



National Committee on Uniform Traffic Control Devices

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RWSTC RECOMMENDATION FOLLOWING SPONSOR COMMENTS

TECHNICAL COMMITTEE: NCUTCD Regulatory/Warning Signs Technical Committee

DATE OF ACTION: (task force) 6-7-10, revised 3-13-11, revised 3-28-11, revised 4-3-11, revised 5-10-11, revised 5-13-11, revised 5-29-11, revised 1-7-12, revised 1-18-12 following sponsor comments

TASK FORCE: Tom Heydel (Chair), Richard Meredith, Robert Seyfried, Scott Kuznicki, Fred Ranck, Jim Pline

RWSTC APPROVAL DATE: 6-23-11

TRANSMITTAL TO SPONSORS DATE: Fall 2011

RWSTC APPROVAL DATE FOLLOWING SPONSOR COMMENTS: 1-18-12

COUNCIL APPROVAL DATE: 1-19-12

TOPIC: Typical Signalized intersection figures- intersection signing – Warning, Regulatory and Guide signs

AFFECTED PORTIONS OF MUTCD: Section 2A.16 and Figures

DISCUSSION: This proposal was submitted to NCUTCD Council for approval in January 2011 following sponsor comments. There were several comments which led to changes to the figure including showing signing for only the one roadway approach similar to figures 2A-4 in the 2009 MUTCD. To remain consistent with those figures it required the task force to modify the proposal signalized intersection figure and to add a second figure for optional lane situation. The first figure is the optional lane application and the second figure is the mandatory movement lane control application. These new figures are now more consistent with Figures 2A-4. Changes made from the original proposal include:

- A. A statement that the pavement marking follows the MUTCD Part 3 typicals

- B. Revisions to the pavement marking to be consistent with Figures in part 3
- C. Elimination of signing on 3 approaches. Show only one approach similar to Figure 2A-4 typicals
- D. Reference to figure 3B-13B
- E. Removal of “onlys” pavement marking to be consistent with Figures in part 3, figure 3B-13
- F. Label optional dotted extensions
- G. Creation of optional lane for one of the left turn lanes
- H. Remove the southbound lane drop signs and remove the lane drop.
- I. Modify the one overhead sign to make it an optional lane sign. MUTCD doesn’t allow regulatory sign within green sign for optional lanes, 2D.33 (04).
- J. Measurement between signs – remove the word “minimum”
- K. Label the street name signs as D3-1
- L. Reference 2C.58 for signal ahead sign

The 2009 MUTCD added Figure 2A-4 to provide for relative locations and examples of regulatory, warning, and guide signs on an intersection approach for a stop condition and an uncontrolled intersection. Also, roundabout figures are shown in 2B.21 through 2B.23. However, a signalized example is not in the 2009 MUTCD. Therefore, an intersection example with signalized traffic control is recommended. In addition the 2009 MUTCD provides for additional guidance in section 2D.33 for the use of overhead guidance signing. Sections 2B.18 through 2B.22 discuss regulatory lane use signage. Section 2B.19 (04) indicates that overhead signage should be used at signalized intersections where through lanes become mandatory turn lanes. Accordingly, the attached figures provides for the use of these signs in a typical application. The figures represent the sequence of signing (warning, guide, regulatory). Providing illustrations and text would also provide the practitioner guidance in terms of location of signs, order of importance of signs and when the regulatory, warning or guide sign are required, recommended or optional.

The pavement marking shown on the attached figures is for clarity only, but does follow the same pavement marking patterns shown in part 3 of the MUTCD, Figure 3B-13.

Section 2A.16 – “Standardization of Location” would be the most appropriate place for this text, since this section already discusses spacing of signs, priority of signs, and which signs are supplements to other signs.

Section 2D.33 paragraph 04 does not permit the use of the D15-1 sign for optional movement lanes. Therefore, the optional movement lane sign is shown as a guide sign without the regulatory black on white background plaque within the sign.

Section 2B.21 paragraph 05 states that where the number of lanes available to through traffic on an approach is three or more, an optional movement lane control (R3-6) sign if

used shall be mounted overhead over the specific lane to which it applies (See section 2B.19). Therefore, the R3-6 sign is not required overhead but is optional

RECOMMENDATION:

Note: Proposed changes to the MUTCD are shown in underline red and removed text is shown in ~~striketrough-red~~.

