

ATTACHMENT NO. 3C

National Committee on Uniform Traffic Control Devices

**GMI Signs Technical Committee Recommendations
Approved by the NCUTCD Council January 2008 & June 2008**

The National Committee endorsement of GMI Summary Recommendations with NPA text.

The following list contains the recommendations for each section within the NPA that are GMI's responsibility. All of the NPA text is included as a reference.

The recommendations are noted as:

GMI endorses the content of this section as proposed by FHWA, with the following exception:

1. Page ?, lines ?-? – Explanation

There are items GMI recommends to the National Committee to be modified, but agrees with the rest of the text.

GMI endorses the content of this section as proposed by FHWA.

There are changes to the text beyond the editorial level, but GMI agrees.

GMI endorses editorial change.

There are only editorial changes and GMI agrees.

GMI endorses no change.

The text remains the same as the current edition and GMI agrees.

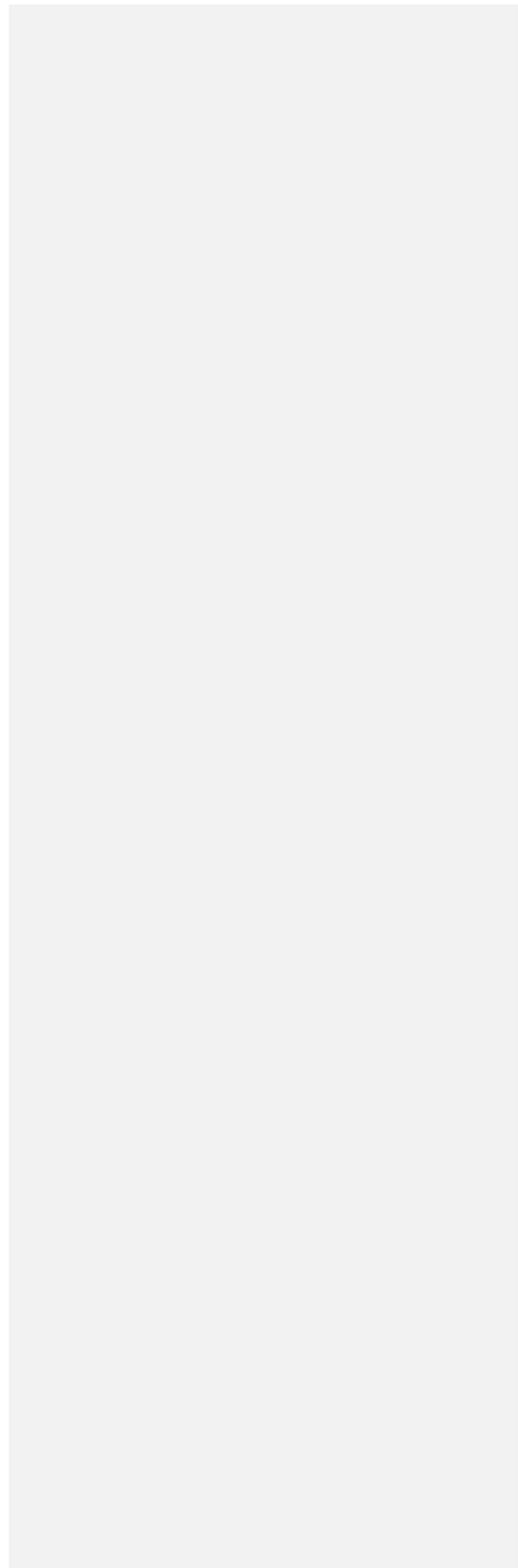
Task force to review for June meeting

GMI endorses the content of this section as proposed by FHWA, with the following exception:

1. Page , lines - Explain.

These sections will be reviewed in June and presented to the National Committee.

The National Committee endorses...



GMI recommendations approved by the National Committee.

All Toll/Managed Lanes Sections (guide signs, pavement markings, regulatory signs) should be combined into a separate Part.

Re-evaluate definitions - The FHWA should re-evaluate the definitions of contiguous, buffer-separated, and barrier-separated lanes. The definitions should include discussion of allowed lane change movements. The definitions in Part 1A for contiguous (12) and buffer-separated lanes (21) do not agree with the same terms used in Parts 2 and 3. This will affect Sections 2B.26, 2E.51 through 2E.54, 2E.59, 2E.61, 3B.24, 3B.25. Further, the illustrations of these lanes shown in Parts 2 and 3 do not agree. The lane lines illustrated in Figures 2E-36 through 2E-43 must reflect the lane lines illustrated in Figures 3B.32 and 3B.33.

Delete Transponder - delete the term “transponder” throughout the document, replace with “non-contact electronic payment”. Changed to allow video / camera systems that capture license plate images for billing.

Delete Fee – delete the term “fee” throughout, replace with simple term “toll”. Changed because a toll may or may not be defined as a “fee” by state law.

Proposed recreational symbols in Section J should be removed.

