1, as referenced in Section 2A.11.

### 2D.05 Lettering Style

**Standard Revised (Para 1-4)**, requiring that the nominal loop height of the lower-case letters shall be  $\frac{3}{4}$  the height of the initial upper-case letter. When a mixed-case legend letter height is specified referring only to the initial upper-case letter, the height of the lower-case letters that follow shall be determined by this proportion. When the height of a lower-case letter is referenced, the reference is made to the nominal loop height and the height of the initial upper-case letter shall also be determined by this proportion.

The unique letter forms for each of the Standard Alphabet series shall not be stretched, compressed, warped, or otherwise manipulated. Modifications to the length of a word for a given letter height and series shall be accomplished only by the methods described in Section 2D.04.

### 2D.06 Size of Lettering

**Standard Revised (Para 3)** to require on low-volume and urban roads with speeds of 25 mph or less, the principal legend shall be in letters at least 4 inches in height for all upper-case letters, or a combination of 4 inches in height for upper-case letters and 3 inches in height for lower-case letters.

### 2D.07 Amount of Legend

**Guidance Revised (Para 2)** to recommend guide signs be limited to no more than three lines of destinations, which include place names, route numbers, street names, and cardinal directions, and that a distance message or action information, such as an exit number, NEXT RIGHT, or directional arrows, should be provided on guide signs in addition to the destinations, where appropriate.

### 2D.08 Arrows

**Standard Revised (Para 2-3)**, prohibiting the use of down arrows on overhead guide signs that restrict the use of specific lanes to traffic bound for the destination(s) and/or route(s) indicated by these arrows unless an arrow can be located over and pointed to the approximate center of each lane that can be used to reach the destination shown displayed on the sign, and specifying that if down arrows are used, having one or more down arrows pointing to the same lane on a single overhead sign (or on multiple signs on the same overhead sign structure) shall not be permitted.

**New Option (Para 5)**, allowing usage of curved-stem arrows involving left-turn movements on guide signs on approaches to circular intersections.

**New Standard (Para 6)**, prohibiting curved-stem arrows on any sign that is not associated with a circular intersection.

**New Guidance (Para 7-12)**, regarding proper usage of curved-stem and directional arrows.

**New Option (Para 13-17)** offering conditional usage of Type A-Extended directional arrows, Types C and D directional arrows, and down arrows.

**Option Added (Para 22)**, outlining conditions to allow placement of a directional arrow at the bottom portion of a post-mounted sign at an exit, centered under the legend.

**Guidance Revised (Para 23-24)** to detail the design criteria for the arrowhead widths of Types A through D directional arrows in reference to principal legend lettering height on the sign, and proper usage of overhead arrow-per-lane.

**2D.09**     **Numbered Highway System**

**New Support (Para 6)** indicating Section 2D.53 contains information on signing unnumbered highways to enhance route guidance and facilitate travel.

**2D.10**     **Route Signs and Auxiliary Signs**

**Option Added (Para 5-6)** to identify sections containing information on signing for National Scenic Byways (2D.55) and Auto Tour Routes (2H.07).

**2D.11**     **Design of Route Signs**

**Guidance Revised (Para 12)** to detail the design criteria for U.S or State Route signs. *(NOTE: Some of the text was relocated to this section from Section 2D.14 of the 2003 MUTCD.)*

**2D.12**     **Design of Route Sign Auxiliaries**

**Guidance Added (Para 3)** to detail the conditional design criteria for route and route auxiliary signs.

**New Guidance (Para 5)** to detail the design criteria for combining a route sign and its auxiliary signs to form a single guide sign.

**New Standard (Para 6)** specifying design and installation criteria for combination route/auxiliary signs into a single sign with a green background.

**New Support (Para 7)** to identify Chapter 2F as containing information on auxiliary signs on toll ways.

**2D.13**     **Junction Auxiliary Sign (M2-1)**

**Standard Revised (Para 1)**, to allow mounting of the M2-1 sign directly above the Cardinal Direction auxiliary sign where access is available only to one direction of the intersected route.

**2D.14**     **Combination Junction Sign (M2-2)**

**Guidance Added (Para 3)**, recommending proper usage of the M2-2 sign in conjunction with route signs as components of guide signs.

**2D.21**     **TO Auxiliary Sign (M4-5)**

**Standard Added (Para 2)**, specifying the proper mounting of the M4-5 sign if a Cardinal Direction auxiliary sign is also included in the assembly.

*2D.23 of 2003 MUTCD has been relocated to Section 2D.24 of the 2009 MUTCD*

**2D.23**     BEGIN Auxiliary Sign (M4-14)

**New Section**, specifying the proper usage of the M4-14 sign.

*2D.24 of 2003 MUTCD has been relocated to Section 2D.25 of the 2009 MUTCD*

**2D.24**     TEMPORARY Auxiliary Signs (M4-7, M4-7a) (formerly Section 2D.23)

*2D.25 of 2003 MUTCD has been relocated to Section 2D.26 of the 2009 MUTCD*

**2D.25**     Temporary Detour and Auxiliary Signs (formerly Section 2D.24)

*2D.26 of 2003 MUTCD has been relocated to Section 2D.28 of the 2009 MUTCD*

**2D.26**     Advance Turn Arrow Auxiliary Signs (M5-1, M5-2, and M5-3) (formerly Section 2D.25)

**Standard Added (Para 2)** specifying the proper usage of the M5-3 sign.

**New Guidance (Para 3)**, recommending that if the M5-3 sign is used, then this arrow type should also be used consistently on any regulatory lane-use signs (see Chapter 2B), Destination signs (see Section 2D.37), and pavement markings (see Part 3) for a particular destination or movement.

*2D.27 of 2003 MUTCD has been relocated to Section 2D.29 of the 2009 MUTCD*

**2D.27**     Lane Designation Auxiliary Signs (M5-4, M5-5, and M5-6)

**New Section**, describing proper usage of M5-4, M5-5 and M5-6 signs.

*2D.28 of 2003 MUTCD has been relocated to Section 2D.30 of the 2009 MUTCD*

**2D.28**     Directional Arrow Auxiliary Signs (M6 Series) (formerly Section 2D.26)

**Standard Added (Para 2)** prohibiting usage of a double-headed arrow in a Directional assembly in advance of or at a circular intersection.

**New Standard (Para 4)** prohibiting usage of the M2-6a sign on the approach to or on the near side of an intersection.

*2D.29 of 2003 MUTCD has been relocated to Section 2D.31 of the 2009 MUTCD*

**2D.29**     Route Sign Assemblies (formerly Section 2D.27)

*2D.30 of 2003 MUTCD has been relocated to Section 2D.32 of the 2009 MUTCD*

**2D.30**     Junction Assembly (formerly Section 2D.28)

**Guidance Revised (Para 3-4)** – Text describing proper usage of junction assembly signs *was changed from Standard to Guidance.*

*2D.31 of 2003 MUTCD has been relocated to Section 2D.34 of the 2009 MUTCD*

- 2D.31**     **Advance Route Turn Assembly** *(formerly Section 2D.29)*  
New Option (Para 4) allowing conditional use of Lane Designation auxiliary signs in Advance Route Turn Assemblies in place of the Advance Turn Arrow auxiliary signs.
- Guidance Added (Para 5) suggesting the minimum distance between an Advance Route Turn assembly and either a Destination sign or a Junction assembly be 200 feet in rural areas.
- 2D.32 of 2003 MUTCD has been relocated to Section 2D.35 of the 2009 MUTCD*
- 2D.32**     **Directional Assembly** *(formerly Section 2D.30)*  
Standard Added (Para 1), specifying an additional proper usage of Directional assemblies on an intersected route on a side road or on a crossroad where the route is designated only on one of the legs.
- 2D.33 of 2003 MUTCD has been relocated to Section 2D.36 of the 2009 MUTCD*
- 2D.33**     **Combination Lane-Use/Destination Overhead Guide Sign (D15-1)**  
New Section specifying the proper usage and layout of D15-1 signs.
- 2D.34 of 2003 MUTCD has been relocated to Section 2D.37 of the 2009 MUTCD*
- 2D.34**     **Confirming or Reassurance Assemblies** *(formerly Section 2D.31)*  
Standard Added (Para 1) specifying the Confirming or Reassurance Assembly requirements for alternate routes.
- 2D.35 of 2003 MUTCD has been relocated to Section 2D.40 of the 2009 MUTCD*
- 2D.35**     **Trailblazer Assembly** *(formerly Section 2D.32)*  
Standard Revised (Para 2) to include the Auto Tour Route sign as an eligible Trailblazer assembly, and require usage of the appropriate auxiliary sign for an alternative route.
- 2D.36 of 2003 MUTCD has been relocated to Section 2D.41 of the 2009 MUTCD*
- 2D.36**     **Destination and Distance Signs** *(formerly Section 2D.33)*  
Guidance Revised (Para 3) suggesting the proper height of Route shields and letter format of cardinal directions on Destination signs.
- 2D.37 of 2003 MUTCD has been relocated to Section 2D.42 of the 2009 MUTCD*
- 2D.37**     **Destination Signs (D1 Series)** *(formerly Section 2D.34)*  
Standard Revised (Para 1) to include approaches to interchanges.
- 2D.38 of 2003 MUTCD has been relocated to Section 2D.43 of the 2009 MUTCD*
- 2D.38**     **Destination Signs at Circular Intersections**  
New Section specifying the proper use and layout of Destination Signs at Circular Intersections.
- 2D.39 of 2003 MUTCD has been relocated to Section 2D.44 of the 2009 MUTCD*
- 2D.39**     **Destination Signs at Jughandles**  
New Section specifying the proper use of Destination Signs at Jughandles.



*2D.40 of 2003 MUTCD has been relocated to Section 2D.47 of the 2009 MUTCD*

**2D.40**     **Location of Destination Signs** *(formerly Section 2D.35)*

**Guidance Added** suggesting the minimum distance between a Destination sign and either an Advance Route Turn assembly or a Junction assembly be 200 feet.

*2D.41 of 2003 MUTCD has been relocated to Section 2D.48 of the 2009 MUTCD*

**2D.41**     **Distance Signs (D2 Series)** *(formerly Section 2D.36)*

*2D.42 of 2003 MUTCD has been relocated to Section 2I.05 of the 2009 MUTCD*

**2D.42**     **Location of Distance Signs** *(formerly Section 2D.37)*

*2D.43 of 2003 MUTCD has been relocated to Chapter 2I of the 2009 MUTCD*

**2D.43**     **Street Name Signs (D3-1 or D3-1a)** *(formerly Section 2D.38)*

**New Option (Para 2)** allowing the incorporation of a route shield on D3-1 or D3-1a signs for streets that are part of a U.S., State, or county numbered route.

**New Standard (Para 3)** specifying that lettering for names of streets and highways on D3-1 or D3-1a signs shall be composed of a combination of lower-case letters with initial upper-case letters.

**Option Revised (Para 9)** to allow supplementary lettering to indicate the type of street (such as Street, Avenue, or Road) or the section of the city (such as NW) on the D3-1 and D3-1a signs to be in smaller lettering, composed of initial upper-case letters at least 3 inches in height and lower-case letters at least 2.25 inches in height.

**Standard Added (Para 11)** prohibiting the use of Pictographs on D3-1a or Advance Street Name (D3-2) signs.

**New Option (Para 15-16)** allowing the border to be omitted from a D3-1 or D3-1a sign, and allowing the use of an alternative background color other than the normal guide sign color of green for D3-1 or D3-1a signs where the highway agency determines this is necessary to assist road users in determining jurisdictional authority for roads.

**New Standard (Para 17-18)** prohibiting the use of alternative background colors for Advance Street Name (D3-2) signs, and only allowing blue, brown, or white as acceptable alternative background colors for D3-1 or D3-1a signs. Also, regardless of whether green, blue, or brown is used as the background color for D3-1 or D3-1a signs, the legend (and border, if used) shall be white. For Street Name signs that use a white background, the legend (and border, if used) shall be black.

**Guidance Added (Para 19)** suggesting that if an alternative background color for D3-1 or D3-1a signs is used, it should be applied to the D3-1 or D3-1a signs on all roadways under the jurisdiction of a particular highway agency.

**Guidance Revised (Para 22)** to suggest that in urban or suburban areas, especially where Advance Street Name signs for signalized and other major intersections are not used, that overhead D3-1 or D3-1a signs be strongly considered.

**New Option (Para 23-24)** – Text regarding intersection crossroads where the same road has two different street names for each direction of travel, and where to find information regarding the use of street names on supplemental plaques for use with intersection-related warning signs ***was changed from Guidance to Option.***

*2D.44 of 2003 MUTCD has been relocated to Section 2D.49 of the 2009 MUTCD*

**2D.44**     **Advance Street Name Signs (D3-2) (formerly Section 2D.39)**  
**Standard Added (Para 9)** prohibiting the use of Pictographs on Advance Street Name (D3-2) signs.

**New Option (Para 10)** allowing the use of curved-stem arrows on Advance Street Name signs on approaches to circular intersections.

**New Guidance (Para 13)** outlining the proper order to display street names if two street names are used on the Advance Street Name sign.

*2D.45 of 2003 MUTCD has been relocated to Section 2I.02 of the 2009 MUTCD*

**2D.45**     **Signing on Conventional Roads on Approaches to Interchanges**  
**(NOTE: The text was relocated from Section 2E.49 of the 2003 MUTCD.)**  
**New Section** specifying the proper use and layout of signing for conventional road approaches to freeway or expressway interchanges.

**New Standard (Para 2)** requiring that guide signs be provided to identify which direction of turn is to be made and/or which specific lane to use for ramp access to each direction of the freeway or expressway on multi-lane conventional roads approaching an interchange.

**New Standard (Para 12)** specifying the use of the post-mounted Advance Entrance Direction diagrammatic guide sign and the post-mounted Advance Entrance Direction sign.

*2D.46 of 2003 MUTCD has been relocated to Section 2H.05 of the 2009 MUTCD*

**2D.46**     **Freeway Entrance Signs (D13-3 and D13-3a)**  
**(NOTE: The text was relocated Section 2E.50 of the 2003 MUTCD.)**  
**New Section** outlining the proper use of D13-3 and D13-3a signs and alternate directional assemblies for the D13-3a sign.

**Option Added** allowing the use of an alternate legend on D13-3 and D13-3a signs, and the use of a directional assembly (see Section 2D.32) with a downward pointing diagonal arrow auxiliary (M6-2a) sign as an alternative to the D13-3a sign.

*2D.47 of 2003 MUTCD has been relocated to Section 2H.03 of the 2009 MUTCD*

**2D.47**     **Parking Area Guide sign (D4-1) (formerly Section 2D.40)**

*2D.48 of 2003 MUTCD has been relocated to Section 2H.02 of the 2009 MUTCD*

**2D.48**     **PARK – RIDE Sign (D4-2) (formerly Section 2D.41)**

*2D.49 of 2003 MUTCD has been relocated to Section 2D.53 of the 2009 MUTCD*

**2D.49**     **Weigh Station Signing (D8 Series)** *(formerly Section 2D.44)*

*2D.50 of 2003 MUTCD has been relocated to Section 2H.07 of the 2009 MUTCD*

**2D.50**     **Community Wayfinding Signs**

**New Section** specifying the proper use and layout of community wayfinding guide signs.

*2D.51 of 2003 MUTCD has been relocated to Section 2D.54 of the 2009 MUTCD*

**2D.51**     **Truck, Passing, or Climbing Lane Signs (D17-1 and D17-2)**

**New Section** outlining the proper use of D17-1 and D17-2 signs.

*2D.52 of 2003 MUTCD has been relocated to Section 2D.55 of the 2009 MUTCD*

**2D.52**     **Slow Vehicle Turn-Out Sign (D17-7)**

**New Section** outlining the proper use of D17-7 signs.

**2D.53**     **Signing of Named Highways** *(formerly Section 2D.49)*

*(NOTE: The first four paragraphs from Section 2D.49 of the 2003 MUTCD have been relocated to Section 2M.10.)*

**2D.54**     **Crossover Signs (D13-1 Series and D13-2)** *(formerly Section 2D.51)*

**2D.55**     **National Scenic Byways Signs (D6-4, D6-4a)** *(formerly Section 2D.52)*

**Table**

**2D-1**     **Conventional Road Guide Sign Sizes**

**New Table**

**2D-2**     **Recommended Minimum Letter Heights on Street Name Signs**

**New Table**

**Figure**

**2D-1**     **Examples of Color-Coded Destination Guide Signs**

In Drawing B, the two destination signs are now consolidated into one sign, and the directional arrows have been deleted.

**2D-2**     **Arrows for Use on Guide Signs**

Five different types of directional arrows are shown in place of one up arrow.

**2D-4**     **Route Sign Auxiliaries**

**Revised Sign:** M4-7a.

**New Sign:** M4-14.

**2D-5**     **Advance Turn and Directional Arrow Auxiliary Signs**

**New Signs:** M5-3, M5-4, M5-5, and M6-2a.

**2D-6**     **Illustration of Directional Assemblies and Other Route Signs (for One Direction of Travel Only)**

On Sheets 1 and 3, the destination legends have been changed to upper-case and lower-case letters.

On Sheets 1, 2, and 3, the first note at the bottom of the sheet has been deleted and a new first sentence has been added to the second note.

On Sheets 1, 2, and 3, dimensions have been added that make it clear that the spacing between successive signs is to be at least 200 feet.

On the drawing in the bottom left-hand corner of Sheet 3, a dimension has been added to show that the destination sign is to be placed at least 200 feet in advance of the intersection.

On the drawing in the bottom right-hand corner of Sheet 3, the Intersection warning sign and the supplemental street name plaque have been deleted, and two Street Name signs have been added at the intersection.

Sheet 4 has been added.

**2D-7**     **Destination and Distance Signs**  
New Sign: D15-1.

*2D-8 of 2003 MUTCD has been relocated to Figure 2D-10 of the 2009 MUTCD*

**2D-8**     **Destination Signs for Roundabouts**  
New Figure

*2D-9 in the 2003 MUTCD has been relocated to Figure 2I-5 of the 2009 MUTCD.*

**2D-9**     **Examples of Guide Signs for Roundabouts**  
New Figure

*2D-10 in the 2003 MUTCD has been relocated to Figure 2D-17 of the 2009 MUTCD*

**2D-10**    **Street Name and Parking Signs** *(formerly Figure 2D-8)*  
The legend on the D3-1 sign has been changed to upper-case and lower-case letters.

New Signs: D3-1a, and D3-2.

The carpool symbol has been centered horizontally on the D4-2 sign, and the ampersand has been replaced by a hyphen.

*2D-11 in the 2003 MUTCD has been relocated to Figure 2I-1 of the 2009 MUTCD.*

**2D-11**    **Example of Interchange Crossroad Signaling for a One-Lane Approach**  
*(formerly Figure 2E-34)*

The white-on-blue M5-1L auxiliary sign in the sign assembly near the top of the figure has been changed to an M6-1L auxiliary sign. This sign assembly is now shown on the far left-hand corner of the intersection with the northbound ramp and is marked as optional.

The design of the sign on the near right-hand corner of the intersection with the northbound ramp has been revised.

The white-on-blue M5-1L auxiliary sign in the sign assembly near the right-hand side of the

figure has been changed to an M6-3 auxiliary sign. The horizontal lines have been deleted on the guide sign just to the left of this assembly.

*2D-12 in the 2003 MUTCD has been relocated to Figure 2D-21 and part of Figure 2H-1 of the 2009 MUTCD*

**2D-12 Example of Minor Interchange Crossroad Signing (formerly Figure 2E-35)**

An optional supplemental location has been added for the sign assembly near the top of the figure. The asterisk and the asterisk note have also been added.

*2D-13 in the 2003 MUTCD has been relocated to Figures 2H-2 and 2H-3 of the 2009 MUTCD*

**2D-13 Examples of Multi-Lane Crossroad Signing for a Diamond Interchange (formerly Figure 2E-36)**

A new sign assembly has been added at the far left-hand corner of the intersection with the westbound ramp near the top of the figure. The design of the sign on the near right-hand corner of this intersection has been revised.

A new overhead sign has been added as an alternative to the post-mounted sign that is located between the intersection with the eastbound ramp and the bridge over the Interstate.

The designs of the signs on the near right-hand corner of the intersection with the eastbound ramp have been revised.

The designs of the two signs that are located upstream from the intersection with the eastbound ramp have been revised.

The legends LEFT LANE and RIGHT LANE have been replaced by KEEP LEFT and KEEP RIGHT. A new alternative single sign (instead of two separate signs) has been added.

*2D-14 in the 2003 MUTCD has been relocated to Figure 2D-22 of the 2009 MUTCD*

**2D-14 Examples of Multi-Lane Crossroad Signing for a Partial Cloverleaf Interchange (formerly Figure 2E-37)**

**New Signs:** Alternate D13-3a sign and sign assemblies.

The design of the sign on the right-hand side of the intersection with the northbound ramp near the top of the figure has been revised.

The designs of the signs on the right-hand side of the roadway just upstream from the intersection with the southbound ramp have been revised.

A new single sign (instead of two separate signs) has been added as an alternative to the two signs that are located further upstream from the intersection with the southbound ramp.

**2D-15 Examples of Multi-Lane Crossroad Signing for a Cloverleaf Interchange**

**(formerly Figure 2E-38)**

The two signs located in the exit ramp gores have been added.

The design of the sign between the Interstate and the northbound ramp has been revised. The note next to this sign has also been revised.

The designs of the overhead signs at the southbound ramp have been revised.

A new single sign (instead of two separate signs) have been added as an alternative to the two signs that are located further upstream from the southbound ramp.

**2D-16**     **Example of Crossroad Signing for an Entrance Ramp with a Nearby Frontage Road**  
**New Figure**

**2D-17**     **Example of Weigh Station Signing** **(formerly Figure 2D-10)**  
**Revised Signs: R13-1**

Two asterisks and an asterisk note have been added.

A second D8-3 sign has been added 800 feet downstream from the D8-2 sign.

The 1-mile and the 4,000-foot dimensions are measured from the physical gore rather than from the location of the D8-3 sign. The 500-foot dimension for the location of the D8-2 sign has been deleted.

**2D-18**     **Examples of Community Wayfinding Guide Signs**  
**New Figure**

**2D-19**     **Example of a Community Wayfinding Guide Sign System Showing Direction from a Freeway or Expressway**  
**New Figure**

**2D-20**     **Example of a Color-Coded Community Wayfinding Guide Sign System**  
**New Figure**

**2D-21**     **Crossover, Truck Lane, and Slow Vehicle Signs** **(formerly Figure 2D-12)**  
**New Signs: D17-1, D17-2, and D17-7**  
**Revised Signs: D13-2**

The green I series signs have been relocated to Figure 2H-1.

The D9-14 sign has been relocated to Figure 2I-1.

The blue D12 series signs have been relocated to Figure 2I-8.

The “1/4 MILE” fraction in the legend on the D13-2 sign has been revised to “¼ MILE.”

The asterisk note has been added.

**2D-22**     **Examples of Use of the National Scenic Byways Sign** **(formerly Figure 2D-14)**

## Chapter 2E

*2E.03 of 2003 MUTCD has been relocated to Section 2E.04 of the 2009 MUTCD*

**2E.03**     **Guide Sign Classification** *(formerly Section 2E.24)*

*2E.04 of 2003 MUTCD has been relocated to Section 2E.05 of the 2009 MUTCD*

**2E.04**     **General** *(formerly Section 2E.03)*

**Support Revised** to include arrows in the desired design characteristics of signs.

*2E.05 of 2003 MUTCD has been relocated to Section 2E.06 of the 2009 MUTCD*

**2E.05**     **Color of Guide Signs** *(formerly Section 2E.04)*

**Standard Revised** to include using arrows on guide signs.

*2E.06 of 2003 MUTCD has been relocated to Section 2E.07 of the 2009 MUTCD*

**2E.06**     **Retroreflection or Illumination** *(formerly Section 2E.05)*

**Standard Revised** to require arrows to be retroreflectorized on guide signs.

*2E.07 of 2003 MUTCD has been relocated to Section 2E.08 of the 2009 MUTCD*

**2E.07**     **Characteristics of Urban Signing** *(formerly Section 2E.06)*

**Support Revised** to include providing special sign treatments for overhead arrow-per-lane signs.

*2E.08 of 2003 MUTCD has been relocated to Section 2E.09 of the 2009 MUTCD*

**2E.08**     **Characteristics of Rural Signing** *(formerly Section 2E.07)*

*2E.09 of 2003 MUTCD has been relocated to Section 2E.10 of the 2009 MUTCD*

**2E.09**     **Signing of Named Highways** *(formerly Section 2E.08)*

*(NOTE: The first text previously contained in Section 2E.08 of the 2003 MUTCD has been relocated to Section 2M.10.)*

**New Support** indicating that Section 2D.53 contains information which is also applicable to freeways and expressways, regarding the use of highway names on the signing for unnumbered highways to enhance route guidance and facilitate travel; and Section 2M.10 contains information regarding memorial signing of routes, bridges, or highway components.

*2E.10 of 2003 MUTCD has been relocated to Section 2E.11 of the 2009 MUTCD*

**2E.10**     **Amount of Legend on Guide Signs** *(formerly Section 2E.09)*

**Guidance Revised** to recommend that sign legends should not exceed three lines of copy, exclusive of the exit number and action or distance information.

*2E.11 of 2003 MUTCD has been relocated to Section 2E.12 of the 2009 MUTCD*

**2E.11**     **Number of Signs at an Overhead Installation and Sign Spreading**  
*(formerly Section 2E.10)*

**Guidance Revised** to recommend that if the crossroad goes over the mainline, the Advance Guide sign should be placed on the overcrossing structure or on a separate structure immediately in front of the overcrossing structure.

*2E.12 of 2003 MUTCD has been relocated to Section 2E.13 of the 2009 MUTCD*

**2E.12**     **Pull-Through Signs (E6-2, E6-2a)** *(formerly Section 2E.11)*

**New Support** indicating that Sections 2E.20 through 2E.24 contain information on using Overhead Arrow-per-Lane or Diagrammatic guide signs at multi-lane exits where there is a reduction in the number of through lanes and a through lane becomes an interior option lane for through or exiting traffic.

*2E.13 of 2003 MUTCD has been relocated to Section 2E.14 of the 2009 MUTCD*

**2E.13**     **Designation of Destinations** *(formerly Section 2E.12)*

*2E.14 of 2003 MUTCD has been relocated to Section 2E.15 of the 2009 MUTCD*

**2E.14**     **Size and Style of Letters and Signs** *(formerly Section 2E.13)*

**New Standard (Para 1)** to require that the sizes of freeway and expressway guide signs with standardized designs are as shown in Table 2E-1, except as provided in Section 2A.11.

**New Support (Para 2)** specifying information regarding the applicability of the various columns in Table 2E-1.

**New Option** allowing signs larger than those shown in Table 2E-1.

**Standard Revised (Para 4)** to specify that this standard now applies to all freeway and expressway signs that do not have a standardized design, and that the nominal loop height of the lower-case letters shall be 3/4 of the height of the initial upper-case letter (see Paragraph 2 of Section 2D.05 for additional information on the specification of letter heights).

**Guidance Revised** to delete the recommendation that when upper- and lower-case lettering is used, the initial upper-case letters should be approximately 1.33 times the “loop” height of the lower-case letters.

*2E.15 of 2003 MUTCD has been relocated to Section 2E.16 of the 2009 MUTCD*

**2E.15**     **Interline and Edge Spacing** *(formerly Section 2E.14)*

*2E.16 of 2003 MUTCD has been relocated to Section 2E.17 of the 2009 MUTCD*

**2E.16**     **Sign Borders** *(formerly Section 2E.15)*

*2E.17 of 2003 MUTCD has been relocated to Section 2E.18 of the 2009 MUTCD*



**2E.17**     Abbreviations (formerly Section 2E.16)

**Guidance Revised** to recommend conditional use of longer commonly used words that are not part of a proper name and are readily recognizable. Also, punctuation marks should not be used in abbreviations, and recommending use of forward slashes or slanted lines for fractions only.

*2E.18 of 2003 MUTCD has been relocated to Section 2E.19 of the 2009 MUTCD*

**2E.18**     Symbols (formerly Section 2E.17)

*2E.19 of 2003 MUTCD has been relocated to Section 2E.22 of the 2009 MUTCD*

**2E.19**     Arrows for Interchange Guide Signs (formerly Section 2E.18)

**Standard Revised (Para 1-2)** to require that arrows used on interchange guide signs shall be of the types shown in Figure 2D-2 and shall comply with the provisions of this Section and Section 2D.08. On all Except on Exit Direction Overhead Arrow-per-Lane guide signs (see Section 2E.21) and on Exit Direction signs for lane drops (see Section 2E.24), and except as provided in Paragraphs 3 and 4, directional arrows on both all overhead and ground- post-mounted, arrows Exit Direction signs shall be pointed diagonally upward slanting and shall be located on the side of the sign consistent with the direction of the exiting movement.

**New Option** allowing placing a directional arrow on the bottom portion of post-mounted Exit Direction signs, centered under the legend.

**New Standard (Para 4-6)** to require positioning directional arrows on guide signs for multi-lane exits below the legend approximately over the center of each lane to which the arrow applies. On overhead signs where down arrows are used to indicate a lane to be followed, a down arrow shall be positioned approximately over the center of each lane and shall point vertically downward toward the approximate center of that lane. Down arrows shall not be used unless an arrow can be located over and pointed to the approximate center of each lane that can be used to reach the destination displayed on the sign. More than one down arrow pointing to the same lane on a single overhead sign (or on multiple signs on the same overhead sign structure) shall not be permitted.

**Support Revised** to clarify the use of directional and down arrows on guide signs and where to find drawings and standardized sizes for them, as well as information on the dimensions for arrows used in Overhead Arrow-per-Lane and Diagrammatic guide signing.

*2E.20 of 2003 MUTCD has been relocated to Section 2E.24 of the 2009 MUTCD*

**2E.20**     Signing for Option Lanes at Splits and Multi-Lane Exits

**New Section** outlining the proper use of Overhead Arrow-per-Lane or Diagrammatic guide sign designs for option lanes at splits and multi-lane exits, and prohibiting their use on freeways and expressways for any other types of exits or splits, including single-lane exits and splits that do not have an option lane.

*2E.21 of 2003 MUTCD has been relocated to Chapter 2L of the 2009 MUTCD*

**2E.21**     Design of Overhead Arrow-per-Lane Guide Signs for Option Lanes

**New Section** outlining the proper design, use and location of Overhead Arrow-per-Lane guide signs on option lanes, as well as restrictions involving Overhead Arrow-per-Lane guide signs when used with Exit Direction and Pull-Through signs.

*2E.22 of 2003 MUTCD has been relocated to Section 2E.25 of the 2009 MUTCD*

**2E.22 Design of Freeway and Expressway Diagrammatic Guide Signs for Option Lanes**  
*(formerly Section 2E.19)*

**Support Revised (Para 1)** to specify that conventional or Overhead Arrow-per-Lane guide signs are more effective at conveying the destination or direction(s) of each approach lane than Diagrammatic guide signs.

**Standard Revised (Para 2)** to specify where to use Diagrammatic guide signs, and to add two more criteria for their design.

**Guidance Revised (Para 3)** to recommend the design criteria for Diagrammatic guide signs on freeways and expressways.

**Standard Revised (Para 4)** to specify the cases when Diagrammatic guide signs can be used at cloverleaf interchanges.

**New Option (Para 6)** allowing an EXIT XX MPH (E13-2) sign panel to be placed below the applicable destination legend to supplement the exit or ramp advisory speed warning signs where extra emphasis of an especially low advisory ramp speed is needed.

*2E.23 of 2003 MUTCD has been relocated to Section 2E.26 of the 2009 MUTCD*

**2E.23 Signing for Intermediate and Minor Interchange Multi-Lane Exits with an Option Lane**

**New Section** outlining the proper signing for Intermediate and Minor Interchange Multi-Lane Exits with an Option Lane, and prohibiting the use of a down arrow over an option lane on Advance Guide signs that are mounted overhead.

*2E.24 of 2003 MUTCD has been relocated to Section 2E.03 of the 2009 MUTCD*

**2E.24 Signing for Interchange Lane Drops** *(formerly Section 2E.20)*

**New Standard (Para 1)** to require that the provisions of this Section shall only apply to lane drops at exits that do not have an optional exit lane. At exits that have an optional exit lane in addition to the dropped lane, the provisions of Sections 2E.20 through 2E.23 shall apply.

**New Standard (Para 3)** – Text regarding the EXIT ONLY (down arrow) sign *was changed from Guidance to Standard*. And revised to better specify the proper use of the EXIT ONLY (down arrow) (E11-1 or E11-1f) sign panel.

**Standard Revised (Para 4)** to specify the proper design of the Exit Direction sign for lane drops.

**Option Revised** to add the combination of E11-1a and E11-1b as an acceptable format that may be used to retrofit existing signing to warn of a lane drop situation ahead.

**Guidance Added** for locations where the dropped lane is an auxiliary lane that is provided between successive entrance and exit ramps of two separate interchanges and the distance between the two ramps is less than one mile.

**New Support** detailing information on signing at lane drops.

*2E.25 of 2003 MUTCD has been relocated to Section 2E.27 of the 2009 MUTCD*

**2E.25 Overhead Sign Installations (formerly Section 2E.22)**

*2E.26 of 2003 MUTCD has been relocated to Section 2E.29 of the 2009 MUTCD*

**2E.26 Lateral Offset (formerly Section 2E.23)**

**Standard Revised (Para 1)** to replace the term “clearance” with the term “offset”.

**Standard Revised (Para 5)** to replace the term “unprotected” with the term “unshielded”.

*2E.27 of 2003 MUTCD has been relocated to Section 2E.30 of the 2009 MUTCD*

**2E.27 Route Signs and Trailblazer Assemblies (formerly Section 2E.25)**

**Guidance Revised** to recommend enlarging one-to-two digit route signs to 36 x 36-inch minimum size, and enlarging three-digit route signs to 45 x 36-inch minimum size on freeways and expressways.

**New Support (Para 5)** specifying information regarding the design of signs for Auto Tour Routes.

**New Support (Para 8)** specifying information regarding signing for toll highways.

*2E.28 of 2003 MUTCD has been relocated to Section 2E.31 of the 2009 MUTCD*

**2E.28 Eisenhower Interstate System Signs (M1-10, M1-10a)**

**New Section** outlining the usage of the Eisenhower Interstate System signs.

*2E.29 of 2003 MUTCD has been relocated to Section 2E.32 of the 2009 MUTCD*

**2E.29 Signs for Intersections at Grade (formerly Section 2E.26)**

*2E.30 of 2003 MUTCD has been relocated to Section 2E.33 of the 2009 MUTCD*

**2E.30 Interchange Guide Signs (formerly Section 2E.27)**

*2E.31 of 2003 MUTCD has been relocated to Section 2E.34 of the 2009 MUTCD*

**2E.31 Interchange Exit Numbering (formerly Section 2E.28)**

**Standard Revised (Para 2-3)** to specify the proper layout of exit number signs on freeways and expressways and how suffix letters are used for exit numbering.

**New Standard (Para 4)** – Text mandating the use of the reference location sign exit numbering method ***was changed from Option to Standard.***

**Support Revised (Para 5)** to clarify the purpose of the exit numbering criteria.

**Option Added (Para 6)** – Text allowing exit numbers to be used with Supplemental Guide signs and Motorist Service signs ***was changed from Support to Option.***

**Standard Added (Para 8)** – Text requiring that a left exit number plaque shall be added to the top left-hand edge of the exit numbering sign for all left-hand exits **was changed from Guidance to Standard.**

**Support Added (Para 10)** specifying illustrations on exit numbering.

*2E.32 of 2003 MUTCD has been relocated to Section 2E.35 of the 2009 MUTCD*

**2E.32**     **Interchange Classification** (formerly Section 2E.29)

*2E.33 of 2003 MUTCD has been relocated to Section 2E.36 of the 2009 MUTCD*

**2E.33**     **Advance Guide Signs** (formerly Section 2E.30)

**New Standard (Para 3)** requiring that numbered exits to the left, a left exit number plaque (E1-5bP) shall be added to the top left-hand edge of the sign. For non-numbered exits to the left, a LEFT (E1-5aP) plaque shall be added to the top left-hand edge of the sign.

**New Support** specifying additional information regarding exit numbering.

**Standard Added (Para 6)** – Text requiring that Advance Guide signs for multi-lane exits having an optional exit lane that also carries the through route and for splits with an option shall be Overhead Arrow-per-Lane or diagrammatic signs designed in accordance with Sections 2E.20 through 2E.22 **was changed from Guidance to Standard.**

**Standard Revised (Para 7)** requiring that except as provided in Section 2E.24, Advance Guide signs, if used, shall contain the distance message. Except as provided in Paragraph 8 of this Section, the legend on the Advance Guide signs shall be the same as the legend on the Exit Direction sign, except that the last line shall read EXIT XX MILES. If the interchange has two or more exit roadways, the bottom line shall read EXITS XX MILES.

**Guidance Added (Para 8)** – Text recommending that where interchange exit numbers are used, the word EXIT(S) should be omitted from the bottom line **was changed from Option to Guidance.**

**New Option (Para 12)** allowing the installation of W16-16P plaque below the Advance Guide sign if there is insufficient space above the Advance Guide sign because of the presence of an exit number plaque.

*2E.34 of 2003 MUTCD has been relocated to Section 2E.37 of the 2009 MUTCD*

**2E.34**     **Next Exit Plaques** (formerly Section 2E.31)

**Support Added (Para 5)** – Text indicating that the one-line message on the Next Exit plaque is the more desirable choice unless the message causes the sign to have a horizontal dimension greater than that of the Advance Guide sign **was changed from Option to Support.**

*2E.35 of 2003 MUTCD has been relocated to Section 2E.38 of the 2009 MUTCD*

**2E.35**     **Other Supplemental Guide Signs** (formerly Section 2E.32)

**New Option** allowing usage of a pictograph on a Supplemental Guide sign in conjunction with a destination that is associated with governmental agencies, military bases, universities, or other government-approved institutions.

**New Standard** specifying the dimensions of a pictograph and its proper location on signs, with exceptions provided for the park-ride Supplemental Guide sign and the park-ride Supplemental Guide sign. A pictograph representing a State, county, or municipal corporation or other incorporated or unincorporated community shall not be displayed on a Supplemental Guide sign. Pictographs shall otherwise comply with the provisions of Section 2A.06.

*2E.36 of 2003 MUTCD has been relocated to Section 2E.39 of the 2009 MUTCD*

**2E.36**     **Exit Direction Signs** (formerly Section 2E.33)

**Standard Revised (Para 5-6)** requiring that the Exit Direction sign shall be placed overhead at the theoretical gore, except where Overhead Arrow-per-Lane guide signs are used. An Overhead Arrow-per-Lane guide sign shall also be used instead of the Exit Direction sign, except as provided in Paragraph 4 in Section 2E.21, where Overhead Arrow-per-Lane guide signs are used for the Advance Guide sign(s) for a multi-lane exit having an optional exit lane that also carries the through route or for a split with an option lane). This Overhead Arrow-per-Lane guide sign shall include the appropriate exit number (E1-5P or E1-5bP) plaque (if a numbered exit) and it shall be located near, but not downstream from, the point where the outside edge of the dropped lane begins to diverge from the mainline (see Figures 2E-4 through 2E-6).

**Guidance Revised (Para 8)** to recommend an exit number (E1-5P) plaque (see Figure 2E-22) be added to the top right-hand edge of the sign for numbered exits to the right.

**New Standard (Para 9-10)** requiring a left exit number (E1-5bP) plaque (see Figure 2E-22) be added to the top left-hand edge of the sign for numbered exits to the left. For non-numbered exits to the left, a LEFT (E1-5aP) plaque (see Figure 2E-22) shall be added to the top left-hand edge of the sign.

**New Support (Para 11)** specifying additional information regarding exit numbering.

**Option Added (Para 15)** to allow low advisory ramp speed is needed, an EXIT XX MPH (E13-2) sign panel at the bottom of the Exit Direction sign to supplement, but not to replace, the exit or ramp advisory speed warning signs.

**New Option (Para 17)** allowing mounting the W16-16P plaque below the Exit Direction sign if there is insufficient space above the Exit Direction sign because of the presence of an Exit Number (E1-5P) plaque.

*2E.37 of 2003 MUTCD has been relocated to Section 2E.40 of the 2009 MUTCD*

**2E.37**     **Exit Gore Signs** (formerly Section 2E.34)

**Standard Added (Para 2)** specifying that if suffix letters are used for exit numbering at a multi-exit interchange, the suffix letter shall also be included on the Exit Gore sign and shall be separated from the exit number by a space having a width of between 1/2 and 3/4 of the height of the suffix letter.

**Option Added (Para 5-6)** to allow installing a Type 1 object marker (see Chapter 2C) on each sign support below the Exit Gore sign to improve the visibility of the gore for exiting drivers. An Exit Number (E5-1bP) plaque (see Figure 2E-22) may be installed above an existing Exit Gore (E5-1) sign when a non-numbered exit is converted to a numbered exit.

**New Standard (Para 7)** requiring using an Exit Gore (E5-1a) sign when replacing an existing assembly of an E5-1 sign and an E5-1bP plaque is necessary.

**New Option (Para 8)** allowing usage of the Narrow Exit Gore (E5-1c) sign in gore areas of limited width where the width of the Exit Gore (E5-1a) sign would not permit sufficient lateral offset (see Section 2A.19), such as for ramp departures that are nearly parallel to the mainline roadway where the Exit Gore sign would be mounted on a narrow island or barrier. Where the E5-1c sign is mounted at a height of 14 feet or more from the roadway, the directional arrow may point diagonally downward.

**New Guidance (Para 9)** to recommend not using the E5-1c sign in gore areas where an E5-1a sign could be installed with sufficient lateral offset.

*2E.38 of 2003 MUTCD has been relocated to Section 2E.41 of the 2009 MUTCD*

**2E.38 Post-Interchange Signs (formerly Section 2E.35)**

*2E.39 of 2003 MUTCD has been relocated to Section 2E.42 of the 2009 MUTCD*

**2E.39 Post-Interchange Distance Signs (formerly Section 2E.36)**

**Guidance Added (Para 7)** to recommend that the distance displayed for each community should comply with the provisions of Section 2D.41.

*2E.40 of 2003 MUTCD has been relocated to Section 2E.43 of the 2009 MUTCD*

**2E.40 Interchange Sequence Signs (formerly Section 2E.37)**

**Standard Revised (Para 7)** requiring that where the exit direction is to the left, a LEFT (E11-2) sign panel (see Figure 2E-13) shall be displayed on the same line immediately to the right of the interchange names or route number

*2E.41 of 2003 MUTCD has been relocated to Section 2E.44 of the 2009 MUTCD*

**2E.41 Community Interchanges Identification Signs (formerly Section 2E.38)**

*2E.42 of 2003 MUTCD has been relocated to Section 2E.45 of the 2009 MUTCD*

**2E.42 NEXT XX EXITS Sign (formerly Section 2E.39)**

*2E.43 of 2003 MUTCD has been relocated to Section 2E.46 of the 2009 MUTCD*

**2E.43 Signing by Type of Interchange (formerly Section 2E.40)**

**Support Revised** to clarify the application of the interchange layouts in Figures 2E-34 through 2E-40, and lists information regarding the signing of the crossroad approaches and connecting roadways to freeways and expressways.

*2E.44 of 2003 MUTCD has been relocated to Section 2E.47 of the 2009 MUTCD*

**2E.44 Freeway-to-Freeway Interchange (formerly Section 2E.41)**

**Guidance Revised (Para 2)** to recommend that the sign messages should contain only the route shield, cardinal direction, and the name of the next control city on the route. Arrows should point as indicated in Section 2D.08, except where Overhead Arrow-per-Lane or

Diagrammatic signs are used in accordance with the provisions of Sections 2E.20 through 2E.22.