RECOMMENDED WORDING to the 2009 MUTCD

Section 2A.16 Standardization of Location

Support:

Standardization of position cannot always be attained in practice. Examples of heights and lateral locations of signs for typical installations are illustrated in Figure 2A-2, and examples of locations for some typical signs at intersections are illustrated in Figures 2A-3, ~~and 2A-4~~ and 2A-5 a and b.

Figure 2A-2 Examples of Heights and Lateral Locations of Sign Installations

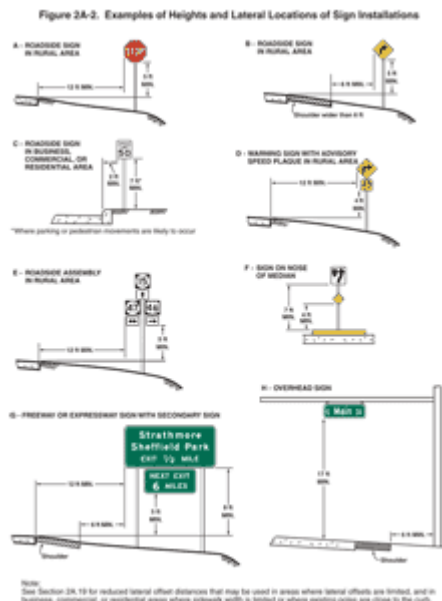
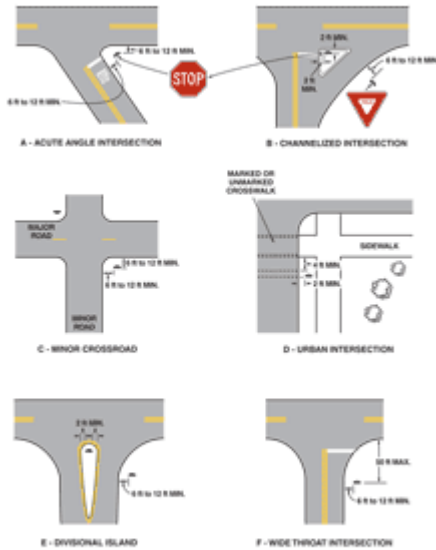


Figure 2A-3 Examples of Locations for Some Typical Signs at Intersections

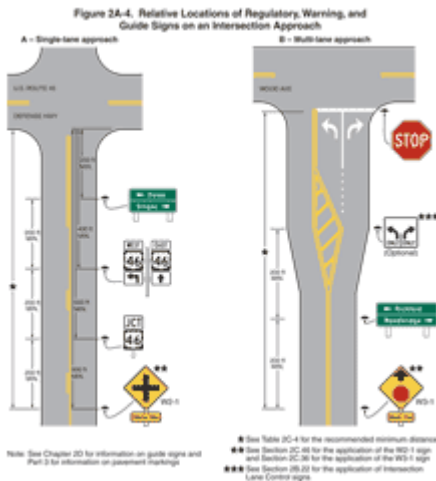
Figure 2A-3. Examples of Locations for Some Typical Signs at Intersections



Note: Lateral offset is a minimum of 6 feet measured from the edge of the shoulder, or 12 feet measured from the edge of the traveled way. See Section 2A.10 for lower minimums that may be used in urban areas, or where lateral offset space is limited.

02 Examples of advance signing on an intersection approaches are illustrated in Figures 2A-4 and 2A-5a and b. Chapters 2B, 2C, and 2D contain provisions regarding the application of regulatory, warning, and guide signs, respectively.

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



Standard:
03 Signs requiring separate decisions by the road user shall be spaced sufficiently far apart for the appropriate decisions to be made. One of the factors considered when determining the appropriate spacing shall be the posted or 85th-percentile speed.

Guidance:
04 Signs should be located on the right-hand side of the roadway where they are easily recognized and understood by road users. Signs in other locations should be considered only as supplementary to signs in the normal locations, except as otherwise provided in this Manual.

05 Signs should be individually installed on separate posts or mountings except where:

- A. One sign supplements another;
- B. Route or directional signs are grouped to clarify information to motorists;
- C. Regulatory signs that do not conflict with each other are grouped, such as turn prohibition signs posted with one way signs or a parking regulation sign posted with a speed limit sign; or
- D. Street name signs are posted with a stop or yield sign.