CHAPTER 2D. GUIDE SIGNS—CONVENTIONAL ROADS

NATIONAL COMMITTEE endorses editorial throughout - “sign” added, “upper-case” used, “pictograph” used.

Commented [REH1]: Editorial: throughout - “sign” added, “upper-case” used, “pictograph” used, concur

Section 2D.01 Scope of Conventional Road Guide Sign Standards

NATIONAL COMMITTEE endorses editorial change.

Standard:

~~Standards for conventional road guide signs~~ Chapter 2D shall apply to any road or street other than low-volume roads (as defined in Section 5A.01), expressways, and freeways.

Section 2D.02 Application

NATIONAL COMMITTEE endorses no change.

Support:

Guide signs are essential to direct road users along streets and highways, to inform them of intersecting routes, to direct them to cities, towns, villages, or other important destinations, to identify nearby rivers and streams, parks, forests, and historical sites, and generally to give such information as will help them along their way in the most simple, direct manner possible.

Chapter 2A addresses placement, location, and other general criteria for signs.

Section 2D.03 Color, Retroreflection, and Illumination

NATIONAL COMMITTEE endorses no change.

Support:

Requirements for illumination, retroreflection, and color are stated under the specific headings for individual guide signs or groups of signs. General provisions are given in Sections 2A.07, 2A.08, and 2A.10.

Standard:

Except where otherwise specified herein for individual signs or groups of signs, guide signs on streets and highways shall have a white message and border on a green background. All messages, borders, and legends shall be retroreflective and all backgrounds shall be retroreflective or illuminated.

Support:

Color coding is sometimes used to help road users distinguish between multiple potentially confusing destinations. Examples of valuable uses of color coding include guide signs for roadways approaching or inside an airport property with multiple terminals serving multiple airlines, and wayfinding signs for various traffic generator destinations within a community or area.

Standard:

Different color sign backgrounds shall not be used to provide color coding of destinations. The color coding shall be accomplished by the use of different colored square or rectangular sign added to increase consistency panels on the face of the guide signs.

Option:

The different colored sign ~~added to increase consistency~~ panels may include a black or white (whichever provides the better contrast with the panel color) letter, numeral, or other appropriate designation to identify the airport terminal or other destination.

Support:

Two examples of color-coded sign assemblies are shown in Figure 2D-1. [Section 2D.52](#) contains specific provisions regarding Community Wayfinding signs.

Section 2D.04 Size of Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Commented [REH2]: Page 694 lines 38 – 47, page 695 lines 1 – 3, concur

Standard:

Except as noted in Section 2A.11, the sizes of conventional road guide signs that have standardized designs shall be as shown in Table 2D-1.

Support:

[Section 2A.11](#) contains information regarding the applicability of the various columns in Table 2D-1.

Option:

[Signs larger than those shown in Table 2D-1 may be used \(see Section 2A.11\).](#)

Support:

For ~~most other~~ guide signs, the legends are so variable that a standardized [design or](#) size is not appropriate. The sign size is determined primarily by the length of the message, and the size of lettering and spacing necessary for proper legibility. ~~However, for signs with standardized designs, such as route signs, it is practical to use the prescribed sizes that are given in the “Standard Highway Signs” book (see Section 1A.11).~~

Option:

Reduced letter height, reduced interline spacing, and reduced edge spacing may be used on guide signs if sign size must be limited by factors such as lane width or vertical or lateral clearance.

Guidance:

Reduced spacing between the letters or words on a line of legend should not be used as a means of reducing the overall size of a guide sign, except where determined necessary by engineering judgment to meet unusual lateral space constraints. In such cases, the legibility distance of the sign legend should be the primary consideration in determining whether to reduce the spacing between the letters or the words or between the words and the sign border, or to reduce the letter height.

When a reduction in the prescribed size is necessary, the design used should be as similar as possible to the design for the standard size.

Section 2D.05 Lettering Style

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

The design of upper-case letters, lower-case letters, ~~capital letters~~, numerals, route shields, and spacing shall be as provided in the “Standard Highway Signs [and Markings](#)” book (see Section 1A.11).

The lettering for names of places, streets, and highways on conventional road guide signs shall be a combination of lower-case letters with initial upper-case letters, ~~or all capital letters~~ (see Section 2A.13). ~~When a combination of upper- and lower-case letters are used,~~ The initial upper-case letters shall be approximately 1.33 times the “loop” height of the lower-case letters.

All other word legends on conventional road guide signs shall be in ~~capital~~ upper-case letters.

Section 2D.06 Size of Lettering

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

Sign legibility is a direct function of letter size and spacing. Legibility distance has to be sufficient to give road users enough time to read and comprehend the sign. Under optimum conditions, a guide sign message can be read and understood in a brief glance. The legibility distance ~~includes a reasonable safety factor for~~ takes into account factors such as inattention, blocking of view by other vehicles, unfavorable weather, inferior eyesight, or other causes for delayed or slow reading. Where conditions permit, repetition of guide information on successive signs gives the road user more than one opportunity to obtain the information needed.