**Support Added (Para 3)** – Text clarifying that expectancy problems happens at splits where the off-route movement is to the left or where there is an optional lane split ***was changed from Guidance to Support.***

**Standard Added (Para 4)** to require that at splits where the off-route movement is to the left, the Left Exit Number (E1-5bP) plaque shall be added at the top left-hand edge of the guide sign (see Section 2E.31).

Text requiring Overhead Arrow-per-Lane or Diagrammatic guide signs (see Sections 2E.21 and 2E.22) be used for freeway splits with an option lane and for multi-lane freeway-to-freeway exits having an option lane ***was changed from Guidance to Standard.***

**Standard Revised (Para 5)** to require that when Overhead Arrow-per-Lane or Diagrammatic guide signs are used, they shall comply with the provisions of Sections 2E.21 and 2E.22.

**Option Revised (Para 7-8)** to allow omitting the arrow and/or the name of the control city from signs that indicate the straight-ahead continuation of a route on a Pull-Through sign (see Section 2E.12). Also, an Advisory Exit Speed sign may be used when an engineering study shows that it is necessary to display a speed reduction message for ramp signing (see Section 2C.14).

**Option Added (Para 9)** to allow placing an EXIT XX MPH (E13-2) sign panel (see Figure 2E-27) at the bottom of the Exit Direction sign to supplement, but not to replace, the exit or ramp advisory speed warning signs.

*2E.45 of 2003 MUTCD has been relocated to Section 2E.48 of the 2009 MUTCD*

**2E.45**     **Cloverleaf Interchange** (formerly Section 2E.42)

**Standard Revised** requiring placing an overhead guide sign at the theoretical gore of the first exit ramp, with a diagonally upward-pointing directional arrow on the Exit Direction sign for that exit and the message XX MILES, or EXIT XX MILES if interchange numbering is not used, on the Advance Guide sign for the second exit.

**Guidance Revised** to recommend placing the overhead Exit Direction sign for the second exit on the overcrossing structure or on a separate structure located immediately in front of the overcrossing structure where the mainline passes under the crossroad and the exit roadway is located beyond the overcrossing structure.

*2E.46 of 2003 MUTCD has been relocated to Section 2E.49 of the 2009 MUTCD*

**2E.46**     **Cloverleaf Interchange with Collector-Distributor Roadways** (formerly Section 2E.43)

**Option Revised** to allow conditional use of the plural EXITS on Advance Guide signs on the mainline.

*2E.47 of 2003 MUTCD has been relocated to Section 2E.50 of the 2009 MUTCD*

**2E.47**     **Partial Cloverleaf Interchange** (formerly Section 2E.44)

**Guidance Revised** to recommend placing the overhead Exit Direction sign either on the overcrossing structure (see Figure 2E-37) or on a separate structure located immediately in front of the overcrossing structure where the mainline passes under the crossroad and the exit roadway is located beyond the overcrossing structure.

**New Support** to clarify that signing for partial cloverleaf interchanges with successive exit ramps from the same direction of travel is the same as cloverleaf interchanges for that direction of travel (see Section 2E.45).

*2E.48 of 2003 MUTCD has been relocated to Section 2E.51 of the 2009 MUTCD*

**2E.48**     **Diamond Interchange** (formerly Section 2E.45)

**Standard Revised** for numbered exits to require using the singular message EXIT on the Exit Number plaques (see Section 2E.31) with the Advance Guide and Exit Direction signs. For non-numbered exits, the singular message EXIT shall be used as part of the distance message on the Advance Guide signs.

**Option Revised (Para 4)** to allow using an Advisory Exit Speed sign where an engineering study shows a need to display a speed reduction message for ramp signing.

**Guidance Revised (Para 5)** to recommend locating the Advisory Exit Speed sign along the deceleration lane or along the ramp such that it is visible to the driver far enough in advance to allow the driver to decelerate before reaching the curve associated with the exiting maneuver.

*2E.49 of 2003 MUTCD has been relocated to Section 2E.52 of the 2009 MUTCD*

**2E.49**     **Diamond Interchange in Urban Area** (formerly Section 2E.46)

*2E.50 of 2003 MUTCD has been relocated to Section 2E.53 of the 2009 MUTCD*

**2E.50**     **Closely-Spaced Interchanges** (formerly Section 2E.47)

**Option Deleted** allowing a conditional use of advance guide signs mounted on overhead structures.

**New Support** to clarify conditional use of sign spreading where the Exit Direction sign and the Advance Guide sign for the next interchange are mounted overhead.

*2E.51 of 2003 MUTCD has been relocated to Section 2I.03 of the 2009 MUTCD*

**2E.51**     **Minor Interchange** (formerly Section 2E.48)

*2E.52 of 2003 MUTCD has been relocated to Section 2I.05 of the 2009 MUTCD*

**2E.52**     **Signing on Conventional Road Approaches and Connecting Roadways** (formerly Section 2E.49) (NOTE: The text previously contained in this section has been relocated to Section 2D.45.)

**New Support** to identify Section 2D.45 as containing information on signing conventional roads on approaches to interchanges and connecting roadways.

*2E.53 of 2003 MUTCD has been relocated to Section 2I.08 of the 2009 MUTCD*



**2E.53**     **Wrong-Way Traffic Control at Interchange Ramps** (formerly Section 2E.50)  
(NOTE: The text previously contained in this section has been relocated to Section 2D.41.)  
New **Support** to identify Section 2B.41 as containing information on regulatory signs to deter wrong-way movements, and 2D.46 as containing information regarding the use of a Directional assembly or a guide sign to mark the entrance to a freeway or expressway from a conventional road.

*2E.54 of 2003 MUTCD has been relocated to Section 2H.06 of the 2009 MUTCD*

**2E.54**     **Weigh Station Signing** (formerly Section 2E.58)

*2E.55 of 2003 MUTCD has been relocated to Section 2H.04 of the 2009 MUTCD*

*2E.56 of 2003 MUTCD has been relocated to Section 2I.09 of the 2009 MUTCD*

*2E.57 of 2003 MUTCD has been relocated to Section 2I.11 of the 2009 MUTCD*

*2E.58 of 2003 MUTCD has been relocated to Section 2E.54 of the 2009 MUTCD*

*2E.59 of 2003 MUTCD has been relocated to Sections 2G.11 – 2G.15 of the 2009 MUTCD*

**Table**

*2E-1 of 2003 MUTCD has been relocated to Table 2E-2 of the 2009 MUTCD*

**2E-1**     **Freeway or Expressway Guide Sign and Plaque Sizes**  
New Table

*2E-2 of 2003 MUTCD has been relocated to Table 2E-3 of the 2009 MUTCD*

**2E-2**     **Minimum Letter and Numeral Sizes for Expressway Guide Signs According to Interchange Classification** (formerly Table 2E-1)

In the Type of Sign column, “Exit Plaque” has been changed to “Exit Number Plaques.”

In the Type of Sign column, the type called “Alternate (Example: U.S. Alt. 56)” has been divided into two types: “U.S. or State Route Text Identification (Example: US 56)” and “Auxiliary and Alternative Route Legends (Examples: JCT, TO, ALT, BUSINESS).”

The minimum letter sizes for “Auxiliary and Alternative Route Legends (Examples: JCT, TO, ALT, BUSINESS)” in the Intermediate and Minor interchange columns have been decreased.

In the Type of Sign column, “Distance Fraction” has been changed to “Distance Fraction Numerals.”

The note at the bottom of the table has been added.

*2E-3 of 2003 MUTCD has been relocated to Table 2E-4 of the 2009 MUTCD*

**2E-3**     **Minimum Letter and Numeral Sizes for Expressway Guide Signs According to Sign Type** (formerly Table 2E-2)

The former Item C (Changeable Message Signs), and the asterisks and asterisk notes have been deleted.

The size of the first letters of “Cardinal Directions” has been added to Item A.

The sizes of “Numerals” and “Shields” for “Route Signs” have been added to Items B, C, and E.

The title of Item C has been changed to “Interchange Sequence or Community Interchanges Identification Signs.”

In Item C, the minimum size of the “Numerals” has been increased.

The size of “NEXT XX Exits – Number” has been added to Item D.

Cross references to chapters have been added to the titles of Items F, G, H, and I.

The title of Item G has been changed to “Rest Area, Scenic Area, and Roadside Area Signs”.

In Item G, the minimum size of the “Distance Words” has been decreased.

Item L and the reference to Table 2E-5 have been added.

The note at the bottom of the table has been added.

*2E-4 of 2003 MUTCD has been relocated to Table 2E-5 of the 2009 MUTCD*

**2E-4 Minimum Letter and Numeral Sizes for Freeway Guide Signs According to Interchange Classification (formerly Table 2E-3)**

In the Type of Sign column, the type called “Alternate (Example: U.S. Alt. 56)” has been divided into two types: “U.S. or State Route Text Identification (Example: US 56)” and “Auxiliary and Alternative Route Legends (Examples: JCT, TO, ALT, BUSINESS).”

The minimum letter size for “Auxiliary and Alternative Route Legends (Examples: JCT, TO, ALT, BUSINESS)” in the Minor interchange column has been decreased, and the desirable size in the Major Category b interchanges column has been deleted.

The sizes of the Numerals and Letters on Gore signs have been increased.

Note 1 at the bottom of the table has been added.

**2E-5 Minimum Letter and Numerical Sizes for Freeway Guide Signs According to Sign Type (formerly Table 2E-4)**

Item C (Changeable Message Signs) in the former table has been deleted. The asterisks and asterisk note have also been deleted.

The size of the first letters of cardinal directions has been added to Item A.

In Item B, the size of the “Action Messages” has been decreased.

The sizes of “Numerals” and “Shields” for “Route Signs” have been added to Items B, C, and E.

The title of Item C has been changed to “Interchange Sequence or Community Interchanges Identification Signs.”

The size of “NEXT XX Exits – Number” has been added to Item D.

Cross references to chapters have been added to the titles of Items F, G, H, and I.

The title of Item G has been changed to “Rest Area, Scenic Area, and Roadside Area Signs”.

In Item G, the minimum size of the “Distance Words” has been decreased.

Item L and the 13 rows of information associated with Item L have been added.

In the Type of Sign column, several of the descriptions in Item M have been revised.

In Item M, the minimum size of the “Arrowhead” has been increased, and the type of arrow has been changed from “(standard up arrow)” to “(Type D directional arrow)”.

The note and the asterisk note at the bottom of the table have been added.

#### **Figure**

*2E-3 of 2003 MUTCD has been deleted in the 2009 MUTCD*

**2E-3      Overhead Arrow-per-Lane Guide Sign for a Multi-Lane Exit with an Option Lane**  
**New Figure**

*2E-4 of 2003 MUTCD has been relocated to Figure 2E-14 of the 2009 MUTCD*

**2E-4      Overhead Arrow-per-Lane Guide Signs for a Two-Lane Exit to the Right with an Option Lane**  
**New Figure**

*2E-5 of 2003 MUTCD has been relocated to Figure 2E-10 of the 2009 MUTCD*

**2E-5      Overhead Arrow-per-Lane Guide Signs for a Two-Lane Exit to the Right with an Option Lane (Through Lanes Curve to the Left)**  
**New Figure**

*2E-6 of 2003 MUTCD has been relocated to Figure 2E-9 of the 2009 MUTCD*

**2E-6      Overhead Arrow-per-Lane Guide Signs for a Split with an Option Lane**  
**New Figure**

*2E-7 of 2003 MUTCD has been relocated to Figure 2E-8 of the 2009 MUTCD*

**2E-7      Diagrammatic Guide Sign for a Multi-Lane Exit with an Option Lane**  
**New Figure**

*2E-8 of 2003 MUTCD has been relocated to Figure 2E-15 of the 2009 MUTCD*

**2E-8      Diagrammatic Guide Sign for a Two-Lane Exit to the Right with an Option Lane**

**(formerly Figure 2E-7)**

The designs of the overhead signs at the theoretical gore and the Exit Gore sign have been revised.

*2E-9 of 2003 MUTCD has been relocated to Figure 2E-13 of the 2009 MUTCD*

**2E-9 Guide Sign for a Two-Lane Exit to the Right with an Option Lane (Through Lanes Curve to the Left) (formerly Figure 2E-6)**

The U.S. 40 confirming route sign assembly has been replaced with a trailblazer route sign assembly.

The designs of all of the overhead guide signs and the Exit Gore sign have been revised.

The signing now shows an exit ramp that leads to eastbound U.S. 40 instead of westbound U.S. 40.

*2E-10 of 2003 MUTCD has been relocated to Figure 2E-16 of the 2009 MUTCD*

**2E-10 Diagrammatic Guide Signs for a Split with an Option Lane (formerly Figure 2E-5)**

The designs of the overhead signs at the theoretical gore have been revised.

The guide signs that are two miles in advance of the exit are mounted over the lanes rather than post-mounted on the right-hand side.

The signing now shows an exit ramp for northbound I-79 instead of southbound I-79.

**2E-11 Example of Signing for a Two-Lane Intermediate or Minor Interchange Exit with an Option Lane and a Dropped Lane  
New Figure**

*2E-12 of 2003 MUTCD has been relocated to Figure 2E-19 of the 2009 MUTCD*

**2E-12 Example of Signing for a Two-Lane Intermediate or Minor Interchange Exit with Option and Auxiliary Lanes  
New Figure**

*2E-13 of 2003 MUTCD has been relocated to Figure 2E-20 of the 2009 MUTCD*

**2E-13 EXIT ONLY and LEFT Sign Panels (formerly Figure 2E-9)  
Redesigned Sign: E11-1  
Deleted Sign: E11-1a  
New Signs: E11-1d, E11-1e, E11-1f, and E11-2**

The two E11-1b sign panels have been separately designated as E11-1a and E11-1b.

*2E-14 of 2003 MUTCD has been relocated to Figure 2E-21 of the 2009 MUTCD*

**2E-14 Guide Signs for a Split with Dedicated Lanes (formerly Figure 2E-4)**

The lane line between the two center lanes has been revised, and edge lines have been added.

Confirming route sign assemblies for I-270 and I-495 have been added.

The guide signs with down arrows and the diagrammatic guide signs have been replaced with guide signs featuring upward-pointing arrows at the theoretical gore and down arrows in advance of the exit. The left exit plaques now show the word LEFT in black letters on a yellow background.

The guide signs that are two miles in advance of the exit are mounted over the lanes rather than post-mounted on the right-hand side.

Dimensions showing 1-mile and ½-mile separations between the overhead signs have been added.

*2E-15 of 2003 MUTCD has been relocated to Figure 2E-22 of the 2009 MUTCD*

**2E-15 Guide Signs for a Single-Lane Exit to the Left with a Dropped Lane (formerly Figure 2E-8)**

The lane line between the left-hand lane and the center lane has been revised.

The diagrammatic guide signs have been replaced with guide signs featuring a down arrow in advance of the exit. The left exit plaques now show the word LEFT in black letters on a yellow background.

Dimensions showing ½-mile separations between the overhead signs have been added.

The asterisk note at the bottom of the figure has been deleted.

*2E-16 of 2003 MUTCD has been relocated to Figure 2E-23 of the 2009 MUTCD*

**2E-16 Guide signs for a Single-Lane Exit to the Right with a Dropped Lane (formerly Figure 2E-10)**

The lane line between the right-hand lane and the center lane has been revised.

The West US 40 confirming route sign assembly has been added.

Dimensions showing ½-mile separations between the overhead signs have been added.

*2E-17 of 2003 MUTCD has been relocated to Figure 2E-24 of the 2009 MUTCD*

**2E-17 Interstate, Off-Interstate, and U.S. Route Signs (formerly Figure 2E-11)  
New Sign: M1-3**

The Eisenhower Interstate System signs have been relocated to a new Figure 2E-18. The U.S. route sign for guide sign use has been given an M1-4 designation.

The word “OR” has been added in two places.

*2E-18 of 2003 MUTCD has been relocated to Figure 2E-25 of the 2009 MUTCD*

**2E-18 Eisenhower Interstate System Signs  
New Figure**

*2E-19 of 2003 MUTCD has been relocated to Figure 2E-25 of the 2009 MUTCD*

**2E-19**     **Example of Interchange Numbering for Mainline and Circumferential Routes** (formerly **Figure 2E-12)**

Format revisions have been made that make the figure easier to understand. Interstate shields are white on black, all interchange numbers are in circles, and all reference location numbers are shown. The legend has been appropriately adjusted.

The word “CIRCUMFERENTIAL” has been added next to the I-473 shield between reference locations 3 and 4.

*2E-20 of 2003 MUTCD has been relocated to Figure 2E-26 of the 2009 MUTCD*

**2E-20**     **Example of Interchange Numbering for Mainline, Loop, and Spur Routes** (formerly **Figure 2E-13)**

Format revisions have been made that make the figure easier to understand. Interstate shields are white on black, spaces have been added between exit numbers and suffix letters, leader lines have been added to associate exit numbers with exit ramps, and all reference location numbers are shown. The legend has been appropriately adjusted.

An asterisk note has been added at the bottom of the figure.

*2E-21 of 2003 MUTCD has been relocated to Figure 2E-28 of the 2009 MUTCD*

**2E-21**     **Example of Interchange Numbering for Overlapping Routes** (formerly **Figure 2E-14)**

Format revisions have been made that make the figure easier to understand. Interstate shields are white on black, all interchange numbers are in circles, leader lines have been added to associate exit numbers with exit ramps, and all reference location numbers are shown. The legend has been appropriately adjusted.

*2E-22 of 2003 MUTCD has been relocated to Figure 2E-29 of the 2009 MUTCD*

**2E-22**     **Examples of Interchange Advance Guide Signs, Exit Number Plaques, and LEFT Plaque** (formerly **Figure 2E-15)**

A “P” has been added to the designation of the E1-5 plaque, and the phrase “Exit Number Plaque” has been deleted.

**Deleted Signs:** E1-1, E1-1a, E1-2, and E1-2a

**New Plaques:** E1-5aP, and E1-5bP

*2E-23 of 2003 MUTCD has been relocated to Figure 2E-30 of the 2009 MUTCD*

**2E-23**     **Next Exit Plaques** (formerly **Figure 2E-16)**

**Deleted Signs:** E2-1, and E2-1A

*2E-24 of 2003 MUTCD has been relocated to Figure 2E-31 of the 2009 MUTCD*

**2E-24**     **Supplemental Guide Sign for a Multi-Exit Interchange** (formerly **Figure 2E-17)**

*2E-25 of 2003 MUTCD has been relocated to Figure 2E-32 of the 2009 MUTCD*

**2E-25**     **Supplemental Guide Sign for a Park – Ride Facility** (formerly **Figures 2E-18 and 2E-19)**

The title has been revised, and the two signs are now designated as Drawings A and B.

The carpool symbol has been centered horizontally on the sign in Drawing A, and the ampersand has been replaced by a hyphen.

The exit number has been incorporated into a redesigned sign in Drawing B.

*2E-26 of 2003 MUTCD has been relocated to Figure 2E-33 of the 2009 MUTCD*

**2E-26     Examples of Interchange Exit Direction Signs (formerly Figure 2E-20)**

*2E-27 of 2003 MUTCD has been relocated to Figure 2E-34 of the 2009 MUTCD*

**2E-27     Interchange Exit Direction Sign with an Advisory Speed Panel  
New Figure**

*2E-28 of 2003 MUTCD has been relocated to Figure 2E-35 of the 2009 MUTCD*

**2E-28     Exit Gore Signs (formerly Figure 2E-21)**

The E5-2 designation has been changed to E5-1bP, and a “P” has been added to the designation of the E13-1P plaque.

*2E-29 of 2003 MUTCD has been relocated to Figure 2E-36 of the 2009 MUTCD*

**2E-29     Post-Interchange Distance Sign (formerly Figure 2E-22)**

*2E-30 of 2003 MUTCD has been relocated to Figure 2E-37 of the 2009 MUTCD*

**2E-30     Example of Using an Interchange Sequence Sign for Closely-Spaced Interchanges  
(formerly Figure 2E-23)**

The locations of the reference location sign symbols have been adjusted to line up with the RLS labels, and a legend has been added.

The Park Street interchange and the Park St Exit Direction sign have been deleted. Instead of three Interchange Sequence signs, only one Interchange Sequence sign is now shown and the distances have been appropriately updated.

The Brandon Rd sign has been deleted.

The “1/2 MILE” fractions on the three advanced signs have been revised to “½ MILE.”

The designs of the Exit Direction signs have been revised.

*2E-31 of 2003 MUTCD has been relocated to Figure 2E-38 of the 2009 MUTCD*

**2E-31     Interchange Sequence Sign (formerly Figure 2E-24)**

*2E-32 of 2003 MUTCD has been relocated to Figure 2E-39 of the 2009 MUTCD*

**2E-32     Community Interchanges Identification Sign (formerly Figure 2E-25)**

*2E-33 of 2003 MUTCD has been relocated to Figure 2E-40 of the 2009 MUTCD*

**2E-33**     **NEXT EXITS Sign** *(formerly Figure 2E-26)*

*2E-34 of 2003 MUTCD has been relocated to Figure 2D-11 of the 2009 MUTCD*

**2E-34**     **Examples of Guide Signs for a Freeway-to-Freeway Interchange**  
**(formerly Figure 2E-27)**

This figure has been expanded to two separate drawings so that more detail could be added, including pavement markings, confirming route sign assemblies, and exit gore signs.

The reference location numbers have been deleted.

The guide signs have been revised to the new signing philosophy that includes a down arrow per lane on the advance signs and a diagonal upward arrow for the exit lane(s) at the theoretical gore.

*2E-35 of 2003 MUTCD has been relocated to Figure 2D-12 of the 2009 MUTCD*

**2E-35**     **Examples of Guide Signs for a Full Cloverleaf Interchange** *(formerly Figure 2E-28)*

The bridge-mounted sign has been relocated so that it is over the approach lanes instead of over the median.

The option of using an “EXIT 102” exit number plaque on the two advance exit signs has been deleted.

Reference location numbers have been added.

*2E-36 of 2003 MUTCD has been relocated to Figure 2D-13 of the 2009 MUTCD*

**2E-36**     **Examples of Guide Signs for a Full Cloverleaf Interchange with Collector-Distributor Roadways** *(formerly Figure 2E-29)*

The option of using an “EXIT 102” exit number plaque on the two Advance Exit signs and on the Exit Direction sign has been deleted. The exit gore sign has been revised to have an “EXITS 102 A-B” legend instead of “EXIT 102.”

The designs of the Exit Direction signs and the Exit Gore signs have been revised.

The EAST I-52 route sign between RLS 102 and 103 has been deleted.

*2E-37 of 2003 MUTCD has been relocated to Figure 2D-14 of the 2009 MUTCD*

**2E-37**     **Examples of Guide Signs for a Partial Cloverleaf Interchange** *(formerly Figure 2E-30)*

The guide signs facing traffic on the exit ramps upstream from the SR 24 intersections have been revised. The SR 24 directional route sign assemblies at the downstream end of both of the exit ramps have been added.

*2E-38 of 2003 MUTCD has been relocated to Figure 2D-15 of the 2009 MUTCD*

**2E-38**     **Examples of Guide Signs for a Diamond Interchange** *(formerly Figure 2E-31)*

Signing has been added for the southbound exit ramp.

*2E-39 of 2003 MUTCD has been relocated to Figure 2B-18 of the 2009 MUTCD*



**2E-39**     **Examples of Guide Signs for a Diamond Interchange in an Urban Area** (formerly **Figure 2E-32**)

The reference location numbers have been revised.

The guide signs facing traffic on the exit ramp have been added.

The designs of the Exit Direction sign and the Exit Gore sign have been revised.

*2E-40 of 2003 MUTCD has been relocated to Figure 2B-19 of the 2009 MUTCD*

**2E-40**     **Examples of Guide Signs for a Minor Interchange** (formerly **Figure 2E-33**)

The designs of the Exit Direction sign and the Exit Gore sign have been revised.

The Laurel Ave sign facing traffic on the exit ramp has been added.

*2E-41 and 2E-42 of 2003 MUTCD has been relocated to Figure 2I-3 of the 2009 MUTCD*

*2E-43 of 2003 MUTCD has been relocated to Figure 2I-2 of the 2009 MUTCD*

*2E-44 of 2003 MUTCD has been relocated to Figure 2I-5 and 2I-7 of the 2009 MUTCD*

*2E-45 of 2003 MUTCD has been relocated to Figure 2H-4 of the 2009 MUTCD*

*2E-46 of 2003 MUTCD has been relocated to Figure 2G-8 of the 2009 MUTCD*

*2E-47 of 2003 MUTCD has been relocated to Figure 2G-10 of the 2009 MUTCD*

*2E-48 of 2003 MUTCD has been relocated to Figure 2G-2 of the 2009 MUTCD*

*2E-49 of 2003 MUTCD has been relocated to Figure 2G-3 of the 2009 MUTCD*

*2E-50 of 2003 MUTCD has been relocated to Figure 2G-13 of the 2009 MUTCD*

*2E-51 of 2003 MUTCD has been relocated to Figure 2G-15 of the 2009 MUTCD*

*2E-52 of 2003 MUTCD has been relocated to Figure 2G-16 of the 2009 MUTCD*

## Chapter 2F

*Chapter 2F in the 2003 MUTCD has been relocated to Chapter 2J of the 2009 MUTCD*

### Chap. 2F Toll Road Signs

New Chapter outlining the overall usage of toll road signs.

#### Table

2F-1 Toll Road Sign and Plaque Minimum Sizes  
New Table

#### Figure

2F-1 Examples of ETC Account Pictographs and Use of Purple Backgrounds and Underlay Panels

New Figure

2F-2 Toll Plaza Regulatory Signs and Plaques

New Figure

2F-3 Toll Plaza Warning Signs and Plaques

New Figure

2F-4 ETC Account-Only Auxiliary Signs for Use in Route Sign Assemblies

New Figure

2F-5 Examples of Guide Signs for Entrances to Toll Highways or Ramps

New Figure

2F-6 Examples of Guide Signs for the Entrance to a Toll Highway on which Tolls are Collected Electronically Only

New Figure

2F-7 Examples of Guide Signs for Alternative Toll and Non-Toll Ramp Connections to a Non-Toll Highway

New Figure

2F-8 Examples of Conventional Toll Plaza Advance Signs

New Figure

2F-9 Examples of Toll Plaza Canopy Signs

New Figure

2F-10 Examples of Mainline Toll Plaza Approach and Canopy Signing

New Figure

2F-11 Examples of Guide Signs for a Mainline Toll Plaza on a Diverging Alignment from Open-Road ETC Lanes

New Figure

## Chapter 2G

*New Chapter with relocated text from Chapters 2B, 2C, and 2E from the 2003 MUTCD*

*Chapter 2G in the 2003 MUTCD has been relocated to Chapter 2K of the 2009 MUTCD*

### 2G.01 Scope

**Support Revised (Para 2)** to clarify the usage of Preferential lanes. *(NOTE: The text from this paragraph was relocated to this Section from Section 2B.27 of the 2003 MUTCD.)*

**Support Added (Para 4-8)** indicating that open-road tolling lanes and toll plaza lanes are not considered preferential lanes, yet under certain operational strategies, a managed lane is a special type of preferential lane (see Sections 2G.03 through 2G.07); and that sections 2G.16 through 2G.18 contain additional information regarding signs for managed lanes that use tolling or pricing as a management strategy.

**Support Added (Para 9)** containing information regarding Preferential Lane signs for bike lanes. *(NOTE: The text from this paragraph was relocated to this Section from Section 2B.26 of the 2003 MUTCD.)*

### 2G.02 Sizes of Preferential and Managed Lane Signs

**New Section** describing information on Preferential Lane and Managed Lane sign sizes.

### 2G.03 Regulatory Signs for Preferential Lanes – General *(formerly Section 2B.26)*

**New Support (Para 2)** describing several types of Preferential Lane regulatory signs.

**New Standard (Para 3)** specifying how to distinguish regulatory signs applicable only to preferential lanes from regulatory signs applicable to general-purpose lanes.

*(Standard Deleted from Section 2B.26 of the 2003 MUTCD requiring the use of a Lane Ends (R3-12a or R3-15a) sign at the end of a preferential only lane.)*

**New Support (Para 6)** to identify sections containing examples of incorporating VMS' into static Preferential Lane regulatory signs.

**Guidance Revised (Para 8)** to clarify usage of Preferential Lane regulatory signs on conventional roads. *(NOTE: The text from this paragraph was relocated to this Section from Section 2B.28 of the 2003 MUTCD.)*

**Guidance Added (Para 9)** to clarify criteria for the signs for the preferential lane to be separated laterally from the signs for the general-purpose lanes to the maximum extent practical to minimize conflicting information, while maintaining their visual relationship to the lanes below necessitated by specific legend or arrows indicating lane assignment.

### **Standard Revised (Para 10)**

*(NOTE: The text from this paragraph was relocated to this Section from Section 2B.28 of the 2003 MUTCD.)*

**New Option (Para 11)** for post-mounting R3-13 and R3-15 series signs in medians.

**New Guidance (Para 13)** indicating that the edges of Preferential Lane regulatory signs that are post-mounted on a median barrier should not project beyond the outer edges of the barrier, including in areas where lateral clearance is limited.

**New Option (Para 14)** for where lateral clearance is limited, to allow preferential Lane regulatory signs that are post-mounted on a median barrier and that are 72 inches or less in width to be skewed up to 45 degrees in order to fit within the barrier width, or to be mounted higher, such that the vertical clearance to the bottom of the sign, light fixture, or structural support, whichever is lowest, is not less than 14 feet above any portion of the pavement and shoulders.

**New Standard (Para 15)** requiring that in limited lateral clearance locations, Preferential Lane regulatory signs that are post-mounted on a median barrier and that are wider than 72 inches shall be mounted with a vertical clearance that complies with the provisions of Section 2A.18 for overhead mounting.

**Guidance Revised (Para 16)** to clarify conditional Preferential Lane regulatory sign spacing on conventional roads.

**New Support (Para 17)** indicating Sections 2G.04 and 2G.05 contains information on placing Preferential Lane regulatory signs on freeways and expressways.

**Standard Revised (Para 18)** requiring usage of signs in Figure 2G-1 that incorporate the diamond symbol for preferential lanes for HOV and those that do not have a diamond symbol for non-HOV lanes.

**Support Added (Para 22)** regarding information contained in the “Federal-Aid Highway Program Guidance on High Occupancy Vehicle (HOV) Lanes” (see Section 1A.11). *(NOTE: The text from this paragraph was relocated to this section from Section 2B.27 of the 2003 MUTCD.)*

**New Standard (Para 23-25)** requiring conditional usage of regulatory signs or regulatory panels within the appropriate guide signs that include changeable message elements for managed lanes operated at all times or at certain times by varying vehicle occupancy requirements (HOV) or by using vehicle type restrictions as a congestion management strategy.

**New Support (Para 26-27)** indicating section 2G.17 contains information for regulatory signs for managed lanes that use tolling or pricing as a congestion management strategy, and that Figures 2G-2 and 2G-3 contain illustrations of regulatory sign usage for the beginning, along the length, and at the end of contiguous or buffer-separated preferential lanes that provide continuous access with the adjacent general-purpose lanes.

#### **2G.04 Preferential Lane Vehicle Occupancy Definition Regulatory Signs (R3-10 Series and R3-13) (formerly Section 2B.27)**

**Standard Revised (Para 1)** to specify signs to use where agencies determine that it is appropriate to provide a sign that defines the minimum occupancy of vehicles that are allowed to use an HOV lane. *(NOTE: The text from this paragraph was relocated to this section from Section 2B.26 of the 2003 MUTCD.)*

**Guidance Revised (Para 4)** to include the legend format of the R3-13a sign. *(NOTE: A portion of the text from this paragraph was relocated to this section from Section 2B.26 of the 2003 MUTCD.)*

**New Support (Para 6)** identifying Section 2G.17 with information on legends of Vehicle Occupancy Definition signs for a priced managed lane that has an occupancy requirement for non-toll travel.

**Standard Added (Para 7)** specifying conditional sign usage for barrier-or buffer-separated or contiguous preferential lanes where access between the preferential and general-purpose lanes is restricted to designated locations. **Guidance Revised (Para 2)** *(NOTE: A portion of the text from this paragraph was relocated to this section from Section 2B.28 of the 2003 MUTCD.)*

**Option Revised (Para 8)** to change the intervals at which the sequence of a post-mounted Periods of Operation (R3-11a) sign followed by a post-mounted Vehicle Occupancy Definition (R3-10) signs may be located from 0.6 mile to approximately 1/2 mile. *(NOTE: The text from this paragraph was relocated to this section from Section 2B.28 of the 2003 MUTCD.)*

**Standard Revised (Para 9-10)** specifying conditional sign usage for buffer-separated or contiguous HOV lanes where access is restricted to designated locations, and for buffer-separated or contiguous HOV lanes where continuous access with the adjacent general-purpose lanes is provided. *(NOTE: A portion of the text from these paragraphs was relocated to this section from Section 2B.28 of the 2003 MUTCD.)*

**New Guidance (Para 11)** to clarify spacing of signage within each Preferential Lane.

**Standard Revised (Para 12)** specifying that post-mounted Vehicle Occupancy Definition (R3-10) sign, and an ILEV (R3-10a) sign, if appropriate, be used at the beginning or initial entry point for all types of direct access ramps that provide access to or lead to HOV lanes. *(NOTE: The text from this paragraph was relocated to this section from Section 2B.28 of the 2003 MUTCD.)*

## **2G.05 Preferential Lane Periods of Operation Regulatory Signs (R3-11 Series and R3-14 Series) (formerly Section 2B.28)**

**Guidance (Para 1)** *(NOTE: The text from this paragraph was relocated to this section from Section 2B.26 of the 2003 MUTCD.)*

**Support (Para 2)** *(NOTE: The text from this paragraph was relocated to this section from Section 2B.26 of the 2003 MUTCD.)*

**Standard (Para 3-5)** *(NOTE: The text from these paragraphs was relocated to this section from Section 2B.26 of the 2003 MUTCD.)*

**Standard Added (Para 6-7)** specifying sign usage for the R3-11 Series and R3-14 Series signs on preferential lanes that are in effect on a full-time basis. Also, R3-14b signs shall not be used where the preferential lane is in effect only on a part-time basis.

**Option (Para 8)** *(NOTE: The text from this paragraph was relocated to this section from Section 2B.26 of the 2003 MUTCD.)*

**Option Added (Para 9)** to allow the use of an R3-11P plaque where motorcycles, regardless of the number of occupants, are allowed to use an HOV lane.

**Standard Added (Para 10)** specifying that, when used, an R3-11P plaque shall be mounted below a post-mounted R3-11, R3-11a, or R3-11c sign.

**Standard Added (Para 12)** specifying that an overhead R3-14 series sign be used at the beginning or initial entry point of buffer-separated or contiguous preferential lanes where continuous access with the adjacent general-purpose lanes is provided.

**New Guidance (Para 13)** recommending that overhead (R3-14 series) or post-mounted (R3-11 series) signs be installed at periodic intervals along the length of a contiguous or buffer-separated preferential lane where continuous access with the adjacent general-purpose lanes is provided.

**New Option (Para 14-15)** allowing the use of additional overhead (R3-14 series) or post-mounted (R3-11 series) signs along the length of any type of preferential lane. Also, on conventional roads, the overhead (R3-14 series) signs may be installed at the beginning or entry points and/or at intermediate points along preferential lanes in any geometric configuration.

**New Standard (Para 16)** specifying that a post-mounted (R3-11 series) sign shall be used at the beginning or initial entry point for all types of direct access ramps that provide access to or lead to preferential lanes.

**2G.06** **Preferential Lane Advance Regulatory Signs (R3-12, R3-12e, R3-12f, R3-15, R3-15a, and R3-15d)**

**Guidance Added (Para 1)** outlining the usage of the Preferential Lane Advance signs.

**Option Revised (Para 3)** to allow modifying legends on R3-12f and R3-15d signs.

**Guidance Added (Para 4-5)** outlining post-mounted (R3-12e) and overhead (R3-15a) sign usage on general purpose lanes that become preferential lanes on conventional roads, and installation of an overhead (R3-15a) sign for general-purpose lanes that become preferential lanes on freeways and expressways.

**New Option (Para 6)** for placement of additional post-mounted or overhead preferential lane advance signs.

**2G.07** **Preferential Lane Ends Regulatory Signs (R3-12a, R3-12b, R3-12c, R3-12d, R3-12g, R3-12h, R3-15b, R3-15c, and R3-15e)**

**New Section** outlining the proper design, use and location of Preferential Lane Ends Regulatory Signs.

**Standard Revised (Para 1-2)** specifying R3-12g and R3-12h sign usage, as well as one exception for the installation of a post-mounted R3-12a or R3-12g sign. *(NOTE: The text from these paragraphs was relocated to this section from Section 2B.28 of the 2003 MUTCD.)*

**2G.08** **Warning Signs on Median Barriers for Preferential Lanes**

**New Section** outlining the proper design and use of warning signs on median barriers for preferential lanes.

**2G.09** **High-Occupancy Vehicle (HOV) Plaque (W16-11P) (formerly Section 2C.52)**

**2G.10** **Preferential Lane Guide Signs – General** (*NOTE: The text in this Section was relocated to this section from Section 2E.59 of the 2003 MUTCD and substantially edited.*)

**New Support (Para 1)** explaining that Sections 2G.10 and 2G.15 contain information applying to guide signs for preferential lanes on freeways and expressways only.

**New Guidance (Para 2)** recommending that if guide signs are used on preferential lanes, they should comply with the provisions for guide signs in Chapter 2D and any principles for Preferential Lane guide signs in Sections 2G.10 through 2G.15 that engineering judgment finds to be appropriate for the conditions.

**Support Added (Para 3)** describing the importance of sign and pavement marking consistency for preferential lane guide signs.

**Guidance Revised (Para 5)** – Text recommending that combinations of overhead and post-mounted regulatory, warning and guide signs with pavement markings be selected based on an engineering study *was changed from Support to Guidance.*

**Guidance Added (Para 6)** to describe proper location of overhead signs applicable to preferential lanes when located in approximately the same longitudinal position along the highway as overhead signs applicable only to the general-purpose lanes.

**New Standard (Para 8)** specifying design of signs applicable only to preferential lane.

**New Support (Para 9)** detailing a conditional usage of symbols or word messages on particular guide signs applicable to preferential lanes.

**New Standard (Para 10-15)** requiring usage of the diamond symbol on specific guide signs applicable to HOV lanes. In addition, this section prohibits the display of the occupancy requirement on guide signs for preferential lanes, specifies the proper location of regulatory and guide signs where access between the preferential and general-purpose lanes is restricted to designated locations. It specifies the proper usage, design and placement of regulatory signs along contiguous or buffer-separated preferential lanes that provide continuous access between the adjacent general-purpose lanes and the preferential lane, and the proper design of guide signs applicable to a preferential lane with a vehicle occupancy requirement.

**New Option (Para 16)** regarding the use of vertical, rectangular-shaped, post-mounted guide signs (applicable to preferential lanes) installed on median barriers.

**New Standard (Para 17)** specifying layout requirements for rectangular-shaped guide signs (applicable to preferential lanes) mounted on median barriers.

**Standard Revised (Para 20)** – Text specifying mounting height requirements for Preferential Lane guide signs that are post-mounted on a median barrier and that are wider than 72 inches *was changed from Guidance to Standard.*

**Option Added (Para 21)** for conditional use of lane-use control signals.

**Standard Added (Para 24)** prohibiting the identification of the entry point as an exit by using the word “EXIT” on the sign or a plaque for Advance Guide, Preferential Lane Entrance Direction, and Preferential Lane Entrance Gore signs.

**New Guidance (Para 25-26)** to recommend using words, such as “ENTRANCE” in “HOV LANE ENTRANCE” on Advance Guide and Preferential Lane Entrance Direction signs located at initial and intermediate entry points into preferential lanes. It also recommends including the word, “ENTRANCE” on Preferential Lane Entrance Gore signs at the initial entry point to a preferential lane.

**New Standard (Para 27)** requiring that when the entry point is on the left-hand side of the general-purpose lanes, a LEFT (E1-5aP) plaque shall be added to the top left edge of the Advance Guide and Preferential Lane Entrance Direction signs. Also, the use of the LEFT plaque is prohibited on a preferential lane regulatory sign.

## **2G.11 Guide Signs for Initial Entry Points to Preferential Lanes**

*(NOTE: The text in this Section was relocated to this section from Section 2E.59 of the 2003 MUTCD and substantially edited.)*

**Standard Added (Para 1)** specifying that except where a buffer-separated or contiguous preferential lane is added or where a general-purpose lane becomes a buffer-separated or contiguous preferential lane, and provides continuous access with the adjacent general-purpose lanes as illustrated in Figures 2G-2 and 2G-3, an Advance Guide sign shall be provided at least 1/2 mile prior to the initial entry point to all types of preferential lanes in any type of geometric configuration.

A Preferential Lane Entrance Direction sign shall also be provided at the initial entry point. Advance Guide and Preferential Lane Entrance Direction signs for such entry points shall not include the word “EXIT” (see Section 2G.10).

**New Guidance (Para 2)** regarding conditional placement of an Advance Guide sign.

**Standard Revised (Para 4)** to specify that for all preferential lanes where entry is restricted to only designated points, the Advance Guide and Preferential Lane Entrance Direction signs shall be mounted overhead.

**New Standard (Para 6)** requiring that Advance Destination Guide signs for preferential lanes shall include an upper section displaying a black legend that includes the type of preferential lane and the word “EXITS,” such as “HOV EXITS,” on a white background. For preferential lanes that incorporate a vehicle occupancy requirement, the white diamond symbol on a black background shall be displayed at the left edge of this upper section.

## **2G.12 Guide Signs for Intermediate Entry Points to Preferential Lanes**

*(NOTE: The text in this Section was relocated to this section from Section 2E.59 of the 2003 MUTCD and substantially edited.)*

**New Section** specifying the proper use, location and layout of guide signing for intermediate entry points to preferential lanes.

## **2G.13 Guide Signs for Egress from Preferential Lanes to General-Purpose Lanes**

*(NOTE: The text in this Section was relocated to this section from Section 2E.59 of the 2003 MUTCD and substantially edited.)*

**New Section** specifying the proper use, location and layout of guide signing for egress from Preferential Lanes to General-Purpose Lanes.

## **2G.14 Guide Signs for Direct Entrances to Preferential Lanes from Another Highway**

*(NOTE: The text in this Section was relocated to this section from Section 2E.59 of the 2003 MUTCD and substantially edited.)*



**New Section** specifying the proper use, location and layout of guide signing for direct entrances to preferential lanes from another highway.

**2G.15**     **Guide Signs for Direct Exits from Preferential Lanes to Another Highway**  
*(NOTE: The text in this Section was relocated to this section from Section 2E.59 of the 2003 MUTCD and substantially edited.)*

**New Section** specifying the proper use, location and layout of guide signing for direct exits from preferential lanes to another highway.

**2G.16**     **Signs for Priced Managed Lanes – General**  
**New Section** specifying the proper use and layout of signs for priced managed lanes.

**2G.17**     **Regulatory Signs for Priced Managed Lanes**  
**New Section** specifying the proper use, location and layout of regulatory signs for priced managed lanes.

**2G.18**     **Guide Signs for Priced Managed Lanes**  
**New Section** specifying the proper use, location and layout of guide signs for priced managed lanes.

**Table**

**2G-1**     **Managed and Preferential Lanes Sign and Plaque Minimum Sizes**  
**New Table.** *(NOTE: R3-10 through R3-15 series signs were relocated to this table from Table 2B-1 of the 2003 MUTCD.)*

**Figure**

*2G-1 of 2003 MUTCD has been relocated to Figure 2K-1 of the 2009 MUTCD*

**2G-1**     **Preferential Lane Regulatory Signs and Plaques** *(formerly Figure 2B-7)*

**New Plaque:** R3-11P

**New Signs:** R3-12c, R3-12d, R3-12e, R3-12g, R3-12h, R3-14b, R3-15a, R3-15c, R3-15d, and R3-15e

The designation of the R3-10a sign has been revised to R3-12f.