06 Signs should be located so that they:

- A. Are outside the clear zone unless placed on a breakaway or yielding support (see Section 2A.19),
- B. Optimize nighttime visibility,
- C. Minimize the effects of mud splatter and debris,
- D. Do not obscure each other,
- E. Do not obscure the sight distance to approaching vehicles on the major street for drivers who are stopped on minor-street approaches, and
- F. Are not hidden from view.

Support:

07 The clear zone is the total roadside border area, starting at the edge of the traveled way, available for use by errant vehicles. The width of the clear zone is dependent upon traffic volumes, speeds, and roadside geometry. Additional information can be found in AASHTO's "Roadside Design Guide" (see Section 1A.11).

Guidance:

08 With the increase in traffic volumes and the desire to provide road users regulatory, warning, and guidance information, an order of priority for sign installation should be established.

Support:

09 An order of priority is especially critical where space is limited for sign installation and there is a demand for several different types of signs. Overloading road users with too much information is not desirable.

Guidance:

10 Because regulatory and warning information is more critical to the road user than guidance information, regulatory and warning signing whose location is critical should be displayed rather than guide signing in cases where conflicts occur. Community wayfinding and acknowledgment guide signs should have a lower priority as to placement than other guide signs. Information of a less critical nature should be moved to less critical locations or omitted.

Option:

11 Under some circumstances, such as on curves to the right, signs may be placed on median islands or on the left-hand side of the road. A supplementary sign located on the left-hand side of the roadway may be used on a multi-lane road where traffic in a lane to the right might obstruct the view to the right.

Guidance:

12 In urban areas where crosswalks exist, signs should not be placed within 4 feet in advance of the crosswalk (see Drawing D in Figure 2A-3).

Section 2B.22 Advance Intersection Lane Control Signs (R3-8 Series)

Option:

01 Advance Intersection Lane Control (R3-8, R3-8a, and R3-8b) signs (see [Figure 2B-4](#)) may be used to indicate the configuration of all lanes ahead.

02 The word messages ONLY, OK, THRU, ALL, or HOV 2+ may be used within the border in combination with the arrow symbols of the R3-8 sign series. The HOV 2+ (R3-5cP) supplemental plaque may be installed at the top outside border of the R3-8 sign over the applicable lane designation on the sign. The diamond symbol may be used instead of the word message HOV. The minimum allowable vehicle occupancy requirement may vary based on the level established for a particular facility.

Guidance:

03

When used, an Advance Intersection Lane Control sign should be placed at an adequate distance in advance of the intersection so that road users can select the appropriate lane either in advance of the lane tapers or at the beginning of the turn lane (see [Figures 2A-4 and 2A-5 a and b](#)). If used, the Advance Intersection Lane Control sign should be installed either in advance of the tapers or at the beginning of the turn lane.

Option:

04 An Advance Intersection Lane Control sign may be repeated closer to the intersection for additional emphasis.

Standard:

05 **Where three or more approach lanes are available to traffic, Advance Intersection Lane Control (R3-8 series) signs, if used, shall be post-mounted in advance of the intersection and shall not be mounted overhead (see [Section 2B.19](#)).**

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

Standard:

01 **The Advance Traffic Control symbol signs (see [Figure 2C-6](#)) include the Stop Ahead (W3-1), Yield Ahead (W3-2), and Signal Ahead (W3-3) signs. These signs shall be installed on an approach to a primary traffic control device that is not visible for a sufficient distance to permit the road user to respond to the device (see [Table 2C-4](#)). The visibility criteria for a traffic control signal shall be based on having a continuous view of at least two signal faces for the distance specified in [Table 4D-2](#).**

Support:

02 [Figures 2A-4 and 2A-5a and b](#) show the typical placement of an Advance Traffic Control sign.

03 Permanent obstructions causing the limited visibility might include roadway alignment or structures. Intermittent obstructions might include foliage or parked vehicles.

Guidance:

04 *Where intermittent obstructions occur, engineering judgment should determine the treatment to be implemented.*

Option:

05 An Advance Traffic Control sign may be used for additional emphasis of the primary traffic control device, even when the visibility distance to the device is satisfactory.

06 An advance street name plaque (see [Section 2C.58](#)) may be installed above or below an Advance Traffic Control sign.