Standard:

Design layouts for conventional road guide signs showing interline spacing, edge spacing, and other specification details shall be as shown in the “Standard Highway Signs and Markings” book (see Section 1A.11).

The principal legend on guide signs shall be in letters and numerals at least 150 mm (6 in) in height for all ~~capital~~ upper-case letters, or a combination of 150 mm (6 in) in height for upper-case letters with 113 mm (4.5 in) in height for lower-case letters. On low-volume roads (as defined in Section 5A.01) with speeds of 40 km/h (25 mph) or less, and on urban streets with speeds of 40 km/h (25 mph) or less, the principal legend shall be in letters at least 100 mm (4 in) in height.

Guidance:

Lettering sizes should be consistent on any particular class of highway.

The minimum lettering sizes specified herein should be exceeded where conditions indicate a need for greater legibility.

Section 2D.07 Amount of Legend

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

The longer the legend on a guide sign, the longer it will take road users to comprehend it, regardless of letter size.

Guidance:

Guide signs should be limited to no more than three lines of ~~principal legend destinations,~~ which include place names, route numbers, street names, and cardinal directions. Where two or more signs are included in the same overhead display, the amount of legend should be minimized. ~~The principal legend should include only place names, route numbers, and street names.~~ Where appropriate, action information, such as an exit number, NEXT RIGHT, and/or directional arrows, should be provided on guide signs in addition to the destinations.

Commented [REH3]: Page 696 lines 1 – 15, concur

Option:

~~Symbols, action information, cardinal directions, and exit numbers may be used in addition to the principal legend where sign space is available.~~ If sign space is available, pictographs may be used on guide signs in conjunction with destinations that are associated with governmental jurisdictions or agencies, military bases, universities, or other government-approved institutions.

Standard:

The maximum dimension (height or width) of a pictograph shall not exceed the size of the route shield on the guide sign. If the guide sign does not include a route shield, the maximum size of the pictograph shall not exceed two times the letter height of the destination legend.

Section 2D.08 Arrows

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 697, lines 38-40 – Disagree with the change to diagrammatic signs. Will discuss with Section 2E.20.

Support:

Arrows are used for lane assignment and to indicate the direction toward designated routes or destinations. Figure 2D-2 shows the ~~up arrow and the down-~~ various standard arrow designs that have been approved for use on guide signs. Detailed drawings and standardized sizes based on ranges of letter heights of these arrows are shown for these arrows in the “Standard Highway Signs and Markings” book (see Section 1A.11).

Standard:

On overhead signs where it is desirable to indicate a lane to be followed, a down arrow shall be positioned approximately over the center of the lane and shall point vertically downward toward the approximate center of that lane. Down arrows shall be used only 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. 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 ~~shown~~ displayed ~~edited to increase consistency~~ on the sign.

If down arrows are used, having 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.

Option:

Provided that the arrow is positioned approximately over the center of the lane, a directional arrow pointing diagonally downward may be used instead of a vertical down arrow on an overhead guide sign at or near a divergence for the purpose of emphasizing a separation of diverging roadways.

Standard:

Where a roadway is leaving the through lanes, ~~an up~~ a directional arrow shall point upward at an angle ~~representative of that approximates~~ the alignment of the exit roadway.

Option:

Curved-stem arrows (see Figure 2D-9) that represent the intended driver paths to destinations involving left-turn movements may be used on guide signs on approaches to roundabouts.

Guidance:

Commented [REH4]: Page 696 lines 16 – 51, Page 697 lines 1 – 37, concur

If curved-stem arrows are used, the principles set forth in Sections 2D.28, 2D.29, and 2D.30 should be followed.

The Type A directional arrow should be used on guide signs on freeways, expressways, and conventional roads to indicate the direction to a specific destination or group of destinations, except as otherwise provided in this Section and in Section 2E.19.

When a directional arrow in a vertical, upward-pointing orientation is placed to the side of a group of destinations to indicate a through movement, the Type A directional arrow should be used. When a directional arrow in a vertical, upward-pointing orientation is placed to the side of a single destination or under a destination or group of destinations, the Type B directional arrow should be used.

The Type B directional arrow should be used on guide signs on conventional roads when placed at any angle to the side of a single destination or when placed in a horizontal orientation to the side of a group of destinations.

The Type C directional arrow should be used on conventional road guide signs placed in advance of an intersection where a turn must be made to reach a posted destination or group of destinations.

The Type D directional arrow should be used primarily for sign applications other than guide signs.

Option:

On conventional roads on the approach to an intersection where the Combination Lane Use/Destination overhead guide sign (see Section 2D.35) is not used, the Type C directional arrow may be used beneath the legend of an overhead guide sign to indicate the fact that a turn must be made from the lane over which the sign is placed to reach the destination or destinations displayed on the sign.

The Type A-Extended directional arrow may be used on guide signs where additional emphasis regarding the direction is needed relative to the amount of legend on the sign.