The designation of the R3-10b sign has been revised to R3-10a.

The designation of the R3-14b sign has been revised to R3-14c.

The designation of the R3-15a sign has been revised to R3-15b.

In the notes at the bottom of the figure, the first note has been deleted and the list of signs in the third note has been revised. A fourth note has been added at the bottom of Sheet 2.

The designs of the R3-12, R3-12a, R3-12b, R3-14, R3-14c, and R3-15 signs have been revised.

*2G-2 of 2003 MUTCD has been relocated to Figure 2K-2 of the 2009 MUTCD*

**2G-2**     **Example of Signing for an Added Continuous-Access Contiguous or Buffer-Separated HOV Lane** *(formerly Figure 2E-48)*

**Deleted Sign:** W4-2, and black-on-yellow MERGE RIGHT plaques

**New Signs:** R3-10, R3-11a

The note about the 1/4-mile spacing of the diamond pavement markings has been deleted.

The guide signs have been replaced with R3-15 regulatory signs.  
The R3-14 sign has been relocated to the downstream end of the taper at the entrance to the HOV lane.

The designs of the R3-12b and R3-13a signs have been revised.

The notes have been revised and the asterisk note has been added.

**2G-3**     **Example of Signing for a General-Purpose Lane that Becomes a Continuous-Access Contiguous or Buffer-Separated HOV Lane (formerly Figure 2E-49)**  
New Signs: R3-10, and R3-11a

The lane line adjacent to the HOV lane has been revised from a normal broken line to a wide broken line.

The note about the 1/4-mile spacing of the diamond pavement markings has been deleted.

The post-mounted advance guide sign that is one mile upstream from the restriction has been replaced with an overhead R3-15a sign. The advance guide sign that is a half mile upstream from the restriction has been replaced with an R3-12e sign.

The HOV LANE ENDS signs at the downstream end of the HOV restriction have been replaced with HOV RESTRICTION ENDS signs.

The design of the R3-13a sign has been revised.

The notes have been revised and the asterisk note has been added.

**2G-4**     **Examples of Warning Signs and Plaques Applicable Only to Preferential Lanes**  
New Figure

**2G-5**     **Example of an Overhead Advance Guide Sign for a Preferential Lane Entrance**  
New Figure

**2G-6**     **Examples of Overhead or Post-Mounted Preferential Lane Entrance Direction Signs**  
New Figure

**2G-7**     **Entrance Gore Signs for Barrier-Separated Preferential Lanes**  
New Figure

**2G-8**     **Example of Signing for an Entrance to Access-Restricted HOV Lanes (formerly Figure 2E-46)**

The pavement markings in the area where vehicles enter the HOV lane have been revised.

The Exit Gore (E5-1) sign has been replaced by an E8-1 sign.

The HOV lane entrance sign and the advance HOV lane entrance signs have been revised and black-on-yellow LEFT plaques have been added above them.

The top portion of the HOV exits sign has been revised.

The R3-14a sign has been relocated to the theoretical gore.

The notes have been revised. The double asterisk note in the 2003 MUTCD has been deleted and the new triple asterisk note has been added.

**2G-9**     **Example of Signing for an Intermediate Entry to a Barrier- or Buffer-Separated HOV Lane**  
New Figure

**2G-10**     **Example of Signing for the Intermediate Entry to, Egress from, and End of Access-Restricted HOV Lanes (formerly Figure 2E-47)**  
Deleted Sign: W4-2  
Deleted Plaque: Black-on-yellow MERGE RIGHT  
New Sign: R3-13a

The pavement markings in the intermediate entry/exit area and at the downstream end of the HOV lane have been revised.

The note about the 1/4-mile spacing of the HOV diamond pavement markings has been deleted.

The Exit Gore (E5-1) sign has been replaced by an E8-1a sign.

All of the guide signs have been revised or added and black-on-yellow LEFT plaques have been added above the HOV lane entrance sign and the advance HOV lane entrance signs.

The R3-14 sign has been relocated to the theoretical gore.

The dimensions showing the positioning of the E8-2 sign have been added.

**2G-11**     **Examples of Barrier-Mounted Guide Signs for an Intermediate Egress from Preferential Lanes**  
New Figure

**2G-12**     **Examples of Signs for an Intermediate Egress from a Barrier- or Buffer-Separated HOV Lane**  
New Figure

**2G-13**     **Example of Signing for a Direct Entrance Ramp to an HOV Lane from a Park-and-Ride Facility and a Local Street (formerly Figure 2E-50)**

The roadway geometrics and pavement markings for the HOV lane, HOV ramp, parking area, and local street have been added or revised. The general purpose lanes have been revised to show three lanes in each direction. The HOV lane and ramp are now shown as a reversible lane.

The R3-14 sign at the entrance to the ramp from the parking area now includes a lane-use control indication.

The three guide signs leading drivers from the local street to the HOV lane have been redesigned and a fourth guide sign has been added. The two trailblazer assemblies leading drivers to the eastbound I-86 general purpose lanes have also been added.

- 2G-14**     **Exit Gore Sign for a Direct Exit from a Preferential Lane**  
New Figure
- 2G-15**     **Examples of Guide Signs for Direct HOV Lane Entrance and Exit Ramps** *(formerly Figure 2E-51)*  
Deleted Sign: R3-14
- The roadway geometrics and pavement markings have been substantially revised. The guide signs have all been redesigned. LEFT plaques have been added above four of the guide signs.
- The Exit Gore (E5-1) sign has been replaced by an E8-4 sign.
- 2G-16**     **Examples of Guide Signs for a Direct Access Ramp between HOV Lanes on Separate Freeways** *(formerly Figure 2E-52)*  
The pavement markings have been revised in the area where the ramp to I-10 diverges from the I-45 NB HOV lane.
- The guide signs have all been redesigned. LEFT plaques have been added above three of the guide signs.
- 2G-17**     **Regulatory Signs for Managed Lanes**  
New Figure
- 2G-18**     **Examples of Guide Signs for Entrances to Priced Managed Lanes**  
New Figure
- 2G-19**     **Example of an Exit Destinations Sign for a Managed Lane**  
New Figure
- 2G-20**     **Example of a Comparative Travel Time Information Sign for Preferential or Managed Lanes**  
New Figure
- 2G-21**     **Example of Signing for the Entrance to an Access-Restricted Priced Managed Lane**  
New Figure
- 2G-22**     **Example of Signing for the Entrance to an Access-Restricted Priced Managed Lane Where a General-Purpose Lane Becomes the Managed Lane**  
New Figure
- 2G-23**     **Example of Signing for an Intermediate Entry to a Barrier- or Buffer-Separated Priced Managed Lane**  
New Figure
- 2G-24**     **Example of Signing for the Intermediate Entry to, Egress from, and End of Access-Restricted Priced Managed Lanes**  
New Figure
- 2G-25**     **Examples of Guide Signs for an Intermediate Egress from a Barrier- or Buffer-Separated Managed Lane**  
New Figure

- 2G-26 **Examples of Guide Signs for Direct Managed Lane Entrance and Exit Ramps**  
New Figure
- 2G-27 **Examples of Guide Signs for a Direct Access Ramp between Managed Lanes on Separate Freeways**  
New Figure
- 2G-28 **Examples of Guide Signs for a Direct Entrance Ramp to a Priced Managed Lane and Trailblazing to a Nearby Entrance to the General-Purpose Lanes**  
New Figure
- 2G-29 **Examples of Guide Signs for Separate Entrance Ramps to General-Purpose and Priced Managed Lanes from the Same Crossroad**  
New Figure

## Chapter 2H

*New Chapter with relocated text from Chapters 2D, and 2E from the 2003 MUTCD*

*Chapter 2H in the 2003 MUTCD has been relocated to Chapter 2M of the 2009 MUTCD*

- 2H.01**     **Sizes of General Information Signs**  
New Section referencing sizes of General Information signs that have a standardized design.
- 2H.02**     **General Information Signs (I Series)** *(formerly Section 2D.48)*  
**Option Added (Para 5)** allowing the use of M5 or M6 auxiliary signs with General Information symbol signs.
- Option Revised (Para 13)** to clarify the usage of a pictograph of a political jurisdiction on a political boundary General Information sign.
- New Standard (Para 14)** to specify the height and design requirements of a pictograph on a political boundary General Information sign.
- 2H.03**     **Traffic Signal Speed Sign (I1-1)** *(formerly Section 2D.47)*  
**Option Added** allowing the use of a changeable message element for the numerals of a I1-1 sign if different system progression speeds are set for different times of the day, or a blank-out version of the I1-1 sign if the system is operated in coordinated mode only during certain times.
- 2H.04**     **Miscellaneous Information Signs** *(formerly Section 2E.55)*  
**Guidance Revised** recommending that miscellaneous information signing be in compliance with all other signing, not just freeway and expressway signing.
- 2H.05**     **Reference Location Signs (D10-1 through D10-3) and Intermediate Reference Location Signs (D10-1a through D10-3a)** *(formerly Section 2D.46)*  
**Standard Revised (Para 2)** to allow an exception when Enhanced Reference Location signs are used *(NOTE: This Text was relocated to this paragraph from Section 2E.54 of the 2003 MUTCD.)*
- Guidance Added (Para 10-11)** *(NOTE: This Text was relocated to this paragraph from Section 2E.54 of the 2003 MUTCD.)*
- 2H.06**     **Enhanced Reference Location Signs (D10-4, D10-5)** *(formerly Section 2E.54)*  
**New Support (Para 6)** indicating that the information in Section 2H.05 also applies to enhanced reference location signs.
- 2H.07**     **Auto Tour Route Signs** *(formerly Section 2D.50)*  
**Support Added (Para 2)** to describe the purpose of Auto Tour Route signs.
- Guidance Added (Para 3)** to allow conditional design criteria of shields or other similar signs in following an auto tour route.
- New Standard** to prohibit installing auto tour route signs on freeways or expressways, except under specified conditions.
- 2H.08**     **Acknowledgment Signs**  
New Section allowing use of acknowledgment signs.

Of particular interest is a new standard stating that: “Neither the sign design nor the sponsor acknowledgment logo shall contain any contact information, directions, slogans (other than a brief jurisdiction-wide program slogan, if used), telephone numbers, or Internet addresses, including domain names and uniform resource locators (URL)”

**Table**

**2H-1**      **General Information Sign Sizes**  
New Table

**Figure**

**2H-1**      **General Information and Miscellaneous Information Signs** (formerly Part of Figure 2D-12)

New Signs: I-9, M5 and M6.

The example directional assembly has been added.

The I-12 sign has been relocated from Figure 10C-3.

**2H-2**      **Reference Location Signs** (formerly part of Figure 2D-13)

**2H-3**      **Intermediate Reference Location Signs** (formerly part of Figure 2D-13)

**2H-4**      **Enhanced Reference Location Signs** (formerly Figure 2E-45)

**2H-5**      **Examples of Acknowledgement Sign Designs**  
New Figure

## Chapter 2I

*New Chapter with relocated text from Chapters 2D, and 2E from the 2003 MUTCD*

*Chapter 2I in the 2003 MUTCD has been relocated to Chapter 2N of the 2009 MUTCD*

### 2I.01 Sizes of General Service Signs

**New Section** describing the required size of general service signs that have a standardized design is shown in Table 2I-1.

### 2I.02 General Service Signs for Conventional Roads (formerly Section 2D.45)

**Option Added (Para 8)** allowing the use of M5 or M6 series auxiliary signs with General Service symbol signs to create a General Service Directional Assembly.

**New Guidance (Para 14)** to recommend the usage of D9-6P plaque below the D9-6 sign when the D9-6 sign is used in accordance with Paragraph 13, and van-accessible parking is available at a facility.

**Option Revised (Para 19)** to allow the conditional usage of a D9-13dP plaque below the Emergency Medical Services (D9-13) symbol sign.

### 2I.03 General Service Signs for Freeways and Expressways (formerly Section 2E.51)

**Standard Revised (Para 2)** to specify that service signs shall also have arrows.

**New Option (Para 3)** allowing D9-18b general service signs to incorporate exit numbers into the sign legend (as in D9-18b) at numbered interchanges.

### 2I.04 Interstate Oasis Signing

**New Section** describing the criteria for oasis signing at interstates.

### 2I.05 Rest Area and Other Roadside Area Signs (formerly Section 2D.42)

*(NOTE: This Section contains edited text from Section 2D.42, 2D.43 and 2D.52 of the 2003 MUTCD.)*

**Standard Revised (Para 1-2)** to include rest area signs.

**Guidance Revised (Para 3-5)** to describe examples where the sign legends for an area with only parking should use the words PARKING AREA instead of REST AREA; and sign legends for an area with only picnic tables and parking should use words such as PICNIC AREA, ROADSIDE TABLE, or ROADSIDE PARK instead of REST AREA. Also, Scenic area signing should be consistent with that specified provided for rest areas, so sign legends should read SCENIC AREA, SCENIC VIEW, or SCENIC OVERLOOK instead of REST AREA.

**Guidance Added (Para 6)** to recommend installing a D5-5 sign (or a D5-2 sign if an exit ramp is provided) at the turnoff point where the driver needs to leave the highway to access the rest area or other roadside area.

**Standard Revised (Para 11)** to specify that all signs on freeways and expressways for rest and other roadside areas shall comply with the minimum requirements of Tables 2E-2 through 2E-5.

### 2I.06 Brake Check Area Signs (D5-13 and D5-14)



New Section describing the usage of D5-13 and D5-14 signs.

**2I.07 Chain-Up Area Signs (D5-15 and D5-16)**

New Section describing the usage of D5-15 and D5-16 signs.

**2I.08 Tourist Information and Welcome Center Signs (formerly Section 2E.53)**

**2I.09 Radio Information Signing (formerly Section 2E.56)**

(NOTE: This Section contains edited text from Section 2D.45 of the 2003 MUTCD.)

**2I.10 TRAVEL INFO CALL 511 signs (D12-5 and D12-5a)**

(NOTE: This is a New Section containing edited text from Section 2D.45 and 2E.56 of the 2003 MUTCD.)

**2I.11 Carpool and Ridesharing Signing (formerly Section 2E.57)**

**Table**

2I-1 of 2003 MUTCD has been relocated to Table 2N-1 of the 2009 MUTCD

**2I-1 General Service Sign and Plaque Sizes**

New Table

**Figure**

2I-1 of 2003 MUTCD has been relocated to Figure 2N-1 of the 2009 MUTCD

**2I-1 General Service Signs and Plaques (formerly Figure 2D-11)**

New Plaques: D9-11bP, and D9-13dP.

New Signs: D9-11c, D9-21, D9-22, M5 and M6 series.

D9-14 sign has been relocated from Figure 2D-12. The D9-6P plaque has been relocated from Figure 2B-16, where it was formerly called an R7-8b plaque.

The designs of the D9-4, D9-10, D9-14, and D9-16 signs and the D9-13bP and D9-13cP plaques have been revised. The example directional assembly has been added.

**2I-3 Examples of General Service Signs with and without Exit Numbering (formerly Figures 2E-41 and 2E-42)**

The designation of the D9-18e sign in the former Figure 2E-41 has been changed to D9-18c and the NEXT EXIT action message has been replaced by a SECOND RIGHT message.

The designation of the D9-18 sign in the former Figure 2E-41 has been changed to D9-18b and a NEXT RIGHT action message has been added within the bottom of the sign.

The E2-2 plaque below the D9-18 sign in the former Figure 2E-41 has been deleted. The E2-3 plaque below the D9-18 sign in the former Figure 2E-42 has been deleted.

The E1-5P designations for the exit number plaques have been added.

Two new example signs showing the exit number within the bottom of the sign have been added.

**2I-4 Examples of Interstate Oasis Signs and Plaques**

## New Figure

### 2I-5 Rest Area and Other Roadside Area Signs *(formerly part of Figure 2E-44)* Deleted Signs: D5-1a, D5-2, D5-3, and D5-4.

New Signs: D5-2a, D5-5, and D5-6.

The designation of the D5-1b sign has been revised to D5-1a. The designation of the D5-2a sign has been revised to D5-2.

### 2I-6 Brake Check Area and Chain-Up Area Signs New Figure

### 2I-7 Examples of Tourist Information and Welcome Center Signs *(formerly part of Figure 2E-44)* Deleted Signs: D5-7a, D5-9, D5-9a, and D5-10.

The design of the D5-11 sign has been revised.

A note has been added at the bottom of the figure.

### 2I-8 Radio, Telephone, and Carpool Information Signs *(formerly part of Figure 2D-12)* New Sign: D12-5a

The title is new.

The legend AM has been added in two places on the D12-1 sign.

The design of the D12-2 sign has been revised.

The word DIAL has been replaced by the word CALL on the D12-4 sign.

The design of the D12-5 sign has been revised.

The asterisk and the asterisk note have been added.

## **Chapter 2J** ***(formerly Chapter 2F)***

- 2J.01**     **Eligibility** ***(formerly Section 2F.01)***  
**Standard Added (Para 1)** specifying a list of eligible service categories.
- 2J.02**     **Application** ***(formerly Section 2F.02)***  
**Standard Added (Para 3)** specifying conditions for when two types of services are shown on one sign.
- Guidance Added (Para 6)** recommending that if a service type is displayed on two signs, the signs for that service follow one another in succession.
- 2J.03**     **Logos and Logo Sign Panels** ***(formerly Section 2F.03)***  
**New Support (Para 3)** to identify Section 2J.05 containing information regarding the minimum letter heights for logo sign panels.
- Option Revised (Para 5)** to clarify the conditional use of a portion of a logo sign panel to display a supplemental message horizontally along the bottom.
- New Standard (Para 6)** requiring that all supplemental messages shall be displayed within the logo sign panel and comply with the minimum height requirements.
- New Guidance (Para 7-9)** specifying the suggested usage of logo sign panels and supplemental message displays, and recommending the development of a statewide policy for such messages.
- New Support (Para 10)** identifying suggested supplemental messages for facilities.
- New Option (Para 11)** allowing RV ACCESS supplemental message to be circular.
- New Standard (Para 12)** specifying the layout and placement of the RV ACCESS supplemental message if the message is circular.
- New Guidance (Para 13-14)** to list the suggested design and letter height criteria for the circular RV ACCESS supplemental message, and recommending the development of a statewide policy for the RV ACCESS designation and criteria for qualifying businesses.
- New Option (Para 15)** allowing for a business designated as an Interstate Oasis to display the word OASIS on the bottom portion of its logo sign panel.
- New Standard (Para 16)** prohibiting displaying the symbol/trademark or name of more than one business on a logo sign panel.
- 2J.04**     **Number and Size of Signs and Logo Sign Panels** ***(formerly Section 2F.04)***  
The significant changes in this section are already part of CDOT's practice pursuant to an Interim Approval from FHWA.
- 2J.05**     **Size of Lettering** ***(formerly Section 2F.05)***  
**Standard Revised** to specify information on letter and numeral sizes on all Specific Service signs and logo sign panels.

**2J.06**     **Signs at Interchanges** (formerly Section 2F.06)

**2J.07**     **Double-Exit Interchanges** (formerly Section 2F.07)

**2J.08**     **Double-Exit Interchanges** (formerly Section 2F.08)  
New Guidance to suggest conditional usage of two Specific Service signs at a double-exit interchange.

**2J.09**     **Specific Service Trailblazer Signs**  
New Section describing the overall usage of Specific Service trailblazer signs.

**2J.10**     **Signs at Intersections** (formerly Section 2F.09)  
Option Revised (NOTE: This Paragraph was moved into the Standard in Para 5.)

**2J.11**     **Signing Policy** (formerly Section 2F.10)

**Table**  
**2J-1**     **Minimum Letter and Numeral Sizes for Specific Service Signs According to Sign Type**  
New Table

**Figure**  
**2J-1**     **Examples of Specific Service Signs** (formerly Figure 2F-1)

The EXIT 211 legend has been relocated from the bottom to the top of the alternative example sign for a single-exit interchange with two services.

The example signs for a single-exit interchange with three services have been added.

The apostrophe has been deleted from the logo panel, which is now called a logo sign panel.

A vertical line has been added between the gas and food categories on the intersection sign examples.

The associated note now says “arrows or distance” instead of “arrows and distance.”

The ramp sign has been replaced by three new examples of ramp signs.

**2J-2**     **Examples of Specific Service Sign Locations** (formerly Figure 2F-2)  
The designs of the advance guide signs (green signs) have been revised.

The design of the ramp sign has been revised.

A ramp sign has been added to the loop drawing in the upper right-hand corner of the figure.

**2J-3**     **Examples of Supplemental Messages on Logo Sign Panels**  
New Figure

**2J-4**     **Examples of RV Access Supplemental Messages on Logo Sign Panels**  
New Figure

**2J-5**     **Examples of Specific Service Trailblazer Signs**  
New Figure

## **Chapter 2K** *(formerly Chapter 2F)*

**2K.01**     **Purpose and Application** *(formerly Section 2G.01)*

**2K.02**     **Design** *(formerly Section 2G.02)*

**Standard Revised (Para 8)** to require the use of only upper-case letters for Tourist-Oriented Directional signs.

**2K.03**     **Style and Size of Lettering** *(formerly Section 2G.03)*

**2K.04**     **Arrangement and Size of Signs** *(formerly Section 2G.04)*

**2K.05**     **Advance Signs** *(formerly Section 2G.05)*

**Standard Revised** to require the use of only upper-case letters for Advance signs.

**New Guidance** on how to lay out action and optional tourist activities messages on Advance signs.

**2K.06**     **Sign Locations** *(formerly Section 2G.06)*

**2K.07**     **State Policy** *(formerly Section 2G.07)*

**Guidance Revised (Part F)** to identify definition of an immediate area with provisions in Paragraph 2 of Section 2K.01.

**Figure**

**2K-1**     **Examples of Tourist-Oriented Directional Signs** *(formerly Section 2G-1)*

The dimensions and the note have been deleted, as this information will be included in the Standard Highway Signs book.

**2K-2**     **Examples of Intersection Approach Signs and Advanced Signs for Tourist-Oriented Directional Signs** *(formerly Section 2G-2)*

The signs that are located 200 feet and 400 feet upstream from the intersection are now called intersection approach signs rather than intersection signs.

On the signs that are located in the advance sign locations, the Metric example legend has been replaced by a RIGHT ½ MILE legend and the fraction on the LEFT ½ MILE legend has been revised to “½.” The horizontal lines between the TOURIST ACTIVITIES legends and the action legends have been deleted.

## **Chapter 2L**

***New Chapter with relocated text from Sections 2A.07 and 2E.21 from the 2003 MUTCD***

**New Chapter** specifying the definition, proper use and layout of changeable message signs.

**Table**

**2L-1**     **Example of Units of Information**

**New Table**

## Chapter 2M (formerly Chapter 2H)

2M.01 **Scope** (formerly Section 2H.01)

2M.02 **Application of Recreational and Cultural Interest Area Signs** (formerly Section 2H.02)

2M.03 **Regulatory and Warning Signs** (formerly Section 2H.03)

**Standard Revised** to also require that all regulatory and warning signs on public roads and streets within recreational and cultural interest areas comply with sections 7B, 8B and 9B.

2M.04 **General Design Requirements for Recreational and Cultural Interest Area Symbol Guide Signs** (formerly Section 2H.04)

2M.05 **Symbol Sign Sizes** (formerly Section 2H.05)

2M.06 **Use of Educational Plaques** (formerly Section 2H.06)

2M.07 **Use of Prohibitive Circle and Diagonal Slash for Non-Road Applications**  
(formerly Section 2H.07)

**Standard Revised** to specify proper usage and layout of the red Prohibitive Circle and Diagonal Slash with recreational and cultural interest area symbols for non-road applications when a standard regulatory sign for such a prohibition is not provided in Chapter 2B.

2M.08 **Placement of Recreational and Cultural Interest Area Symbol Signs**  
(formerly Section 2H.08)

**New Option (Para 3-5)** allowing conditional usage of displaying the legend, “Wildlife Viewing Area”, with the RS-076 symbol on destination guide signs; displaying symbols with the facility or activity name below the destination guide sign instead of as sign panels placed with the destination guide sign; and placing secondary symbols of a smaller size (18 x 18 inches) beneath the primary symbols.

**Option Revised (Para 9)** allowing using M5 or M6 auxiliary signs (white arrows on brown background) with Recreational and Cultural Area Interest symbol guide signs to create a Recreational and Cultural Interest Area Directional Assembly.

2M.09 **Destination Guide Signs** (formerly Section 2H.09)

2M.10 **Memorial or Dedication Signing**

*(NOTE: This Section contains edited text from first four paragraphs of Section 2D.49 of the 2003 MUTCD.)*

**New Guidance (Para 4)** recommending signage have white legend and border over brown background.

**Standard Added (Para 6-7)** requiring sign be rectangular in shape; prohibiting the use of decorative or graphical elements, pictographs, logos, and symbols; and listing design and layout requirements for letters and numbers.

**New Option (Para 8)** specifying allowable lettering criteria for the recognized person’s name.

**New Guidance (Para 9)** to recommend against signing freeways and expressways as memorial or dedicated highways (*NOTE: This Sentence was relocated from Section 2E.08 of the 2003 MUTCD.*).

**New Support (Para 10)** indicating that named highways are officially designated and shown on official maps for the purpose of providing route guidance, primarily on unnumbered highways.

**Table**

**2M-1**

**Category Chart for Recreational and Cultural Interest Area Symbols**  
*(formerly Section 2H-01)*

The former table has been replaced by a completely new table that lists the new names and designations for these signs.

**Figure**

**2M-1**

**Examples of Use of Arrows, Educational Plaques, and Prohibitive Slashes**  
*(formerly Figure 2H-1)*

The prohibited activities signs have been completely redesigned. The asterisk and asterisk note have been added.

**2M-2**

**Examples of Recreational and Cultural Interest Area Guide Signs**  
*(formerly Figure 2H-2)*

The designations of Drawings A and B have been added.

The legends for the destinations are now shown in upper-case and lower-case letters.

The Wildlife Viewing Area sign has been added.

The Eldorado National Forest sign has been added at the bottom right-hand corner of the figure.

**2M-3**

**Arrangement, Height, and Lateral Position of Signs Located Within Recreational and Cultural Interest Areas** *(formerly Figure 2H-3)*

The four drawings have been assigned letter designations.

“Business or residence district” has been revised to “business, commercial, or residential area” in two places.

“Rural district” has been revised to “rural area” in two places.

In Drawing B, a breakaway support symbol has been added to the sign support.

In Drawing C, the curb-and-gutter has been revised to a paved shoulder, “(without curb)” has been added to the title of the drawing, and the lateral offset has been revised from 2’ to 6’.

In Drawing D, the paved shoulder has been revised to an edge of traveled way and the lateral offset has been revised from 6’ to 12’. The arrangement of the symbol signs and auxiliary arrow signs has been revised. A single sign with four symbols and three arrows has been added as an alternative manner of providing this information.

**2M-4**

**Examples of Symbol and Destination Guide Singing Layout** *(formerly Figure 2H-4)*

The arrangement of symbol signs and auxiliary arrow signs in the upper right-hand corner of the figure has been replaced by a single sign with three symbols and an arrow.

The legends for the destinations are now shown in upper-case and lower-case letters.

**2M-5 Recreational and Cultural Interest Area Symbol Signs for General Applications**  
*(formerly part of Figure 2H-5)*

The symbols on the signs and the sign designations have been completely revised to a new set of updated symbols. The different categories of signs are now shown on separate figures.

**2M-6 Recreational and Cultural Interest Area Symbol Signs for Accommodations**  
*(formerly part of Figure 2H-5)*

The symbols on the signs and the sign designations have been completely revised to a new set of updated symbols. The different categories of signs are now shown on separate figures.

**2M-7 Recreational and Cultural Interest Area Symbol Signs for Services**  
*(formerly part of Figure 2H-5)*

The symbols on the signs and the sign designations have been completely revised to a new set of updated symbols. The different categories of signs are now shown on separate figures.

**2M-8 Recreational and Cultural Interest Area Symbol Signs for Land Recreation**  
*(formerly part of Figure 2H-5)*

The symbols on the signs and the sign designations have been completely revised to a new set of updated symbols. The different categories of signs are now shown on separate figures.

**2M-9 Recreational and Cultural Interest Area Symbol Signs for Water Recreation**  
*(formerly part of Figure 2H-5)*

The symbols on the signs and the sign designations have been completely revised to a new set of updated symbols. The different categories of signs are now shown on separate figures.

**2M-10 Recreational and Cultural Interest Area Symbol Signs for Winter Recreation**  
*(formerly part of Figure 2H-5)*

The symbols on the signs and the sign designations have been completely revised to a new set of updated symbols. The different categories of signs are now shown on separate figures.



**Chapter 2N**  
*(formerly Chapter 2I)*

**2N.01**     **Emergency Management** *(formerly Section 2I.01)*

**2N.02**     **Design of Emergency Management Signs** *(formerly Section 2I.02)*

**New Support** indicating that Section 2A.11 contains information regarding the applicability of the various columns in Table 2N-1.

**New Option (Para 6)** allowing use of larger signs than what's listed in Table 2N-1.

**2N.03**     **Evacuation Route Signs (EM-1 and EM-1a)** *(formerly Section 2I.03)*

**Standard Revised (Para 1-4)** to better specify the layout of the EM-1 and EM-1a signs, as well as the Advanced Turn (M5 series) or Directional Arrow (M6 series) auxiliary signs. In addition the M5 or M6 series auxiliary signs are required to be installed below the EM-1a sign.

**Standard Revised (Para 8)** to require that EM-1 and EM-1a signs be mounted on the right-hand side of the roadway.

**2N.04**     **AREA CLOSED Sign (EM-2)** *(formerly Section 2I.04)*

**2N.05**     **TRAFFIC CONTROL POINT Sign (EM-3)** *(formerly Section 2I.05)*

**2N.06**     **MAINTAIN TOP SAFE SPEED Sign (EM-4)** *(formerly Section 2I.06)*

**Standard Revised (Para 5)** to specify that the EM-4 sign, in rural areas be mounted a minimum of five (5) feet from the bottom edge of the sign to the elevation of the near edge of travel way (or to the top of curb if applicable), and in rural areas be mounted a minimum of seven (7) feet from the bottom edge of the sign to the elevation of the near edge of travel way (or to the top of curb if applicable). In urban areas, EM-4 signs are to be mounted horizontally not less than one (1) foot back from the face of the curb to the nearest edge of the sign.

**2N.07**     **ROAD (AREA) USE PERMIT REQUIRED FOR THRU TRAFFIC Sign (EM-5)**  
*(formerly Section 2I.07)*

**2N.08**     **Emergency Aid Center Signs (EM-6 Series)** *(formerly Section 2I.08)*

**Standard Revised** to clarify that the EM-6 series signs in urban areas be mounted a minimum of seven (7) feet from the bottom edge of the sign to the elevation of the near edge of travel way (or to the top of curb if applicable), and in rural areas be mounted a minimum of five (5) feet from the bottom edge of the sign to the elevation of the near edge of travel way (or to the top of curb if applicable).

**New Option** allowing conditional usage of fluorescent pink Emergency Aid Center signs in an incident situation.

**2N.09**     **Shelter Directional Signs (EM-7 Series)** *(formerly Section 2I.09)*

**Option Added** allowing conditional usage of fluorescent pink Shelter Directional signs in an incident situation.

**Table**  
**2N-1**

**Emergency Management Sign Sizes** *(formerly Table 2I-1)*

The name of the second column has been changed from “MUTCD Code” to “Sign designation.”

The five size columns have been replaced by a single column called “Minimum Size.”

The EM-1a sign designation has been added to the Evacuation Route row.

In the first column of the last row, “Directional Shelter” has been changed to “Shelter Directional.”

The asterisk and the asterisk note have been added.

**Figure**

**2N-1**

**Emergency Management Signs** *(formerly Figure 2I-1)*

**New Sign:** EM-1a.

## Chapter 3A

**3A.01**     **Functions and Limitations**  
**Support Revised (Para 3-4)** *(relocated to Section 3A.06 and upgraded to Standard)*

*3A.03 of 2003 MUTCD has been relocated to Section 3A.04 of the 2009 MUTCD*

**3A.03**     **Maintaining Minimum Pavement Marking Retroreflectivity**  
**New Section** *(reserved for future text based on FHWA rulemaking)*

*3A.04 of 2003 MUTCD has been relocated to Section 3A.05 of the 2009 MUTCD*

**3A.04**     **Materials** *(formerly Section 3A.04)*

**Support Added (Para 2)** to indicate that some marking systems consist of clumps or droplets of material with visible open spaces of bare pavement between the material droplets, and these marking systems are okay to use if they meet the government's pavement marking requirements.

*3A.05 of 2003 MUTCD has been relocated to Section 3A.06 of the 2009 MUTCD*

**3A.05**     **Colors**

**Standard Revised (Para 1)** to include purple as a usable marking color.

**Standard Revised (Para 4)** to include red raised pavement markers or delineators to delineate truck escape ramps or one-way roadways, ramps or travel lanes.

**Standard Added (Para 6)** to specify that purple markings be used to supplement lane line or edge line markings for toll plaza approach lanes that are restricted to use only by vehicles with registered electronic toll collection accounts.

**Option Added (Para 7)** allowing using colors on pavement simulating colors on official route shield signs.

**3A.06**     **Functions, Widths, and Patterns of Longitudinal Pavement Markings** *(formerly Section 3A.05)*

**Standard Added (Para 1)** – Text regarding the general functions of longitudinal lines *was changed from Support to Standard.*

**Support Added (Para 3)** – Text regarding the width of lines indicating the degree of emphasis *was changed from Standard to Support.*

**Support Added (Para 5)** to identify sections 3B.04 and 3B.08 as containing information regarding patterns for dotted lines.

**Guidance Added (Para 6)** – Text regarding usage of a dotted line for line extensions within an intersection or taper area *was changed from Option to Guidance.*

## Chapter 3B

### 3B.01 Yellow Center Line Pavement Markings and Warrants

**Standard Added (Para 5)** prohibiting the use of a single solid yellow line as a center line marking on a two-way roadway.

**New Support** to identify sections 11-301(c) and 11-311(c) of the “Uniform Vehicle Code” as containing information regarding left-turns across center line no-passing zone markings and paved medians.

### 3B.02 No-Passing Zone Pavement Markings and Warrants

**Support Added (Para 6)** clarifying the difference between the minimum passing sight distances that are shown in Table 3B-1 and the AASHTO Policy on Geometric Design of Streets and Highways.

**New Option (Para 13)** allowing a conditional placement of yellow diagonal crosshatch markings in the flush median area between the two sets of no-passing zone markings.

**Support Added (Para 15)** – Text regarding the taper length formula *was changed from Guidance to Support.*

**New Guidance (Para 16)** – Text regarding the minimum lane transition taper length *was changed from Standard to Guidance.*

### 3B.03 Other Yellow Longitudinal Pavement Markings

**Guidance Revised (Para 4)** – Text specifying information on white two-way left-turn lane-use *was changed from Option to Guidance.*

### 3B.04 White Lane Line Pavement Markings and Warrants

*(some paragraphs formerly in Section 3B.05 have been relocated to this Section)*

**Standard Revised (Para 5)** to allow for the use of normal width dotted white line markings as specified in Paragraph 6.

**Standard Added (Para 6)** specifying the general proper usage of normal width dotted white line markings.

**Standard Added (Para 7)** specifying the proper usage of normal width dotted white line markings for exit ramps with a parallel deceleration lane.

**New Option (Para 8-9)** allowing usage of normal width dotted white line extensions at exit ramps.

**Standard Added (Para 10)** specifying the proper usage of normal width dotted white line markings for entrance ramps with a parallel deceleration lane.

**Option Added (Para 11)** allowing usage of normal width dotted white line extensions at entrance ramps with a parallel acceleration lane.

**Option Revised (Para 12)** allowing usage of normal width dotted white line extensions for entrance ramps with a tapered acceleration lane.

**Standard Added (Para 13)** specifying the proper usage of wide dotted white lane lines.

**Guidance Revised (Para 14)** to include lane drop markings used in advanced of lane drops at freeway and expressway exit ramps.

**Guidance Added (Para 15)** to include usage of lane drop markings used on the approach to a multi-lane exit ramp having an optional exit lane that also carries through traffic.

**Guidance Added (Para 16)** to include usage of lane drop markings used in advance of lane drops at intersections.

**Guidance Revised (Para 17)** recommending the dimensions and spacing for dotted white lane lines used for lane drop markings and as a lane line separating through lanes from auxiliary lanes.

**New Support (Para 18)** identifying Section 3B.20 as containing information regarding other markings associated with lane drops.

**New Support (Para 19 & 24)** identifying Section 3B.09 as containing information regarding lane line markings that are to be used for transition areas where the number of through lanes is reduced.

**Standard Revised (Para 20)** to allow usage of a wide solid white line where crossing the lane line markings is discouraged.

**Option Revised (Para 21)** to allow a wide solid white lane line to extend upstream from the theoretical gore or, for multi-lane exits, for a distance that is determined by engineering judgment.

**Option Added (Para 22)** to allow a wide or normal solid white lane line to extend upstream from an intersection where lane changes might cause conflicts.

**Option Added (Para 23)** to allow a solid white line to replace a portion, but not all of the length of the wide dotted white lane line, in the case of a lane drop at an exit ramp or intersection.

**Option Revised (Para 26)** to allow the use of solid white lane line markings to separate adjacent mandatory turn lanes from each other on approaches to intersections.

**Option Added (Para 27)** to allow the use of white pavement markings to form channelizing islands where the median width allows the left-turn lanes to be separated from the through lanes to give drivers on opposing approaches a less obstructed view of opposing through traffic.

### 3B.05

#### **Other White Longitudinal Pavement Markings**

*(some paragraphs formerly in this Section have been relocated to Section 3B.04)*

**Standard Revised (Para 7)** to require channelization lines on both sides of the neutral area for all entrance ramps with parallel acceleration lanes.

**Standard Added (Para 8)** requiring that channelizing lines be placed along both sides of the neutral area to a point at least one-half of the distance to the theoretical gore for entrance ramps with tapered acceleration lanes.

**Option Added (Para 9-10)** allowing extending channelization lines to the theoretical gore for on-ramps with tapered acceleration lanes, and adding chevron crosshatch markings (and supplemental white Retroreflective or internally raised pavement markers) in the neutral area of all on/off ramps for special emphasis (and enhanced nighttime visibility).

**3B.07**     **Warrants for Use of Edge Lines**

**Option Added (Para 6)** allowing that for a bicycle lane marked outside the traveled way, the edge line that would mark the outside edge of the bicycle lane may be omitted.

**3B.08**     **Extensions Through Intersections or Interchanges**

**Standard Added (Para 1)** specifying the option in paragraph 2 as an exception to this standard.

**New Standard (Para 6)** – Text regarding extending edge lines through intersections or major driveways *was changed from Guidance to Standard.*

**3B.09**     **Lane-Reduction Transition Markings**

**New Support (Para 1)** explaining that lane-reduction transition markings are used where the number of through lanes is reduced because of narrowing of the roadway or because of a section of on-street parking in what would otherwise be a through lane, and lane-reduction transition markings are not used for lane drops.

**Standard Added (Para 2)** specifying the option in paragraph 3 as an exception to this standard.

**New Option (Para 3)** allowing omission of the edge line and/or delineators on low-speed urban roadways where curbs clearly define the roadway edge in the lane-reduction transition, or where a through lane becomes a parking lane.

**Support Added (Para 5)** – Text describing taper length variables *was changed from Guidance to Support.*

**3B.10**     **Approach Markings for Obstructions**

**Standard Added (Para 1)** to include toll plaza islands as an obstruction to include for approach marking criteria.

**New Support (Para 2)** specifying Chapter 3E for additional information on approach markings for toll plaza islands.

**Support Added (Para 4)** – Text describing taper length variables *was changed from Guidance to Support.*

**Guidance Added (Para 5)** – Text suggesting the minimum taper length for urban and rural areas *was changed from Standard to Guidance.*

**Option Added (Para 10)** allowing conditional usage of chevron crosshatch markings and other markings, such as white delineators, white channelizing devices, white raised pavement markers, and white crosswalk markings in the flush median area.

- 3B.11**     **Raised Pavement Markers – General**  
**Option Added (Para 2)** – Section regarding the usage of red raised pavement markers *was relocated from Section 3B.14 of 2003 MUTCD.*
- Option Added (Para 3)** allowing the use of retroreflective or internally illuminated raised pavement markers in the roadway immediately adjacent to curbed approach ends of raised medians and curbs of islands, or on top of such curbs.
- Support Added (Para 5)** informing that blue raised pavement markers are sometimes used in the roadway to help locate fire hydrants.
- New Standard (Para 6)** specifying that, when used, internally illuminated raised pavement markers shall be steadily illuminated and shall not be flashed.
- Support Added (Para 7)** informing that flashing raised pavement markers are In-Roadway Lights.
- Standard Revised (Para 11)** clarifying the spacing requirements of raised pavement markers.
- New Option (Para 12)** allowing raised pavement markers to be spaced closer than specified in Sections 3B.12 to 3B.14.
- 3B.12**     **Raised Pavement Markers as Vehicle Positioning Guides with Other Longitudinal Markings**  
**Guidance Added** – Text recommending spacing criteria for raised pavement markers *was changed from Support to Guidance.*
- 3B.13**     **Raised Pavement Markers Supplementing Other Markings**  
**Added Guidance (Para 2)** recommending that raised pavement markers not supplement right-hand edge lines unless an engineering study or engineering judgment indicates the benefits.
- Added Option (Para 4)** for improving the visibility of horizontal curves using center lines with retroreflective or internally illuminated raised pavement markers.
- 3B.14**     **Raised Pavement Markers Substituting for Pavement Markings**  
**Added Guidance (Para 5)** recommending that raised pavement markers not substitute for right-hand edge lines unless an engineering study or engineering judgment indicates the benefits.
- 3B.15**     **Transverse Markings**  
**Standard Added** to list arrows and speed reduction markings as transverse markings to be white unless specified in the MUTCD.
- 3B.16**     **Stop and Yield Lines**  
**Option Added (Para 2)** allowing the use of stop lines to indicate the point behind which vehicles are required to stop in compliance with a STOP sign, a STOP HERE FOR PEDESTRIANS sign, or some other traffic control device that requires vehicles to stop, except YIELD signs that are not associated with passive grade crossings.

**Standard Added (Para 4-5)** specifying that stop lines shall not be used at locations where drivers are required to yield in compliance with a YIELD sign or a YIELD HERE TO PEDESTRIANS sign or at locations on uncontrolled approaches where drivers are required by State law to yield to pedestrians.

In addition, yield lines shall not be used at locations where drivers are required to stop in compliance with a STOP sign, a STOP HERE FOR PEDESTRIANS sign, a traffic control signal, or some other traffic control device.

**New Standard (Para 13)** requiring conditional usage of YIELD HERE TO (STOP HERE FOR) PEDESTRIANS signs.

**New Guidance (Para 14)** suggesting not to use yield (stop) lines and YIELD HERE TO (STOP HERE FOR) PEDESTRIANS signs in advance of crosswalks that cross an approach to or departure from a roundabout.

**New Option (Para 16)** allowing longitudinally staggered stop and yield lines on a lane-by-lane basis.

**New Support (Para 17-18)** indicating that staggered stop lines and staggered yield lines can improve the driver's view of pedestrians, provide better sight distance for turning vehicles, and increase the turning radius for left-turning vehicles.