07 A warning beacon may be used with an Advance Traffic Control sign.

08 A BE PREPARED TO STOP (W3-4) sign (see [Figure 2C-6](#)) may be used to warn of stopped traffic caused by a traffic control signal or in advance of a section of roadway that regularly experiences traffic congestion.

Standard:

09 When a BE PREPARED TO STOP sign is used in advance of a traffic control signal, it shall be used in addition to a Signal Ahead sign and shall be placed downstream from the Signal Ahead (W3-3) sign.

Option:

10 The BE PREPARED TO STOP sign may be supplemented with a warning beacon (see Section 4L.03).

Guidance:

11 *When the warning beacon is interconnected with a traffic control signal or queue detection system, the BE PREPARED TO STOP sign should be supplemented with a WHEN FLASHING (W16-13P) plaque (see [Figure 2C-12](#)).*

Support:

12 Section 2C.40 contains information regarding the use of a NO MERGE AREA (W4-5P) supplemental plaque in conjunction with a Yield Ahead sign.

Section 2D.33 Combination Lane-Use/Destination Overhead Guide Sign (D15-1)

Option:

01 At complex intersection approaches involving multiple turn lanes and destinations, a Combination Lane-Use/Destination (D15-1) overhead guide sign that combines a lane-use regulatory sign with destination information such as a cardinal direction, a route number, a street name, and/or a place name may be used.

Support:

02 At such locations, the combined information on the D15-1 signs can be even more effective than separate lane-use and guide signs for conveying to unfamiliar drivers which lane or lanes to use for a particular destination.

03 Figure 2D-7 shows an example of a D15-1 sign that combines lane-use and route number information and an example of a D15-1 sign that combines lane-use and street name information. Figures 2A-5a and b shows an example of the usage of the D15-1 sign.

Figure 2D-7 Destination and Distance Signs



Standard:

04 **The Combination Lane-Use/Destination (D15-1) overhead guide sign shall be**

used only where the designated lane is a mandatory movement lane. The D15-1 sign shall not be used for lanes with optional movements.

05 The D15-1 sign shall have a green background with a white border. As shown in Figure 2D-7, the lane-use sign (see Chapter 2B) shall be placed near the bottom of the sign and the destination information shall be placed near the top of the sign. The D15-1 sign shall be located approximately over the center of the lane to which it applies.

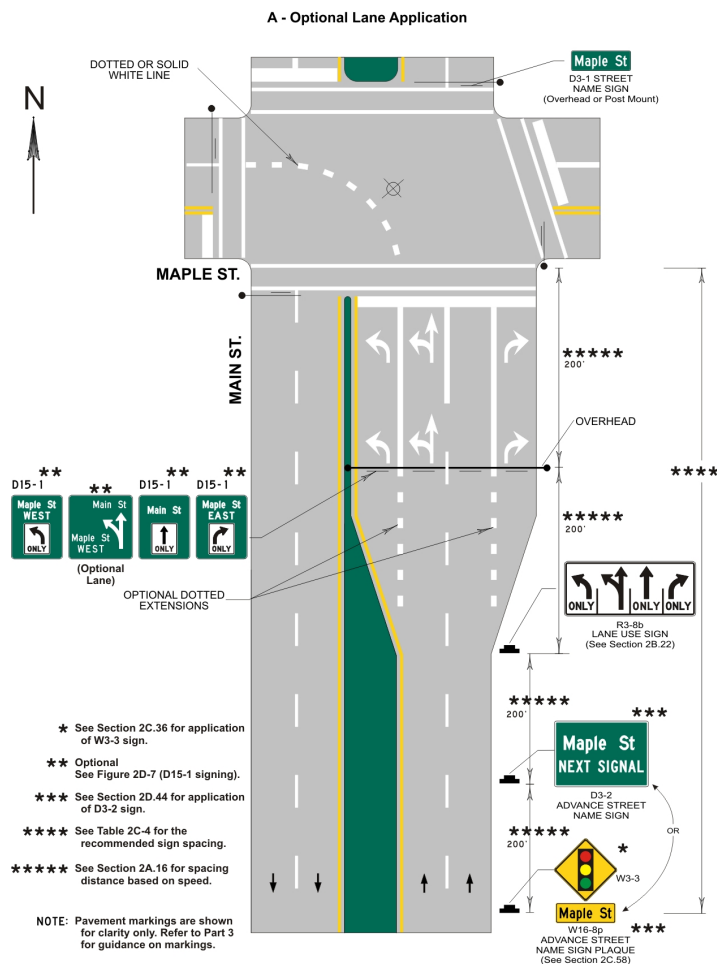
Add figures as follows:

Figures 2A-5a and b – Add the signalized intersection example figures below (Figure 2A-5) to section 2A.16.