The Type D directional arrow may be used on post-mounted guide signs on conventional roads with lower operating speeds if the height of the text on the sign is 200 mm (8 in) or less.

The Type C directional arrow may be used to the side of the legend of an overhead guide sign to accentuate a sharp turn maneuver from a mainline roadway (see Section 2E.32 for additional information regarding Exit Direction signs for low advisory ramp speeds).

The directional and down arrows shown in Figure 2D-2 may be used on signs other than guide signs for the purposes of providing directional guidance and lane assignment.

Guidance:

Arrows used on guide signs to indicate the directions toward designated routes or destinations should be pointed at the appropriate angle to clearly convey the direction to be taken. A horizontally oriented ~~up-arrow~~ directional arrow design should be used at right-angle intersections.

On a ~~ground-~~ post-mounted ~~edited to increase consistency~~ guide sign, a directional arrow for a straight-through movement should point upward. For a turn, the arrow on a guide sign should point upward and at an angle ~~related to~~ that approximates the sharpness of the turn.

Option:

Arrows may be placed below the principal sign legend or on the appropriate side of the legend.

Guidance:

At an exit, an arrow should be placed at the side of the sign ~~which~~ that will reinforce the movement of exiting traffic. The ~~up-arrow~~ directional arrow design should be used.

The width across the arrowhead for the Types A, B, and C directional arrows should be between 1.5 and 1.75 times the height of the largest letter on the sign. The width across the arrowhead for the Type D directional arrow should be at least equal to the height of the largest letter on the sign. For ~~short~~ downward-pointing arrows used on overhead signs, the width across the arrowhead should be ~~1-75~~ approximately two times the letter height.

Diagrammatic signing used on conventional roads, except for on approaches to roundabouts, should follow the principles set forth in Section 2E.20. Diagrammatic signing used on approaches to roundabouts should follow the principles set forth in Section 2D.40.

Section 2D.09 Numbered Highway Systems

NATIONAL COMMITTEE endorses editorial change.

Support:

The purpose of numbering and signing highway systems is to identify routes and facilitate travel.

The Interstate and United States (U.S.) highway systems are numbered by the American Association of State Highway and Transportation Officials (AASHTO) upon recommendations of the State highway organizations because the respective States own these systems. State and county road systems are numbered by the appropriate authorities.

The basic policy for numbering the U.S. and Interstate highway systems is contained in the following Purpose and Policy statements published by AASHTO (see Page i for AASHTO's address):

- A. "Establishment and Development of United States Numbered Highways," and
- B. "Establishment of a Marking System of the Routes Comprising the National System of Interstate and Defense Highways."

Guidance:

The principles of these policies should be followed in establishing the above highway systems and any other systems, with effective coordination between adjacent jurisdictions. Care should be taken to avoid the use of numbers or other designations that have been assigned to Interstate, U.S., or State routes in the same geographic area. Overlapping numbered routes should be kept to a minimum.

Standard:

Route systems shall be given preference in this order: Interstate, United States, State, and county. The preference shall be given by installing the highest-priority legend on the top or the left of the sign ~~panel.~~ deleted to increase accuracy

Support:

Section 2D.55 contains information regarding the signing of unnumbered highways to enhance route guidance and facilitate travel.

Section 2D.10 Route Signs and Auxiliary Signs

NATIONAL COMMITTEE endorses no change.

Standard:

All numbered highway routes shall be identified by route signs and auxiliary signs.

The signs for each system of numbered highways, which are distinctive in shape and color, shall be used only on that system and the approaches thereto.

Route signs and any auxiliary signs that accompany them shall be retroreflective.

Option:

Route signs and auxiliary signs may be proportionally enlarged where greater legibility is needed.

Support:

Route signs are typically mounted in assemblies with auxiliary signs.

Section 2D.11 Design of Route Signs

NATIONAL COMMITTEE endorses editorial change.

Standard:

The “Standard Highway Signs and Markings” book (see Section 1A.11) shall be used for designing route signs. Other route sign designs shall be established by the authority having jurisdiction.

Interstate Route signs (see Figure 2D-3) shall consist of a cutout shield, with the route number in white letters on a blue background, the word INTERSTATE in white ~~capital~~ upper-case letters on a red background, and a white border. This sign shall be used on all Interstate routes and in connection with route sign assemblies on intersecting highways.

A 600 x 600 mm (24 x 24 in) minimum sign size shall be used for Interstate route numbers with one or two digits, and a 750 x 600 mm (30 x 24 in) minimum sign size shall be used for Interstate route numbers having three digits.

Option:

Interstate Route signs may contain the State name in white upper-case letters on a blue background.

Standard:

Off-Interstate Business Route signs (see Figure 2D-3) shall consist of a cutout shield carrying the number of the connecting Interstate route and the words BUSINESS and either LOOP or SPUR in ~~capital~~ upper-case letters. The legend and border shall be white on a green background, and the shield shall be the same shape and dimensions as the Interstate Route sign. In no instance shall the word INTERSTATE appear on the Off-Interstate Business Route sign.