*3B.17 of 2003 MUTCD has been relocated to Section 3B.18 of the 2009 MUTCD*

**3B.17**     **Do Not Block Intersection Markings**

**New Section** outlining the proper use and location of Do Not Block Intersection Markings.

*3B.18 of 2003 MUTCD has been relocated to Section 3.19 of the 2009 MUTCD*

**3B.18**     **Crosswalk Markings** *(formerly Section 3B.17)*

**Guidance Added (Para 7)** suggesting that at locations controlled by traffic control signals or on approaches controlled by STOP or YIELD signs, crosswalk lines should be installed where engineering judgment indicates they are needed to direct pedestrians to the proper crossing path(s).

**Guidance Added (Para 8-9)** recommending that an engineering study be performed before a marked crosswalk is installed at a location away from a traffic control signal or an approach controlled by a STOP or YIELD sign and recommending against installing new marked crosswalks alone across uncontrolled roadways, without other measures designed to reduce traffic speeds, shorten crossing distances, enhance driver awareness of the crossing, and/or provide active warning of pedestrian presence.

**New Support (Para 10)** identifying Chapter 4F as containing information on Pedestrian Hybrid Beacons and Section 4L.03 as containing information on warning Beacons to provide active warning of a pedestrian's presence. Also, Section 4N.02 contains information regarding In-Roadway Warning Lights at crosswalks and Chapter 7D contains information regarding school crossing supervision.

**New Guidance (Para 17)** suggesting layout of crosswalk markings in reference to curb ramps.



**New Support (Para 18)** containing information on detectable warning surfaces.

*3B.19 of 2003 MUTCD has been relocated to Section 3.20 of the 2009 MUTCD*

**3B.19 Parking Space Markings (formerly Section 3B.18)**

**Support Added (Para 4)** identifying location of information on the design and layout of accessible parking spaces for persons with disabilities.

**3B.20 Pavement Word, Symbol, and Arrow Markings (formerly Section 3B.19)**

**Option Added (Para 2)** to allow usage of word, symbol and arrow markings in several more regulatory, warning and guide situations.

**Standard Revised (Para 3)** to include arrows.

**New Standard (Para 30)** prohibiting the use of a single-direction lane-use arrow in a lane bordered on both sides by yellow two way left-turn lane longitudinal markings, and specifying the proper design of lane-use, lane-reduction, and wrong-way arrow markings.

**New Standard (Para 33)** prohibiting the use of the ONLY word marking in a lane that is shared by more than one movement.

**Guidance Added (Para 34)** – Text regarding the proper use of lane-reduction arrow markings *was changed from Option to Guidance.*

**New Option (Para 34)** allowing the use of lane-reduction arrow markings in long acceleration lanes, based on engineering judgment.

**3B.21 Speed Measurement Markings (formerly Section 3B.20)**

*3B.22 of 2003 MUTCD has been relocated to Chapter 3D of the 2009 MUTCD*

**3B.22 Speed Reduction Markings**

**New Section** outlining the proper use and location of Speed Reduction Markings.

*3B.23 of 2003 MUTCD has been relocated to Chapter 3D of the 2009 MUTCD*

**3B.23 Curb Markings (formerly Section 3B.21)**

**Standard Revised (Para 7)** to clarify that the colors comply with the general principles for marking in Section 3A.05 when curbs are marked for delineation or visibility purposes.

**New Option (Para 12)** allowing specific raised pavement markers to be placed on pavement in front of curbs and/or on top of curb noses of raised medians and curbs of traffic islands as a supplement to delineate curbs.

*3B.24 of 2003 MUTCD has been relocated to Section 3C.01 of the 2009 MUTCD*

**3B.24 Chevron and Diagonal Crosshatch Markings**

**New Section** outlining the proper use, layout and location of chevrons and diagonal crosshatch markings.

*3B.25 of 2003 MUTCD has been relocated to Chapter 3C of the 2009 MUTCD*

**3B.25**     Speed Hump Markings *(formerly Section 3B.26)*  
Standard Added specifying proper layout of speed hump markings.

**3B.26**     Advance Speed Hump Markings *(formerly Section 3B.27)*  
Revised Standard specifying the proper layout of advanced speed hump markings.

**Table**

**3B-1**     Minimum Passing Sight Distances for No-Passing Zone Markings  
The phrase “for No-Passing Zone Markings” has been added to the title.

**Figure**

**3B-1**     Examples of Two-Lane, Two-Way Marking Applications  
Edge lines have been added to Drawing A, and the note referring to Section 3B.07 for edge line warrants has been deleted.

**3B-2**     Examples of Four-or-more Lane, Two-Way Marking Applications  
Edge lines have been added to both drawings, and the note referring to Section 3B.07 for edge line warrants has been deleted.

Optional diagonal markings and optional dotted lines have been added to Drawing B.

*3B-4 of 2003 MUTCD has been relocated to 3B-5 of the 2009 MUTCD*

**3B-4**     Method of Locating and Determining the Limits of No-Passing Zones at Curves  
*(formerly Figure 3B-5)*  
Edge lines have been added to Drawing B.

*3B-5 of 2003 MUTCD has been relocated to Figure 3B-4 of the 2009 MUTCD*

**3B-5**     Example of Application of Three-Lane, Two-Way Marking for Changing Direction of the Center Lane *(formerly Figure 3B-4)*  
Edge lines, optional diagonal markings, lane reduction arrows, and Notes 2 and 3 have been added. A break line has been added near the bottom of the drawing.

The “¾ d” dimension and the note defining “d” have been deleted.

The cross reference to Figure 3B-12 next to “L” near the bottom of the drawing has been replaced by a cross reference to Note 3.

**3B-6**     Example of Reversible Lane Marking Application  
Edge lines have been added.

**3B-7**     Example of Two-Way Left-Turn Lane Marking Applications  
The left-turn arrows in the center lane are no longer shown as optional.

The asterisk note has been revised.

The note regarding single-direction arrows has been added.

**3B-8**     Examples of Dotted Line and Channelizing Line Applications for Exit Ramp Markings

Drawing C in the 2003 MUTCD has been relocated to become Drawing E in Figure 3B-10, and a new Drawing C has been added.

Labels have been added for the physical gores in Drawings A and B.

The location of the theoretical gore in Drawing A has been revised. The phrase “theoretical gore point” has been replaced by “theoretical gore.”

The design of the longitudinal pavement marking line between the deceleration lane and the adjacent mainline lane in Drawing A has been revised.

All of the labels for Drawings A and B have been revised.

**3B-9**      **Examples of Dotted Line and Channelizing Line Applications for Entrance Ramp Markings**

A new Drawing B has been added, and Drawing B in the 2003 MUTCD has become Drawing C.

The broken lane line downstream from the theoretical gore in Drawing A has been revised to a dotted lane line that extends all the way to the downstream end of the acceleration lane and taper. The dotted lane line has been relabeled in two places.

The dimensions, “A” and “0.5 A MIN.,” have been added to Drawing, and the meaning of Dimension “A” has been added to the legend.

The solid lane line downstream of the theoretical gore in Drawing A has been relabeled.

Optional chevron markings have been added in the neutral area of the gore in Drawing A.

The theoretical and physical gores in Drawings A and C have been labeled.

In Drawing C, a wide channelizing line and an optional dotted extension of the right-hand edge line of the mainline lanes has been added. The broken lane line on the left-hand side of the entrance ramp downstream from the channelizing line has been deleted. The neutral area has been labeled.

The dimensions “B” and “0.5 B MIN.” have been added to Drawing C to show the point where the wide channelizing lines become an optional dotted edge line extension. The meaning of Dimension “B” has been added to the legend.

**3B-10**      **Examples of Applications of Freeway and Expressway Lane-Drop Markings**

Optional chevron markings have been added in the neutral area of the gore in Drawing A.

The detailed drawing of the lane-drop marking has been deleted.

The theoretical and physical gores and the channelizing lines are labeled.

Drawings B, C, and D have been added.

Drawing C in Figure 3B-8 in the 2003 MUTCD has been relocated to become Drawing E.

The location of the theoretical gore for the exit ramp in Drawing E has been revised.

The option to use diagonal markings in the neutral area of the exit ramp gore in Drawing E has been deleted, and the label has been revised.

The broken lane line adjacent to the auxiliary lane in Drawing E has been replaced a wide dotted lane line and has been relabeled.

The solid lane lines at the upstream and downstream ends of the wide dotted lane line in Drawing E have been relabeled.

The physical gores, the theoretical gore and the neutral area for the entrance ramp, and the white channelizing lines have been labeled in Drawing E.

*3B-11 of 2003 MUTCD has been relocated to Figure 3B-13 of the 2009 MUTCD*

**3B-11     Examples of Applications of Conventional Road Lane-Drop Markings  
New Figure**

*3B-12 of 2003 MUTCD has been relocated to Figure 3B-14 of the 2009 MUTCD*

**3B-12     Example of Solid Double White Lines Used to Prohibit Lane Changing  
New Figure**

*3B-13 of 2003 MUTCD has been relocated to Figure 3B-15 of the 2009 MUTCD*

**3B-13     Examples of Line Extensions through Intersections (formerly Figure 3B-11)  
Edge lines are added to Drawings A, B, C, and D.**

The notes in Drawings A, B, and C have been revised. A note has been added to Drawing D.

The title and geometrics of Drawing B have been revised. Optional dotted lines have been added in two places, and the double asterisks have been deleted from the drawing and the legend. Where two types of pavement marking arrows are shown side-by-side in adjacent lanes, it is the upstream ends of the arrows that are lined up with each other.

Optional dotted lines have been added in two places in Drawing C and three places in Drawing D, and the asterisks have been deleted from the drawing and the legend. The dotted line markings are now shown extending beyond the crosswalks in the departure lanes.

A staggered stop line is shown for the left-hand leg of Drawing D. A through-left lane-use pavement marking arrow has been added in the right-hand lane of the bottom leg of Drawing D and a white lane line extension has been added in the intersection.

*3B-14 of 2003 MUTCD has been relocated to Figure 3B-16 of the 2009 MUTCD*

**3B-14     Examples of Applications of Lane-Reduction Transition Markings  
(formerly Figure 3B-12)**

Drawing B in the 2003 MUTCD is deleted, and Drawing C becomes Drawing B.

In both drawings, lane reduction arrows have been added in the lane that is ending.

Note 1 has been added.

*3B-15 of 2003 MUTCD has been relocated to Figure 3B-17 of the 2009 MUTCD*

**3B-15**     **Examples of Applications of Markings for Obstructions in the Roadway**  
***(formerly Figure 3B-13)***

Edge lines have been added to all three drawings.

In both directions on Drawing A, passing zones are now shown downstream from the obstruction.

In Drawing C, the double asterisks have been replaced by single asterisks and the asterisk note has been revised.

*3B-16 of 2003 MUTCD has been relocated to Figure 3B-19 of the 2009 MUTCD*

**3B-16**     **Recommended Yield Line Layouts** ***(formerly Figure 3B-14)***

The phrase, “Examples of”, was replaced by “Recommended” in the title.

*3B-17 of 2003 MUTCD has been relocated to Figure 3B-20 of the 2009 MUTCD*

**3B-17**     **Examples of Yield Lines at Unsignalized Midblock Crosswalks** ***(formerly Figure 3B-15)***

Edge lines have been added to both drawings.

The sign on left-hand side of the roadway in Drawing B has been reversed.

The note regarding Stop Here for Pedestrian signs has been added.

*3B-18 of 2003 MUTCD has been relocated to Figure 3B-21 of the 2009 MUTCD*

**3B-18**     **Crosswalk Markings**  
**New Figure**

*3B-19 of 2003 MUTCD has been relocated to Figure 3B-22 of the 2009 MUTCD*

*3B-20 of 2003 MUTCD has been relocated to Figure 3B-23 of the 2009 MUTCD*

*3B-21 of 2003 MUTCD has been relocated to Figure 3B-24 of the 2009 MUTCD*

**3B-21**     **Examples of Parking Space Markings** ***(formerly Figure 3B-18)***

References to the UVC have been added in six places near the corners of the intersections.

In the left-hand and center drawings, the lengths of the last parking spaces near the tops of the drawings have been revised from “20 ft MIN.” to “20 ft typical for end space.”

In the right-hand drawing, the crosswalks have been deleted and a sidewalk has been added near the top of the drawing to illustrate an unmarked crosswalk.

In the right-hand drawing, the length of the parking space has been revised from “20 ft MIN.” to “20 ft typical.”

*3B-22 of 2003 MUTCD has been relocated to Figure 3B-27 of the 2009 MUTCD*

**3B-22**     **International Symbol of Accessibility Parking Space Marking** *(formerly Figure 3B-19)*  
The phrase “with Blue Background and White Border Options” has been deleted from the title. A note has been added at the bottom of the figure.

*3B-23 and 3B-24 in the 2003 MUTCD have been deleted as they are duplicates of 2B-18 and 2B-19*

**3B-24**     **Examples of Standard Arrows for Pavement Markings** *(formerly Figure 3B-21)*  
Optional narrow lane-use arrow designs have been added to Drawings A, B, and C.

In Drawing E, the orientation of the raised pavement markers have been rotated such that all of them are perpendicular to the direction of traffic.

In Drawing F, the leader line for the length of the arrow has been extended to clearly indicate the bottom tip of the lane-reduction arrow.

*3B-25 of 2003 MUTCD has been relocated to Figure 3B-26 of the 2009 MUTCD*

**3B-25**     **Examples of Elongated Route Shields for Pavement Markings**  
**New Figure**

*3B-26 in the 2003 MUTCD has been replaced by the new Chapter 3D figures*

*3B-27 in the 2003 MUTCD has been replaced by the new Chapter 3C figures*

**3B-27**     **Examples of Lane-Use Control Word and Arrow Pavement Markings**  
*(formerly Figure 3B-22)*

Three of the four legs have been extended to illustrate additional pavement markings.

Optional dotted extension lines have been added in two places, and optional diagonal crosshatch lines have also been added. Where two types of pavement marking arrows are shown side-by-side in adjacent lanes, it is the upstream ends of the arrows that are lined up with each other.

The single asterisks have been deleted from the left-turn arrows on the top leg.

The triple asterisks have been relocated from the left-turn arrows on the bottom leg to the right-turn arrows and a new ONLY word marking on the left-hand leg.

The double asterisk and triple asterisk notes have been revised.

*3B-28 in the 2003 MUTCD has been replaced by the new Chapter 3C figures*

**3B-28**     **Example of the Application of Speed Reduction Markings**  
**New Figure**

**3B-31**     **Advance Warning Markings for Speed Humps**

The orientation of the detailed marking has been revised.

## Chapter 3C

*Chapter 3C in the 2003 MUTCD has been relocated to Chapter 2C of the 2009 MUTCD*

*Current Chapter 3C contents edited from Sections 3B.24 and 3B.25 in the 2003 MUTCD*

*3C.01 of 2003 MUTCD has been relocated to Section 2C.63 of the 2009 MUTCD*

### 3C.01 General

*(NOTE: The text in this Section was relocated to this section from Section 3B.24 of the 2003 MUTCD)*

**Support Revised (Para 1)** to reference the definition of a roundabout.

**New Guidance** to recommend tailoring pavement markings and signing design to fit geometric characteristics and lane use of the roundabouts.

**Support Revised (Para 4-6)** specifying additional information on pavement markings for approaches and circular roadway components at roundabouts, conditional usage of traffic control signals, pedestrian hybrid beacons, and grade crossings at roundabouts.

*3C.02 of 2003 MUTCD has been relocated to Section 2C.64 of the 2009 MUTCD*

### 3C.02 White Lane Line Pavement Markings for Roundabouts

*(NOTE: The text in this Section was relocated to this section from Section 3B.24 of the 2003 MUTCD)*

**New Standard (Para 1-2)** requiring lane lines marked on multi-lane approaches to roundabouts, and dotted white lane lines marked on a through lane that becomes a dropped lane at a roundabout.

**Guidance Revised** recommending lane line markings within circular roadway of multi-lane roundabouts to channelize traffic to the appropriate exit lane.

**Standard Revised (Para 4)** prohibiting usage of continuous concentric lane lines in circulatory roadway of roundabouts.

**New Support** referencing section with information on bicycle lane markings at roundabouts.

*3C.03 of 2003 MUTCD has been relocated to Section 2C.65 of the 2009 MUTCD*

### 3C.03 Edge Line Pavement Markings for Roundabout Circulatory Roadways

*(NOTE: The text in this Section was relocated to this section from Section 3B.24 of the 2003 MUTCD)*

**Guidance Revised** to recommend specific, conditional usage of white edge lines on circular roadway of roundabouts.

**Standard Added** – Text prohibiting edge lines and edge line extensions across exits from circular roadways of roundabouts **was changed from Guidance to Standard.**

*3C.04 of 2003 MUTCD has been relocated to Section 2C.66 of the 2009 MUTCD*

- 3C.04**     **Yield Lines for Roundabouts**  
*(NOTE: The text in this Section was relocated to this section from Section 3B.24 of the 2003 MUTCD)*
- 3C.05**     **Crosswalk Markings at Roundabouts**  
New Standard prohibiting pedestrian crosswalk markings to or from the central island of roundabouts.  
  
Guidance Revised to recommend conditional usage of marking crosswalks across roundabout entrances and exits.
- 3C.06**     **Word, Symbol, and Arrow Pavement Markings for Roundabouts**  
New Section outlining the proper use, location and layout of word, symbol and arrow pavement markings.
- 3C.07**     **Markings for Other Circular Intersections** *(formerly Section 3B.25)*

**Figure**

*3C-1 of 2003 MUTCD has been relocated to Figure 2C-13 of the 2009 MUTCD*

- 3C-1**     **Example of Markings for Approach and Circulatory Roadways at a Roundabout**  
New Figure
- 3C-2**     **Lane-Use Arrow Pavement Marking Options for Roundabout Approaches**  
New Figure
- 3C-3**     **Example of Markings for a One-Lane Roundabout** *(formerly Figure 3B-27)*  
New Figure
- 3C-4**     **Example of Markings for a Two-Lane Roundabout with One- and Two-Lane Approaches**  
New Figure
- 3C-5**     **Example of Markings for a Two-Lane Roundabout with One-Lane Exits**  
New Figure
- 3C-6**     **Example of Markings for a Two-Lane Roundabout with Two-Lane Exits**  
*(formerly Figure 3B-28)*  
New Figure
- 3C-7**     **Example of Markings for a Two-Lane Roundabout with a Double Left Turn**  
New Figure
- 3C-8**     **Example of Markings for a Two-Lane Roundabout with a Double Right Turn**  
New Figure
- 3C-9**     **Example of Markings for a Two-Lane Roundabout with Consecutive Double Left Turns**  
New Figure



- 3C-10**    **Example of Markings for a Three-Lane Roundabout with Two- and Three-Lane Approaches**  
New Figure
- 3C-11**    **Example of Markings for a Three-Lane Roundabout with Three-Lane Approaches**  
New Figure
- 3C-12**    **Example of Markings for a Three-Lane Roundabout with Two-Lane Exits**  
New Figure
- 3C-13**    **Example of Markings for a Two Linked Roundabouts**  
New Figure
- 3C-14**    **Example of Markings for a Diamond Interchange with Two Circular-Shaped Roundabout Ramp Terminals**  
New Figure

## Chapter 3D

### 3D.01 Preferential Lane Word and Symbol Markings (formerly Figure 3B-22)

**Support Revised (Para 1)** to include ETC lanes, HOT lanes usage.

**Standard Added (Para 3)** requiring conditional usage of longitudinal, word and symbol pavement markings, associated with a preferential lane.

**Standard Revised (Para 4)** requiring conditional usage of static or changeable message regulatory signs.

**Standard Added (Para 6)** adding HOT lane or ETC Account-Only lane word and symbol markings to the list of markings to be used for preferential lanes that are contiguous to a general-purpose lane or are separated from a general-purpose lane by a flush buffered space that can be traversed by motor vehicles.

**Standard Revised (Para 6)** requiring “LRT ONLY” word marking on light rail transit lanes.

**New Option (Para 8)** allowing conditional deletion of a preferential lane-use symbol or word marking at toll plazas.

**Guidance Added (Para 9)** – Text recommending usage of engineering judgment when spacing preferential lane word and symbol markings *was changed from Support to Guidance.*

**New Guidance (Para 11)** recommending, in addition to regular spacing intervals, strategic locations to place preferential lane markings.

**Option Revised (Para 12)** clarifying posting vehicle occupancy requirements by posting the minimum number of occupants in a vehicle.

**Guidance Revised (Para 13)** to include “other channelizing devices” instead of flashing lights when using engineering judgment to determine the need for supplemental devices.

### 3D.02 Preferential Lane Longitudinal Markings for Motor Vehicles (formerly Section 3B.23)

**Support Revised (Para 1)** to clarify the various forms of preferential lanes.

**Support Revised (Para 2)** – Text to describe the usage of preferential lanes *was changed from Option to Support.*

**Standard Revised (Para 3)** clarifying the requirements of longitudinal pavement markings on preferential lanes and adding requirements for buffer-separated preferential lane.

**Guidance Revised (Para 4)** to clarify the layout of chevron markings in separating preferential lanes and other travel lanes when they are separated by a buffer space wider than four feet and crossing the buffer space is prohibited.

**Standard Added (Para 6)** specifying that normal broken lane lines shall be used between two or more preferential lanes for traffic moving in the same direction.

**Standard Revised (Para 7)** to require that preferential lanes have the appropriate regulatory signs.

**New Guidance (Para 8)** recommending marking layout to separate preferential lanes from deceleration lanes at direct exits.

**New Standard (Para 9-10)** specifying the proper pavement markings for separating counter-flow preferential lanes and opposing direction lanes on a divided highway.

**New Option (Para 11)** to allow using channelizing devices to separate counter flow preferential lanes.

### **Table**

*3D-1 of 2003 MUTCD has been relocated to Table 3F-1 of the 2009 MUTCD*

#### **3D-1 Standard Edge Line and Lane Line Markings for Preferential Lanes**

*(formerly Table 3B-2)*

In the left-hand column, the phrase “Physically Separated” has been changed to “Barrier-Separated.”

In the left-hand column, the phrase “Concurrent Flow” has been changed to “Contiguous.”

The two rows regarding Buffer-Separated preferential lanes have been added.

The notes at the bottom of the table have been slightly revised.

### **Figure**

**3D-1 Markings for Barrier-Separated Preferential Lanes** *(formerly Figure 3B-26)*  
New Figure

**3D-2 Markings for Buffer-Separated Preferential Lanes** *(formerly Figure 3B-26)*  
New Figure

**3D-3 Markings for Contiguous Preferential Lanes** *(formerly Figure 3B-26)*  
New Figure

## **Chapter 3E**

*Chapter 3E in the 2003 MUTCD has been relocated to Chapter 3G of the 2009 MUTCD*

### **Chap. 3E Markings for Toll Plazas**

New Chapter outlining the overall usage of toll plaza signs.

## **Chapter 3F**

*(formerly Chapter 3D)*

*3F.01 of 2003 MUTCD relocated to Section 2B.67 of the 2009 MUTCD*

**3F.01 Delineators** *(formerly Section 3D.01)*

**3F.02 Delineator Design** *(formerly Section 3D.02)*

New Support clarifying the definition of single, double and vertically elongated delineators.

**3F.03** **Delineator Application** *(formerly Section 3D.03)*  
**New Standard (Para 4)** requiring that delineators on the left-hand side of a two-way roadway be white.

**3F.04** **Delineator Placement and Spacing** *(formerly Section 3D.04)*  
**Guidance Revised (Para 1)** clarifying the minimum mounting height of delineators definition.

**Guidance Revised (Para 3)** to include “other longitudinal barrier” as part of the obstruction group.

**New Option (Para 10)** to allow delineators of the appropriate color to be closely spaced on the face or on top of guardrails or other longitudinal barriers under special conditions.

**Table:**

**3F-1** **Approximate Spacing for Delineators on Horizontal Curves** *(formerly Table 3D-1)*  
The bold note at the bottom of the table in the 2003 MUTCD has been relocated to become the Note 6 at the bottom of the table. The other longer note has been reformatted to become Notes 1 through 5 at the bottom of the table.

**Figure:**

**3F-1** **Examples of Delineator Placement** *(formerly Figure 3D-1)*  
Added delineators facing northbound traffic along left-hand side (outside) of right-hand curve of roadway.

Added bridge rail or obstruction and Type 3 object marker.

Added note about all delineators shown in figure are white.

## **Chapter 3G** *(formerly Chapter 3E)*

**3G.01** **General** *(formerly Section 3E.01)*  
**Support Added (Para 1)** describing colored pavements.

**Support Revised (Para 2)** indicating that non-reflective colored pavements are not considered to be traffic control devices.

**Standard Revised (Para 3)** to clarify conditional usage of colored pavement as a traffic control device within the traveled way, on flush or raised islands, or on shoulders.

## **Chapter 3H** *(formerly Chapter 3F)*

### **3H.01**    **Channelization Devices** *(formerly Section 3F.02)*

**Option Revised** to allow conditional usage of channelization devices, listed in Sections 6F.63 through 6F.73, and 6F.75, and shown in Figure 6F-7.

**Standard Revised (Para 2)** to require, except for color, that channelization devices comply with provisions described in Chapter 6F.

**Standard Added (Para 4)** allowing nighttime usage of internally illuminated channelization devices and specifying design of channelizing devices used outside of temporary traffic control zones at night.

## **Chapter 3I** *(formerly Chapter 3G)*

### **3I.01**    **General** *(formerly Section 3G.01)*

### **3I.02**    **Approach-End Treatment** *(formerly Section 3G.02)*

**Support Added (Para 2)** – Text specifying conditional treatment in the neutral area between approach end markings to discourage driving in the neutral area *was changed from Option to Support.*

### **3I.03**    **Island Marking Application** *(formerly Section 3G.03)*

**Standard Revised** to clarify that markings, as related to islands, shall be pavement, curb markings, channelizing devices and delineators.

**Options Added** that pavement markings described in Section 3B.10 may be omitted on the approach to certain islands based on engineering judgment.

### **3I.04**    **Island Marking Colors** *(formerly Section 3G.04)*

### **3I.05**    **Island Delineation** *(formerly Section 3G.06)*

**New Option** to allow conditional placement of retroreflective or internally illuminated raised pavement markers.

### **3I.06**    **Pedestrian Islands and Medians**

**New Section** defining proper usage of pedestrian islands and medians and referencing the “Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG)” for information on minimum widths for accessible refuge islands and for design and placement of detectable warning surfaces.

## **Chapter 3J** *New Chapter defining proper usage of rumble strip markings*

## Chapter 4A

- 4A.01**     **Types**  
**Support Revised** to include hybrid beacons and toll plaza traffic signals as types of traffic signals discussed in Part 4.
- 4A.02**     **Definitions Relating to Highway Traffic Signals**  
**New Support** to identify sections containing definitions and acronyms from Part 4 of the MUTCD. *(NOTE: The definitions in this section of the 2003 MUTCD were relocated to Section 1A.13, except Definitions 2, 5, 6, 8, 12, 19, 22, 24, 28, 31, 33, 41, 51, 52, and 73, which were already present in Section 1A.13)*

## Chapter 4B

- 4B.02**     **Basis of Installation or Removal of Traffic Control Signals**  
**Guidance Added (Para 5)** – Text recommending conditional steps for removing traffic signals *was changed from Option to Guidance.*
- 4B.04**     **Alternatives to Traffic Control Signals**  
**Option Added (Para 2)** including alternatives H, and L for traffic control signals.
- 4B.05**     **Adequate Roadway Capacity**  
**Guidance Added (Para 3)** recommending ways to increase roadway capacity at signalized locations without physically widening roadway.

## Chapter 4C

- 4C.01**     **Studies and Factors for Justifying Traffic Control Signals**  
**Standard Revised (Para 2)** to include the consideration of factors related to the existing operation and safety at the study location and the potential to improve these conditions, and to add Warrant 9 – “Intersection Near a Grade Crossing”.
- 4C.04**     **Warrant 3, Peak Hour**  
**Option Added (Para 5)** allowing conditional usage of operating a traffic control signal in a flashing mode if only Warrant 3 is met and a traffic control signal is justified by an engineering study.  
  
**New Guidance (Para 6)** recommending the traffic control signal be traffic-actuated if only Warrant 3 is met and a traffic control signal is justified by an engineering study.
- 4C.05**     **Warrant 4, Pedestrian Volume**  
**Standard Revised (Para 2)** to specify that only one (1) of two (2) criteria need to be met to warrant a traffic control signal at an intersection or midblock crossing. In addition, Criteria A

and B were rewritten to specify conditions that must be met for four hours of an average day (Criterion A) or for one hour of an average day (Criterion B).

**New Option (Para 3)** recommending if the posted, or 85<sup>th</sup> percentile, speed limit exceeds 35 mph, or if the intersection is in a populated area of less than 10,000, Figure 4C-6 may be used instead of Figure 4C-5 to evaluate Criterion A in Paragraph 2, and Figure 4C-8 may be used instead of Figure 4C-7 to evaluate Criterion B in Paragraph 2.

**Standard Revised (Para 4)** to limit the application of the Pedestrian Volume signal warrant unless the distance to the nearest traffic control signal, or STOP sign controlling the street that pedestrians desire to cross, is less than 300 feet.

**Guidance Revised (Para 6)** to clarify Criterion A: Recommending conditional usage for traffic control signals controlling minor-street or driveway traffic, and Criterion B: Recommending conditional usage for installing traffic control signals at a non-intersection crossing.

**Option Revised (Para 7)** to allow the pedestrian volume crossing on the major street to be reduced as much as 50% if the 15<sup>th</sup>-percentile, not the average, crossing speed of pedestrians is less than 3.5 feet per second.

**4C.06**     **Warrant 5, School Crossing**

**Support Added (Para 1)** to include the definition of “schoolchildren”.

**Guidance Added (Para 5)** to recommend installing traffic control signals at major driveway locations, in addition to intersections, under conditions described in the Criterion A. It also recommends installing traffic control signals at a non-intersection crossing at least 100 feet from side streets or driveways that are STOP or YIELD-controlled, as described in Criterion B.

**4C.10**     **Warrant 9, Intersection Near a Grade Crossing**

**New Section** describing proper usage of Warrant 9 as a traffic signal control warrant near a grade crossing.

**Table:**

**4C-2**     **Warrant 9, Adjustment Factor for Daily Frequency of Rail Traffic**  
New Table

**4C-3**     **Warrant 9, Adjustment Factor for Percentage of High-Occupancy Buses**  
New Table

**4C-4**     **Warrant 9, Adjustment Factor for Percentage of Tractor-Trailer Trucks**  
New Table

**Figure:**

**4C-5**     **Warrant 4, Pedestrian Four-Hour Volume**  
New Figure

**4C-6**     **Warrant 4, Pedestrian Four-Hour Volume (70% Factor)**  
New Figure

**4C-7**     **Warrant 4, Pedestrian Peak Hour**

**New Figure**

**4C-8**     **Warrant 4, Pedestrian Peak Hour (70% Factor)**  
**New Figure**

**4C-9**     **Warrant 9, Intersection Near a Grade Crossing (One Approach Lane at the Track Crossing)**  
**New Figure**

**4C-10**    **Warrant 9, Intersection Near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)**  
**New Figure**



## Chapter 4D

*4D.01 of 2003 MUTCD* relocated to 4D.35 of the 2009 MUTCD

### 4D.01 General

**Support Added (Para 2)** indicating that traffic control signals can be operated in pre-timed, semi-actuated, or full-actuated modes, and traffic control signals can be operated conditionally in isolated signalized locations.

**New Support (Para 4)** to identify a seasonal shutdown.

**Guidance Added (Para 9)** suggesting coordination across the boundary of traffic control signals along a major street that serves as a jurisdictional boundary or a boundary between different signal systems. *(NOTE: This Text was relocated from first paragraph of Section 4D.14 of the 2003 MUTCD.)*

**Support Revised (Para 10-11)** to clarify that signal coordinating does not need to be maintained between control sections operating on different cycle lengths, and indicating that information on coordination with grade crossing and movable bridge signals is in Sections 4D.27, 4J.03, 8C.09, and 8C.10. *(NOTE: This Text was relocated from Section 2D.14 of the 2003 MUTCD.)*

### 4D.03 Provisions for Pedestrians

**Support Added (Para 1)** to identify Chapter 4F as where to find additional information on pedestrian hybrid beacons.

**Guidance Revised (Para 4)** to indicate that information for accessible pedestrian signals that provide information in non-visual formats is located in Sections 4E.09 through 4E.13, and should be provided where determined appropriate by engineering judgment..

**Guidance Revised (Para 6)** – Text suggesting that if you want to prohibit certain pedestrian movements at a traffic signal location, a R9-3 sign should be used if it is not practical to place a barrier or other physical feature that physically prohibits pedestrian movements *was changed from Option to Guidance.*

### 4D.04 Meaning of Vehicular Signal Indications

**Support Added (Para 2)** indicating that the physical area that is defined as being “within the intersection” is dependent upon the conditions that are described in the definition of intersection in Section 1A.13.

**Standard Revised (Para 3)** to clarify meanings for steady green, yellow, and red signal indications in subparts A through C.

**Standard Added (Para 3)** to indicate that flashing green signal indication shall not be used in Subpart D, and to indicate the meanings for flashing yellow and red signal indications in Subparts E and F.

### 4D.05 Application of Steady Signal Indications

**Standard Revised (Para 3)** to specify the proper application of steady circular yellow signal indication in subpart B; the steady yellow arrow signal indication in subpart E; and the steady green arrow signal indication in subpart F.

**Option Added (Para 5)** for conditional use of a steady straight-through GREEN ARROW signal indication.

**Option Added (Para 6)** permitting the conditional use of a steady red, yellow and green turn arrow signal indication.

**New Support (Para 7)** identifying Section 4D.25 containing information on signaling approaches that have shared left-turn/right-turn lane and no through movement.

**Standard Revised (Para 8)** to conditionally prohibit usage of U-turn arrow signals. *(NOTE: This Text was relocated from paragraph 7 of Section 4D.15 of the 2003 MUTCD.)*

**Standard Revised (Para 9-10)** *(NOTE: This Text was relocated from first and last paragraph of Section 4D.08 of the 2003 MUTCD.)*

**Standard Revised (Para 11)** to clarify that the combination of signal indications in Paragraph 10 conditionally cannot be simultaneously displayed on an approach. *(NOTE: This Text was relocated from paragraph 2 of Section 4D.08 of the 2003 MUTCD.)*

**Standard Added (Para 12-13)** specifying combinations of signal indications that shall not be simultaneously displayed on any one signal face or as a result of the combination of displays from multiple signal faces on an approach.

**Guidance Added (Para 14)** *(NOTE: This Text was relocated from Section 4D.09 of the 2003 MUTCD.)*

#### **4D.06** Signal Indications – Design, Illumination, Color, and Shape *(formerly Section 4D.18)*

**Standard Added (Para 2)** that includes letter or numbers associated with countdown displays).

**Standard Added (Para 3)** requiring that strobes shall not be used within or adjacent to any signal indication.

**Standard Added (Para 4)** prohibiting flashing displays within or adjacent to any signal indications, except for the flashing signal indications and pre-emption confirmation lights listed in this chapter.

**Standard Added (Para 8)** requiring arrows shall be pointed in a manner directing the driver through the turn if a U-turn arrow is used. *(NOTE: This text was relocated from paragraph 3 of Section 4D.16 of the 2003 MUTCD.)*

#### **4D.07** Size of Vehicular Signal Indications *(formerly Section 4D.15)*

**Standard Revised (Para 2)** to require usage of 12-inch signal indications in all new signal faces except as provided in paragraph 3.

**Option Added (Para 3-4)** for conditional usage of eight-inch circular signal indications in new signal faces.

*4D.08 of 2003 MUTCD* relocated to 4D.05 of the 2009 MUTCD

#### **4D.08** Positions of Signal Indications Within a Signal Face – General

***(NOTE: This text was relocated to this paragraph from Section 4D.16 of the 2003 MUTCD.)***

**New Support (Para 1)** detailing information on standardizing numbers and arrangements of signal sections in vehicular traffic control signal faces.

**Standard Revised (Para 2-5)** requiring a minimum of three vertical positions if a vertical signal face includes a cluster, unless otherwise provided in the MUTCD for a particular application and specifying the proper arrangement of signal sections.

**Standard Added (Para 7-8)** to specify the proper usage of U-turn arrow signal sections.

**Option Added (Para 9)** to specify when to use two circular red or red arrow signal indications.

**Support Revised (Para 11)** to update the references to figures illustrating typical signal section arrangements in signal faces.

**4D.09 of 2003 MUTCD** relocated to 4D.05 of the 2009 MUTCD

**4D.09**     **Positions of Signal Indications within a Vertical Signal Face**

***(NOTE: This text was relocated to this paragraph from Section 4D.16 of the 2003 MUTCD.)***

**Standard Revised (Para 3)** to include flashing red and yellow arrows.

**Standard Added (Para 6)** specifying an additional signal cluster layout for the specific case of two signal sections, one of which displays a GREEN ARROW signal indication and the other of which displays a flashing YELLOW ARROW signal indication.

**Standard Added (Para 7)** specifying proper placement of flashing yellow signal indications during steady mode operation.

**New Support (Para 8)** specifying additional information on conditional exceptions to this section that pertain to hybrid beacons.

**4D.10**     **Positions of Signal Indications Within a Horizontal Signal Face**

***(NOTE: This text was relocated to this paragraph from Section 4D.16 of the 2003 MUTCD.)***

**Standard Added (Para 1)** requiring all signal sections displaying red signal indications, in a horizontally-arranged signal face, to be located to the left of all signal sections displaying yellow and green indications.

**Standard Revised (Para 3)** to include flashing red and yellow arrows.

**Standard Revised (Para 4)** clarifying the usage of dual-arrow signal in a horizontal-arranged signal face.

**Standard Added (Para 5)** specifying proper placement of flashing yellow signal indications during steady mode operation.

4D.11 of 2003 MUTCD relocated to 4D.28 and 4D.30 of the 2009 MUTCD

**4D.11 Number of Signal Faces on an Approach**

*(NOTE: The text was relocated to this Section from Section 4D.15 of the 2003 MUTCD.)*

**Standard Revised** to require providing a minimum of two primary signal faces for the approach to an intersection or midblock location considered to be the major movement.

**New Option** to allow usage of continuously-displayed single-section green arrow signal over certain movements or lane(s) at intersections that never conflict with other vehicular or pedestrian movements.

**New Support (Para 3)** describing that an engineering study may be appropriate for determining that a through-movement (or certain lanes of the through movement) may be free-flow and not signalized in situations where through movements never conflict with any other signalized vehicular or pedestrian movement at an intersection.

**New Support (Para 6)** suggesting that locating primary signal faces overhead on certain positions, conditionally, at an intersection provides safer operations.

**New Guidance (Para 7-8)** specifying proper location and configuration of signal faces if the posted speed limit or 85<sup>th</sup> percentile speed on an approach to a signalized intersection is, or greater than, 45 mph.

4D.12 of 2003 MUTCD relocated to 4D.29, 4D.31 of the 2009 MUTCD

**4D.12 Visibility, Aiming, and Shielding of Signal Faces (formerly Section 4D.17)**

**Guidance Added (Para 4 and 6)** *(NOTE: This text was relocated from paragraph 8 of Section 4D.15 of the 2003 MUTCD).*

**Standard Revised (Para 7)** to require an advanced traffic control sign (W3-1, W3-2, W3-3, or W3-4) if approaching traffic does not have a continuous view of at least two signal faces. *(NOTE: This text was relocated from paragraph 6 of Section 4D.15 of the 2003 MUTCD.)*

**Option Added (Para 8-9)** *(NOTE: This text was relocated from paragraphs 15 and 16 of Section 4D.15 of the 2003 MUTCD.)*

**Guidance Added (Para 11-12)** *(NOTE: This text was relocated from paragraph 13 of Section 4D.15 of the 2003 MUTCD.)*

**Guidance Revised (Para 18)** to recommend when to use signal backplates.

**Standard Added (Para 20)** *(NOTE: This text was relocated from last paragraph of Section 4D.18 of the 2003 MUTCD.)*

**New Option (Para 21)** to allow placement of a conditional yellow retroreflective strip along the perimeter of the face of a signal backplate.

**4D.13 Lateral Positioning of Signal Faces**

**Standard Revised (Para 1-2)** to specify the proper location and mounting of the primary signal faces required for through movements on the approach. *(NOTE: This text was relocated from paragraph 7 of Section 4D.15 of the 2003 MUTCD.)*

**Standard Added (Para 3-4)** *(NOTE: This text was relocated from paragraph 7 of Section 4D.15 of the 2003 MUTCD.)*

**Guidance Added (Para 5)** *(NOTE: This text was relocated from paragraph 12 of Section 4D.15 of the 2003 MUTCD.)*

**New Standard (Para 7-8)** restricting positioning for a primary separate turn signal face for exclusive left-turn, right-turn, or U-turn lanes and exempting supplemental turn signal faces mounted over the roadway from these restrictions.

**New Guidance (Para 9)** recommending that signal faces that display a circular green signal indication should not be post-mounted on the far-side median or mounted overhead above the exclusive turn lane(s) or the extension of the lane(s) new or reconstructed signal installations on an approach with exclusive turn lanes.

**New Standard (Para 10)** specifying required limitations for supplemental signal faces. *(NOTE: This text was repeated from the new Section 4D.10 of the 2009 MUTCD.)*

*4D.14 of 2003 MUTCD* relocated to 4D.01 of the 2009 MUTCD

#### **4D.14 Longitudinal Positioning of Signal Faces**

*(NOTE: The text was relocated to this Section from Section 4D.15 of the 2003 MUTCD.)*

**Standard Revised** to list an exception to conditionally provide signal faces for each approach to an intersection or a midblock, and specify that a primary signal face that satisfies Subparagraph A also satisfies the lateral placement requirement in Section 4D.13.

**New Support** specifying Section 4D.11 as containing additional provisions for signal faces longitudinal positioning at approaches having a posted speed limit, or 85<sup>th</sup>-percentile speed of 45 mph or greater.

*4D.15 of 2003 MUTCD* relocated to 4D.05, 4D.07, 4D.11-4D.15 of the 2009 MUTCD

#### **4D.15 Mounting Height of Signal Faces**

**Standard Added (Para 1)** *(NOTE: The text was relocated from Section 4D.17 of the 2003 MUTCD.)*

**Standard Added (Para 2)** *(NOTE: The text was relocated from Section 4D.15 of the 2003 MUTCD.)*

**Standard Added (Para 3-5)** *(NOTE: The text was relocated from Section 4D.17 of the 2003 MUTCD.)*

*4D.16 of 2003 MUTCD* relocated to 4D.06, 4D.08-4D.10 of the 2009 MUTCD

#### **4D.16 Lateral Offset (Clearance) of Signal Faces**

*(NOTE: The text was relocated to this Section from Section 4D.17 of the 2003 MUTCD.)*

4D.17 of 2003 MUTCD relocated to 4D.12, 4D.15-4D.16 of the 2009 MUTCD

**4D.17** **Signal Indications for Left-Turn Movements-General** (NOTE: Some of the text was relocated to this Section from Section 4D.06 of the 2003 MUTCD.)

**New Standard (Para 1)** specifying that provisions applicable to left-turn movements and left-turn lanes in Sections 4D.17 through 4D.20 also apply to signal indications for U-turns to the left that are provided at locations where left turns are prohibited or not geometrically possible.

**Support Added (Para 2)** to include flashing left-turn yellow or red arrow signal indications in permissive-only modes.

**Standard Added (Para 4-5)** requiring through traffic signal faces on the opposing approach to display certain signal indications during specific pedestrian movements.

**Standard Added (Para 6)** requiring an exclusive left-turn lane where a protected only mode left-turn movement exists that does not begin and terminate at the same time as the adjacent through movement.

**Standard Added (Para 7)** specifying conditional restrictions for displaying yellow change interval for left-turn operations that are changing from permissive to protected.

**Standard Revised (Para 8)** requiring operating mode changes to conform to Sections 4D.18 through 4D.20 that are appropriate to that mode of operation.