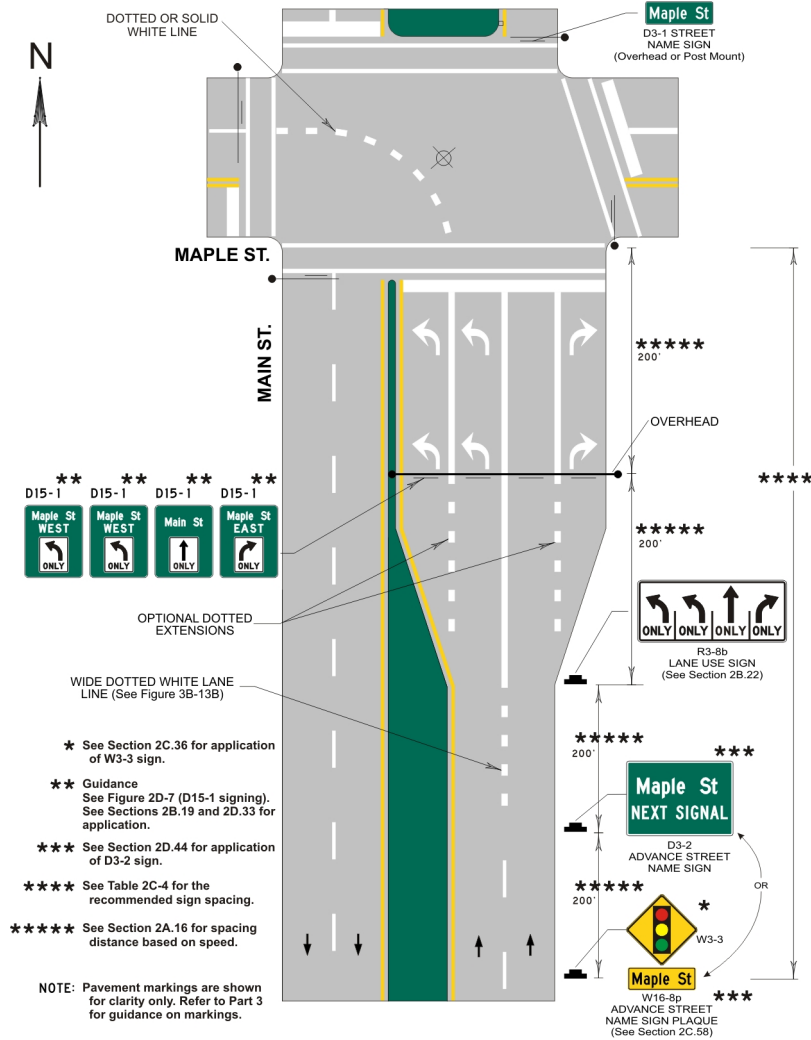
Title of figure – Figure 2A-5a Relative Locations of Regulatory, Warning, and Guide signs on an Urban Signalized Intersection Approach. Optional lane application

Title of figure – Figure 2A-5b - Relative Locations of Regulatory, Warning, and Guide signs on an Urban Signalized Intersection Approach. Mandatory Movement Lane Control

Figure 2A-5. Relative Locations of Regulatory, Warning, and Guide Signs on an Urban Signalized Intersection Approach



B - Mandatory Movement Lane Control Application



Abstentions: 5

Abstentions: 0

281 c: ncutcd/-January 2012 meeting/heydel/figures for typical signalized intersection signing
282 – 6-30-10, revised 1-10-11. Revised 3-13-11, revised 3-28-11, revised 4-3-11, revised 5-
283 10-11, revised 5-13-11, revised 5-29-11, 6-23-11, / revised 1-7-12 following sponsor
284 comments, revised 1-18-12 following sponsor comments, council approval 1-19-12
285