Option:

The Off-Interstate Business Route sign may be used on a major highway that is not a part of the Interstate system, but one that serves the business area of a city from an interchange on the system.

Guidance:

When used on a green guide sign, a white square or rectangle ~~may~~ should be placed behind the shield to improve contrast.

Standard:

U.S. Route signs (see Figure 2D-3) shall consist of black numerals on a white shield surrounded by a black background without a border. This sign shall be used on all U.S. routes and in connection with route sign assemblies on intersecting highways.

A 600 x 600 mm (24 x 24 in) minimum sign size shall be used for U.S. route numbers with one or two digits, and a 750 x 600 mm (30 x 24 in) minimum sign size shall be used for U.S. route numbers having three digits.

State Route signs shall be designed by the individual State highway agencies.

Guidance:

State Route signs (see Figure 2D-3) should be rectangular and should be approximately the same size as the U.S. Route sign. State Route signs should also be similar to the U.S. Route sign by containing approximately the same size black numerals on a white area surrounded by a black background without a border. The shape of the white area should be circular in the absence of any determination to the contrary by the individual State concerned.

Standard:

If county road authorities elect to establish and identify a special system of important county roads, a statewide policy for such signing shall be established that includes a uniform numbering system to uniquely identify each route. The County Route (M1-6) sign (see Figure 2D-3) shall consist of a pentagon shape with a yellow county name and route number and border on a blue background. County Route signs displaying two digits or the equivalent (letter and numeral, or two letters) shall be a minimum size of 450 x 450 mm (18 x 18 in); those carrying three digits or the equivalent shall be a minimum size of 600 x 600 mm (24 x 24 in).

If a jurisdiction uses letters instead of numbers to identify routes, all references to numbered routes in this Chapter shall be interpreted to also include lettered routes.

Guidance:

If used with other route signs in common assemblies, the County Route sign should be of a size compatible with that of the other route signs.

Option:

When used on a green guide sign, a yellow square or rectangle may be placed behind the County Route sign to improve contrast.

Standard:

Route signs (see Figure 2D-3) for park and forest roads shall be designed with adequate distinctiveness and legibility and of a size compatible with other route signs used in common assemblies.

Section 2D.12 Design of Route Sign Auxiliaries

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

Route sign auxiliaries carrying word legends, except the JCT sign, shall have a standard size of 600 x 300 mm (24 x 12 in). Those carrying arrow symbols, or the JCT sign, shall have a standard size of 525 x 375 mm (21 x 15 in). All route sign auxiliaries shall match the color combination of the route sign that they supplement.

Guidance:

Auxiliary signs carrying word messages and mounted with 750 x 600 mm (30 x 24 in) Interstate Route signs should be 750 x 375 mm (30 x 15 in). With route signs of larger sizes, auxiliary signs should be suitably enlarged, but not such that they exceed the width of the route sign.

Option:

A route sign and any auxiliary signs used with it may be combined on a single ~~panel~~ sign.
edited to increase accuracy

Guidance:

If a route sign and its auxiliary signs are combined on a single sign, the background color of the sign should be green.

Standard:

If a route sign and its auxiliary signs are combined on a single sign with a green background, the auxiliary messages shall be white legends placed directly on the green background. Auxiliary signs shall not be mounted directly to a guide sign.

Commented [REH5]: Page 700 lines 1 – 3, concur

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

NATIONAL COMMITTEE endorses no change.

Standard:

The Junction (M2-1) auxiliary sign (see Figure 2D-4) shall carry the abbreviated legend JCT and shall be mounted at the top of an assembly (see Section 2D.31) either directly above the route sign or above a sign for an alternative route (see Section 2D.16) that is part of the route designation. The minimum size of the Junction auxiliary sign shall be 525 x 375 mm (21 x 15 in) for compatibility with auxiliary signs carrying arrow symbols.

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

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Option:

As an alternative to the standard Junction assembly where more than one route is to be intersected or joined, a rectangular sign may be used carrying the word JUNCTION above the route numbers.

~~Other designs may be used to accommodate State and County Route signs.~~

Standard:

The Combination Junction (M2-2) sign (see Figure 2D-4) shall have a green background with white border and lettering for the word JUNCTION.

Guidance:

Where U.S. or State Route signs are used as components of guide signs, only the ~~outline~~ white background area of the shield, or other distinctive shape, and the black route numerals should be used. ~~The black area around the outside of the shields on the M1-4 and M1-5 signs should not be included on the M2-2 sign.~~

Although the size of the Combination Junction sign will depend on the number of routes involved, the numerals should be large enough for clear legibility and should be of a size comparable with those in the individual route signs.

Section 2D.15 Cardinal Direction Auxiliary Signs (M3-1 through M3-4)

NATIONAL COMMITTEE endorses no change.

Guidance:

Cardinal Direction auxiliary signs (see Figure 2D-4) carrying the legend NORTH, EAST, SOUTH, or WEST should be used to indicate the general direction of the entire route.