**Option Revised (Para 9)** to allow using additional static signs to meet requirements for variable left-turn mode or informing drivers that green arrows will not be displayed during certain times of the day.

**New Support (Para 10)** specifying the usage of shared, and separate left-turn, signal faces.

**New Support (Para 11)** specifying Section 4D.13 having information on lateral positioning of left-turn signal faces.

**New Support (Para 12)** to allow a different mode of left-turn operation for the same type of left-turn signal face on different approaches to a signalized intersection.

**New Option (Para 13)** to allow a shared left- and right-turn signal face for a shared left- and right-turn lane on an intersection approach that has no thru traffic.

**4D.18** **Signal Indications for Permissive Only Mode Left-Turn Movements** (NOTE: Some of the text was relocated to this Section from Section 4D.06 of the 2003 MUTCD.)

**Standard Revised (Para 1)** updating the requirements for a shared signal face for a permissive-only mode left turn.

**Standard Revised (Para 2)** that prohibits using circular green signal indication on a separate left-turn signal face operated in a permissive only left-turn mode.

**Standard Added (Para 3)** that lists the requirements of using a separate left-turn signal face in a permissive only left-turn mode with a flashing yellow arrow signal indication.

**New Option (Para 4)** allowing a flashing left-turn red arrow indicator on a separate left-turn signal face during a permissive left-turn movement mode under listed conditions.

**New Standard (Para 5)** specifying requirements for usage of flashing red arrow signal indicators in a left-turn signal face during a permissive only left turn modes.

**New Option (Para 6)** allowing the arrangement of two left-turn red arrow signal indicators in a vertically-arranged signal face as part of Item A in Paragraph 5 of this section.

#### **4D.19 Signal Indications for Protected Only Mode Left-Turn Movements**

**New Standard (Para 1)** specifying conditions for usage of a shared signal face for protected only mode left turns.

**New Option (Para 2)** allowing the conditional use of a straight-through green arrow signal indicator in lieu of a circular green signal indicator.

**Standard Revised (Para 3)** specifying requirements for providing a left-turn signal face for a protected only left-turn mode. *(NOTE: Some of the text was relocated to this Section from Section 4D.06 of the 2003 MUTCD.)*

#### **4D.20 Signal Indications for Protected/Permissive Mode Left-Turn Movements**

*(NOTE: Some of the text was relocated to this Section from Section 4D.06 of the 2003 MUTCD.)*

**Standard Revised (Para 1)** specifying requirements for usage of shared signal face operating in a protected/permissive mode left-turn.

**Standard Revised (Para 2)** prohibiting the use of a circular green signal indicator in a separate left-turn signal face during a protected/permissive left-turn mode.

**Standard Added (Para 3)** specifying requirements for usage of a separate left-turn signal face with a left-turn flashing yellow arrow during a protected/permissive left-turn mode.

**New Option (Para 4)** allowing a flashing left-turn red arrow indicator on a separate left-turn signal face during a permissive left-turn movement mode under listed conditions.

**New Standard (Para 5)** specifying requirements for a flashing red arrow indicator on a separate left-turn signal face during a protected/permissive left-turn movement mode.

**New Option (Para 6)** allowing conditional usage of a vertically-arranged signal face with a horizontal cluster of two left-turn red arrow indicators meeting the requirement of Item A in Paragraph 5) of the new standard.

#### **4D.21 Signal Indications for Right-Turn Movements – General *(formerly Section 4D.07)***

**New Standard (Para 1)** specifying that provisions applicable to right-turn movements and right-turn lanes also apply to signal indicators for U-turns to the right that are provided at locations where right-turns are prohibited or not geometrically possible.

**Support Revised (Para 2)** to redefine the permissive only mode listed in Item A.

**Standard Added (Para 3)** specifying proper signal displays of the signal faces controlling U-turn traffic that conflicts with permissive right-turn movements and any associated pedestrian signal heads.

**Standard Added (Para 4)** prohibiting the signal faces for left-turn traffic on the opposing approach to simultaneously display a steady left-turn green or yellow arrow indicator. In addition, signal faces that control U-turn movements that conflict with protected right-turn movements shall simultaneously display steady U-turn red arrow indicators.

**Standard Added (Para 5)** requiring that a protected only mode right-turn movement that does not begin and end at the same time as the adjacent through movement shall not be provided on an approach unless there is an exclusive right-turn lane.

**Standard Added (Para 6)** prohibiting the display of a yellow change interval for right-turn movement when the right-turn operation changes from permissive to protected within any given signal sequence.

**Standard Revised (Para 7)** specifying requirements for changing operating modes during different times of the day or as traffic conditions change.

**Option Revised (Para 8)** allowing use of additional static signs or VMS' to meet the requirements for variable right-turn mode or to inform drivers that right-turn green arrows are unavailable during certain times of the day.

**New Support (Para 9)** specifying allowances to using two types of signal faces for controlling right-turn movements.

**New Support (Para 10)** specifying Section 4D.13 as containing information on lateral positioning of signal faces controlling right-turn movements.

**New Support (Para 11)** to allow a different mode of right-turn operation for the same type of right-turn signal face on different approaches to a signalized intersection.

**New Option (Para 12)** to allow a shared left- and right-turn signal face for a shared left- and right-turn lane on an intersection approach that has no thru traffic.

#### 4D.22

##### **Signal Indications for Permissive Only Mode Right-Turn Movements**

**Standard Added (Para 1)** specifying requirements for a shared signal face operating in a permissive only right-turn mode.

**Standard Added (Para 2)** prohibiting use of a circular green signal indicator in a separate right-turn signal face in a permissive only right-turn mode.

**Standard Added (Para 3)** specifying requirements for a separate right-turn signal face operating in a permissive only right-turn mode where a flashing right-turn yellow arrow is provided.

**New Option (Para 4)** allowing the usage of a separate right-turn signal face with flashing right-turn red arrow signal indicator during permissive right-turn movement when each vehicle must successively come to a full stop before making permissive right turns.



**New Standard (Para 5)** specifying requirements for a separate right-turn signal face operating in a permissive only right-turn mode where a flashing right-turn red arrow is provided.

**New Option (Para 6)** allowing conditional usage of a vertically-arranged signal face with a horizontal cluster of two right-turn red arrow indicators meeting the requirement of Item A.1 in Paragraph 5.

**4D.23**     **Signal Indications for Protected Only Mode Right-Turn Movements**

**New Standard (Para 1)** specifying conditions for using a shared signal face for protected only mode right turns, and specifying requirements for using a shared signal face in a protected only right turn operation.

**New Option (Para 2)** allowing conditional usage of a straight-through green arrow signal indicator instead of a circular green signal indicator listed in the requirements of Items A and B in Paragraph 1.

**Standard Revised (Para 3)** specifying requirements for a separate right-turn signal face operating in a protected only right turn mode. *(NOTE: Some of the text was relocated to this section from Section 4D.07 of the 2003 MUTCD.)*

**4D.24**     **Signal Indications for Protected/Permissive Mode Right-Turn Movements**

*(NOTE: The text was relocated to this Section from Section 4D.07 of the 2003 MUTCD.)*

**Standard Revised (Para 1)** specifying requirements for a shared signal face operating in a protected/permissive mode.

**Standard Added (Para 2)** prohibiting the use of a circular green signal indicator in a separate right-turn signal face during a protected/permissive right-turn mode.

**Standard Added (Para 3)** specifying requirements for a separate right-turn signal face operating in a protected/permissive right turn operating mode where a flashing right-turn yellow arrow is provided.

**New Option (Para 4)** allowing the usage of a separate signal face with flashing right-turn red arrow signal indicator during permissive right-turn movement when each vehicle must successively come to a full stop before making permissive right turns.

**New Standard (Para 5)** specifying requirements for a separate right-turn signal face operating in a protected/permissive right-turn operating mode where a flashing right turn red arrow indicator is provided.

**New Option (Para 6)** allowing conditional usage of a vertically-arranged signal face with a horizontal cluster of two right-turn red arrow indicators meeting the requirement of Item A.1 in Paragraph 5.

**4D.25**     **Signal Indications for Approaches With Shared Left-Turn/Right-Turn Lanes and No Through Movement**

**New Section** outlining usage of signal indications for approaches with shared left-right turn lanes and no-through movements.

**4D.26**     **Yellow Change and Red Clearance Intervals** *(formerly Section 4D.10)*

**Standard Added (Para 1)** to include additional conditions for when to display steady yellow signal indicators.

**New Support (Para 4)** specifying Section 4D.05 as containing information on displaying steady circular yellow signal indicators to approaches where motorists are allowed to make permissive left turns.

**Guidance Revised (Para 5)** – Text regarding when to consider (based on engineering practices) using yellow change and red clearance intervals *was changed from Option to Guidance.*

**Standard Revised (Para 6)** requiring the use of engineering practices to determine the red clearance interval time.

**New Support (Para 7)** referencing ITE documents as containing information on yellow change and red clearance interval times, based on engineering practices.

**New Standard (Para 8-10)** specifying the duration of yellow change and red clearance interval times.

**New Option (Para 11)** allowing extending the interval time, conditionally, of a red clearance interval.

**New Option (Para 12)** allowing conditional display of red clearance interval.

**New Option (Para 13)** allowing different interval time for yellow change and red clearances in different signal timing plans for the same controller unit.

**Guidance Revised (Para 14)** to recommend a yellow change interval time from 3 to 6 seconds, with the longer time to be used on approached with higher vehicle speeds.

**Guidance Revised (Para 15)** to recommend, conditionally, a red clearance interval time no longer than 6 seconds.

**New Standard (Para 16)** prohibiting the use of signal displays intending to provide a “pre-yellow warning” interval at a signalized location, except for warning beacons mounted on advance warning signs on the approach to a signalized location.

**New Support (Para 17)** indicating that using signal displays (not flashing beacons mounted at advance warning signs) with a “pre-yellow warning” have shown to increase vehicular crashes.

#### 4D.27

**Preemption and Priority Control of Traffic Control Signals** *(formerly Section 4D.13)*

**Guidance Added (Para 11)** that traffic control signals with railroad preemption or coordinated with flashing-light signal systems should be provided with a back-up power supply.

**Option Added (Para 17)** allowing the use of a common distinctive indication where drivers from different agencies travel through the same intersection when responding to emergencies.

**Option Added (Para 18)** allowing, based on engineering judgment, light rail transit signal indicators conforming to Section 8C.11 for certain exclusive movements at signalized intersections.

**4D.28**     **Flashing Operation of Traffic Control Signals – General**

**Standard Revised (Para 1-3)** *(NOTE: The text was relocated to this Section from Section 4D.11 of the 2003 MUTCD.)*

**Standard Revised (Para 4-6)** *(NOTE: The text was relocated to this Section from Section 4D.12 of the 2003 MUTCD.)*

**New Option (Para 7)** allowing, based on engineering study or judgment, traffic control signals to operate in flashing mode on a conditional basis.

**Support Revised (Para 8)** adding section 4E.09 as one of two sections containing information for pedestrian signal heads and accessible pedestrian signal detector pushbutton locator tones operations. *(NOTE: The text was relocated to this Section from Section 4D.12 of the 2003 MUTCD.)*

**4D.29**     **Flashing Operation – Transition Into Flashing Mode**

*(NOTE: The paragraphs were relocated to this section from Section 4D.12 of the 2003)*

**Standard Revised (Para 2)** specifying circumstances in Item B for changing signal indicators from steady to flashing modes.

**4D.30**     **Flashing Operation – Signal Indications During Flashing Mode**

**Guidance Revised** *(NOTE: The text was relocated to this Section from Section 4D.11 of the 2003 MUTCD.)*

**Standard Revised (Para 2)** specifying conditional usage of traffic control signals in a flashing operating mode. *(NOTE: The text was relocated to this Section from Section 4D.12 of the 2003 MUTCD.)*

**Standard Revised (Para 3)** specifying the conditional usage of flashing yellow signal indicators. *(NOTE: The text was relocated to this Section from Section 4D.12 of the 2003 MUTCD.)*

**Standard Revised (Para 4)** specifying that only one signal indicator in every signal face shall be flashed when operating a traffic control signal in a flashing mode.

**New Option (Para 5)** allowing simultaneous signal flashing of two identical circular red or red arrow indicators.

**Standard Revised (Para 6)** specifying that a steady green arrow signal indicator that is the only steady signal indicator used shall be displayed at a signalized location during flashing operating mode. *(NOTE: The text was relocated to this Section from Section 4D.12 of the 2003 MUTCD.)*

**Standard Revised (Para 7)** *(NOTE: The text was relocated to this Section from Section 4D.11 of the 2003 MUTCD.)*

**Standard Revised (Para 8)** specifying the conditional requirement of signal faces flashing the same color, either yellow or red. *(NOTE: The text was relocated to this Section from Section 4D.11 of the 2003 MUTCD.)*

**Standard Revised (Para 9)** specifying conditional requirements for the usage of signal face consisting of arrow indicators and provides a protected-only turn movement during steady stop-and-go operating mode, or provides a flashing yellow arrow or flashing red arrow signal indicators for permissive turn movements during steady stop-and-go operating mode. *(NOTE: The text was relocated to this Section from Section 4D.11 of the 2003 MUTCD.)*

**4D.31 Flashing Operation – Transition Out of Flashing Mode** *(NOTE: The paragraphs in this section were relocated from Section 4D.11 of the 2003 MUTCD.)*

**New Standard (Para 4)** requiring usage of a steady yellow indicator following a flashing yellow indicator during programmed changes out of flashing mode.

**New Option (Para 5)** allowing special midblock signals that rest in flashing circular yellow in the position normally occupied by the green signal indication, and do not have a green signal indication in the signal face, to go directly from flashing circular yellow (in the position normally occupied by the green signal indication) to steady yellow without going first to a green signal indication.

**4D.32 Temporary and Portable Traffic Control Signals** *(formerly Section 4D.20)*

**4D.33 Lateral Offset of Signal Supports and Cabinets** *(formerly Section 4D.19)*

**4D.34 Use of Signs at Signalized Locations** *(formerly Section 4D.21)*

**Support Added (Para 1)** specifying signage shown at signalized locations to guide pedestrians, bicyclists, or motorists.

**Guidance Added** that regulator, warning and guide signs should be displayed at traffic signal locations as provided in Part 2 and as specifically provided elsewhere in Part 4.

**Support Added (Para 4)** identifying Section 2B.19 as containing information regarding using overhead lane control signs on signalized approaches.

**Standard Revised (Para 7)** *(NOTE: The text from this section was relocated from Section 4D.01 of the 2003 MUTCD.)*

**4D.35 Use of Pavement Markings** *(NOTE: The paragraphs from this section were relocated from Section 4D.01 of the 2003 MUTCD.)*

**Table:**

**4D-1 Recommended Minimum Number of Primary Signal Faces for Through Traffic on Approaches with Posted, Statutory, or 85<sup>th</sup>-Percentile Speed of 45 mph or Higher**  
New Table

**4D-2 Minimum Sight Distance for Signal Visibility** *(formerly Table 4D-1)*  
A Note at the bottom of the table has been added.

**Figure:**

**4D-1**     **Example of U-Turn Signal Face**  
New Figure

**4D-2**     **Typical Arrangements of Signal Sections in Signal Faces That Do Not Control Turning Movements** *(formerly Figure 4D-3)*  
*(NOTE: This figure no longer shows the typical signal faces that control turning movements. (Typical arrangements of signal faces that control turning movements are now shown in new Figures 4D-6 to 4D-19.))*

Color graphics have been added.

The three signal faces that contain a straight-through green arrow have been added.

The three-category titles have been added.

**4D-3**     **Recommended Vehicular Signal Faces for Approaches with Posted, Statutory, or 85<sup>th</sup>-Percentile Speed of 45 mph or Higher**  
New Figure

**4D-4**     **Lateral and Longitudinal Location of Primary Signal Faces** *(formerly Figure 4D-2)*  
The lead-in sentence and the meanings of the cross-hatching patterns have been revised near the top of the figure.

The 150-foot dimension and the double cross-hatched area have been deleted.

The double asterisk note has been revised.

The triple asterisk note has been deleted.

The four asterisk note has been changed to a triple asterisk note.

A dotted line has been added in the taper area of the left-turn lane.

Notes at the bottom of the figure have been added.

**4D-6**     **Typical Position and Arrangements of Shared Signal Faces for Permissive Only Mode Left Turns**  
New Figure

**4D-7**     **Typical Position and Arrangements of Separate Signal Faces with Flashing Yellow for Permissive Only Mode Left Turns**  
New Figure

**4D-8**     **Typical Position and Arrangements of Separate Signal Faces with Flashing Red Arrow for Permissive Only Mode and Protective/Permissive Mode Left Turns**  
New Figure

**4D-9**     **Typical Position and Arrangements of Shared Signal Faces for Protected Only Mode Left Turns**  
New Figure

- 4D-10 **Typical Position and Arrangements of Separate Signal Faces for Protected Only Mode Left Turns**  
New Figure
- 4D-11 **Typical Position and Arrangements of Shared Signal Faces for Protected/Permissive Mode Left Turns**  
New Figure
- 4D-12 **Typical Position and Arrangements of Separate Signal Faces with Flashing Yellow Arrow for Protected/Permissive Mode and Protected Only Mode Left Turns**  
New Figure
- 4D-13 **Typical Position and Arrangements of Shared Signal Faces for Permissive Only Mode Right Turns**  
New Figure
- 4D-14 **Typical Position and Arrangements of Separate Signal Faces with Flashing Yellow Arrow for Permissive Only Mode Right Turns**  
New Figure
- 4D-15 **Typical Position and Arrangements of Separate Signal Faces with Flashing Red Arrow for Permissive Only Mode and Protected/Permissive Mode Right Turns**  
New Figure
- 4D-16 **Typical Position and Arrangements of Shared Signal Faces for Protected Only Mode Right Turns**  
New Figure
- 4D-17 **Typical Position and Arrangements of Separate Signal Faces for Protected Only Mode Right Turns**  
New Figure
- 4D-18 **Typical Position and Arrangements of Shared Signal Faces for Protected/Permissive Mode Right Turns**  
New Figure
- 4D-19 **Typical Position and Arrangements of Separate Signal Faces with Flashing Yellow Arrow for Protected/Permissive Mode and Protected Only Mode Right Turns**  
New Figure
- 4D-20 **Signal Indications for Approaches with a Shared Left-Turn/Right-Turn Lane and No Through Movement**  
New Figure

## Chapter 4E

### 4E.01 Pedestrian Signal Heads

**New Support (Para 3)** to identify chapters containing information regarding usage of pedestrian hybrid beacons (Chapter 4F) and In-Roadway Warning Lights (Chapter 4N).

### 4E.02 Meaning of Pedestrian Signal Head Indications

**Standard Revised** clarifying the meaning of the flashing upraised hand listed in Item B.

### 4E.03 Application of Pedestrian Signal Heads

**New Option** allowing conditional usage of pedestrian signal heads based on engineering judgment.

### 4E.04 Size, Design, and Illumination of Pedestrian Signal Head Indications

**Standard Revised (Para 2)** specifying the layout requirements for one- and two-section pedestrian signal heads.

**Guidance Added (Para 10)** suggesting a dimming feature be included in pedestrian signal indicators that are too bright and cause excessive glare at night.

*4E.06 of 2003 MUTCD has been relocated to Sections 4E.09 through 4E.13 of the 2009 MUTCD*

### 4E.06 Pedestrian Intervals and Signal Phases (formerly Section 4E.10)

**Standard Added (Para 2)** specifying that when pedestrian signal heads associated with a crosswalk display a steady walking person symbol or a flashing upraised hand symbol, that a steady or a flashing red signal indication shall be shown to any conflicting vehicular movement that is approaching the intersection or midblock location perpendicular or nearly perpendicular to the crosswalk.

**Standard Revised (Para 4)** clarifying the usage and timing of a pedestrian change interval consisting of a flashing upraised hand symbol along with a buffer interval consisting of a steady upraised hand signal indication.

**Option Added (Para 5)** allowing conditional usage for flashing or steady upraised hand symbol in a pedestrian signal during the yellow change interval.

**New Support (Para 6)** identifying figure 4E-2 as illustrating information on pedestrian intervals and their relationships with associated vehicular signal phase intervals.

**Guidance Revised (Para 7)** suggesting the use of a walking speed of 3.5 feet per second when designing the pedestrian clearance time, except as provided in Paragraph 8.

**Option Added (Para 8)** allowing the use of a maximum walking speed of 4 feet per second, where an extended pushbutton press function has been installed, to assess the sufficiency of the pedestrian clearance time under listed conditions.

**Option Added (Para 9)** allowing the additional time provided by an extended pushbutton press to be added to either the walk interval or the pedestrian change interval.

**Support Revised (Para 13)** explaining the purpose of the walk interval and the pedestrian clearance time.

**Guidance Added (Para 14)** suggesting the total sum of the walk interval and pedestrian clearance time be sufficient to allow a pedestrian to crossing in the crosswalk.

**Standard Revised (Para 16)** – Text specifying conditional use of median-mounted pedestrian signals and related signing *was changed from Guidance to Standard.*

**New Guidance (Para 17)** suggesting conditional use of accessible pedestrian signals.

**Option Added (Para 19)** allowing the conditional use of a brief leading pedestrian interval time to reduce conflicting movements between pedestrians and turning vehicles in a busy intersection.

**New Guidance (Para 20)** to suggest using accessible pedestrian signals with a leading pedestrian interval.

**New Support (Para 21)** describing potential hazards for visually impaired crossing if leading pedestrian intervals are used without accessible features.

**New Guidance (Para 22-23)** suggesting criteria for using leading pedestrian intervals.

**New Support (Para 24)** indicating that extending the green interval time beyond the pedestrian clearance time allows turning vehicles an opportunity to make their turns without dealing with conflicting movement with pedestrians.

#### **4E.07** **Countdown Pedestrian Signals**

**Standard Revised (Para 1)** – Text requiring usage of pedestrian change interval countdown displays at crosswalks where the pedestrian change interval is more than seven (7) seconds *was changed from Option to Standard.*

**New Option (Para 2)** allowing usage of pedestrian change interval countdown display at crosswalks where the pedestrian change interval is equal to or less than seven (7) seconds.

**Standard Added (Para 3)** requiring that where countdown pedestrian signals are used the countdown shall always be displayed simultaneously with the flashing UPRAISED HAND.

#### **4E.08** **Pedestrian Detectors**

**New Option (Para 1)** allowing pushbutton or passive pedestrian detectors.

**New Support (Para 2)** describing the purpose of passive detection devices.

**New Support (Para 3)** to identify sections containing information regarding the proper placement of pedestrian pushbuttons.

**Guidance Revised (Para 4)** to outline the criteria governing how pedestrian pushbuttons should be located, except as provided in Paragraphs 5 and 6.

**Guidance Added (Para 5-6)** suggesting alternative placing of pedestrian pushbuttons when there are physical constraints.

**Guidance Added (Para 7)** recommending a 10-foot minimum spacing distance between two pedestrian pushbutton at the same corner of a signalized location.



**New Option (Para 8)** allowing a variance if two pedestrian pushbuttons could not comply with the 10-foot minimum spacing rule.

**New Support (Para 9)** to identify a typical pedestrian pushbutton layout in Figure 4E-4.

**Standard Revised (Para 12)** – Text specifying the criteria for positioning the pedestrian pushbutton signs and signals ***was changed from Guidance to Standard.***

**Standard Added (Para 17)** specifying that if a pilot light used at an accessible pedestrian signal location, that it be accompanied by the speech message “wait”.

**New Standard (Para 19)** requiring use of a pedestrian push button (R10-32P) plaque if additional crossing time is provided by means of an extended pushbutton press.

*4E.09 and 4E.06 of 2003 MUTCD have been combined and relocated to Sections 4E.09 through 4E.13 of the 2009 MUTCD*

**4E.09**     **Accessible Pedestrian Signals and Detectors – General**

**Support Added (Para 10)** describing the typical features of the accessible pedestrian signal/pedestrian detector (pushbutton) assembly.

**Option Added (Para 11)** allowing, in braille, the name of the street to be crossed, and tactile maps of crosswalks. ***(NOTE: The text from this section was relocated from Section 4E.09 of the 2003 MUTCD.)***

**New Support (Para 12)** indicating that the specifications on the usage of braille or raised print for traffic control devices are located in “Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities”.

*4E.10 of 2003 MUTCD has been relocated to Section 4E.06 of the 2009 MUTCD*

**4E.10**     **Accessible Pedestrian Signals and Detectors – Location**

**New Support (Para 1)** describing the general criteria of locating pedestrian signals at a crossing location.

**Guidance Revised (Para 2)** to recommend locations for pushbutton accessible pedestrian signals. ***(NOTE: The text from this section was relocated from Section 4E.09 of the 2003 MUTCD.)***

**New Standard (Para 3)** specifying the features for each accessible pedestrian pushbutton if the pushbuttons are placed less than 10 feet apart on the same pole.

**Standard Revised (Para 4)** – Text requiring that an additional accessible pedestrian detector be provided if the pedestrian clearance time is sufficient only to cross from the curb or shoulder to a median of sufficient width for pedestrians to wait and accessible pedestrian detectors are used ***was changed from Guidance to Standard.***

**4E.11**     **Accessible Pedestrian Signals and Detectors – Walk Indications**

**Support Added (Para 1)** describing research on audible sounds and vibrotactile indications in accessible pedestrian signals. ***(NOTE: The text from this section was relocated from Section 4E.06 of the 2003 MUTCD.)***

**New Standard (Para 2)** requiring accessible pedestrian signals to have audible and vibrotactile walk indicators.

**New Standard (Para 3)** specifying criteria for vibrotactile walk indicators.

**Standard Revised (Para 4-5)** requiring accessible pedestrian signals to have audible walk indications and specifying their duration. *(NOTE: The text from this section was relocated from Section 4E.06 of the 2003 MUTCD.)*

**New Guidance (Para 6)** limiting the accessible walk indication to the first seven (7) seconds of the walk interval when the pedestrian signal rests in walk, and outlining provisions when the accessible walk indication should be recalled by a button press during the walk.

**Standard Added (Para 7-8)** specifying criteria for audible walk indicators that are or are not separated by at least 10 feet and of audible tones used as walk indications.

**Guidance Revised (Para 9)** specifying a suggested maximum volume of audible walk indicators and pushbutton locator tones. *(NOTE: The text from this section was relocated from Section 4E.06 of the 2003 MUTCD.)*

**Standard Revised (Para 10)** – Text requiring an automatic volume adjustment to ambient traffic sound levels up to 100 dBA *was changed from Guidance to Standard. (NOTE: The text from this section was relocated from Section 4E.06 of the 2003 MUTCD.)*

**Guidance Revised (Para 11)** clarifying that the sound level of audible walk indications and pushbutton locator tones should be low enough, conditionally, to not mislead visually-impaired pedestrians. *(NOTE: The text from this section was relocated from Section 4E.06 of the 2003 MUTCD.)*

**Option Added (Para 12)** allowing usage of an alert tone to alert pedestrians when the walk interval starts.

**New Support (Para 13)** describing the usefulness of an alert tone.

**New Support (Para 14-15)** describing the purpose of speech walk messages and methods to give users of accessible pedestrian signals the name of the street controlled by the pushbutton.

**New Support (Para 16)** describing the results of combining information from the pushbutton message or braille label.

**Standard Revised (Para 17)** specifying that speech walk messages only be used at intersections where it is technically infeasible to install two accessible pedestrian signals at one corner separated by a distance of at least 10 feet. *(NOTE: The text from this section was relocated from Section 4E.06 of the 2003 MUTCD.)*

**Standard Added (Para 18-20)** specifying requirements for using speech walk messages at intersections having pedestrian phasing that is concurrent with vehicular phasing or having exclusive pedestrian phasing, and limiting the amount of extra information that may be provided.

**New Guidance (Para 21)** recommending that speech walk messages not state or imply command(s) to pedestrians or not tell pedestrians that it is “safe to cross”.

**Standard Revised (Para 22)** to clarify requirements for the usage of a speech walk message. *(NOTE: The text from this section was relocated from Section 4E.06 of the 2003 MUTCD.)*

**Standard Added (Para 23)** to specify that if a pilot light is used at an accessible pedestrian signal location, that it be accompanied by the speech message “wait”.

**New Standard (Para 25)** specifying the next operational step of accessible pedestrian signals after the audible walk indication.

**4E.12** **Accessible Pedestrian Signals and Detectors – Tactile Arrows and Locator Tones**  
**Standard Revised (Para 1-2)** – Text specifying the requirements of accessible pedestrian pushbuttons to conform to visually-impaired pedestrians’ needs *was changed from Guidance to Standard. (NOTE: The text from this section was relocated from Section 4E.09 of the 2003 MUTCD.)*

**Support Revised (Para 3)** to define the purpose of a pushbutton locator tone. *(NOTE: The text from this section was relocated from Section 4E.06 of the 2003 MUTCD.)*

**Standard Revised (Para 5-6)** – Text specifying the required features and proper operation of pushbutton locator tones *was changed from Guidance to Standard. (NOTE: The text from this section was relocated from Section 4E.09 of the 2003 MUTCD.)*

**New Support (Para 7)** identifying Section 4E.11 as containing information on the volume and sound level of pushbutton locator tones.

**4E.13** **Accessible Pedestrian Signals and Detectors – Extended Pushbutton Press Features**  
**New Section** outlining the proper usage of extended pushbutton press features, such as increased crossing time, audible beaconing, or a speech pushbutton information message.

**Figure:**

**4E-1** **Typical Pedestrian Signal Indications**

Pedestrian signal faces now show all indications simultaneously, similar to the manner that vehicular signal faces are shown in the figures in Chapter 4D.

Drawing A showing three types of pedestrian signal indications with countdown displays has been added.

A one section pedestrian signal face with both indications superimposed on each other has been added in Drawing B, as has the title for Drawing B.

**4E-2** **Pedestrian Intervals**  
**New Figure**

**4E-3** **Pushbutton Location Area** *(formerly Figure 4E-2)*

The title has been revised.

The graphics for the two curb-cut ramps drawing have been revised. A cross hatched area has been added to show the range of recommended locations. The notes have been added. The arrow symbols showing the downward slope have been added. The pushbutton symbols and

the dimension showing the 10-foot minimum separation between the pushbuttons have been deleted. The dimension showing the maximum set-back from the edge of the pavement has been revised from 10 feet to 6 feet, and a minimum set-back from the edge of the pavement of 1.5 feet has been added.

**4E-4**     **Typical Pushbutton Locations**  
**New Figure**

## Chapter 4F

New Chapter specifying the proper use, design and operation of pedestrian hybrid beacons

**Figure:**

- 4F-1**     **Guidelines for the Installation of Pedestrian Hybrid Beacons on Low-Speed Roadways**  
New Figure
- 4F-2**     **Guidelines for the Installation of Pedestrian Hybrid Beacons on High-Speed Roadways**  
New Figure
- 4F-3**     **Sequence for a Pedestrian Hybrid Beacon**  
New Figure

## Chapter 4G

*(formerly Chapter 4F)*

*(Note: This Chapter has been revised to include Hybrid Beacons)*

- 4G.01**     **Application of Emergency-Vehicle Traffic Control Signals and Hybrid Beacons**  
*(formerly Section 4F.01)*  
**Option Added (Para 3)** to allow emergency-vehicle hybrid beacons in lieu of emergency-vehicle traffic control signals under certain conditions.
- 4G.02**     **Design of Emergency-Vehicle Traffic Control Signals** *(formerly Section 4F.02)*  
**Guidance Revised (Para 4)** recommending 12-inch diameter signal indicators for any arrow indications.
- 4G.03**     **Operation of Emergency-Vehicle Traffic Control Signals** *(formerly Section 4F.03)*
- 4G.04**     **Emergency-Vehicle Hybrid Beacons**  
**New Section** describing the proper usage, layout, operation and installation of emergency-vehicle hybrid beacons.

**Figure:**

- 4G-1**     **Sequence for an Emergency-Vehicle Hybrid Beacon**  
New Figure

## Chapter 4H

*(formerly Chapter 4G)*

- 4H.01**     **Application of Traffic Control Signals for One-Lane, Two-Way Facilities**  
*(formerly Section 4G.01)*
- 4H.02**     **Design of Traffic Control Signals for One-Lane, Two-Way Facilities**  
*(formerly Section 4G.02)*
- 4H.03**     **Operation of Traffic Control Signals for One-Lane, Two-Way Facilities**  
*(formerly Section 4G.03)*

## **Chapter 4I** *(formerly Chapter 4H)*

**4I.01**     **Application of Freeway Entrance Ramp Control Signals** *(formerly Section 4H.01)*  
**Support Added (Para 1)** indicating that ramp control signals are often referred as “ramp metering”.

**New Support (Para 4)** indicating that the FHWA’s “Ramp Management and Control Handbook” contains information on conditions, factors and design considerations for ramp control signals.

**4I.02**     **Design of Freeway Entrance Ramp Control Signals** *(formerly Section 4H.02)*  
**Standard Added (Para 3-4)** with required number and proper configuration for ramp control signal faces.

**New Guidance (Para 5)** suggesting additional side-mounted ramp control signal faces for ramps with two or more separately-controlled lanes.

**Option Added (Para 8)** allowing ramp control signals to conditionally control some, but not all, ramp lanes.

**Option Added (Para 10)** allowing two required signal faces, for entrance ramps with only one controlled lane, to be mounted at the side of the road on a single pole, as listed in Section 4D.13.

**New Guidance (Para 11)** recommending regulatory signs with legends appropriate to the control be installed next to the ramp control signal faces, that special consideration be given to assuring adequate visibility of the ramp control signals, and that multiple advance warning signs with flashing warning beacons be installed to warn road users of the metered operation.

**4I.03**     **Operation of Freeway Entrance Ramp Control Signals**  
**New Section** describing the proper operation of freeway entrance ramp control signals and usage of the RAMP METERED WHEN FLASHING (W3-8) sign.  
*(NOTE: The original Section 4I.03 from the 2003 MUTCD was relocated to Section 4J.03 of the 2009 MUTCD)*

## **Chapter 4J** *(formerly Chapter 4I)*

- 4J.01**     **Application of Traffic Control for Movable Bridges** *(formerly Section 4I.01)*
- 4J.02**     **Design and Location of Movable Bridge Signals and Gates** *(formerly Section 4I.02)*  
**Standard Added (Para 5)** requiring a stop line all be installed to indicate the point behind which vehicles are required to stop for movable bridge signals.
- Standard Revised (Para 12)** specifying that traffic signals are not required with the resistance gate near the span opening if two sets of gates (a warning and a resistance gate) are used for a single direction of traffic.
- Standard Revised (Para 13)** requiring that movable bridge warning gates contain vertical, fully reflectorized red and white stripes.
- 4J.03**     **Operation of Movable Bridge Signals and Gates** *(formerly Section 4I.03)*  
**Standard Revised (Para 2)** requiring the usage of flashing yellow signal indication; and specifying that the duration of the yellow change interval between the display of the green and steady red signal indicators, or yellow flashing and steady red signal indicators shall be determined by engineering practices.
- Guidance Added (Para 4)** recommending the longer yellow change interval should be used on approaches with higher speeds.
- Guidance Added (Para 5)** suggesting the traffic control signals be connected to drawbridge control, if applicable.

## **Chapter 4K**

New Chapter defining proper usage of highway traffic signals at toll plazas  
*Chapter 4K in the 2003 MUTCD has been relocated to Chapter 4L of the 2009 MUTCD*

- 4K.01**     **Traffic Signals at Toll Plaza**  
**New Section** describing the proper usage of traffic signals at toll plazas.
- 4K.02**     **Lane-Use Control Signals at or Near Toll Plazas**  
**New Section** describing the proper usage of lane-use control signals at or near toll plazas.
- 4K.03**     **Warning Beacons at Toll Plazas**  
**New Section** describing the proper usage of warning beacons at toll plazas.

**Chapter 4L**  
***(formerly Chapter 4K)***

- 4L.01**    **General Design and Operation of Flashing Beacons** ***(formerly Section 4K.01)***  
**Standard Revised (Para 4)** to reference Sections 4L.04 and 7B.15 as containing information on school speed limit sign beacons. ***(NOTE: The text from this section was relocated from Section 4K.03 of the 2003 MUTCD.)***
- 4L.02**    **Intersection Control Beacon** ***(formerly Section 4K.02)***  
**Standard Added (Para 5)** specifying the flashing sequence for two horizontally- or vertically-aligned red signal indicators.
- 4L.03**    **Warning Beacons** ***(formerly Section 4K.03)***  
**Support Added (Para 1)** regarding an additional application (Item E) of the warning beacon.
- Option Added (Para 9)** regarding the use of warning beacons that are actuated by pedestrians, bicyclists, or other road users.
- 4L.04**    **Speed Limit Sign Beacon** ***(formerly Section 4K.04)***  
**Option Added (Para 4)** allowing the use of speed limit sign beacons within the border of a School Speed Limit sign.
- 4L.05**    **Stop Beacon** ***(formerly Section 4K.05)***  
**Standard Added (Para 1)** restricting the usage of stop beacons only to supplement a STOP sign, a DO NOT ENTER sign, or a WRONG WAY sign.
- Standard Revision (Para 3)** to included DO NOT ENTER and WRONG WAY signs.



## **Chapter 4M** *(formerly Chapter 4J)*

**4M.01**    **Application of Lane-Use Control Signals** *(formerly Section 4J.01)*  
**Standard Revised** *(NOTE: The text from this paragraph was relocated from Section 4J.02 of the 2003 MUTCD.)*

**Option Revised (Para 5)** to allow an additional application (Item D) of lane-use control signals.

**4M.02**    **Meaning of Lane-Use Control Signal Indications** *(formerly Section 4J.02)*

**4M.03**    **Design of Lane-Use Control Signals** *(formerly Section 4J.03)*

**Option Added (Para 12)** to allow positioning of the lane-use control signal housing lower than 15 feet above the pavement if it is mounted on a canopy or other structure over the pavement, but not lower than the vertical clearance of the structure.

**4M.04**    **Operation of Lane-Use Control Signals** *(formerly Section 4J.04)*

### **Figure:**

**4M-1**    **Left-Turn Lane-Use Control Signals** *(formerly Figure 4J-1)*  
**New Figure**

## **Chapter 4N** *(formerly Chapter 4L)*

**4N.01**    **Application of In-Roadway Lights** *(formerly Section 4L.01)*

**Standard Added (Para 2)** prohibiting use of in-roadway lights for any applications not listed in Chapter 4N.

**Standard Added (Para 4)** specifying that in-roadway lights be flashed and not be steadily illuminated.

**New Support (Para 5)** to identify steadily illuminated lights in roadway surfaces as internally illuminated raised pavement markers.

**Option Revised (Para 6)** to clarify proper flash operation of in-roadway lights.

**4N.02**    **In-Roadway Warning Lights at Crosswalks** *(formerly Section 4L.02)*

**New Option (Para 1)** allowing the installation of in-roadway lights at certain marked crosswalks, based on an engineering study or engineering judgment.

**Standard Revised (Para 3)** to specify the requirements for proper flash operation of in-roadway lights at crosswalks.

**New Standard (Para 11)** requiring usage of the PUSH BUTTON TO TURN ON WARNING LIGHTS (with pushbutton symbol) (R10-25) sign if pedestrian pushbuttons are used to activate in-roadway lights.

## Chapter 5A

- 5A.01**     **Function**  
**Standard Revised (Para 1)** to include a residential street in a neighborhood on the list of facilities excluded from consideration as a low-volume road.
- 5A.02**     **Application**  
**New Support (Para 4)** identifying Section 1A.09 as containing information on the assistance available to jurisdictions that do not have staff engineers trained and experienced in traffic control devices.
- 5A.03**     **Design**  
**New Option (Para 4)** allowing signs and plaques larger than what's listed in Table 5A-1.
- 5A.04**     **Placement**  
**Standard Revised (Para 1)** to allow an exception (Para 3) for the placement and positioning requirements for traffic control devices on low-volume roads.

### **Table:**

#### **5A-1     Sign and Plaque Sizes on Low-Volume Roads**

**Deleted Signs:** W7-1a

**New Signs:** R11-4, W2-2, W2-3, W2-6, W8-6, W8-8, W8-18, W10-8, W10-11, W10-12, W20-3, W20-4, and W21-7

**New Plaque:** W16-7P

**Revised Signs:** W20-7 (*formerly W20-7a*), and W21-1 (*formerly W21-1a*)

A "P" has been added to the designations of the R8-3c, R8-3d, R15-2, W7-3, W7-3a, W13-1, and W16-2 plaques. The designation of the W16-9p plaque has been revised to W16-9P.

The R8-3 and R8-3a designations have been reversed.

The designation of the W20-7a sign has been revised to W20-7. The designation of the W21-1a sign has been revised to W21-1.

The names of the W10-1 through W10-4 signs have been revised.

The minimum size for the R4-1, W3-1, W3-2, W3-4, W5-2, W5-3, W8-3, W8-7, W10-1, W10-2, W10-3, W10-4, W14-1, W14-2, W14-3, W20-1, W20-7, and W21-1 signs has been deleted.

The Typical and Oversized sizes for the W1-1 through W1-5, W2-1 through W2-5, W7-1, W10-1, W11 series, W21-2, W21-3, W21-5, and W21-6 signs have been revised.

The Typical size for the W14-1a and W14-2a signs has been revised.

## Chapter 5B

### 5B.04 Traffic Movement and Prohibition Signs (R3, R4, R5, R6, R9, R10, R11, R12, R13, and R14 Series)

**Option Revised** to clarify allowable usage for traffic prohibition or restriction signs.

#### Figure:

#### 5B-1 Regulatory Signs on Low-Volume Roads

**New Sign:** R11-4

#### 5B-2 Parking Signs and Plaques on Low-Volume Roads

The designations of the R8-3 and R8-3a signs have been switched. The design of the R8-3a word message sign has been revised to match the sign in Figure 2B-25.

A “P” has been added to the designation of the R8-3cP and R8-3dP plaques, and the phrase “Supplemental Plaque” has been deleted in two places.

## Chapter 5C

- 5C.09** **Vehicular Traffic Warning and Non-Vehicular Warning Signs (W11 Series and W8-6) Option Revised (Para 3)** to clarify the purpose of mounting W7-3aP, W16-2P, or W16-9P supplemental plaques below vehicular traffic warning or non-vehicular warning signs.

**New Standard** requiring W16-7P plaques mounted below non-vehicular warning signs that are placed at the crossing point location.

- 5C.14** **Object Markers and Barricades** *(formerly Section 5E.05)*  
**New Standard** specifying that barricades used on low-volume roads must conform to Section 2B.67.

### **Figure:**

- 5C-1** **Horizontal Alignment and Intersection Warning Signs and Plaques and Object Markers on Low-Volume Roads**

**New Signs:** W2-2, W2-3, and W2-6.

A “P” has been added to the designation of the W13-1P plaque, and the phrase “Advisory Speed Plaque” has been deleted.

The object markers have been added.

- 5C-2** **Other Warning Signs and Plaques on Low-Volume Roads**  
**New Signs:** W11-5a, W11-6, W11-7, W11-14, W11-15, W11-15a, W11-16 through W11-22, W14-1a, W14-2a, and W14-3.

**New Plaques:** W16-7P

Four asterisks and an asterisk note have been added.

The thin red line along the outside edges of the stop and yield sign symbols on the W3-1 and W3-2 signs has been deleted.

A “P” has been added to the designations of the W7-3P, W7-3aP, and W16-2P plaques. The designation of the W16-9p plaque has been revised to W16-9P.

## Chapter 5E

- 5E.02** **Center Line Markings**  
**Guidance Revised** to recommend including the principles of the MUTCD and the policies and practices of the road agency when considering the usage of center line markings on paved low-volume roads.

**New Option** allowing center line markings on highways with or without edge line markings.

*5E.05 of 2003 MUTCD* relocated to 5C.14 of the 2009 MUTCD

- 5E.05** **Other Markings** *(formerly Section 5E.06)*

## Chapter 5F

### **5F.02 Grade Crossing (Crossbuck) Sign and Number of Tracks Plaque (R15-1, R15-2P)**

**New Support** explains the purpose of the R15-1 sign.

**Standard Revised (Para 2)** to indicate that the Crossbuck (R15-1) sign shall be used at all highway-rail grade crossings, except as otherwise provided in Section 8B.03.

### **5F.04 STOP and YIELD Signs (R1-1, R1-2)**

**Standard Added (Para 1)** specifying requirements of using STOP or YIELD signs at passive highway-rail grade crossings on low volume roads of Crossbuck Assemblies.

**Standard Added (Para 2)** requiring installation of YIELD AHEAD (W3-2) or STOP AHEAD (W3-1) signs at all highway-rail grade crossings where STOP or YIELD signs are installed if the criteria for their installation in Section 2C.36 is met.

### **Figure:**

#### **5F-1 Highway-Rail Grade Crossing Signs and Plaques for Low-Volume Roads**

**New Signs:** R1-1, R1-2, W10-8, W10-11, and W10-12

## Chapter 5G

### 5G.02 Applications

**Support Revised (Para 2)** – Text stating that Maintenance activities might not require extensive temporary traffic control if the traffic volumes and speeds are low *was changed from Option to Support.*

**Option Revised (Para 3)** to update the figure references listed.

**New Support (Para 4)** identifying Table 6H-3 as containing information regarding placement distances for advance placement of traffic control devices.

**New Option (Para 5)** to allow a minimum distance of 100 feet for advance placement distance of signs and the distance between signs shown in the typical applications, for low-volume roadways with speeds of 30 miles per hour or less.

### Figure:

#### 5G-1

#### Temporary Traffic Control Signs and Plaques on Low-Volume roads

A “P” has been added to the designation of the W13-1P plaque, and the phrase “Advisory Speed Plaque” has been deleted.

A “P” has been added to the designation of the W16-2P plaque, and the phrase “Supplemental Plaque” has been deleted.

**New Signs:** W8-8, W8-18, W20-3, W20-4, and W21-7

The sign code of the W20-7a sign has been changed to W20-7, and the sign code of the W21-1a sign has been changed to W21-1.

## Chapter 5H

### Chap. 5H Traffic Control For School Areas

**New Chapter** outlining the overall usage of traffic control in school areas on low-volume roads.

## Chapter 6A

### 6A.01 General

**Standard Revised (Para 2)** to include private roads open to public travel.

**Support Added (Para 9)** indicating that operational improvements might be realized by using intelligence transportation systems (ITS) in work zones.

**Support Added (Para 15)** indicating that public agency or jurisdiction can determine if a roadway is high- or low-volume at a certain time of day.

## Chapter 6B

### 6B.01 Fundamental Principles of Temporary Traffic Control

**Guidance Revised (Para 7)** to number the seven (7) fundamental principles of Temporary Traffic Control (TTC).

## Chapter 6C

### 6C.02 Temporary Traffic Control Zones

**Support Added (Para 4)** indicating that planned special events usually suggests altering traffic patterns to handle the increased traffic generated by the special event.

### 6C.04 Advance Warning Area

**Guidance Added (Para 6)** specifying that the distances of the advance warning sign in Table 6C-1 are suggested minimum distances only and should be applied with engineering judgment.

**New Support (Para 7)** explaining the need to increase spacing distances of advance warning signs to justify increasing motorist reaction times, and visa-versa.

### 6C.05 Transition Area

**New Option** to clarify conditional usage of vehicle-mounted, traffic-control devices for mobile operations.

### 6C.07 Termination Area

**Support Revised (Para 1)** – Text regarding termination area *was changed from Standard to Support.*

### 6C.08 Tapers

**Support Revised (Para 12)** – Text regarding downstream taper *was changed from Option to Support.*

**Guidance Revised (Para 13)** to recommend that the downstream taper length be a range from 50 to 100 feet.

**6C.10**     **One-Lane, Two-Way Traffic Control**  
**Standard Revised (Para 1)** specifying the option in paragraph 5 as an exception to this standard.

**New Option** for conditional usage of self-regulating traffic movement through one-lane, two-way constriction.

**6C.11**     **Flagger Method of One-Lane, Two-Way Traffic Control**  
**Guidance Added (Para 1)** recommending that traffic be controlled by a flagger at each end of a constricted section of roadway except as provided in the Option in paragraph 2.

**6C.13**     **Pilot Car Method of One-Lane, Two-Way Traffic Control**  
**Standard Added (Para 4)** to require that a flagger be stationed on the approach to the activity area to control vehicular traffic until the pilot vehicle is available. *(NOTE: This Sentence was relocated from Section 6F.54 of the 2003 MUTCD.)*.

**Table**

**6C-3**     **Taper Length Criteria for Temporary Traffic Control Zones**  
A 50-foot minimum dimension was added for the “One-Lane, Two-Way Traffic Taper” type.

**6C-4**     **Formulas for Determining Taper Length**  
The word “Limit” was deleted from the title of the first column.

**Figure**

**6C-1**     **Component Parts of a Temporary Traffic Control Zone**  
Shoulder taper length has been shortened.

Legend has been expanded.

**6C-2**     **Types of Tapers and Buffer Spaces**  
Legend has been expanded.

**6C-3**     **Example of a One-Lane, Two-Way Traffic Taper**  
Legend has been added.



## Chapter 6D

### 6D.01

#### Pedestrian Considerations

**Standard Added (Para 4)** requiring conditional maintaining of accessibility and detectability along an alternate pedestrian route in a TTC. *(NOTE: This Paragraph was relocated from Section 6G.11 of the 2003 MUTCD.)*.

**New Option (Para 5)** allowing alternate means of providing for pedestrians if no pedestrian routes can be maintained during construction.

**Guidance Revised (Para 11)** *(NOTE: This Paragraph was relocated from Section 6D.02 of the 2003 MUTCD and the sequence of items has been revised.)*.

### 6D.02

#### Accessibility Considerations

**Guidance Revised (Para 2)** recommending that adequate provisions be made for disabled pedestrians.

**Standard Added (Para 3)** requiring that a barrier that is detectable by a person with a visual disability traveling with the aid of a long cane be placed across the full width of the closed sidewalk when it is one that visually-impaired pedestrians normally use. *(NOTE: This Paragraph was relocated from Section 6D.01 of the 2003 MUTCD.)*.

**New Support (Para 4)** describing the value of maintaining a detectable, channelized pedestrian route for visually-impaired pedestrians. *(NOTE: This Paragraph was relocated from Section 6D.01 of the 2003 MUTCD.)*.

**New Guidance (Para 5)** recommending usage of audible information devices, accessible pedestrian signals, and detectable devices to alert visually-impaired pedestrians of unexpected route changes in a TTC zone. *(NOTE: This Paragraph was relocated from Section 6D.01 of the 2003 MUTCD.)*.

**New Support (Para 6)** indicating that the most desirable way to get information to visually-impaired pedestrians in a TTC zone that is equivalent to visual signing for notification of sidewalk closures is a speech message provided by an audible information device. *(NOTE: This Paragraph was relocated from Section 6D.01 of the 2003 MUTCD.)*.

**Guidance Added (Para 7)** recommending the use of a pushbutton equipped with a locator tone to notify pedestrians with visual disabilities that a special accommodation is available, and to help them locate the pushbutton. *(NOTE: This Paragraph was relocated from Section 6D.01 of the 2003 MUTCD.)*.

### 6D.03

#### Worker Safety Considerations

**New Standard (Para 4)** requiring all workers, including emergency responders, within the right-of-way who are exposed either to traffic or to work vehicles and construction equipment to wear the high-visible apparel listed in this paragraph, and that a person designated by the employer to be responsible for worker safety make the selection of the appropriate class of garment.

**New Option (Para 5)** allowing emergency/incident responders, and law enforcement officers to wear the high-visible apparel listed in this section in lieu of ANSI/ISEA 107-2004 apparel.

**New Standard (Para 6)** requiring uniformed law enforcement personnel to wear high-visible apparel when directing traffic, investigating crashes, or to handling lane closures, obstructed roadways, and disasters.

**New Standard (Para 7)** requiring firefighters or other emergency responders working within the right-of-way to wear the high-visible apparel listed in this section, except as provided in the Option in paragraph 8.

**Option Added (Para 8)** allowing firefighters or other emergency responders working within the right-of-way and engaged in emergency operations that directly expose them to flame, fire, heat, and/or hazardous materials to wear retroreflective turn-out gear.

## Chapter 6E

### 6E.02 High-Visibility Safety Apparel

**Standard Revised (Para 1)** specifying that flaggers shall wear high-visibility safety apparel that meets the listed requirements.

**Guidance Revised (Para 2)** recommending that high-visibility apparel be worn during nighttime work zone activities.

**Standard Revised (Para 3)** – Text requiring traffic officers directing traffic in a TTC zone to wear high-visible apparel *was changed from Guidance to Standard.*

**New Option (Para 4)** allowing law enforcement officers within a TTC zone to wear high-visibility apparel that meets the performance requirements of the ANSI/ISEA 207-2006 publication entitled “American National Standard for High-Visibility Public Safety Vests” and labeled as ANSI 207-2006.

### 6E.03 Hand-Signaling Devices

**New Guidance (Para 3)** regarding fabrication of the STOP/SLOW paddle.

**New Support (Para 4)** suggesting that the optimum method of displaying a STOP or SLOW message is to place the STOP/SLOW paddle on a rigid staff that is tall enough that when the end of the staff is resting on the ground, the message is high enough to be seen by approaching or stopped traffic.

**Standard Revised (Para 9)** requiring flags to be either red or fluorescent orange color.

**New Option (Para 12)** to allow a flagger in an emergency situation at night, in a non-illuminated flagger station, to conditionally supplement the STOP/SLOW paddle with a flashlight with a red glow cone.

**New Standard (Para 13)** specifying the requirements for using a flashlight in emergency flagging situations at night in a non-illuminated flagger station.

*6E.04 of 2003 MUTCD has been relocated to Section 6E.07 of the 2009 MUTCD*

### 6E.04 Automated Flagger Assistance Devices

**New Section** outlining the purpose, types, proper usage and placement of Automated Flagger Assistance Devices.

*6E.05 of 2003 MUTCD has been relocated to Section 6E.08 of the 2009 MUTCD*

### 6E.05 STOP/SLOW Automated Flagger Assistance Devices

**New Section** outlining the design, features, optional components and proper usage of the STOP/SLOW automated flagger assistance devices.

### 6E.06 Red/Yellow Lens Automated Flagger Assistance Devices

**New Section** outlining the design, features, optional components and proper usage of the red/yellow lens automated flagger assistance devices.

### 6E.07 Flagger Procedures (formerly Section 6E.04)

**New Standard (Para 2)** requiring flaggers to use either a STOP/SLOW paddle or an automated flagger assistance device at the approach of a TTC zone.

**Standard Revision (Para 5)** requiring the flagger to face road users when directing stopped road users to proceed.

**Guidance Revised (Para 6)** *(NOTE: This Paragraph was relocated from Section 6E.05 of the 2003 MUTCD.)*.

**Option Revised (Para 7)** *(NOTE: This Paragraph was relocated from Section 6D.05 of the 2003 MUTCD.)*.

**New Guidance (Para 8)** regarding the recommended stationing of a single flagger.

**6E.08** **Flagger Stations** *(formerly Section 6E.05)*

**Guidance Added** suggesting flaggers identify an escape route in case they have to avoid an errant vehicle.

**Figure**

**6E-1** **Example of the Use of a STOP/SLOW Automated Flagger Assistance Device (AFAD)**  
New Figure

**6E-2** **Example of the Use of a Red/Yellow Lens Automated Flagger Assistance Device (AFAD)**  
New Figure

**6E-3** **Use of Hand-Signaling Devices by Flaggers**  
The R1-1 and W20-8 sign codes were added next to the STOP/SLOW faces on the paddle.

The R1-1 face of the STOP/SLOW paddle has been revised.

## Chapter 6F

### 6F.01 Types of Devices

**Support Added (Para 3)** outlining crashworthy requirements of traffic control devices listed in the MUTCD.

**Standard Added (Para 6)** to include all signs, signals, markings, and other devices used to regulate, warn, or guide road users, placed on, over, or adjacent to private roads in the definition of traffic control devices.

**Standard Added (Para 7)** to require traffic control devices on private roads to comply with the applicable provisions of this Manual.

### 6F.02 General Characteristics of Signs

**Option Revised (Para 3)** clarifying that for orange traffic control devices, fluorescent orange can also be used.

**Standard Added (Para 9)** specifying sizes for temporary traffic control (TTC) signs and plaques, Except as provided in Section 2A.11, and restricting usage of the minimum size of signs and plaques.

**Support Added (Para 13)** identifying Section 2A.06 as containing additional information on sign design.

### 6F.03 Sign Placement

**Standard Added (Para 4-6)** specifying TTC sign mounting height criteria.

**Guidance Revised (Para 8)** recommending secondary TTC signs mounting criteria.

**Guidance Revised (Para 11)** recommending conditional criteria for portable sign supports that do not meet the minimum mounting heights provided in Paragraphs 4 through 6, except as provided in paragraph 12.

**Option Added (Para 12)** allowing listed signs to be used on portable sign supports that don't meet the minimum mounting heights specified in Paragraphs 4 through 6 of this section.

**Standard Revised (Para 15-16)** specifying the minimum clearance, measured from the ground to the bottom of the sign, for large signs, and that the bottom of a sign mounted on a barricade, or other portable support be at least 1 foot above the traveled way.

### 6F.04 Sign Maintenance

**Guidance Revised** – Text regarding proper maintenance of signs **was changed from *Standard to Guidance.***

**New Support** identifying Section 2A.08 as having information on sign retroreflectivity.

### 6F.08 ROAD (STREET) CLOSED Sign (R11-2)

**Standard Added** to clarify restrictions on the usage of the R11-2 sign.

### 6F.09 Local Traffic Only Signs (R11-3a, R11-4)

**Option Added (Para 4)** specifying suggested alternative word messages listed on a R11-3a sign in urban areas.

*6F.12 of 2003 MUTCD has been relocated to Section 6F.13 of the 2009 MUTCD*

**6F.12     Work Zone and Higher Fines Signs and Plaques**

**New Section** describing proper usage of Work Zone and Higher Fines signs and plaques.

*6F.13 of 2003 MUTCD has been relocated to Section 6F.14 of the 2009 MUTCD*

**6F.13     PEDESTRIAN CROSSWALK (R9-8) (formerly Section 6F.12)**

*6F.14 of 2003 MUTCD has been relocated to Section 6F.15 of the 2009 MUTCD*

**6F.14     SIDEWALK CLOSED (R9-9, R9-10, R9-11, R9-11a) (formerly Section 6F.13)**

*6F.15 of 2003 MUTCD has been relocated to Section 6F.16 of the 2009 MUTCD*

**6F.15     Special Regulatory Signs (formerly Section 6F.14)**

*6F.16 of 2003 MUTCD has been relocated to Section 6F.17 of the 2009 MUTCD*

**6F.16     Warning Sign Function, Design, and Application (formerly Section 6F.15)**

*6F.17 of 2003 MUTCD has been relocated to Section 6F.18 of the 2009 MUTCD*

**6F.17     Position of Advance Warning Signs (formerly Section 6F.16)**

**Guidance Added (Para 2)** recommending that the W20-1 sign be the first advance warning sign motorists sees when approaching a TTC where multiple advance warning signs are needed.

*6F.18 of 2003 MUTCD has been relocated to Section 6F.19 of the 2009 MUTCD*

**6F.18     ROAD (STREET) WORK Sign (W20-1) (formerly Section 6F.17)**

*6F.19 of 2003 MUTCD has been relocated to Section 6F.20 of the 2009 MUTCD*

**6F.19     DETOUR Sign (W20-2) (formerly Section 6F.18)**

*6F.20 of 2003 MUTCD has been relocated to Section 6F.21 of the 2009 MUTCD*

**6F.20     ROAD (STREET) CLOSED Sign (W20-3) (formerly Section 6F.19)**

*6F.21 of 2003 MUTCD has been relocated to Section 6F.22 of the 2009 MUTCD*

**6F.21     ONE LANE ROAD Sign (W20-4) (formerly Section 6F.20)**

*6F.22 of 2003 MUTCD has been relocated to Section 6F.23 of the 2009 MUTCD*

**6F.22     Lane(s) Closed Signs (W20-5, W20-5a) (formerly Section 6F.21)**

*6F.23 of 2003 MUTCD has been deleted*

**6F.23**     CENTER LANE CLOSED AHEAD Signs (W9-3) (formerly Section 6F.22)

*6F.29 of 2003 MUTCD has been relocated to Section 6F.31 of the 2009 MUTCD*

**6F.29**     EXIT ONLY Sign (E5-3)

New Section describing suggested usage of the E5-3 sign.

*6F.30 of 2003 MUTCD has been relocated to Section 6F.32 of the 2009 MUTCD*

**6F.30**     NEW TRAFFIC PATTERN AHEAD Sign (W23-2)

New Section describing suggested usage of the W23-2 sign.

*6F.31 of 2003 MUTCD has been relocated to Section 6F.33 of the 2009 MUTCD*

**6F.31**     Flagger Signs (W20-7, W20-7a) (formerly Section 6F.29)

*6F.32 of 2003 MUTCD has been relocated to Section 6F.34 of the 2009 MUTCD*

**6F.32**     Two-Way Traffic Signs (W6-3) (formerly Section 6F.30)

*6F.33 of 2003 MUTCD has been relocated to Section 6F.35 of the 2009 MUTCD*

**6F.33**     Workers Signs (W21-1, W21-1a) (formerly Section 6F.31)

*6F.34 of 2003 MUTCD has been relocated to Section 6F.36 of the 2009 MUTCD*

**6F.34**     FRESH OIL (TAR) Sign (W21-2) (formerly Section 6F.32)

*6F.35 of 2003 MUTCD has been relocated to Section 6F.37 of the 2009 MUTCD*

**6F.35**     ROAD MACHINERY AHEAD Sign (W21-3) (formerly Section 6F.33)

*6F.36 of 2003 MUTCD has been relocated to Section 6F.38 of the 2009 MUTCD*

**6F.36**     Motorized Traffic Signs (W8-6, W11-10) (formerly Section 6F.34)

*6F.37 of 2003 MUTCD has been relocated to Section 6F.39 of the 2009 MUTCD*

**6F.37**     Shoulder Work Signs (W21-5, W21-5a, W21-5b) (formerly Section 6F.35)

*6F.38 of 2003 MUTCD has been relocated to Section 6F.40 of the 2009 MUTCD*

**6F.38**     SURVEY CREW Sign (W21-6) (formerly Section 6F.36)

*6F.39 of 2003 MUTCD has been relocated to Section 6F.41 of the 2009 MUTCD*

**6F.39**     UTILITY WORK Sign (W21-7) (formerly Section 6F.37)

*6F.40 of 2003 MUTCD has been relocated to Section 6F.42 of the 2009 MUTCD*

**6F.40**     Signs for Blasting Areas (formerly Section 6F.38)

*6F.41 of 2003 MUTCD has been relocated to Section 6F.43 of the 2009 MUTCD*

**6F.41**     **BLASTING ZONE AHEAD Sign (W22-1)** *(formerly Section 6F.39)*

*6F.42 of 2003 MUTCD has been relocated to Section 6F.44 of the 2009 MUTCD*

**6F.42**     **TURN OFF 2-WAY RADIO AND CELL PHONE Sign (W22-2)**  
*(formerly Section 6F.40)*

*6F.43 of 2003 MUTCD has been relocated to Section 6F.45 of the 2009 MUTCD*

**6F.43**     **END BLASTING ZONE Sign (W22-3)** *(formerly Section 6F.41)*

*6F.44 of 2003 MUTCD has been relocated to Section 6F.47 of the 2009 MUTCD*

**6F.44**     **Shoulder Signs and Plaque (W8-4, W8-9, W8-17, and W8-17P)** *(formerly Section 6F.42)*

*6F.45 of 2003 MUTCD has been relocated to Section 6F.49 of the 2009 MUTCD*

**6F.45**     **UNEVEN LANES Sign (W8-11)** *(formerly Section 6F.43)*

*6F.46 of 2003 MUTCD has been relocated to Section 6F.50 of the 2009 MUTCD*

**6F.46**     **STEEL PLATE AHEAD Sign (W8-24)**  
New Section suggesting usage of the W8-24 sign.

*6F.47 of 2003 MUTCD has been relocated to Section 6F.51 of the 2009 MUTCD*

**6F.47**     **NO CENTER LINE Sign (W8-12)** *(formerly Section 6F.44)*  
New Support identifying Section 6F.78 as containing information regarding temporary markings.

*6F.48 of 2003 MUTCD has been relocated to Section 6F.52 of the 2009 MUTCD*

**6F.48**     **Reverse Curve signs (W1-4 Series)**  
New Section describing proper usage and design of the W1-4 signs alone and in conjunction with the ALL LANES (W24-1cP) plaque.

*6F.49 of 2003 MUTCD has been relocated to Section 6F.53 of the 2009 MUTCD*

**6F.49**     **Double Reverse Curve Signs (W24-1 Series)** *(formerly Section 6F.45)*  
Option Added (Para 1) recommending the use of the W24-1 series signs if the design speed of the curves is 30 mph or less.

**Standard Revised (Para 2)** to require that the number of lanes illustrated on the sign shall be the same as the number of through lanes available to road users, except as provided in paragraph 3.

**New Option (Para 3)** allowing the use of a W24-1 sign (showing one lane) with a W24-1cP plaque when shifting two or more lanes in a work zone.



**New Option (Para 4)** allowing the use of a rectangular –shaped, double reverse curve or turn sign when shifting three or more lanes in a work zone.

*6F.50 of 2003 MUTCD has been relocated to Section 6F.55 of the 2009 MUTCD*

**6F.50**     **Other Warning Signs** *(formerly Section 6F.46)*

*6F.51 of 2003 MUTCD has been relocated to Section 6F.56 of the 2009 MUTCD*

**6F.51**     **Special Warning Signs** *(formerly Section 6F.47)*

*6F.52 of 2003 MUTCD has been relocated to Section 6F.57 of the 2009 MUTCD*

**6F.52**     **Advisory Speed Plaque (W13-1P)** *(formerly Section 6F.48)*

*6F.53 of 2003 MUTCD has been relocated to Section 6F.59 of the 2009 MUTCD*

**6F.53**     **Supplementary Distance Plaque (W7-3aP)** *(formerly Section 6F.49)*

*6F.54 of 2003 MUTCD has been relocated to Section 6F.58 of the 2009 MUTCD*

**6F.54**     **Motorcycle Plaque (W8-15P)**  
New Section describing proper usage of the W8-15P plaques.

*6F.55 of 2003 MUTCD has been relocated to Section 6F.60 of the 2009 MUTCD*

**6F.55**     **Guide Signs** *(formerly Section 6F.50)*

*6F.56 of 2003 MUTCD has been relocated to Section 6F.61 of the 2009 MUTCD*

**6F.56**     **ROAD WORK NEXT XX MILES Sign (G20-1)** *(formerly Section 6F.51)*

*6F.57 of 2003 MUTCD has been relocated to Section 6F.62 of the 2009 MUTCD*

**6F.57**     **END ROAD WORK Sign (G20-2)** *(formerly Section 6F.52)*

*6F.58 of 2003 MUTCD has been relocated to Section 6F.63 of the 2009 MUTCD*

**6F.58**     **PILOT CAR FOLLO ME Sign (G20-4)** *(formerly Section 6F.54)*

*6F.59 of 2003 MUTCD has been relocated to Section 6F.64 of the 2009 MUTCD*

**6F.59**     **Detour Signs (M4-8, M4-8a, M4-9, M4-9a, M4-9b, M4-9c, and M4-10)** *(formerly Section 6F.53)*

*6F.60 of 2003 MUTCD has been relocated to Section 6F.65 of the 2009 MUTCD*

**6F.60**     **Portable Changeable Message Signs** *(formerly Section 6F.55)*  
Support Revised (Para 1) – Text defining recommended usage of portable changeable message signs (PCMS) are, and specifying information on how PCMS’ differ from General Service Signs in Chapter 2L *was changed from Standard to Support.*

**Support Added (Para 4)** specifying uses of PCMS’.

**Standard Revised (Para 7)** – Text specifying the design criteria and proper usage of PCMS’ *was changed from Guidance to Standard.*

**New Support (Para 8)** identifying Section 2L.02 as containing information regarding overly simplistic messages applicable to PCMS’.

**Standard Revised (Para 9)** – Text requiring colors, listed in Table 2A-5, used for legends on PCMS *was changed from Guidance to Standard.*

**New Support (Para 10)** identifying Section 2L.04 as containing information on lumination that is applicable to PCMS’.

**New Support (Para 12)** identifying Section 2B.13 as containing information on the design of PCMS’ capable of displaying changing speed limits based on operational conditions, or displaying the speed of an approaching vehicle.

**Guidance Revised (Para 13)** – Text recommending guide signs be limited to no more than three lines of eight characters per line, or should consist of a full matrix display *was changed from Standard to Guidance.*

**Guidance Revised (Para 14)** to recommend a minimum letter height of 18 inches on PCMS’, except as provided in paragraph 15.

**Option Revised (Para 15)** – Text allowing a minimum letter height of 10 inches on PCMS’ mounted on service patrol trucks or other incident response vehicles. The letter height can be shorter than 10 inches if PCMS’ are mounted on low speed facilities where the message is readable from a maximum distance of 650 feet *was changed from Guidance to Option.*

**Guidance Revised (Para 17)** – Text recommending criteria for each phase on a PCMS *was changed from Standard to Guidance.*

**New Support (Para 18)** regarding road users having difficulty reading messages displayed in more than two phases on a typical three-line PCMS.

**Standard Revised (Para 19)** prohibiting usage of certain message display techniques on PCMS’.

**Guidance Added (Para 20)** to recommend a two-second minimum display time for each phase of a two-phase PCMS, and a maximum display time of eight seconds for the two phases.

**Guidance Revised (Para 21)** recommending criteria for creating messages in a PCMS.

**Standard Added (Para 22)** specifying usage of the criteria in Section 1A.15 to abbreviate word messages listed in Tables 1A-1 or 1A-2.

**Guidance Revised (Para 30)** recommending proper placement of PCMS’.

**Guidance Added (Para 31)** recommending that a PCMS used in TTC should display only TTC messages.

**Guidance Revised (Para 32)** to describe criteria for the storage or delineation of a PCMS not displaying TTC messages.

*6F.61 of 2003 MUTCD has been relocated to Section 6F.66 of the 2009 MUTCD*

**6F.61**     **Arrow Boards** *(formerly Section 6F.56)*  
**Guidance Revised (Para 9)** specifying the PCMS mounting height criteria.

**Standard Added (Para 25)** to specify the proper usage of arrow boards.

*6F.62 of 2003 MUTCD has been relocated to Section 6F.67 of the 2009 MUTCD*

**6F.62**     **High-Level Warning Devices (Flag Trees)** *(formerly Section 6F.57)*

*6F.63 of 2003 MUTCD has been relocated to Section 6F.68 of the 2009 MUTCD*

**6F.63**     **Channelizing Devices** *(formerly Section 6F.58)*  
**Standard Added (Para 1)** requiring all channelizing devices to be crashworthy.

**Standard Revised (Para 5)** specifying channelizing devices instead of barricades, the bottom of the channelization device bottom surface shall be no higher than two (2) inches above the ground, and the top of the top channelization device surface shall be no lower than 32 inches above the ground.

**Guidance Added (Para 7)** recommending criteria for connecting multiple channelization devices for pedestrian walkways.

**Guidance Added (Para 9)** to clarify extending channelization devices a distance of 2 times the speed limit beyond the downstream end of the transition area.

**Standard Added (Para 11)** to require steady burn warning lights on channelization devices, except for the sequential flashing warning lights discussed in Paragraphs 12 and 13.

**New Option (Para 12)** allowing usage of sequential flashing warning lights on channelization devices that form merging tapers.

**New Standard (Para 13)** specifying the proper sequence of the successive flashing of the sequential warning lights, and specifying the flash rate.

*6F.64 of 2003 MUTCD has been relocated to Section 6F.69 of the 2009 MUTCD*

**6F.64**     **Cones** *(formerly Section 6F.59)*

*6F.65 of 2003 MUTCD has been relocated to Section 6F.70 of the 2009 MUTCD*

**6F.65**     **Tubular Markers** *(formerly Section 6F.60)*  
**Standard Revised (Para 3)** specifying proper retroreflectorization for tubular markers.

*6F.66 of 2003 MUTCD has been relocated to Section 6F.71 of the 2009 MUTCD*

**6F.66**     **Vertical Panels** *(formerly Section 6F.61)*

**Standard Revised (Para 1-2)** clarifying that conditional usage of vertical panels shall be based on dimensions of retroreflective striped material.

*6F.67 of 2003 MUTCD has been relocated to Section 6F.73 of the 2009 MUTCD*

**6F.67**     **Drums** *(formerly Section 6F.62)*

*6F.68 of 2003 MUTCD has been relocated to Section 6F.74 of the 2009 MUTCD*

**6F.68**     **Type 1, 2, or 3 Barricades** *(formerly Section 6F.63)*

*6F.69 of 2003 MUTCD has been relocated to Section 6F.75 of the 2009 MUTCD*

**6F.69**     **Direction Indicator Barricades** *(formerly Section 6F.64)*

*6F.70 of 2003 MUTCD has been relocated to Section 6F.76 of the 2009 MUTCD*

**6F.70**     **Temporary Traffic Barriers as Channelizing Devices** *(formerly Section 6F.65)*  
New **Standard (Para 6)** requiring delineation of temporary traffic barrier in a merging taper in low-speed urban areas or for a constricted/restricted temporary traffic control zone.

*6F.71 of 2003 MUTCD has been relocated to Section 6F.77 of the 2009 MUTCD*

**6F.71**     **Longitudinal Channelizing Devices** *(formerly Section 6F.66)*  
Support **Revised (Para 1)** defining longitudinal channelizing devices.

**Standard Revised (Para 2)** – Text regarding usage of longitudinal channelizing devices as a Type 1, 2 or 3 barricades *was changed from Guidance to Standard.*

**New Guidance (Para 3)** recommending supplementing longitudinal channelizing devices at night with retroreflective material or delineation.

**Standard Revised (Para 7)** – Text regarding usage for longitudinal channelizing devices for pedestrian traffic control *was changed from Guidance to Standard.*

*6F.72 of 2003 MUTCD has been relocated to Section 6F.78 of the 2009 MUTCD*

**6F.72**     **Temporary Lane Separators**  
New **Section** outlining the purpose, requirements, design, and usage of temporary lane separators and supplemental devices used with them.

*6F.73 of 2003 MUTCD has been relocated to Section 6F.79 of the 2009 MUTCD*

**6F.73**     **Other Channelizing Devices** *(formerly Section 6F.67)*

*6F.74 of 2003 MUTCD has been relocated to Section 6F.80 of the 2009 MUTCD*

**6F.74**     **Detectable Edging for Pedestrians** *(formerly Section 6F.68)*

*6F.75 of 2003 MUTCD has been relocated to Section 6F.81 of the 2009 MUTCD*

**6F.75**     **Temporary Raised Islands** *(formerly Section 6F.69)*

*6F.76 of 2003 MUTCD has been relocated to Section 6F.82 of the 2009 MUTCD*

**6F.76**     **Opposing Traffic Lane Divider and Sign (W6-4)** *(formerly Section 6F.70)*

*6F.77 of 2003 MUTCD has been deleted.*

**6F.77**     **Pavement Markings** *(formerly Section 6F.71)*

**Support Revised (Para 1)** – Text indicating the purpose of pavement markings on temporary traffic control zones *was changed from Guidance to Support.*

**Guidance Added (Para 2)** recommending that construction is planned and staged to mitigate traffic disruptions through the temporary traffic control zone during the placement and removal of the pavement markings.

*6F.78 of 2003 MUTCD has been relocated to Section 6F.83 of the 2009 MUTCD*

**6F.78**     **Temporary Markings** *(formerly Section 6F.72)*

**Support Revised (Para 1)** defining temporary markings.

**Guidance Revised (Para 2)** recommending that temporary markings not remain on new pavement for more than 14 days, unless justified by engineering judgment.

**Standard Added (Para 4)** *(NOTE: The text from this paragraph was relocated to this Section from Section 6F.71 of the 2003 MUTCD.)*

**Guidance Revised (Para 6)** – Text recommending pavement markings and devices be reviewed during day- and night-time periods *was changed from Standard to Guidance.*

**Option Revised (Para 8)** to allow usage of the listed signage to identify no-passing zones on a two- or three-lane road for temporary situations of 14 days or less, and DO NOT PASS, PASS WITH CARE, and NO PASSING ZONE signs instead of pavement markings on roads with low volumes for longer periods in accordance with the State’s or highway agency’s policy.

**Guidance Added (Para 10)** recommending that placement of the NO CENTER LINE sign be in accordance with Section 6F.47.

**6F.79**     **Temporary Raised Pavement Markers** *(formerly Section 6F.73)*

**New Option (Para 1)** to allow using listed raised pavement markers in lieu of other types of markers in temporary traffic control zones.

**Standard Added (Para 2)** specifying color and pattern criteria for raised pavement markers.

**Standard Revised (Para 4)** specifying the criteria for using temporary raised pavement markers in lieu of solid line segments.

**New Option (Para 5)** regarding the usage of temporary raised pavement markings in lieu of broken line segments.

**Guidance Added (Para 6)** recommending that temporary raised pavement markers used at the end of broken line segments of two-to-five foot lengths should not be placed for more than 14 days, unless justified by engineering judgment.

*6F.80 of 2003 MUTCD has been relocated to Section 6F.84 of the 2009 MUTCD*

**6F.80 Delineators (formerly Section 6F.74)**

*6F.81 of 2003 MUTCD has been relocated to Section 6F.85 of the 2009 MUTCD*

**6F.81 Lighting Devices (formerly Section 6F.75)**

*6F.82 of 2003 MUTCD has been relocated to Section 6F.86 of the 2009 MUTCD*

**6F.82 Floodlights (formerly Section 6F.76)**

**6F.83 Warning Lights (formerly Section 6F.78)**

**Standard Added (Para 7)** specifying exceptions to usage of flashing warning lights.

**New Option (Para 8)** allowing usage of a series of sequential flashing warning lights on channelizing devices that form a merging taper.

**New Standard (Para 9)** specifying proper usage of sequential flashing warning lights on merging tapers.

*6F.84 of 2003 MUTCD has been relocated to Section 6F.87 of the 2009 MUTCD*

**6F.84 Temporary Traffic Control Signals (formerly Section 6F.80)**

**Standard Added (Para 3)** requiring that temporary traffic control signals used on a one-lane, two-way roadway segment comply with the provisions of Section 4H.02.

**Guidance Added (Para 12)** recommending consideration of interconnected operation for temporary traffic control signals located within ½ mile of an existing traffic control signal. *(paragraph relocated)*

**New Standard (Para 13)** specifying that temporary traffic control signals not be located within 200 feet of a grade crossing unless the temporary traffic control signal is provided with preemption in accordance with Section 4D.27, or unless a uniformed officer or flagger is provided at the crossing to prevent vehicles from stopping within the crossing.

*6F.85 of 2003 MUTCD has been relocated to Section 6F.88 of the 2009 MUTCD*

**6F.85 Temporary Traffic Barriers (formerly Section 6F.81)**

**Support Added (Para 1)** to include shifting portable or moveable barriers as temporary traffic barriers.

**Standard Added (Para 6)** requiring temporary traffic barriers, plus their end treatments, to be crashworthy.

**New Support (Para 8-10)** outlining the capabilities and features of temporary traffic barriers, and identifying Figures 6H-45 and 6H-34 as displaying examples of moveable and

temporary traffic barriers, respectively. The capabilities of the transfer vehicle used with moveable barrier are also described here.

**6F.86**     **Crash Cushions** (formerly Section 6F.82)

**6F.87**     **Rumble Strips** (formerly Section 6F.84)

**6F.88**     **Screens** (formerly Section 6F.85)

**Table**

**6F-1**     **Temporary Traffic Control Zone Sign and Plaque Sizes**

**Deleted Signs:** W4-7, W8-9a, and W9-3a

**New Signs:** R1-1 (on Stop/Slow Paddle), R1-7, R1-8, R2-10, R2-11, R2-12, R3-27, R4-7c, R11-3b, W8-14, W8-15, W8-17, W8-18, W8-23, W8-24, W8-25, W20-7a, W20-8, W21-4, W21-8, and W23-2

**New Plaques:** R2-6aP, R2-6bP, W4-5P, W7-3aP, W8-15P, W8-17P, W24-1cP, and G20-5aP

The phrase, “or Plaque”, has been added to the name of the first column, and all plaques in this column have been labeled as being a plaque.

The name of the second column has been changed from “MUTCD code” to “Sign Designation”.

The separate Expressway and Freeway columns have been consolidated into the fifth column. The Oversized column has been deleted.

All of the sizes shown in the “Freeway or Expressway” and in the “Minimum” column have been added.

The W8-3a sign designation has been changed to W8-3.

The W20-7a sign designation has been changed to W20-7.

The descriptive word(s) in parenthesis has been deleted in the first column from the sign designations R6-1, R6-2, W3-1, W3-2, W3-3, W4-2, W6-1, W6-2, W6-4, W8-5, W11-10, W20-7, W21-1a, M4-8, M4-8b, M4-9, M4-9a, M4-9b, M4-9c, and M4-10.

A “P” has been added to the plaque designation R1-2aP, R2-6P, W13-1P, W13-4P, and W16-2P.

“Turn Prohibition” signs changed to “Movement Prohibition” signs.

The names of the R3-8, W3-5, W3-5a, W8-12, W9-3, W10-1, W12-1, and W21-1 signs have been revised in the first column.

The Conventional Road sign size has increased for R6-2, R9-11, W1-1, W1-2, W1-3, W1-4, W6-3, W7-1, W8-1 through W8-9, W11-10, W12-1, W21-2, W21-5, W21-5a, and W21-6 signs.

The Conventional Road sign size has decreased for R12-5, W1-8, and W22-1 signs and R2-6P plaque.

The Conventional Road sign size has been revised for the R3-8 sign and the R1-2aP plaque.

The alternative of using 18" x 18" size for the W13-1P plaque has been deleted from the "Conventional Road" column, and is shown in the "Minimum" column.

Note 3 has been deleted, and the asterisks and asterisk note have been added.

**Figure**  
**6F-1**

**Height and Lateral Location of Signs-Typical Installations**

"Rural District" title was changed to "Rural Area" in two places.

In the title of Drawing B, the word, "plate", was replaced with "plaque".

"Urban District" title was changed to "Business, Commercial, or Residential Area" in two places.

In Drawing D, the curb has been deleted, and the lateral offset has been revised from "2 ft" to "6 to 12 ft". In addition, the parenthetical phrase "without curb" has been added to the title of Drawing D.

**6F-3**

**Regulatory Signs and Plaques in Temporary Traffic Control Zones**

**New Signs:** R1-7, R1-8, R2-10, R2-11, R2-12, R3-27, and R4-7c

**New Plaques:** G20-5aP, R2-6aP, and R2-6bP

The phrase "and Plaques" has been added to the title.

The designs of the R1-2aP and R2-6P plaques, and the R9-11 and R12-5 signs have been revised.

A "P" has been added to the sign codes of the R1-2aP and R2-6P plaques.

The R8-3a sign code has been changed to R8-3.

The BRIDGE OUT sign has been assigned the code R11-3b.

**6F-4**

**Warning Signs and Plaques in Temporary Traffic Control Zones**

**Deleted Signs:** W4-7, W8-9a, and W9-3a

**New Signs:** W4-5, W4-6, W8-14, W8-15, W8-17, W8-18, W8-23, W8-24, W8-25, W21-4, W21-8, and W23-2

**New Plaques:** W4-5P, W7-3aP, W8-15P, W8-17P, and W24-1cP

The phrase "and Plaques" has been added to the title.

The thin black line along the outside edges of the STOP and YIELD sign symbols on the W3-1 and W3-2 signs, respectively, has been deleted.



A “P” has been added to the designations of W13-1P, W13-4P, and W16-2P plaques.

The sign code of the W20-7a sign has been changed to W20-7.

The sign code of the W21-1a sign has been changed to W21-1.

The asterisks and asterisk notes at the bottom of Sheet 3 have been added.

The designs of the W8-5, W8-12, W20-5, and W20-5a signs have been revised.

**6F-6**     **Advanced Warning Arrow Board Display Specifications**

The word “Board” has been added to the title.

The word “panel” has been replaced by “arrow board”.

The term “Move/Merge” has been changed to “Merge” in four (4) places.

The “Alternating Diamond Caution” mode has been added, and the “Caution” mode is now called the “Flashing Caution” mode in two (2) places.

**6F-7**     **Channelizing Devices**

The white stripe widths and the orange stripe widths on the vertical panel detail have changed from “4 inches” to “4 or 6 inches”.

“36 inches MAX.” has been added to the shorter striped cone

The Type I, II, and III barricades are now called Type 1, 2, and 3.

The “36-inches MIN.” dimension to the top of the direction indicator barricade is now labeled.

The notes at the bottom of each sheet regarding the channelization of pedestrians have been deleted.

## Chapter 6G

### **6G.01**    **Typical Applications**

**Support Added (Para 3)** indicating that temporary traffic control plans for special events will likely be created from a combination of typical application treatments.

**Guidance Added (Para 4)** recommending the development of temporary traffic control plans for special events by the agency or agencies that have jurisdiction over the affected roadways.

### **6G.02**    **Work Duration**

**New Option (Para 16)** allowing the use and periodic repositioning of flags and/or channelizing devices in mobile work zone areas.

### **6G.04**    **Modifications To Fulfill Special Needs**

**Guidance Added (Para 3)** regarding additional devices and practices associated with pedestrians and bicyclists (Items F and G).

### **6G.11**    **Work Within the Traveled Way of an Urban Street**

**Standard Revised (Para 5)** to require pedestrian and vehicular access to affected or relocated transit stops.

### **6G.12**    **Work within the Traveled Way of a Multi-Lane, Non-Access Controlled Highway**

**New Option (Para 13)** allowing the conditional usage of a single continuous taper.

### **6G.13**    **Work Within the Traveled Way at an Intersection**

**Guidance Revised (Para 4)** suggesting temporary corrective actions be taken with regard to signal phasing and/or timing when necessary.

### **6G.15**    **Two-Lane, Two-Way Traffic on One Roadway of a Normally Divided Highway**

**Standard Added (Para 2)** to include temporary raised islands as allowable traffic separator devices in a temporary traffic control zone.

### **6G.18**    **Work in the Vicinity of a Grade Crossing** *(formerly Section 6G.19)*

**Support Added (Para 3)** identifying Section 8A.08 as containing additional information regarding temporary traffic control zones in the vicinity of grade crossings.

**Guidance Added (Para 4)** to include light rail transit agency as a potential contact to coordinate with before construction begins.

*6G.19 of 2003 MUTCD has been relocated to Section 6G.18 of the 2009 MUTCD*

### **6G.19**    **Temporary Traffic Control During Nighttime Hours** *(formerly Section 6G.20)*

*6G.20 of 2003 MUTCD has been relocated to Section 6G.19 of the 2009 MUTCD*

## Chapter 6H

### 6H.01 Typical Applications

**Support Added (Para 3)** indicating that information in the typical applications is generally regarded as guidance, unless clearly classified using headings as being Standard, Guidance, Option, or Support.

### Notes

#### 6H-4 Typical Application 4 - Short Duration or Mobile Operation on a Shoulder

**Option Added (Para 4)** allowing the omission of stationary warning signs for mobile operations or short duration if there is high intensity rotating, flashing, oscillating, or strobe lights on a work vehicle.