Standard:

To improve the readability, the first letter of the cardinal direction words shall be ten percent larger, rounded up to the nearest whole number size.

If used, the Cardinal Direction auxiliary sign shall be mounted directly above a route sign or an auxiliary sign for an alternative route.

Section 2D.16 Auxiliary Signs for Alternative Routes (M4 Series)

NATIONAL COMMITTEE endorses no change.

Option:

Auxiliary signs, carrying legends such as ALTERNATE, BY-PASS, BUSINESS, or TRUCK, may be used to indicate an alternate route of the same number between two points on that route.

Standard:

If used, the auxiliary signs for alternative routes shall be mounted directly above a route sign.

Section 2D.17 ALTERNATE Auxiliary Signs (M4-1, M4-1a)

NATIONAL COMMITTEE endorses no change.

Option:

The ALTERNATE (M4-1) or the ALT (M4-1a) auxiliary sign (see Figure 2D-4) may be used to indicate an officially designated alternate routing of a numbered route between two points on that route.

Standard:

If used, the ALTERNATE or ALT auxiliary sign shall be mounted directly above a route sign.

Guidance:

The shorter (time or distance) or better-constructed route should retain the regular route number, and the longer or worse-constructed route should be designated as the alternate route.

Section 2D.18 BY-PASS Auxiliary Sign (M4-2)

NATIONAL COMMITTEE endorses no change.

Option:

The BY-PASS (M4-2) auxiliary sign (see Figure 2D-4) may be used to designate a route that branches from the numbered route through a city, bypasses a part of the city or congested area, and rejoins the numbered route beyond the city.

Standard:

If used, the BY-PASS auxiliary sign shall be mounted directly above a route sign.

Section 2D.19 BUSINESS Auxiliary Sign (M4-3)

NATIONAL COMMITTEE endorses no change.

Option:

The BUSINESS (M4-3) auxiliary sign (see Figure 2D-4) may be used to designate an alternate route that branches from a numbered route, passes through the business portion of a city, and rejoins the numbered route beyond that area.

Standard:

If used, the BUSINESS auxiliary sign shall be mounted directly above a route sign.

Section 2D.20 TRUCK Auxiliary Sign (M4-4)

NATIONAL COMMITTEE endorses no change.

Option:

The TRUCK (M4-4) auxiliary sign (see Figure 2D-4) may be used to designate an alternate route that branches from a numbered route, when it is desirable to encourage or require commercial vehicles to use the alternate route.

Standard:

If used, the TRUCK auxiliary sign shall be mounted directly above a route sign.

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

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Option:

The TO (M4-5) auxiliary sign (see Figure 2D-4) may be used to provide directional guidance to a particular road facility from other highways in the vicinity (see Section 2D.37).

Standard:

If used, the TO auxiliary sign shall be mounted directly above a route sign or an auxiliary sign for an alternative route. [If a Cardinal Direction auxiliary sign is also included in the assembly, the TO auxiliary sign shall be mounted directly above the Cardinal Direction auxiliary sign.](#)

Section 2D.22 END Auxiliary Sign (M4-6)

NATIONAL COMMITTEE endorses no change.

Guidance:

The END (M4-6) auxiliary sign (see Figure 2D-4) should be used where the route being traveled ends, usually at a junction with another route.

Standard:

If used, the END auxiliary sign shall be mounted either directly above a route sign or above a sign for an alternative route that is part of the designation of the route being terminated.

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

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 702, line 4 - replace "TO" with "BEGIN".

Option:

[The BEGIN \(M4-14\) auxiliary sign \(see Figure 2D-4\) may be used where a numbered route begins, usually at a junction with another route.](#)

Standard:

If used, the BEGIN auxiliary sign shall be mounted at the top of the first Confirming assembly (see Section 2D.36) for the route that is beginning.

Guidance:

If a BEGIN auxiliary sign is included in the first Confirming assembly, a Cardinal Direction auxiliary sign should also be included in the assembly.

Standard:

If a Cardinal Direction auxiliary sign is also included in the assembly, the ~~TO~~ BEGIN auxiliary sign shall be mounted directly above the Cardinal Direction auxiliary sign.

Commented [REH6]: Page 702 line 4, replace "TO" with "BEGIN"

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

NATIONAL COMMITTEE endorses editorial change.

Option:

The TEMPORARY (M4-7) or the TEMP (M4-7a) auxiliary sign (see Figure 2D-4) may be used for an interim period to designate a section of highway that is not planned as a permanent part of a numbered route, but that connects completed portions of that route.

Standard:

If used, the TEMPORARY or TEMP auxiliary sign shall be mounted ~~either~~ ~~grammar – more than two choices~~ directly above the route sign, above a Cardinal Direction sign, or above a sign for an alternate route that is a part of the route designation.

TEMPORARY or TEMP auxiliary signs shall be promptly removed when the temporary route is abandoned.

Section 2D.25 TOLL Auxiliary Sign (M4-15)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

2. Page 702, lines 19-23 – Added “Except as noted in option below” to address new option statement. Changed “free” to “non-tolled” and deleted “fee”.
Editorial
3. Page 702, line 23 – Added new Option statement to allow for the omission of a TOLL auxiliary sign for jurisdictions that adopt a route shield that includes the word “toll”.
4. Page 702, line 23 – Added new Option to incorporate pictographs in toll auxiliary sign.

Standard:

Except as noted in the option below, the TOLL (M4-15) auxiliary sign (see Figure 2D-4) shall be mounted directly above the route sign of a numbered toll facility in any route sign assembly providing directions from a ~~free non-tolled facility or free non-tolled lanes to the toll facility or to the lanes or segments of a highway on which the payment of a toll fee is required.~~ The M4-15 auxiliary sign shall also be used above all route signs of a numbered toll facility when a parallel or nearby ~~free non-tolled~~ facility has the same route number.

Option:

When the word TOLL has been incorporated into a toll route sign (see Section 2D.11), the TOLL (M4-15) auxiliary sign is not required above the route sign of a numbered facility on a route assembly.

Option:

A pictograph may be incorporated into the toll auxiliary sign.

Additions to Figure 2D-4



Example Toll Route Marker

Section 2D.26 Electronic Toll Collection (ETC) Only Auxiliary Signs (M4-16 and M4-20)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 702, line 26 – Added “Except as noted in the option below” to reference a new option statement.
2. Page 702, lines 30-31 – Removed “such as E-Z Pass or SunPass”.
3. Page 702, line 32-35 – Deleted paragraph referencing M8-3 interoperable system symbol because of no comprehension testing has been completed on the symbol.
4. Page 702, line 38 – Add new option statement to allow omission of the word ONLY when more than one ETC payment is accepted.

Standard:

Except as noted in the option below, in any route sign assembly providing directions from a free highway or free lanes to a toll facility, a tolled segment of a highway, or tolled lanes of a highway where a single electronic toll collection (ETC) is the only payment method accepted, the ETC Only (M4-20) auxiliary sign (see Figure 2D-5) shall be mounted directly below the route sign of the numbered or named toll facility. The M4-20 auxiliary sign shall incorporate the pictograph adopted by the toll facility’s ETC payment system (such as E-Z Pass or SunPass) and the word ONLY in black letters on a white background with a wide purple border.

The M4-20 auxiliary sign for an ETC-only facility that accepts nationally interoperable transponders shall incorporate the nationally interoperable ETC symbol (M8-3) shown in Figure 2E-50. This symbol shall only be used on signs for ETC facilities that accept electronic payment from any toll operator’s ETC transponder.

Option:

The NO CASH (M4-16) auxiliary sign (see Figure 2D-5) may be used in a route sign assembly directly below the M4-20 auxiliary sign.

Option:

When an ETC facility accepts multiple ETC payment systems then the word ONLY may be excluded on the auxiliary sign.

Section ~~2D.24~~ 2D.27 Temporary Detour and Auxiliary Signs

NATIONAL COMMITTEE endorses no change.

Support:

Chapter 6F contains information regarding Temporary Detour and Auxiliary signs.

Section ~~2D.25~~ 2D.28 Advance Turn Arrow Auxiliary Signs (M5-1, M5-2)

NATIONAL COMMITTEE endorses no change.

Standard:

If used, the Advance Turn Arrow auxiliary sign (see Figure 2D-6) shall be mounted directly below the route sign in Advance Route Turn assemblies, and displays a right or left arrow, the shaft of which is bent at a 90-degree angle (M5-1) or at a 45-degree angle (M5-2).

Section ~~2D.26~~ 2D.29 Directional Arrow Auxiliary Signs (M6 Series)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 703, line 4 - Change "below" to "with" to clarify standard.

Standard:

If used, the Directional Arrow auxiliary sign (see Figure 2D-6) shall be mounted below the route sign in directional assemblies, and displays a single- or double-headed arrow pointing in the general direction that the route follows.

A Directional Arrow auxiliary sign that displays a double-headed arrow shall not be mounted below with a route sign in advance of or at a roundabout.

Commented [REH7]: Page 703 line 4, change "below" to "with".

Section ~~2D.27~~ 2D.30 Route Sign Assemblies

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 703, lines 28-29 – Disagree with diagrammatic signs. Will discuss in 2E.20.

Standard:

A Route Sign assembly shall consist of a route sign and auxiliary signs that further identify the route and indicate the direction. Route Sign assemblies shall be installed on all approaches to numbered routes that intersect with other numbered routes.

Where two or more routes follow the same section of highway, the route signs for Interstate, U.S., State, and county routes shall be mounted in that order from the left in horizontal arrangements and from the top in vertical arrangements. Subject to this order of precedence, route signs for lower-numbered routes shall be placed at the left or top.