**New Standard (Para 8)** requiring vehicle-mounted signs placed in an unobstructed location during work operation periods. Also requires that sign legends on vehicle-mounted signs be covered or turned from view when work is not in progress.

#### 6H-6 Typical Application 6 – Shoulder Work with Minor Encroachment

**Standard Added (Para 11)** requiring vehicle-mounted signs placed in an unobstructed location during work operation periods. Also requires that sign legends on vehicle-mounted signs be covered or turned from view when work is not in progress.

**Standard Added (Para 12)** requiring high intensity rotating, flashing, oscillating, or strobe lights on shadow and work vehicles.

#### 6H-7 Typical Application 7 – Road Closure with a Diversion

**Standard Revised (Para 3)** to require the removal or obliteration of pavement markings no longer applicable to the traffic pattern of the roadway before any new traffic patterns are open to traffic.

#### 6H-9 Typical Application 9 – Overlapping Routes with a Detour

**Guidance Revised (Para 3)** to include displaying YIELD signs when needed along a temporary route.

#### 6H-14 Typical Application 14 – Haul Road Crossing

**Standard Revised (Para 7)** to clarify that the unused haul road shall be closed with Type III Barricades.

#### 6H-16 Typical Application 16 – Surveying Along the Center Line of a Road with Low Traffic Volumes

**Guidance Added (Para 1)** recommending that the minimum lane widths on both sides of the center work space should be 10 feet, measured from the near edge of the channelizing devices to the edge of the pavement or the outside edge of the paved shoulder.

#### 6H-23 Typical Application 23 – Left Lane Closure on the Far Side of an Intersection

**Support Revised (Para 4)** indicating the function of the left-turn bay when closing the left lane and reopening it as a turn bay.

#### 6H-25 Typical Application 25 – Multiple Lane Closures at an Intersection

**Support Revised (Para 3)** language regarding the closure on the near side of the intersection any lane that is not carried through the intersection *was changed from Option to Support.*

- 6H-29**     **Typical Application 29 – Crosswalk Closures and Pedestrian Detours**  
**Option Added (Para 8)** to include Type D 360-degree Steady-Burn warning lights for channelizing devices to separate work zone from traffic.
- 6H-31**     **Typical Application 31 – Lane Closure on a Street with Uneven Directional Volumes**  
**New Standard (Para 8)** requiring the number of reverse and double reverse curve lanes shown on the advanced warning signs to equal the number of lanes shown on the respective reverse and double reverse curves, and that the direction of the reverse curves be appropriately illustrated.
- Option Added (Para 10)** allowing the use of ALL LANES (W24-1cP) plaques with W1-4 or W1-3 signs when two or more lanes are shifted.
- Option Added (Para 11)** allowing the use of rectangular Reverse Curve (or Turn) signs when more than three lanes are shifted.
- 6H-32**     **Typical Application 32 – Half Road Closure on a Multi-Lane, High-Speed Highway**  
**Guidance Revised (Para 4)** clarifying the suggested use of reverse and double reverse curve signs.
- 6H-33**     **Typical Application 33 – Stationary Lane Closure on a Divided Highway**  
**New Standard (Para 6)** requiring using an arrow board for each freeway lane closed.
- 6H-35**     **Typical Application 35 – Mobile Operation on a Multi-Lane Road**  
**Standard Added (Para 2)** requiring vehicle-mounted signs mounted in an unobstructed location during work operation periods. Also requires that sign legends on vehicle-mounted signs be covered or turned from view when work is not in progress.
- Standard Added (Para 3)** requiring high intensity rotating, flashing, oscillating, or strobe lights on shadow and work vehicles.
- Standard Added (Para 4)** requiring using an arrow board for each freeway lane closed.
- 6H-36**     **Typical Application 36 – Lane Shift on a Freeway**  
**Support Revised (Para 2)** language regarding the use of the general work-zone warning sign for certain lane shifts *was changed from Guidance to Support*.
- Standard Added (Para 5)** requiring placing channelizing devices and pavement markings initially along the shifting taper.
- Guidance Revised (Para 6)** language regarding the use of a warning sign shall to show the changed alignment *was changed from Standard to Guidance*.
- New Standard (Para 7)** requiring the number and direction of reverse curve lanes shown on the advance warning signs to equal the number of lanes shown on the respective reverse curves, and that the direction of the reverse curves be appropriately illustrated.
- New Option (Para 8)** allowing the use of ALL LANES (W24-1cP) plaques with W1-4 or W1-3 signs when two or more lanes are shifted.
- New Option (Para 9)** allowing rectangular Reverse Curve (or Turn) signs when more than three lanes are shifted.

**Guidance Revised (Para 15)** language regarding directing trucks to use the travel lanes if the shoulder cannot adequately accommodate trucks ***was changed from Option to Guidance.***

**6H-37**     **Typical Application 37 – Double Lane Closure on a Freeway**

**New Standard (Para 1)** requiring using an arrow board for each freeway lane closed.

**Guidance Revised (Para 6)** language regarding directing trucks to use the travel lanes if the shoulder cannot adequately accommodate trucks ***was changed from Option to Guidance.***

**6H-38**     **Typical Application 38 – Interior Lane Closure on a Freeway**

**New Standard (Para 1)** requiring using an arrow board for each freeway lane closed.

**New Standard (Para 2)** requiring temporary barriers to comply with Section 6F.85 provisions and requirements.

**New Standard (Para 3)** requiring placing channelizing devices and pavement markings initially along the shifting taper.

**New Standard (Para 4)** requiring removing conflicting pavement markings and placing temporary markings before temporary traffic patterns are open for long-term stationary work zones.

**Guidance Added (Para 7)** suggesting extending the 2L distance between the end of the merging taper and beginning of the shift taper where two arrow boards create confusion.

**Guidance Revised (Para 14)** language regarding directing trucks to use the travel lanes if the shoulder cannot adequately accommodate trucks ***was changed from Option to Guidance.***

**6H-39**     **Typical Application 39 – Median Crossover on a Freeway**

**Standard Added (Para 2)** requiring using an arrow board for each freeway lane closed.

**6H-40**     **Typical Application 40 – Median Crossover for an Entrance Ramp**

**Guidance Revised (Para 3)** clarifying suggested placement criteria for YIELD or STOP signs.

**6H-41**     **Typical Application 41 – Median Crossover for an Exit Ramp**

**Guidance Revised (Para 3)** to recommend placement of channelizing devices so that they physically close the ramp.

**6H-42**     **Typical Application 42 – Work in the Vicinity of an Exit Ramp**

**Option Added (Para 5)** allowing temporary EXIT signs in the temporary gore to be black on orange or white on green.

**New Standard (Para 7)** requiring using an arrow board for each freeway lane closed.

**6H-44**     **Typical Application 44 – Work in the Vicinity of an Entrance Ramp**

**Guidance Revised (Para 3)** clarifying suggested placement criteria for YIELD or STOP signs.

**Option Added (Para 7)** allowing use of a Stop Beacon above a STOP sign.

New Standard (Para 9) requiring using an arrow board for each freeway lane closed.

**6H-45**    **Typical Application 45 – Temporary Reversible Lane Using Movable Barriers**  
**Guidance Revised (Para 2)** clarifying suggested placement criteria for transfer vehicles.

New Option (Para 4) allowing suggested criteria for the procedure during peak traffic periods.

New Option (Para 5) allowing usage of longitudinal buffer space to separate opposing vehicular traffic.

New Option (Para 6) allowing a truck-mounted attenuator on a work or shadow vehicle.

New Standard (Para 7) requiring using an arrow board for each freeway lane closed.

**Table**

**6H-1**    **Index to Typical Applications**

The typical application descriptions of TA-28 and TA-33 have been revised.

“Highway-Rail” has been deleted from the last heading and the title of TA-46.

**6H-2**    **Meaning of Symbols on Typical Application Diagrams**

Symbols have been added for a longitudinal channelizing device and for a shadow vehicle.

**6H-3**    **Meaning of Letter Codes on Typical Application Diagrams**

The text in parentheses at the end of the double asterisk note has been revised.

**6H-4**    **Formulas for Determining Taper Length**

“Limit” has been deleted from the title of the first column.

**Figure**

**6H-5**    **Shoulder Closure on a Freeway (TA-5)**

The crash cushion cross reference to Section 6F.82 has been deleted.

**6H-7**    **Road Closure with a Diversion (TA-7)**

The background color of the diagonal striped signs associated with the crash cushions changed from yellow to orange.

The ROAD CLOSED regulatory sign has been deleted.

**6H-8**    **Road Closure with an Off-Site Detour (TA-8)**

A break line has been added to the top leg of the intersection.

**6H-9**    **Overlapping Routes with a Detour (TA-9)**

North Arrow has been added.

An END DETOUR auxiliary sign has been added to the WEST Route 4 confirming route sign assembly at the top right-hand corner of the figure.

The TO auxiliary signs have been added above the two DETOUR WEST Route 4 signs for southbound Route 17 as it enters from the right-hand side of the drawing, and the positions of the EAST and WEST Route 4 signs have been reversed in both assemblies.

The design of the M6-3 (up arrow) auxiliary sign has been fixed in six places.

The note on the left-hand side of the figure has been added.

**6H-10**     **Lane Closure on a Two-Lane Road Using Flaggers (TA-10)**

The “100 ft MAX” upstream taper label prior to the curve has been changed to a taper of “50 to 100 ft.”

The note regarding the buffer space has been deleted, as it is a duplicate of Note 4 on the notes page for this figure.

**6H-11**     **Lane Closure on a Two-Lane Road with Low Traffic Volumes (TA-11)**

The “100 ft MAX” taper labels have been changed to “50 to 100 ft.”

**6H-12**     **Lane Closure on a Two-Lane Road Using Traffic Control Signals (TA-12)**

The “100 ft MAX” taper labels have been changed to “50 to 100 ft.”

The maximum distances of the signal faces from the stop lines have changed from 150 to 180 feet.

The lengths of the temporary stop bars have been reduced so that they stop short of the center lines.

**6H-14**     **Haul Road Crossing (TA-14)**

The two drawings are labeled “A” and “B”.

The DO NOT PASS sign has been deleted from Drawing A.

A NO PASSING ZONE sign has been added in Drawing A.

In Drawing A, the maximum distance of the signal faces from the stop bars was changed from 150 to 180 feet, and the dimension line now extends all the way to the signal faces.

An optional END ROAD WORK sign has been added in Drawing B.

**6H-15**     **Work in the Center of a Road with Low Traffic Volumes (TA-15)**

The 10-foot dimensions are shown to the edges of the pavement instead of to the outside edges of the shoulders.

**6H-16**     **Surveying Along the Center Line of a Road with Low Traffic Volumes (TA-16)**

The 10-foot minimum distances between cones and outside edges of paved shoulders have been added.

The design of the SURVEY CREW signs has been revised.

**6H-17**     **Mobile Operations on a Two-Lane Road (TA-17)**

The symbol for the shadow vehicle has been revised.

**6H-18**     **Lane Closure on a Minor Street (TA-18)**

The “100 ft MAX” taper label has been changed to “50 to 100 ft.”

**6H-19**     **Detour for One Travel Direction (TA-19)**

The arrow direction on the DETOUR sign at the intersection at the bottom left-hand corner of the figure has been reversed.

The MAIN STREET legend has been changed to upper-case and lower-case letters in five places.

**6H-20**     **Detour for a Closed Street (TA-20)**

The MAIN STREET legend has been changed to upper-case and lower-case letters in six places.

Two No Left Turn symbol signs and two No Right Turn symbol signs have been added.

The two signs near the left-hand side of the figure with the legends “Main St South DETOUR” and “Main St North DETOUR” have been added.

**6H-23**     **Left-Hand Lane Closure on the Far side of an Intersection (TA-23)**

The design of the LEFT LANE CLOSED AHEAD sign has been revised.

**6H-24**     **Half Road Closure on the Far Side of an Intersection (TA-24)**

The optional Keep Right symbol sign (R4-7) has been changed to the R4-7c symbol sign.

The design of the LEFT TURN CLOSED AHEAD sign has been revised.

The THRU TRAFFIC MERGE LEFT sign has been replaced by a LANE ENDS MERGE LEFT sign.

The label for the pavement markings within the intersection has been revised from “Optional pavement markings” to “Optional temporary markings”.

**6H-25**     **Multiple Lane Closures at an Intersection (TA-25)**

The left-turn lane on the bottom leg of the intersection has been lengthened.

The THRU TRAFFIC MERGE RIGHT sign has been replaced by a LANE ENDS MERGE RIGHT sign.

The LEFT LANE MUST TURN LEFT sign in the center of the roadway is located at the same longitudinal point as the LEFT LANE MUST TURN LEFT sign on the right-hand side of the roadway.

**6H-27**     **Closure at the Side of an Intersection (TA-27)**

The “100 ft MAX” taper labels have been changed to “50 to 100 ft” in three places.

ONE LANE ROAD AHEAD signs have been added in four places.

**6H-28**     **Sidewalk Detour or Diversion (TA-28)**

The barricades in the roadway in the right-hand drawing have been replaced by longitudinal channelizing devices.

**6H-29**     **Crosswalk Closures and Pedestrian Detours (TA-29)**

The cones blocking the sidewalks at the top intersection have been replaced by barricades.



- 6H-32**     **Half Road Closure on a Multi-Lane High-Speed Highway (TA-32)**  
The designs of the LEFT LANE CLOSED XX FEET signs and the RIGHT LANE CLOSED XX FEET have been revised.
- 6H-33**     **Stationary Lane Closure on a Divided Highway (TA-33)**  
The two drawings are labeled “A” and “B”.  
  
The designs of the RIGHT LANE CLOSED XX MILE signs have been revised.  
  
The symbol for the work vehicle has been revised.
- 6H-34**     **Lane Closure with a Temporary Traffic Barrier (TA-34)**  
The crash cushion cross reference to Section 6F.82 has been deleted.  
  
The design of the RIGHT LANE CLOSED AHEAD sign has been revised.  
  
The shoulder taper is no longer labeled as “optional.”
- 6H-35**     **Mobile Operation on a Multi-Lane Road (TA-35)**  
The design of the LEFT LANE CLOSED AHEAD sign has been revised.
- 6H-36**     **Lane Shift on a Freeway (TA-36)**  
The three signs showing a single reverse curve arrow (W1-4) have been deleted.  
  
The STAY IN LANE signs have been deleted.  
  
References to Notes 7 and 8 have replaced the word “optional” in three places.  
  
The crash cushion cross reference to Section 6F.82 has been deleted.  
  
The lighting on the left-hand side of the roadway is now labeled as “optional.”
- 6H-37**     **Double Lane Closure on a Freeway (TA-37)**  
The design of 2 RIGHT LANES CLOSED ½ MILE sign has been revised.  
  
The symbol for the work vehicle has been revised.
- 6H-38**     **Interior Lane Closure on a Freeway (TA-38)**  
The RIGHT LANE CLOSED ½ MILE signs have been changed to LEFT LANE CLOSED XX MILE signs, and the design of these signs has been revised.  
  
The “100 ft MAX.” dimension has been changed to “100 ft MIN.”  
  
The shoulder taper is no longer labeled as “optional.”  
  
The symbol sign for Center Lane Closed Ahead has been replaced by a word message sign.
- 6H-39**     **Median Crossover on a Freeway (TA-39)**  
The designs of the RIGHT LANE CLOSED XX FT signs and the RIGHT LANE CLOSED XX MILE signs have been revised.
- 6H-40**     **Median Crossover for an Entrance Ramp (TA-40)**

Pavement markings have been added for the exit ramp on the left-hand side of the drawing.

**6H-41 Median Crossover for an Exit Ramp (TA-41)**

Pavement markings have been added for the entrance ramp on the left-hand side of the drawing.

**6H-42 Work in the vicinity of an Exit Ramp (TA-42)**

The designs of the RIGHT LANE CLOSED XX MILE signs have been revised.

**6H-43 Partial Exit Ramp Closure (TA-43)**

The work space has been shifted such that it is partially on the shoulder.

**6H-44 Work in the Vicinity of an Entrance Ramp (TA-44)**

The two drawings are labeled “A” and “B” and have titles.

The superfluous Merging Traffic sign, located immediately above the arrow panel, has been deleted in Drawing A. A missing ROAD WORK AHEAD sign has been added (below the arrow panel) in Drawing A.

The designs of the RIGHT LANE CLOSED XX MILE signs have been revised.

**6H-45 Temporary Reversible Lane Using Movable Barriers (TA-45)**

The concepts associated with the area where the detoured northbound lanes return to their normal alignment, including the pavement markings and barrier wall placement, have been revised in both drawings.

The portion of the diagonal line that crosses the center southbound lane in the area where the detoured northbound lanes first intrude into the southbound lanes has been deleted in the left-hand drawing.

The sign showing a two-lane reverse curve to the right on the right-hand drawing has been changed to a sign showing a one-lane reverse curve to the right.

Movable attenuators have been added in both drawings in the areas where the transfer vehicle is parked during Phase B.

The designs of the 2 LEFT LANES CLOSED AHEAD signs, and the design of the LEFT LANE CLOSED AHEAD sign have been revised.

## Chapter 6I

### 6I.01 General

**Support Added (Para 1)** specifying information about the National Incident Management System (NIMS).

**Support Added (Para 5)** specifying the primary purposes of temporary traffic control at a traffic incident management area.

**Guidance Revised (Para 7)** to recommend who on-scene responder organizations should train.

**Guidance Added (Para 8)** specifying recommended positioning of emergency vehicles in traffic incident management areas.

### 6I.02 Major Traffic Incidents

**Guidance Added (Para 7)** recommending temporary traffic control to include upstream warning devices to encourage early diversion to an appropriate alternate route.

**Guidance Revised (Para 11)** recommending usage of light sticks or flares to initiate traffic control at incident areas.

**New Option (Para 12)** allowing light sticks or flares to remain in place if they are being used to supplement the channelizing devices.

**New Guidance (Para 13)** recommending when to remove light sticks, flares and channelizing devices.

### 6I.03 Intermediate Traffic Incidents

**Guidance Added (Para 3)** recommending temporary traffic control to include upstream warning devices to encourage early diversion to an appropriate alternate route.

**Guidance Revised (Para 7)** recommending usage of light sticks or flares to initiate traffic control at incident areas.

**New Option (Para 8)** allowing light sticks or flares to remain in place if they are being used to supplement the channelizing devices.

**New Guidance (Para 9)** recommending when to remove light sticks, flares and channelizing devices.

### 6I.05 Use of Emergency-Vehicle Lighting

**Support Revised (Para 1)** clarifying that the use of too many lights at an incident scene can be distracting and confusing to road users, especially at night.

**Guidance Added (Para 4)** providing reasons for floodlights and vehicle headlights that are not needed for illumination in an incident response area to be turned off.

## Chapter 7A

### 7A.01 Need for Standards

**Support Added (Para 5)** indicating that engineering measures alone do not always result in the expected change in student and road user behavior.

**Support Added (Para 11)** identifying Section 1A.13 as containing definitions of “school” and “school zone”.

### 7A.03 School Crossing Control Criteria

**Support Revised (Para 1)** to clarify the usage of school crossings.

**Support Revised (Para 2)** identifying the Traffic Control Devices Handbook as containing information on finding the frequency and adequacy of gaps in traffic streams.

### 7A.04 Scope

**Support Added (Para 2)** identifying MUTCD sections that contain information on unauthorized devices and messages (Sections 1A.01 and 1A.08), standards application (Sections 1A.02 and 1A.07), traffic control device placement authority (Section 1A.05), and engineering studies and support available to jurisdictions without engineers (Section 1A.09). *(NOTE: The text from this paragraph was relocated to this Section from Section 7A.05 through 7A.09.)*

**Support Added (Para 4)** identifying Part 3 as containing provisions regarding pavement marking usage in school areas.

**Support Added (Para 5)** identifying Part 4 as containing provisions regarding highway traffic signal usage in school areas.

*7A.05 of 2003 MUTCD has been relocated to Section 7A.04 of the 2009 MUTCD*

*7A.06 of 2003 MUTCD has been relocated to Section 7A.04 of the 2009 MUTCD*

*7A.07 of 2003 MUTCD has been relocated to Section 7A.04 of the 2009 MUTCD*

*7A.08 of 2003 MUTCD has been relocated to Section 7A.04 of the 2009 MUTCD*

*7A.09 of 2003 MUTCD has been relocated to Section 7A.04 of the 2009 MUTCD*

### Figure

#### 7A-1 Example of School Route Plan Map

The phrase “or YIELD” has been added to the red square symbol of the Legend.

## Chapter 7B

### 7B.01 Size of School Signs

**Standard Revised (Para 1)** to allow an exception as provided in Section 2A.11.

**New Guidance (Para 5)** recommending the sizes in the Oversized column of Table 7B-1 be used on roadways with four or more lanes with posted speed limits of 40 mph or higher.

**Option Added (Para 7)** to allow using signs and plaques larger than what's listed in Table 7B-1.

### 7B.03 Position of Signs

**New Support (Para 1)** to identify sections 2A.16 and 2A.17 as containing information regarding placements and locations of signs.

**New Support (Para 2)** to identify section 2A.19 as containing information regarding lateral offsets of signs.

**Option Added (Para 3)** regarding on roadway sign usage for school traffic control areas. *(NOTE: Some of the text was relocated to this section from Section 7A.04 of the 2003 MUTCD.)*

### 7B.07 Sign Color for School Warning Signs

**Standard Revised (Para 1)** to specify the appearance and color of school warning signs.

### 7B.08 School Sign (S1-1 and Plaques)

**New Support (Para 1)** with information on the role of jurisdictions in school sign usage, and the importance/necessity of marking the beginning and end points of designated school zones so that the road user is given proper notice.

**New Support (Para 2)** specifying information on the application of School signs (S1-1).

**New Option (Para 3)** for using a School sign (S1-1) with a supplemental arrow (W16-5P or W16-6P).

*7B.09 of 2003 MUTCD relocated to Section 7B.12 of the 2009 MUTCD*

### 7B.09 School Zone Sign (S1-1) and Plaques (S4-3P, S4-7P) and END SCHOOL ZONE Sign (S5-2)

**New Section** outlining the use and placement of school zone signs and plaques, and END SCHOOL ZONE signs.

*7B.10 of 2003 MUTCD relocated to 7B.13 of the 2009 MUTCD*

### 7B.10 Higher Fines Zone Signs (R2-10, R2-11) and Plaques

**New Section** outlining the use and placement of Higher Fines Zone signs and plaques.

*7B.11 of 2003 MUTCD relocated to 7B.15 of the 2009 MUTCD*

### 7B.11 School Advance Crossing Assembly

**New Section** outlining the components, use and placement of school advanced crossing assembly signs.

**Option Added (Para 3-4)** allowing omission of the school advance crossing assembly in certain cases where School signs (S1-1) are used, and outlining its proper use with supplemental arrows (W16-5P or W16-6P).

**(NOTE: Some of the text was relocated to this section from Section 7B.08 of the 2003 MUTCD.)**

*7B.12 of 2003 MUTCD* relocated to 7B.16 of the 2009 MUTCD

**7B.12 School Crossing Assembly (S3-1) (formerly Section 7B.09)**

**Standard Revised (Para 3)** to add the condition that the school crossing assembly shall not be installed on approaches controlled by YIELD signs.

**Option Revised (Para 4)** to include usage of In-Street Schoolchildren Crossing (R1-6b or R1-6c) signs at unsignalized school crossings.

**Option Added (Para 5)** allowing the modification of Overhead Pedestrian Crossing (R1-9 or R1-9a) signs to replace the standard pedestrian symbol with the standard schoolchildren symbol and displayed at unsignalized school crossings, and the omission of the STATE LAW legend on the R1-9 series signs.

**Option Added (Para 6)** allows replacing In-Street Pedestrian crossing signs (R1-6 or R1-6a) with In-Street Schoolchildren Crossing signs (R1-6b or R1-6c).

**Standard Revised (Para 7)** to allow In-Street Schoolchildren Crossing signs to be placed in the roadway.

**Standard Revised (Para 8)** prohibiting the use of the In-Street Schoolchildren Crossing sign, and the Overhead Pedestrian Crossing sign at signalized intersections.

*7B.13 of 2003 MUTCD* relocated to 7B.15 of the 2009 MUTCD

**7B.13 School Bus Stop Ahead Sign (S3-1) (formerly Section 7B.10)**

**Guidance Revised** to tie placement of School Bus Stop Ahead (S3-1) signs to sight distance.

*7B.14 of 2003 MUTCD* relocated to 7B.17 of the 2009 MUTCD

**7B.14 SCHOOL BUS TURN AHEAD Sign (S3-2)**

**New Section** outlining the usage of the School Bus Turn Ahead sign.

**7B.15 School Speed Limit Assembly (S4-1P, S4-2P, S4-3P, S4-4P, S4-6P, S5-1) and END SCHOOL SPEED LIMIT Sign (S5-3) (formerly Section 7B.11)**

**Standard Added (Para 2)** requiring placement of a School sign (S1-1) in a reduced school speed limit zone.

**Standard Added (Para 3)** requiring placement of Fines Higher (R2-6P), Fines Double (R2-6aP), or \$xx Fine (R2-6bP) plaques where increased fines are imposed for traffic violations within a reduced school speed limit zone.

**Standard Revised (Para 4)** requiring the installation of a (S5-3) sign at the downstream end of a reduced school speed limit zone **(NOTE: This Paragraph contains edited text from Section 7B.13 of the 2003 MUTCD.)**

**New Option (Para 5)** allows conditional placement of an End School Zone (S5-2) sign instead of a combination of an END HIGHER FINES ZONE (R2-11) sign and a S5-3 sign.

**New Option (Para 6)** allows mounting of standard speed limit signs on the same post above the S5-3 sign or the S5-2 sign.

**Guidance Revised (Para 7)** regarding the beginning point of a reduced school speed limit zone.

**Standard Revised (Para 13)** – Text regarding usage of fluorescent yellow-green pixels for the “SCHOOL” message on VMS signs displaying a school speed limit **was changed from Option to Standard.**

**7B.16** **Reduced School Speed Limit Ahead Sign (S4-5, S4-5a) (formerly Section 7B.12)**  
**Guidance Revised (Para 1)** – Text regarding proper usage of S4-5 or S4-5a signs **was changed from Option to Guidance.**

**7B.17** **Parking and Stopping Signs (R7 and R8 Series) (formerly Section 7B.14)**

**Table**  
**7B-1**

**School Area Sign and Plaque Sizes**

**New Signs:** S3-2, S5-3, R1-6 series, R2-10, and R2-11

**New Plaques:** S4-7, R2-6P, W16-5P, and W16-6P

A “P” has been added to the designations of the S4-1, S4-2, S4-3, S4-4, S4-6, W16-2, and W16-2a plaques.

The designation of the W16-7p sign has been revised to W16-7P in two places.

The designation of the W16-9p sign has been revised to W16-7P

The Conventional Road and Oversized sizes for the S3-1 sign have been increased, and a minimum size for the S3-1 sign has been added.

The three notes at the bottom of the table have been added.

**Figure**  
**7B-1**

**School Area Signs**

**New Signs:** S3-2, S5-3, R2-10, and R2-11

The colors of all of the yellow signs and plaques have been changed to fluorescent yellow green.

The “School Advance Warning Assembly” is now labeled as “School Advancing Crossing Assembly”.

The “School Crosswalk Warning Assembly” is now labeled as “School Crossing Assembly”.

W16-5P and W16-6P added to School Advance Crossing Assembly.

The “School Zone Sign” has been added.

W16-7p plaque designation has been changed to W16-7P.

W16-9p plaque designation has been changed to W16-9P.

A “P” has been added to the designations of the W16-2a, W16-2, S4-1, S4-2, S4-3, S4-4, and S4-6 plaques.

An S4-1P plaque has been added above the S4-6P plaque for the “School Speed Limit Assembly.”

The S3-1 and S4-5 sign designs have been revised.

*7B-2 of 2003 MUTCD has been relocated to Figure 7B-4 of the 2009 MUTCD*

**7B-2     Example of Signing for a Higher Fines School Zone without a School Crossing  
New Figure**

*7B-3 of 2003 MUTCD has been relocated to Figure 7B-5 of the 2009 MUTCD*

**7B-3     Example of Signing for a higher Fines School Zone with a School Speed Limit  
New Figure**

*7B-4 of 2003 MUTCD has been relocated to Figure 7B-6 of the 2009 MUTCD*

**7B-4     Example of Signing for a School Crossing Outside of a School Zone (formerly Figure  
7B-2)**

The colors of all of the yellow signs and plaques have been changed to fluorescent yellow green.

Labels have been added for the School Advance Crossing Assembly and the School Crossing Assembly.

The distances from the crosswalk to the advance signs (and associated asterisk note) have been deleted.

S1-1 sign and W16-6P plaque have been added on the side street approach.

**7B-5     Example of Signing for a School Zone with a School Speed Limit and a School Crossing  
(formerly Figure 7B-3)**

The colors of all of the yellow signs and plaques have been changed to fluorescent yellow green.

The school property lines, and dimensions from school property lines to sign locations (and associated asterisk note) have been deleted.

“End School Zone” and Speed Limit signs are now shown together as sign assemblies on the same supports rather than as single signs that can be used alone. Alternative sign assemblies consisting of an “End School Speed Limit” and a Speed Limit sign have been added.



The “Ahead” plaques that were below the advance signs have been replaced by “School” plaques.

Optional School Advance Crossing Assemblies and an associated note have been added.

**7B-6** **In-Street Signs in School Areas** *(formerly Figure 7B-4)*  
**New Signs:** R1-6b and R1-6c

The colors of all of the yellow signs and plaques have been changed to fluorescent yellow green.

A reduced size for the S4-3P plaque has been added to the asterisk note.

The notes at the bottom of the figure have been added.

A “P” has been added to the S4-3 plaque designation.

The W16-7p plaque designation has been changed to W16-7P, and the W16-9p plaque designation has been changed to W16-9P.

## Chapter 7C

### 7C.02 **Crosswalk Markings** (formerly Section 7C.03)

**Guidance Revised (Para 1)** substituting “student” in place of “pedestrian”.

**Guidance Revised (Para 2)** to recommend considering the factors described in Section 3B.18 to locate marked crosswalks, and include locations controlled by Yield signs.

**Guidance Added (Para 3)** recommending features for non-intersection school crossings.

**New Support (Para 4)** identifying Sections that contain provisions regarding the placement and design of crosswalks (3B.18), stop bars and yield lines (3B.16), and the curb markings that can be used to establish parking regulations on the approaches to crosswalks (3B.23).

*7C.03 of 2003 MUTCD has been relocated to Section 7C.02 of the 2009 MUTCD*

### 7C.03 **Pavement Word, and Symbol, and Arrow Markings** (formerly Section 7C.06)

**New Support** identifying Section 3B.20 as containing provisions regarding other word, symbol, and arrow pavement markings that can be used to guide, warn or regulate traffic.

*7C.06 of 2003 MUTCD has been relocated to Section 7C.03 of the 2009 MUTCD*

### **Figure**

#### 7C-1 **Two-Lane Pavement Marking of “SCHOOL”**

The graphic was changed to white lettering over gray background.

## Chapter 7D

*(formerly Chapter 7E)*

*Text from Chapter 7D in the 2003 MUTCD has been relocated to Section 7A.04 of the 2009 MUTCD*

### **7D.01**     **Types of Crossing Supervision** *(formerly Section 7E.01)*

**Support Added (Para 1)** regarding adult control of pedestrians and vehicles by uniformed law enforcement officers, and parent control as an additional types of school crossing supervision.

### **7D.02**     **Adult Crossing Guards** *(formerly Section 7E.02)*

### **7D.03**     **Qualifications of Adult Crossing Guards** *(formerly Section 7E.03)*

**Support Added (Para 1)** regarding the reason why high standards for selecting adult crossing guards are important.

**Guidance Added (Para 2)** to recommend additional qualifications for adult crossing guards.

### **7D.04**     **Uniform of Adult Crossing Guards** *(formerly Section 7E.04)*

**Standard Revised (Para 1)** to require law enforcement officers performing school crossing supervision to wear high-visibility retroreflective safety apparel, and to revise the ANSI reference number.

### **7D.05**     **Operating Procedures for Adult Crossing Guards** *(formerly Section 7E.05)*

**Standard Revised (Para 1)** – Text regarding operating procedures for adult crossing guards *was changed from Guidance to Standard.*

## Chapter 7E

*7E.01 of 2003 MUTCD has been relocated to Section 7D.01 of the 2009 MUTCD*

*7E.02 of 2003 MUTCD has been relocated to Section 7D.02 of the 2009 MUTCD*

*7E.03 of 2003 MUTCD has been relocated to Section 7D.03 of the 2009 MUTCD*

*7E.04 of 2003 MUTCD has been relocated to Section 7D.04 of the 2009 MUTCD*

*7E.05 of 2003 MUTCD has been relocated to Section 7D.05 of the 2009 MUTCD*

## Chapter 8A

### 8A.01 Introduction

**Support Revised (Para 8)** to identify Chapter 8 as describing traffic control devices used in locations where LRT's operate along streets and highways. *(NOTE: This paragraph contains edited text from Section 10A.01 of the 2003 MUTCD.)*

**Support Revised (Para 9-11)** *(NOTE: This paragraph contains edited text from Section 10A.01 of the 2003 MUTCD.)*

**Standard Revised (Para 12)** *(NOTE: This paragraph contains edited text from Section 10A.01 of the 2003 MUTCD.)*

**Support Revised (Para 13)** – Text regarding definitions and acronyms for highway and railroad and LRT signaling issues *was changed from Standard to Support. (NOTE: The definitions listed in Section 8A.01 of the 2003 MUTCD have been relocated to Section 1A.13.)*

*8A.03 of 2003 MUTCD has been relocated to Section 8A.04 of the 2009 MUTCD*

### 8A.02 Use of Standard Devices, Systems, and Practices at Highway-Rail Grade Crossings

**Support Added (Para 8)** identifying the publications listed in Section 1A.11 that contain other highway-rail grade crossing traffic control system details that are not contained in Chapter 8.

*8A.04 of 2003 MUTCD has been relocated to Section 8A.05 of the 2009 MUTCD*

### 8A.03 Use of Standard Devices, Systems, and Practices at Highway-LRT Grade Crossings *(formerly Section 10A.02)*

**Support Revised (Para 1)** *(NOTE: This paragraph contains text from Section 10B.01 of the 2003 MUTCD.)*

**Support Revised (Para 3)** *(NOTE: This paragraph contains text from Section 10B.01 of the 2003 MUTCD.)*

**Support Revised (Para 4)** *(NOTE: This paragraph contains text from Section 10B.01 of the 2003 MUTCD.)*

**Standard Revised (Para 11)** *(NOTE: This paragraph contains text from Section 10B.01 of the 2003 MUTCD.)*

**Option Revised (Para 12)** *(NOTE: This paragraph contains text from Section 10B.01 of the 2003 MUTCD.)*

**Support Revised (Para 13)** identifying Sections 8B.03 and 8B.04 as containing information on usage and placement of Crossbuck signs and Crossbuck assemblies. *(NOTE: This paragraph contains text from Section 10B.01 of the 2003 MUTCD.)*

### 8A.04 Uniform Provisions *(formerly Section 8A.03)*

**Standard Revised (Para 2)** to add more conditions under which signs or signals can be located in the center of an undivided highway.

**Guidance Revised (Para 3)** to clarify the recommended criteria for signs or signals placed on a raised island in the center of an undivided highway.

**Guidance Added (Para 4)** to clarify the recommended usage of additional signs or appropriate traffic control devices to inform approaching road users of the long distance to cross the tracks.

*8A.05 of 2003 MUTCD has been relocated to Section 8A.08 of the 2009 MUTCD*

**8A.05**     **Grade Crossing Elimination** *(formerly Section 8A.04)*

**8A.06**     **Illumination at Grade Crossings** *(formerly Section 8C.01) (NOTE: This Section contains text from Chapter 8C of the 2003 MUTCD.)*

**Support Revised (Para 1)** – Text clarifying conditional usage of illumination at grade crossings *was changed from Option and Guidance to Support.*

**8A.07**     **Quiet Zone Treatments at Highway-Rail Grade Crossings**

**New Section** outlining requirements of quiet zone treatments at highway-rail grade crossings.

**8A.08**     **Temporary Traffic Control Zones** *(formerly Section 8A.05)*

**New Support (Para 9)** identifying Section 6G.18 and Figure 6H-46 as containing additional information regarding temporary traffic control zones at rail-grade crossings.

**Figure**

*8A-1 of 2003 MUTCD has been relocated to Figure 8B-8 of the 2009 MUTCD*

## Chapter 8B

### 8B.01 Purpose

**Support Revised (Para 1)** to update the definition of passive traffic control systems.

**Support Added (Para 2)** to update usage of signs and markings at highway-rail grade crossings. *(NOTE: This paragraph contains text from Section 10C.01 of the 2003 MUTCD.)*

**Standard Revised (Para 3)** to specify that the design and location of pavement markings comply with Part 3. *(NOTE: This paragraph contains text from Chapter 10C.01 of the 2003 MUTCD.)*

### 8B.03 Grade Crossing (Crossbuck) Sign (R15-1) and Number of Tracks Plaque (R15-2P) at Active and Passive Grade Crossings *(NOTE: Paragraph 7 of this Section has been relocated to Section 8B.04 of the 2009 MUTCD.)*

**New Support (Para 2)** detailing the purpose of a Crossbuck sign.

**Option Revised (Para 4)** *(NOTE: This paragraph contains text from Chapter 10C.02 of the 2003 MUTCD.)*

**Standard Revised (Para 6)** to specify the proper use and mounting of the R15-P plaque.

**Standard Revised (Para 7)** to remove the mandate that Crossbuck signs be installed at highway LRT grade crossings.

*8B.04 of 2003 MUTCD has been relocated to Section 8B.06 of the 2009 MUTCD*

### 8B.04 Crossbuck Assemblies with YIELD or STOP Signs at Passive Grade Crossings *(formerly Section 8B.08)*

**New Standard (Para 1-5)** specifying requirements of the Crossbuck Assembly with YIELD or STOP signs at passive grade crossings.

**New Guidance (Para 6)** on the use of STOP signs at passive grade crossings.

**New Support (Para 7)** identifying Sections 8A.02 and 8A.03 as containing information regarding highway agency and railroad company responsibilities for the selection, design, and operation of traffic control devices placed at grade crossings.

**New Option (Para 8)** for the installation of STOP or YIELD signs for a Crossbuck Assembly at a grade crossing.

**New Standard (Para 9)** specifying the minimum mounting height for YIELD or STOP signs installed on an existing Crossbuck sign support.

**New Standard (Para 10)** specifying the minimum mounting height for a Crossbuck Assembly sign installed on a separate support.

**New Guidance (Para 11)** regarding proper placement of a YIELD or STOP sign installed for a Crossbuck Assembly at a grade crossing on a separate support than the Crossbuck sign.

**New Support (Para 12)** explaining the meaning of a Crossbuck Assembly that includes a YIELD sign.

**New Support (Para 13)** explaining that certain commercial motor vehicles and school buses are required to stop at all grade crossings.

**New Support (Para 14)** explaining the meaning of a Crossbuck Assembly that includes a STOP sign.

**Standard Revised (Para 15)** to specify use of a vertical strip of retroreflective white material 2 inches or wider on each Crossbuck support at passive grade crossings. **(NOTE: This paragraph contains text from Chapter 8B.03 of the 2003 MUTCD.)**

**New Option (Para 16)** allowing omission of retroreflective vertical strip from the back of Crossbuck sign supports installed on one-way streets.

**New Option (Para 17)** allowing conditional usage of a vertical strip of red or white retroreflective material on the front face of the sign support when a Crossbuck sign is installed on the same support as a STOP or YIELD sign.

**New Standard (Para 18)** requiring installation of a vertical strip of retroreflective white material, not less than 2 inches in width on the Crossbuck sign support that does not include a YIELD or STOP sign at a passive grade crossings.

**New Standard (Para 19)** specifying criteria for installing Yield Ahead (W3-2) or Stop Ahead (W3-1) signs at all grade crossings where YIELD or STOP signs are installed.

**New Support (Para 20)** identifying Section 8B.28 as containing provisions regarding the use of stop or yield lines at grade crossings.

*8B.05 of 2003 MUTCD has been relocated to Section 8B.07 of the 2009 MUTCD*

**8B.05** **Use of STOP (R1-1) or YIELD (R1-2) Signs without Crossbuck Signs at Highway-LRT Grade Crossings** *(formerly Section 10C.04)*

*8B.06 of 2003 MUTCD has been relocated to Section 8B.08 of the 2009 MUTCD*

**8B.06** **Grade Crossing Advance Warning Signs (W10 Series)** *(formerly Section 8B.04)*  
**Standard Revised (Para 1)** to include certain highway-LRT grade crossing in semi-exclusive alignments.

**Standard Added (Para 3)** with the requirements when a W3-2 or W3-1 advanced warning sign and a W10-1 sign is installed.

*8B.07 of 2003 MUTCD has been relocated to Section 8B.09 of the 2009 MUTCD*

**8B.07** **EXEMPT Grade Crossing Plaques (R15-3P, W10-1aP)** *(formerly Section 8B.05)*  
**Section Revised** to describe EXEMPT Grade Crossing plaques.

**Option Revised (Para 2)** (NOTE: This paragraph contains text from Chapter 10C.10 of the 2003 MUTCD.)

*8B.08 of 2003 MUTCD has been relocated to Section 8B.04 of the 2009 MUTCD*

**8B.08**     **Turn Restrictions During Preemption** (formerly Section 8B.06)  
**Support Revised (Para 3)** (NOTE: This paragraph contains text from Chapter 10C.09 of the 2003 MUTCD.)

**Guidance Revised (Para 4)** (NOTE: This paragraph contains text from Chapter 10C.09 of the 2003 MUTCD.)

**Option Revised (Para 5-6)** (NOTE: These paragraphs contains text from Chapter 10C.09 of the 2003 MUTCD.)

*8B.09 of 2003 MUTCD has been relocated to Section 8B.10 of the 2009 MUTCD*

**8B.09**     **DO NOT STOP ON TRACKS Sign (R8-8)** (formerly Section 8B.07)  
**Guidance Revised (Para 1)** (NOTE: This paragraph contains text from Chapter 10C.05 of the 2003 MUTCD.)

**Guidance Revised (Para 2)** (NOTE: This paragraph contains text from Chapter 10C.04 of the 2003 MUTCD.)

*8B.10 of 2003 MUTCD has been relocated to Section 8B.11 of the 2009 MUTCD*

**8B.10**     **TRACKS OUT OF SERVICE Sign (R8-9)** (formerly Section 8B.09)

*8B.11 of 2003 MUTCD has been relocated to Section 8B.12 of the 2009 MUTCD*

**8B.11**     **STOP HERE WHEN FLASHING Sign (R8-10, R8-10a)** (formerly Section 8B.10)

*8B.12 of 2003 MUTCD has been relocated to Section 8B.18 of the 2009 MUTCD*

**8B.12**     **STOP HERE ON RED Sign (R10-6, R10-6a)** (formerly Section 8B.11)

*8B.13 of 2003 MUTCD has been relocated to Section 8B.20 of the 2009 MUTCD*

**8B.13**     **Light Rail Transit Only Lane Signs (R15-4 Series)** (formerly Section 10C.13)

*8B.14 of 2003 MUTCD has been relocated to Section 8B.21 of the 2009 MUTCD*

**8B.14**     **Do Not Pass Light Rail Transit Signs (R15-5, R15-5a)** (formerly Section 10C.14)

*8B.15 of 2003 MUTCD has been relocated to Section 8B.22 of the 2009 MUTCD*

**8B.15**     **No Motor Vehicles On Tracks Signs (R15-6, R15-6a)** (formerly Section 10C.12)

**8B.16**     **Divided Highway with Light Rail Transit Crossing Signs (R15-7 Series)**  
(formerly Section 10C.11)

*8B.17 of 2003 MUTCD has been relocated to Section 8B.23 of the 2009 MUTCD*



**8B.17**     **LOOK Sign (R15-8)** (formerly Section 8B.16)  
New Guidance on the proper use of the R15-8 sign.

*8B.18 of 2003 MUTCD has been relocated to Section 8B.24 of the 2009 MUTCD*

**8B.18**     **Emergency Notification Sign (I-13)** (formerly Section 8B.12)  
Guidance Revised (Para 1) to recommend additional locations for Emergency Notification signs and clarify their purpose.

New Standard (Para 2) specifying minimum content to be included on Emergency Notification signs at highway-rail grade crossings.

New Standard (Para 3) specifying minimum content to be included on Emergency Notification signs at highway-LRT grade crossings.

New Standard (Para 4-5) specifying the required layout and location for Emergency Notification signs.

New Guidance (Para 6-8) recommending the proper appearance, orientation and position of the Emergency Notification signs.

New Guidance (Para 9) recommending the proper sizing of Emergency Notification signs on Crossbuck Assemblies or signal masts.

*8B.19 of 2003 MUTCD has been relocated to Section 8B.25 of the 2009 MUTCD*

**8B.19**     **Light Rail transit Approaching-Activated Blank-Out Warning Sign (W10-7)**  
(formerly Section 10C.17)

*8B.20 of 2003 MUTCD has been relocated to Section 8B.27 of the 2009 MUTCD*

**8B.20**     **TRAINS MAY EXCEED 80 MPH Sign (W10-8)** (formerly Section 8B.13)

*8B.21 of 2003 MUTCD has been relocated to Section 8B.28 of the 2009 MUTCD*

**8B.21**     **NO TRAIN HORN Sign and Plaque (W10-9, W10-9P)** (formerly Section 8B.14)  
Standard Revised (Para 1) to include the proper usage and mounting of a W10-9P plaque.

*8B.22 of 2003 MUTCD has been relocated to Section 8B.29 of the 2009 MUTCD*

**8B.22**     **NO GATES OR LIGHTS Plaque (W10-13P)** (formerly Section 8B.15)

**8B.23**     **Low Ground Clearance Grade Crossing Sign (W10-5)** (formerly Section 8B.17)  
Support Revised (Para 6) clarifying information on ground clearance.

**8B.24**     **Storage Space Signs (W10-11, W10-11a, W10-11b)** (formerly Section 8B.18)

**8B.25**     **Skewed Crossing Sign (W10-12)** (formerly Section 8B.19)

**8B.26**     **Light Rail Transit Station Sign (I-12)** (formerly Section 10C.20)

**8B.27**     **Pavement Markings** *(formerly Section 8B.20)*

**8B.28**     **Stop and Yield Lines** *(formerly Section 8B.21)*

**New Standard** requiring stop lines on paved roadways at grade crossings with certain active control devices.

**Guidance Added (Para 2)** recommending usage of stop lines on paved roadway approaches to passive grade crossings where a STOP sign is installed in conjunction with the Crossbuck sign.

**New Option** outlining conditional usages of yield and stop lines at passive grade crossings where a YIELD sign is installed in conjunction with the Crossbuck sign.

**New Guidance (Para 5)** recommending the proper placement of a yield line.

**8B.29**     **Dynamic Envelope Markings** *(formerly Section 8B.22)*

**Support Revised** *(NOTE: This paragraph contains text from Chapter 10C.25 of the 2003 MUTCD.)*

**Guidance Revised** recommending the proper placement of dynamic envelope pavement markings at skewed grade crossings. *(NOTE: This paragraph contains text from Chapter 10C.25 of the 2003 MUTCD.)*

**Option Revised (Para 7)** to refer only to pavement marking usage in mixed-use LRT alignments.

**Table**

**8B-1**

**Grade Crossing Sign and Plaque Minimum Sizes**

**New Signs:** R1-1, R1-2, R8-10a, R10-6a, and W10-9

**New Plaques:** W10-9P

**Deleted Signs:** R10-11a, W10-10, I-13, and I-13a

The name of the second column was changed from “MUTCD Code” to “Sign Designation.”

The “Conventional Road” column was split into two columns; one for single-lane roads, and one for multi-lane roads. The values in the “Single Lane” column were formerly in the “Conventional Road” column unless otherwise specifically noted in this list of revisions. All of the values in the “Multi-Lane” column have been added.

The I-12 sign has been relocated to Table 2H-1

The names of the R15-1, R15-6, W10-1, W10-2, W10-3, W10-4 and W10-5 signs have been revised in the first column of the table.

A “P” has been added to the designations of the R15-2P, R15-3P, W10-1aP, W10-9P, W10-13P, W10-14P, W10-14aP, and W10-15P plaques.

The Conventional Road size for the W10-9P, W10-13P, W10-14, W10-14aP, and W10-15P plaques has been increased.

All of the sizes shown in the Expressway, Minimum, and Oversized columns have been added.

Note 3 has been added.

**Figure**

*8A-1 of 2003 MUTCD has been relocated to become part of Figure 8B-8 of the 2009 MUTCD*

*8B-1 of 2003 MUTCD has been relocated to Figure 8B-2 of the 2009 MUTCD*

**8B-1 Grade Crossing Sign and Plaque Minimum Sizes (formerly Figure 8B-3)**

**Deleted Signs:** R10-11a

**New Signs:** R1-1, R1-2, R8-10a, and R10-6a

R3-1a and R3-2a signs are shown with square corners in lieu of rounded corners to better portray the shape of an activated blank-out sign.

R15-1 sign and R15-2P plaque have been relocated from Figure 8B-1 of the 2003 MUTCD.

R15-4a, R15-4b, R15-4c, R15-5, R15-5a, R15-6, R15-6a, R15-7, and R15-7a signs have been relocated from Figure 10C-2 of the 2003 MUTCD.

The phrase, “drilled for 90-degree mounting” has been deleted from beneath the R15-1 sign.

A “P” has been added to the designations of the R15-2 and 15-3 plaques.

*8B-2 of 2003 MUTCD has been relocated to become a part of Figure 8B-4 of the 2009 MUTCD*

**8B-2 Crossbuck Assembly with a YIELD or STOP Sign on the Crossbuck Sign Support (formerly Figure 8B-1)**

R15-1 sign and R15-2P plaque, and the dimensions for their sizes, have been relocated to the new Figure 8B-1.

The YIELD and STOP signs have been added on the sign support, and the dimension showing their vertical distance from the bottom of the sign to the edge of the pavement has also been added.

The 3 TRACKS plaque has been moved closer to the Crossbuck sign.

The option of adding a red retroreflective strip on the front face of the sign support, along with a note regarding using a white strip on the back of the sign support, have been added.

The single asterisk note has been revised, and the double asterisk note and the four notes at the bottom of the figure have been added.

*8B-3 of 2003 MUTCD has been relocated to Figure 8B-1 of the 2009 MUTCD*

**8B-3 Crossbuck Assembly with a YIELD or STOP Sign on a Separate Sign Support  
New Figure**

*8B-4 of 2003 MUTCD has been relocated to Figure 8B-5 of the 2009 MUTCD*

**8B-4**     **Warning Signs and Plaques for Grade Crossings** *(formerly Figure 8B-5)*

**Deleted Plaque:** W10-10

**New Sign:** W10-9

**New Plaque:** W10-5P

W10-1, W10-2, W10-3, and W10-4 signs have been relocated from Figure 8B-2 of the 2003 MUTCD.

A “P” has been added to the designations of the W10-1aP, W10-9P, W10-13P, W10-14P, W10-14aP, and W10-15P plaques.

W10-7 sign has been relocated from Figure 10C-3 of the 2003 MUTCD, and is shown with square corners instead of rounded corners to better portray the shape of an activated blank-out sign. The W10-7 sign design has been revised so that the appearance of the LRT vehicle matches the vehicle on the I-12 sign.

The ampersands have been replaced by “AND” on the W10-11a and W10-11b signs.

The word “railroad” has been deleted from the note at the bottom of the figure.

*8B-5 of 2003 MUTCD has been relocated to Figure 8B-4 of the 2009 MUTCD*

**8B-5**     **Example of an Emergency Notification Sign** *(formerly Figure 8B-4)*

**Deleted Sign:** I-13

The I-13a sign designation was changed to I-13 and its legend has been changed.

**8B-6**     **Example of Placement of Warning Signs and Pavement Markings at Grade Crossings**

The note regarding use of yield lines has been added near upper right-hand corner of the figure.

The Stop Ahead or Yield Ahead signs have been added.

The dynamic envelope dimensions have been deleted, and a cross-reference to Figure 8B-8 has been added.

The two 25-foot dimensions associated with the pavement marking symbol have been deleted.

**8B-7**     **Grade Crossing Pavement Markings**

The two drawings have been given “A” and “B” designations and the titles have been revised.

Transverse lines have been added to Drawing A, and additional dimensions have been added.

In Drawing B, the 6-foot dimension height for the RR letters has been added, and the 23-foot distance dimension has been changed to 24 feet.

**8B-8 Example of Dynamic Envelope Pavement Markings at Grade Crossings**

Drawing from Figure 8A-1 of the 2003 MUTCD has been added to the bottom of this figure.

The dynamic envelope is no longer called the train dynamic envelope in order to also make this figure relevant to LRT grade crossings. The asterisk note at the bottom of the figure was revised to include a reference to the light rail agency.

The dynamic envelope lines are now labeled as optional.

**8B-9 Examples of Light Rail Transit Vehicle Dynamic Envelope Markings for Mixed-Use Alignments (formerly Figures 10C-7, 10C-9 and 10C-10)  
New Figure**

## Chapter 8C

*(formerly Chapter 8D)*

*Chapter 8C in the 2003 MUTCD has been relocated to Section 8A.06 of the 2009 MUTCD*

*8C.01 of 2003 MUTCD has been relocated to Section 8A.06 of the 2009 MUTCD*

### 8C.01 Introduction *(formerly Section 8D.01)*

**Support Revised (Para 1)** *(NOTE: The text was relocated from Section 10D.01 of the 2003 MUTCD.)*

**Guidance Revised (Para 14)** *(NOTE: The text was relocated from Section 10D.01 of the 2003 MUTCD.)*

**Support Revised (Para 15-16)** *(NOTE: The text was relocated from Section 10D.01 of the 2003 MUTCD.)*

### 8C.02 Flashing-Light Signals *(formerly Section 8D.02)*

**New Support (Para 1)** to identify Section 8C.03 as containing information regarding flashing-light signals at highway-LRT grade crossings in semi-exclusive and mixed-use alignments.

**New Standard (Para 11)** to prohibit references to lenses in this Section to be used to limit flashing-light signal optical units to incandescent lamps within optical assemblies that include lenses.

**New Support (Para 12)** regarding research that has resulted in flashing-light signal optical units that are not lenses, such as LED flashing-light modules.

**Option Added: (Para 15)** *(NOTE: The text was relocated from Section 8D.03 of the 2003 MUTCD.)*

**Standard Added (Para 16)** to provide exceptions to mounting flashing-light signals overhead. *(NOTE: The text was relocated from Section 8D.03 of the 2003 MUTCD.)*

### 8C.03 Flashing-Light Signals at Highway-LRT Grade Crossings *(formerly Section 10D.02)*

**Standard Added (Para 3)** requiring an audible device, such as a bell, be provided and operated in conjunction with flashing-light signals at highway-LRT crossings used by pedestrians, bicyclists, and/or other non-motorized road users.

### 8C.04 Automatic Gates *(formerly Section 8D.04)*

**New Support (Para 6)** regarding the acceptable striping patterns on gates installed to replace a damaged gate.

**Option Revised (Para 14 and 16)** *(NOTE: The text was relocated from Section 10D.03 of the 2003 MUTCD.)*

### 8C.05 Use of Automatic Gates at LRT Grade Crossings *(formerly Section 10D.03)*

### 8C.06 Four-Quadrant Gate Systems *(formerly Section 8D.05)*

**Guidance Revised (Para 13)** to recommend that highway vehicle intrusion detection devices be part of a system that incorporates processing logic to detect the presence of highway vehicles within the minimum track clearance distance.

- 8C.07**     **Wayside Horn System**  
New Section outlining the proper use, operation and location of wayside horn systems.
- 8C.08**     **Rail Traffic Detection** *(formerly Section 8D.06)*
- 8C.09**     **Traffic Control Signals at or Near Highway-Rail Grade Crossings** *(formerly Section 8D.07)*  
New Support (Para 7) identifying Section 4D.27 as containing a recommendation that a back-up power supply be provided for traffic control signals adjacent to highway-rail grade crossings that are coordinated with the flashing-light signals or that include railroad preemption.  
  
Standard Added (Para 8) requiring that information regarding the type of preemption and any related timing parameters be provided to the railroad company.  
  
Support Added (Para 18) indicating that Section 4C.10 describes the Intersection Near a Grade Crossing signal warrant and its intent.
- 8C.10**     **Traffic Control Signals at or Near Highway-LRT Grade Crossings** *(formerly Section 10D.05)*  
Standard Added (Para 3) requiring an audible device, such as a bell, be provided and operated in conjunction with traffic control signals at highway-LRT crossings used by pedestrians, bicyclists, and/or other non-motorized road users.  
  
Support Added (Para 13) indicating that Section 4C.10 describes the Intersection Near a Grade Crossing signal warrant and its intent.  
  
Guidance Revised (Para 14) *(NOTE: The text was relocated from Section 10D.06 of the 2003 MUTCD.)*  
  
Standard Revised (Para 15) *(NOTE: The text was relocated from Section 10D.06 of the 2003 MUTCD.)*  
  
Guidance Revised (Para 16) *(NOTE: The text was relocated from Section 10D.06 of the 2003 MUTCD.)*  
  
Support Added (Para 17) identifying Section 8B.08 as containing information on prohibiting turn movements towards highway-LRT grade crossing during preemption. *(NOTE: Some of the text was relocated from Section 10D.06 of the 2003 MUTCD.)*
- 8C.11**     **Use of Traffic Control Signals for Control of LRT Vehicles at Grade Crossings** *(formerly Section 10D.07)*  
Guidance Revised (Para 2) – Text regarding the proper display for LRT traffic control signals used to control LRT movements *was changed from Support to Guidance.*  
  
New Support (Para 3) identifying Section 4D.27 as containing information about using signal indicators shown in Figure 8C-3 for the control of certain exclusive bus movements and certain exclusive bus rapid transit movements.

**8C.12** **Grade Crossings Within or In Close Proximity to Circular Intersections**  
**New Section** outlining the elimination of queues of vehicular traffic that impact grade crossings where circular intersections include or are within 200 feet of a grade crossing.

**8C.13** **Pedestrian and Bicycle Signals and Crossings at LRT Grade Crossings**  
*(formerly Section 10D.08)*  
**Standard Revised** requiring that pedestrian signal heads comply with Section 4E.04 when used at LRT crossings.

**Guidance Revised (Para 3)** recommending the usage of an audible device.

**Guidance Revised (Para 4)** recommending the consideration of adding the LOOK (R15-8) sign and/or pedestrian gates when an engineering study shows an audible device and Crossbuck sign provide insufficient notice of approaching LRT traffic.

**Figure**

**8C-1** **Composite Drawing of Active Traffic Control Devices for Grade Crossings Showing Clearances** *(formerly Figure 8D-1)*

The diagonal stripes on the gate arm have been changed to vertical stripes.

The A, B, and C dimensions for the locations of the red lights on the gate arm have been deleted, and the note has been revised.

The note immediately to the left of the Crossbuck sign has been revised.

One of the notes on Figure 8D-1 has been relocated to the bottom of the figure to become Note 1.

Note 2 has been added.

**8C-2** **Example of Location Plan for Flashing-Light Signals and Four-Quadrant Gates** *(formerly Figure 8D-2)*

Entrance and exit gate symbols have been added to the Legend.

**8C-5** **Example of a Shared Pedestrian/Roadway Gate** *(formerly Figure 10D-3)*

The diagonal stripes on the gate arms have been changed to vertical stripes.

**8C-6** **Example of a Separate Pedestrian Gate** *(formerly Figure 10D-4)*

The diagonal stripes on the gate arms have been changed to vertical stripes.

The asterisk note has been revised.

A separate Crossbuck sign/flashing lights/gate assembly on a separate gate mechanism has been added for the pedestrian gate.

The note regarding the provision of a separate pedestrian gate has been added.

The sidewalk is now labeled as a “sidewalk or shared-use path”.

**8C-7** **Examples of Placement of Pedestrian Gates** *(formerly Figure 10D-5)*

The diagonal stripes on the gate arms changed from black to red.



The cars that look like white pavement markings have been deleted.

The automatic gate in the top drawing is now labeled as a “Pedestrian/roadway gate”.

The automatic gate in the bottom drawing is now labeled as a “Roadway gate”.

## **Chapter 8D**

**New Chapter** defining traffic control for pathway grade crossings

*8D.01 of 2003 MUTCD has been relocated to Section 8C.01 of the 2009 MUTCD*

*8D.02 of 2003 MUTCD has been relocated to Section 8C.02 of the 2009 MUTCD*

*8D.03 of 2003 MUTCD has been relocated to Section 8C.02 of the 2009 MUTCD*

*8D.04 of 2003 MUTCD has been relocated to Section 8C.04 of the 2009 MUTCD*

*8D.05 of 2003 MUTCD has been relocated to Section 8C.06 of the 2009 MUTCD*

*8D.06 of 2003 MUTCD has been relocated to Section 8C.08 of the 2009 MUTCD*

*8D.07 of 2003 MUTCD has been relocated to Section 8C.09 of the 2009 MUTCD*

### **Figure**

*8D-1 of 2003 MUTCD has been relocated to Figure 8C-1 of the 2009 MUTCD*

**8D-1      Example of Signing and Markings for a Pathway Grade Crossing**  
**New Figure**

*8D-2 of 2003 MUTCD has been relocated to Figure 8C-2 of the 2009 MUTCD*

## Chapter 9A

- 9A.02**     **Scope**  
**Revised Standard** clarifying that bicycles are allowed on roadways whether or not there is a marked bike lane or any traffic control device listed in this chapter.
- 9A.03**     **Definitions Relating to Bicycles**  
**New Support** indicating that the definitions and acronyms pertaining to this Section were relocated to Sections 1A.13 and 1A.14.

## Chapter 9B

- 9B.01**     **Application and Placement of Signs**  
**Standard Revised (Para 4)** specifying the new lateral sign location requirements on shared-use paths.
- Standard Revised (Para 5)** specifying the new sign mounting height requirements on shared-use paths.
- Guidance Added (Para 6)** suggesting that overhead sign clearance be adjusted to accommodate emergency vehicles and path users, such as equestrians.
- 9B.02**     **Design of Bicycle Signs**  
**Standard Revised (Para 1-2)** to include plaques that apply to motorists and bicyclists and identify Tables 2C-2 and 2D-1 as containing their size information.
- Option Added (Para 3-4)** to allow the use of larger size plaques on bicycle facilities, and recommend that plaque sizes be identical to plaques used on streets and highways.
- Support Added (Para 5)** clarifying that uniformity in design applies to bicycle signs and plaques and to add arrows to the list of design elements.
- 9B.04**     **Bike Lane Signs and Plaques (R3-17, R3-17aP, R3-17bP)**  
**Standard Revised** to include the R3-17aP and R3-17bP plaques.
- Guidance Revised** to recommend usages for bike lane signs and plaques.
- 9B.06 of 2003 MUTCD has been relocated to Section 9B.07 of the 2009 MUTCD*
- 9B.06**     **Bicycles May Use Full Lane Sign (R4-11)**  
**New Section** outlining the proper usage of the R4-11 sign.
- 9B.07 of 2003 MUTCD has been relocated to Section 9B.08 of the 2009 MUTCD*
- 9B.07**     **Bicycle WRONG WAY Sign and RIDE WITH TRAFFIC Plaque (R5-1b, R9-3cP)**  
**(formerly Section 9B.06)**
- 9B.08 of 2003 MUTCD has been relocated to Section 9B.09 of the 2009 MUTCD*

**9B.08**     **NO MOTOR VEHICLES Sign (R5-3)** *(formerly Section 9B.07)*

*9B.09 of 2003 MUTCD has been relocated to Section 9B.10 of the 2009 MUTCD*

**9B.09**     **Selective Exclusion Signs** *(formerly Section 9B.08)*

**New Option (Para 1)** regarding the installation of Selective Exclusion signs.

**New Standard (Para 2)** requiring Selective Exclusion signs to clearly indicate the type of traffic that is excluded.

**New Support (Para 3)** identifying exclusion messages allowed on a Selective Exclusion sign.

**Option Added (Para 4)** listing bicyclists as an additional prohibited user.

*9B.10 of 2003 MUTCD has been relocated to Section 9B.11 of the 2009 MUTCD*

**9B.10**     **No Parking Bike Lane Signs (R7-9, R7-9a)** *(formerly Section 9B.09)*

*9B.11 of 2003 MUTCD has been relocated to Section 9B.12 of the 2009 MUTCD*

**9B.11**     **Bicycle Regulatory Signs (R9-5, R9-6, R10-4, R10-24, R10-25, and R10-26)**  
*(formerly Section 9B.10)*

**Option Revised (Para 2)** to allow usage of the R10-4, R10-24, and R10-26 signs where it is not intended for bicyclists to be controlled by pedestrian signal indications.

**Option Revised (Para 3)** regarding proper placement of the R10-4, R10-24, and R10-26 signs.

**Option Added (Para 4)** to suggest usage of the R10-25 sign if bicyclists are crossing a roadway where In-Roadway Warning Lights or other warning lights or beacons have been provided.

*9B.12 of 2003 MUTCD has been relocated to Section 9B.13 of the 2009 MUTCD*

**9B.12**     **Shared-Use Path Restriction Sign (R9-7)** *(formerly Section 9B.11)*

**Option Added** to list the purpose of installing a R9-7 sign.

**New Guidance** to recommend that where two-way operation is permitted on a facility, that the paved path be wide enough to accommodate two-way traffic for pedestrians and/or bicyclists.

*9B.13 of 2003 MUTCD has been relocated to Section 9B.14 of the 2009 MUTCD*

**9B.13**     **Bicycle Signal Actuation Sign (R10-22)** *(formerly Section 9B.12)*

*9B.14 of 2003 MUTCD has been relocated to Section 9B.15 of the 2009 MUTCD*

**9B.14**     **Other Regulatory Signs** *(formerly Section 9B.13)*

*9B.15 of 2003 MUTCD has been relocated to Section 9B.16 of the 2009 MUTCD*

**9B.15**     Turn of Curve Warning Signs (W1 Series) (formerly Section 9B.14)

*9B.16 of 2003 MUTCD has been relocated to Section 9B.17 of the 2009 MUTCD*

**9B.16**     Intersection Warning Signs (W2 Series) (formerly Section 9B.15)

*9B.17 of 2003 MUTCD has been relocated to Section 9B.18 of the 2009 MUTCD*

**9B.17**     Bicycle Surface Condition Warning Sign (W8-10) (formerly Section 9B.16)

*9B.18 of 2003 MUTCD has been relocated to Section 9B.19 of the 2009 MUTCD*

**9B.18**     Bicycle Warning and Combined Bicycle/Pedestrian Signs (W11-1 and W11-15)  
(formerly Section 9B.17)

**Option Added (Para 2)** regarding the proper usage of the W11-15 sign and the W11-15P supplemental plaque.

**Option Added (Para 3)** to allow usage of the W11-15 sign with a supplemental plaque with the legend AHEAD or XX FEET.

**Standard Added (Para 5)** to include usage of the W11-15 sign.

**Option Added (Para 6)** allowing the use of fluorescent yellow-green background with black legend color on W11-15 signs.

*9B.19 of 2003 MUTCD has been relocated to Section 9B.20 of the 2009 MUTCD*

**9B.19**     Other Bicycle Warning Signs (formerly Section 9B.18)

*9B.20 of 2003 MUTCD has been relocated to Section 9B.21 of the 2009 MUTCD*

**9B.20**     Bicycle Guide Signs (D1-1b, D1-1c, D1-2b, D1-2c, D1-3b, D1-3c, D11-1, D11-1c)  
(formerly Section 9B.19)

**Option Revised (Para 1-2)** – Text regarding proper usage and installation of D11-1 signs *was changed from Guidance to Option.*

**Option Added (Para 3)** regarding purpose and usage of D11-1c signs.

**Option Added (Para 4)** regarding purpose, placement and layout of D1-1, D1-1a, D3-1, D1-1b, D1-1c, D1-2b, D1-2c, and D1-3b signs.

**New Guidance (Para 5)** regarding adequate separation between any destination or group of destinations in one direction and those in other directions in regards to bicycle guide signs.

**New Standard (Para 6)** specifying the layout requirements for displaying right-hand or left-hand arrows and distance numerals on bicycle guide signs.

**New Standard (Para 7)** specifying layout requirements for the bicycle symbol on bicycle destination signs.

**New Guidance (Para 8)** recommending directional arrows should be horizontal or vertical unless a sloping arrow will convey a clearer indication of the direction to be followed.

**New Guidance (Para 9)** recommending the proper location of a bicycle symbol with regard to the destination legend on bicycle guide signs.

**New Guidance (Para 10)** recommending that if several individual name signs are assembled into a group, all signs in the assembly should have the same horizontal width.

**New Guidance (Para 11)** recommending not to use bicycle destination signs as a substitute for vehicular destination signs when the message is also intended to be seen by motorists.

*9B.21 of 2003 MUTCD has been relocated to Section 9B.22 of the 2009 MUTCD*

**9B.21 Bicycle Route Signs (M1-8, M1-8a, M1-9) (formerly Section 9B.20)**  
**Standard Added (Para 2)** specifying the layout of the M1-8a sign.

**Guidance Added (Para 3)** recommending that bicycle routes establish continuous routing. *(NOTE: This paragraph contains text from Definition 4 in Section 9A.03 of the 2003 MUTCD.)*

**Guidance Revised (Para 4)** – Text regarding bicycle routes that extend through two or States *was changed from Option to Guidance.*

*9B.22 of 2003 MUTCD has been relocated to Section 9B.23 of the 2009 MUTCD*

**9B.22 Bicycle Route Sign Auxiliary Plaques (formerly Section 9B.21)**  
**New Option (Para 1)** regarding use of auxiliary plaques.

**Guidance Revised (Para 2)** recommending the proper mounting of M2-1, M3 series and M4 series auxiliary plaques.

**Guidance Revised (Para 3)** recommending the proper mounting of M5 series and M6 series auxiliary plaques.

**Guidance Added (Para 4)** recommending that except for the M4-8 plaque, all route auxiliary plaque colors match the colors of the route sign they supplement.

**Guidance Added (Para 5)** recommending minimum sizes for route auxiliary plaques used on bicycle routes that carry word legends or arrow symbols.

**Option Added (Para 6)** allowing the enlarging of auxiliary plaques to match the size of larger route signs.

**Option Added (Para 7)** to allow combining a route sign and any complimentary auxiliary plaque on a single sign.

**9B.23 Bicycle Parking Area Sign (D4-3) (formerly Section 9B.22)**

**9B.24 Reference Location Signs (D10-1 through D10-3) and Intermediate Reference Location Signs (D10-1a through D10-3a)**

**New Section** outlining the proper usage, layout, mounting and placement of the reference location and intermediate reference location signs.

**9B.25** **Mode-Specific Guide Signs for Shared-Use Paths (D11-1a, D11-2, D11-3, D11-4)**  
**New Section** outlining the proper usage and placement of D11-1a, D11-2, D11-3 and D11-4 signs.

**9B.26** **Object Markers**  
**New Section** outlining the proper usage and layout of object markers.  
***(NOTE: The text was relocated from Section 9C.03 of the 2003 MUTCD.)***

**Table**  
**9B-1**

**Bicycle Facility Sign and Plaque Minimum Sizes**

**New Signs:** D1-1, D1-1a , D1-2, D1-2a, D1-2b, D1-2c, D1-3, D1-3a, D1-3b, D1-3c, D3-1, D10 series, D11-1a, D11-1c, D11-2, D11-3, D11-4, M1-8a, M2 through M6 series, R4-11, R4-16, R9-3, R9-13, R9-14, R10-4, R10-24, R10-25, R10-26, R15-8, W8-3, W10-12, W11-15, and Type 3 Object Markers.

**New Plaques:** R15-2P, W10-9P, W11-15P, W16-2P, W16-2aP, W16-9P, and D11-1bP

**Deleted Signs:** M4-11, M4-12, M4-13, and the M7 series, R9-3a, and R10-3

The phrase “or Plaque” has been added to the name of the first column and all of the plaques in this column have been labeled as being a plaque.

The name of the 2<sup>nd</sup> column has been changed from “MUTCD Code” to “Sign Designation.”

The “Section” column has been added.

The “Minimum Sign Size” heading was deleted from last two columns.

Names of the R9-3, R15-1, W5-4a, W10-1, D4-3, M1-8, and M1-9 signs and the W8-10P plaque have been revised in the first column.

The W8-10p and W16-7p plaque designations were changed to W8-10P and W16-7P, respectively.

A “P” has been added to the designation of the R3-17a, R3-17b, R9-3c, and W16-1 plaques.

The Shared-Use Path size for the W10-1 and M1-9 signs has been increased. The Shared-Use Path size for the R5-6 sign has been decreased. The Shared-Use Path size for the D1-1 and D1-3 signs has been revised.

The Roadway size for the W7-5, W8-10, and W10-1 signs has been increased. The Roadway size for the R3-17 and M1-8 signs and R3-17a and R3-17b plaques has been decreased. The Roadway size for the D1-1 and D1-3 signs has been revised. The Roadway size for the W5-4a sign has been deleted.

The two notes at the bottom of the table have been added.

**Figure**

**9B-1 Sign Placement on Shared-Use Paths**

The former figure has been completely replaced by a new figure. The only item not changed is the title.

**9B-2 Regulatory Signs and Plaques for Bicycle Facilities**

**New Signs:** R4-11, R4-16, R9-13, R9-14, R10-24, R10-25, R10-26, and R15-8

**New Plaque:** R15-2P

The phrase “and Plaques” has been added to the title.

The R10-3 sign has been replaced by an R10-4 sign.

The R9-3a sign designation was changed to R9-3.

A “P” has been added to the designations of the R3-17a, R3-17b, and R9-3c plaques.

The symbol on the R10-22 sign has been revised.

**9B-3 Warning Signs and Plaques and Object Markers for Bicycle Facilities**

**New Signs:** W8-3, W10-12, and W11-15

**New Plaque:** W10-9P, W11-15P, W16-2P, W16-2aP, and W16-9P

The phrase “and Plaques and Object Markers” has been added to the title.

The legend on the W5-4a sign has been revised.

A “P” has been added to the designation of the W16-1 plaque.

The W8-10p and W16-7p plaque designations were changed to W8-10P and W16-7P, respectively.

Object markers have been added.

Asterisks and an asterisk note have been added.

**9B-4 Guide Signs and Plaques for Bicycle Facilities**

**New Signs:** The D1-1, D1-1b, D1-1c, D1-2, D1-2a, D1-2b, D1-2c, D1-3, D1-3a, D1-3b, D1-3c, D10 series, D11-1a, D11-1c, D11-2, D11-3, D11-4, M1-8a, and all of the M2 to M6 series

**New Plaque:** D11-1bP

The phrase “and Plaques” has been added to the title.

The D1-1b and D1-1c sign designations were changed to D1-1a and D3-1, respectively.

The design of the M1-9 sign has been revised.

The M4-11, M4-12, M4-13, and the M7 series signs have been replaced by auxiliary signs

that have the same designs and designations as those in Chapter 2D.

**9B-5**     **Example of Signing for the Beginning and End of a Designated Bicycle Route on a Shared-Use Path**

The D11-1 and D1-1 signs have been added facing traffic on the shared-use path that is departing the intersection.

The designation and design of the END auxiliary sign above the D11-1 sign that faces traffic on the shared-use path that is approaching the intersection has been changed.

The designations and designs of the auxiliary signs below the D11-1 signs that face traffic on the roadway have been changed.

**9B-6**     **Example of Bicycle Guide Signing**

All of the signs have been revised.

The note at the bottom left-hand corner of the figure has been deleted.

**9B-7**     **Examples of Signing and Markings for a Shared-Use Path Crossing**

The drawing at the top of the figure has been rotated 90-degrees counter-clockwise.

Trail crossing signs and plaques have been added as an alternative to the W11-1 signs.

The designation of the auxiliary sign below the bike route sign has been changed from M7-5 to M6-4.

The designations of the W16-2aP and W16-7P plaques have been updated.

The note associated with the leader line that points to the center of the intersection has been revised.

The drawing in the bottom right-hand corner has been relocated to Figure 8D-1.

**9B-8**     **Example of Mode-Specific Guide Signing on a Shared-Use Path**  
**New Figure**



## Chapter 9C

### 9C.02 General Principles

**Guidance Added (Para 3)** to also recommend the use of arrows, where appropriate.

**Standard Added (Para 4)** requiring arrows used for marking bicycle facilities to conform to the provisions in Sections 3A.05 and 3B.20.

**Support Added (Para 5)** indicating that arrows are included in the figures with examples of markings used on bikeways.

### 9C.03 Marking Patterns and Colors on Shared-Use Paths

*(NOTE: The text from last five paragraphs of this Section in the 2003 MUTCD has been relocated to Section 9B.26 of the 2009 MUTCD)*

### 9C.04 Markings for Bicycle Lanes

**Standard Added (Para 2)** requiring longitudinal pavement markings to define bicycle lanes.

**Guidance Revised (Para 3)** – Text regarding the proper placement of bicycle lane markings *was changed from Standard to Guidance*, and a recommendation added that placement be based on engineering judgment.

**Standard Revised (Para 4)** deleting the requirement that bicycle markings have to be white, and adding the requirement that arrows precede the bicycle lane symbol marking when they are used together.

**Option Revised (Para 5)** – Text regarding the use of Bike Lane Signs with the word, symbol, and/or arrow pavement markings shown in Figure 9C-3 *was changed from Standard to Option*.

**Standard Added (Para 6)** prohibiting positioning a through bike lane to the left of a left-turn only lane.

**New Guidance (Para 13)** recommending bicycle lane markings end at least 100 feet before a crosswalk, yield line or edge of circulatory roadway, whatever is applicable.

**Support Added (Para 14)** to indicate that word message and arrow markings for bicycle lanes are show in Figure 9C-3.

### 9C.07 Shared Lane Marking

**New Section** outlining the purpose, proper placement and usage of shared lane markings.

### Figure

#### 9C-1

#### Example of Intersection Pavement Markings – Designated Bicycle Lane with Left-Turn Area, Heavy Turn Volumes, Parking, One-Way Traffic, or Divided Highway

A dotted line has been added in the taper area for the left-turn lane.

#### 9C-2

#### Examples of Center Line Markings for Shared-Use Paths

The drawing at the bottom of the figure has been relocated to Figure 9C-8.

The remaining two drawings have been assigned the letter designations A and B.

The word “width” has been added to the two labels.

*9C-3 of 2003 MUTCD has been relocated to Figure 9C-4 of the 2009 MUTCD*

**9C-3 Word, Symbol, and Arrow Pavement Markings for Bicycle Lanes  
(formerly Figure 9C-6)**

The graphical depictions of the markings have been deleted.

The three possible alternatives for the word, symbol, and arrow markings in the bike lane are shown separately, each with appropriate longitudinal dimensions.

*9C-4 of 2003 MUTCD has been relocated to Figure 9C-5 of the 2009 MUTCD*

**9C-4 Example of Bicycle Lane Treatment at a Right Turn Only Lane  
(formerly Figure 9C-3)**

The note below the R4-4 sign has been revised.

*9C-5 of 2003 MUTCD has been relocated to Figure 9C-6 of the 2009 MUTCD*

**9C-5 Example of Bicycle Lane Treatment at Parking Lane into a Right Turn Only Lane  
(formerly Figure 9C-4)**

The note below the R4-4 sign has been revised.

*9C-6 of 2003 MUTCD has been relocated to Figure 9C-3 of the 2009 MUTCD*

**9C-6 Example of Pavement Markings for Bicycle Lanes on a Two-Way Street  
(formerly Figure 9C-5)**

The word “width” has been added after “normal” in four places.

The designations of the symbolic No Parking signs have been revised from R8-3a to R8-3.

**9C-7 Bicycle Detector Pavement Marking**

The phrase “Example of” has been deleted from the title.

The graphic has been changed to a white pavement marking on a gray background.

A 2-inch dimension has been added for the widths of the line segments above and below the bicyclist symbol.

**9C-8 Examples of Obstruction Pavement Markings**

The drawing at the top of the figure was relocated from Figure 9C-2 and given a title and the designation “Drawing A.” The word “width” was added to the label pointing at the yellow line.

The drawing at the bottom of the figure was given a title and the designation “Drawing B.” The word “width” was added to the label pointing at the yellow line. An asterisk and an asterisk note were added.

**9C-9 Shared Lane Marking  
New Figure**

## **Chapter 10A**

*Chapter 10A in the 2003 MUTCD has been combined into Chapter 8A of the 2009 MUTCD*

*10A.01 of 2003 MUTCD has been combined into Section 8A.01 of the 2009 MUTCD*

*10A.02 of 2003 MUTCD has been combined into Section 8A.03 of the 2009 MUTCD*

*10A.03 of 2003 MUTCD has been combined into Section 8A.04 of the 2009 MUTCD*

*10A.04 of 2003 MUTCD has been combined into Section 8A.05 of the 2009 MUTCD*

*10A.05 of 2003 MUTCD has been combined into Section 8A.08 of the 2009 MUTCD*

## **Chapter 10B**

*Chapter 10B in the 2003 MUTCD has been combined into Section 8A.03 of the 2009 MUTCD*

*10B.01 of 2003 MUTCD has been combined into Section 8A.03 of the 2009 MUTCD*

## Chapter 10C

*Chapter 10C in the 2003 MUTCD has been combined into Chapter 8B of the 2009 MUTCD*

*10C.01 of 2003 MUTCD has been combined into Section 8B.01 of the 2009 MUTCD*

*10C.02 of 2003 MUTCD has been combined into Sections 8B.03 and 8B.04 of the 2009 MUTCD*

*10C.03 of 2003 MUTCD has been combined into Section 8B.17 of the 2009 MUTCD*

*10C.04 of 2003 MUTCD has been combined into Section 8B.05 of the 2009 MUTCD*

*10C.05 of 2003 MUTCD has been combined into Section 8B.09 of the 2009 MUTCD*

*10C.06 of 2003 MUTCD has been combined into Section 8B.10 of the 2009 MUTCD*

*10C.07 of 2003 MUTCD has been combined into Section 8B.12 of the 2009 MUTCD*

*10C.08 of 2003 MUTCD has been combined into Section 8B.11 of the 2009 MUTCD*

*10C.09 of 2003 MUTCD has been combined into Section 8B.08 of the 2009 MUTCD*

*10C.10 of 2003 MUTCD has been combined into Section 8B.07 of the 2009 MUTCD*

*10C.11 of 2003 MUTCD has been combined into Section 8B.16 of the 2009 MUTCD*

*10C.12 of 2003 MUTCD has been combined into Section 8B.15 of the 2009 MUTCD*

*10C.13 of 2003 MUTCD has been combined into Section 8B.13 of the 2009 MUTCD*

*10C.14 of 2003 MUTCD has been combined into Section 8B.14 of the 2009 MUTCD*

*10C.15 of 2003 MUTCD has been combined into Section 8B.06 of the 2009 MUTCD*

*10C.16 of 2003 MUTCD has been combined into Section 8B.23 of the 2009 MUTCD*

*10C.17 of 2003 MUTCD has been relocated to Section 8B.19 of the 2009 MUTCD*

*10C.18 of 2003 MUTCD has been combined into Section 8B.24 of the 2009 MUTCD*

*10C.19 of 2003 MUTCD has been combined into Section 8B.25 of the 2009 MUTCD*

*10C.20 of 2003 MUTCD has been relocated to Section 8B.26 of the 2009 MUTCD*

*10C.21 of 2003 MUTCD has been combined into Section 8B.18 of the 2009 MUTCD*

*10C.22 of 2003 MUTCD has been combined into Section 8A.05 of the 2009 MUTCD*

*10C.23 of 2003 MUTCD has been combined into Section 8B.27 of the 2009 MUTCD*

*10C.24 of 2003 MUTCD has been combined into Section 8B.28 of the 2009 MUTCD*

*10C.25 of 2003 MUTCD has been combined into Section 8B.29 of the 2009 MUTCD*

**Figure**

*10C-1 in the 2003 MUTCD has been deleted, as it was a duplicate of Figure 8B-1 of the 2009 MUTCD*

*10C-2 in the 2003 MUTCD has been deleted and the signs that were shown in this figure are now shown in Figure 8B-1 of the 2009 MUTCD*

*10C-3 in the 2003 MUTCD has been deleted and the signs that were shown in this figure are now shown in the new Figure 8B-4, except the I-12 sign which is now shown in Figure 2H-1 of the 2009 MUTCD*

*10C-4 in the 2003 MUTCD has been deleted, as it is a duplicate of Figure 8B-5 in the 2009 MUTCD*

*10C-5 in the 2003 MUTCD has been deleted, as it is a duplicate of Figure 8B-6 in the 2009 MUTCD*

*10C-6 in the 2003 MUTCD has been deleted, as it is a duplicate of Figure 8B-7 in the 2009 MUTCD*

*10C-7 of 2003 MUTCD has been relocated to Figure 8B-9 of the 2009 MUTCD*

*10C-8 in the 2003 MUTCD has been deleted, as it is a duplicate of Figure 8B-8 in the 2009 MUTCD*

*10C-9 of 2003 MUTCD has been relocated to Figure 8B-9 of the 2009 MUTCD*

*10C-10 of 2003 MUTCD has been relocated Figure 8B-9 of the 2009 MUTCD*

## **Chapter 10D**

***Chapter 10D in the 2003 MUTCD has been combined into Chapter 8C of the 2009 MUTCD***

***10D.01 of 2003 MUTCD has been combined into Section 8C.01 of the 2009 MUTCD***

***10D.02 of 2003 MUTCD has been relocated to Section 8C.03 of the 2009 MUTCD***

***10D.03 of 2003 MUTCD has been combined into Sections 8C.04 and 8C.05 of the 2009 MUTCD***

***10D.04 of 2003 MUTCD has been combined into Section 8C.06 of the 2009 MUTCD***

***10D.05 of 2003 MUTCD has been relocated to Section 8C.10 of the 2009 MUTCD***

***10D.06 of 2003 MUTCD has been combined into Section 8C.10 of the 2009 MUTCD***

***10D.07 of 2003 MUTCD has been relocated to Section 8C.11 of the 2009 MUTCD***

***10D.08 of 2003 MUTCD has been relocated to Section 8C.13 of the 2009 MUTCD***

### **Figure**

***10D-1 in the 2003 MUTCD have been relocated to Figure 8C-3 of the 2009 MUTCD***

***10D-2 in the 2003 MUTCD have been relocated to Figure 8C-4 of the 2009 MUTCD***

***10D-3 of 2003 MUTCD has been relocated to Figure 8C-5 of the 2009 MUTCD***

***10D-4 of 2003 MUTCD has been relocated to Figure 8C-6 of the 2009 MUTCD***

***10D-5 of 2003 MUTCD has been relocated to Figure 8C-7 of the 2009 MUTCD***

***10D-6 in the 2003 MUTCD have been relocated to Figure 8C-8 of the 2009 MUTCD***

***10D-7 in the 2003 MUTCD have been relocated to Figure 8C-9 of the 2009 MUTCD***

***10D-8 in the 2003 MUTCD have been relocated to Figure 8C-10 of the 2009 MUTCD***