Within groups of assemblies, information for routes intersecting from the left shall be mounted at the left in horizontal arrangements and at the top or center of vertical

arrangements. Similarly, information for routes intersecting from the right shall be at the right or bottom, and for straight-through routes at the center in horizontal arrangements or top in vertical arrangements.

Route Sign assemblies shall be mounted in accordance with the general specifications for ~~highway~~ **deleted to increase consistency** signs (Chapter 2A), with the lowest sign in the assembly at the height prescribed for single signs.

Guidance:

Assemblies for two or more routes, or for different directions on the same route, should be mounted in groups on a common support.

Option:

Route Sign assemblies may be installed on the approaches to numbered routes on unnumbered roads and streets that carry an appreciable amount of traffic destined for the numbered route.

The diagrammatic route sign format, such as the D1-4 sign shown in Figure 2D-9, may be used on approaches to roundabouts.

If engineering judgment indicates that groups of assemblies that include overlapping routes or multiple turns might be confusing, route signs or auxiliary signs may be omitted or combined, provided that clear directions are given to road users.

Support:

Figure 2D-7 shows typical placements of route signs.

Section ~~2D.28~~ **2D.31 Junction Assembly**

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

A Junction assembly shall consist of a Junction auxiliary sign and a route sign. The route sign shall carry the number of the intersected or joined route.

The Junction assembly shall be installed in advance of every intersection where a numbered route is intersected or joined by another numbered route.

Guidance:

In urban areas, ~~the Junction assembly shall~~ **should** be installed in the block preceding the intersection, ~~and. In urban areas where speeds are low, the Junction assembly should not be installed more than 90 m (300 ft) in advance of the intersection.~~ **relocated from below to improve continuity**

In rural areas, ~~the Junction assembly shall~~ **should** be installed at least 120 m (400 ft) in advance of the intersection. In rural areas, the minimum distance between ~~the a Junction assembly and a Destination sign and the or an Advance~~ Route Turn assembly ~~shall should~~ be 60 m (200 ft), ~~and the minimum distance between the Route Turn assembly and the Junction assembly shall be 60 m (200 ft).~~

Guidance:

~~In urban areas where speeds are low, the Junction assembly should not be installed more than 90 m (300 ft) in advance of the intersection.~~ **relocated to above to improve continuity**

Where prevailing speeds are high, greater spacings should be used.

Option:

Commented [REH8]: Page 703 lines 28 – 29, Will discuss with 2E.20.

Where two or more routes are to be indicated, a single Junction auxiliary sign may be used for the assembly and all route signs grouped in a single mounting, or a Combination Junction (M2-2) added to increase clarity sign (see Section 2D.14) may be used.

Section ~~2D.29~~ 2D.32 Advance Route Turn Assembly

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

An Advance Route Turn assembly shall consist of a route sign, an Advance Turn Arrow or word message auxiliary sign, and a Cardinal Direction auxiliary sign, if needed. It shall be installed in advance of an intersection where a turn must be made to remain on the indicated route.

Option:

The Advance Route Turn assembly may be used to supplement the required Junction assembly in advance of intersecting routes.

Guidance:

Where a multiple-lane highway approaches an interchange or intersection with a numbered route, the Advance Route Turn assembly should be used to pre-position turning vehicles in the correct lanes from which to make their turn.

Option:

Lane Designation auxiliary signs (see Section 2D.33) may be used in Advance Route Turn Assemblies where engineering judgment indicates that specific lane information associated with each route is needed and overhead signing is not practical. An assembly with the Lane Designation auxiliary signs may supplement or substitute for an assembly with Advance Turn Arrow auxiliary signs.

Guidance:

In low-speed areas, the Advance Route Turn assembly should be installed not less than 60 m (200 ft) in advance of the turn. In high-speed areas, the Advance Route Turn assembly should be installed not less than 90 m (300 ft) in advance of the turn. In rural areas, the minimum distance between an Advance Route Turn assembly and a Destination sign or a Junction assembly should be 60 m (200 ft).

Standard:

An assembly that includes an Advance Turn Arrow auxiliary sign shall not be placed where there is an intersection between it and the designated turn.

Guidance:

Sufficient distance should be allowed between the assembly and any preceding intersection that could be mistaken for the indicated turn.

Section 2D.33 Lane Designation Auxiliary Signs (M5-3, M5-4, and M5-5)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Option:

A Lane Designation (M5-3, M5-4, or M5-5) auxiliary sign (see Figure 2D-6) may be mounted directly below the route sign in an Advance Route Turn assembly on multi-lane roadways to allow road users to move into the appropriate lane prior to reaching the intersection or interchange.

Commented [REH9]: Page 704 lines 18 – 27, concur

Commented [REH10]: Page 704 lines 34 – 38, concur

Section ~~2D.30~~ 2D.34 Directional Assembly

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

A Directional assembly shall consist of a [Cardinal Direction auxiliary sign, if needed, a route sign, and a Directional Arrow auxiliary sign](#), ~~and a Cardinal Direction auxiliary sign, if needed.~~ The various uses of Directional assemblies shall be as outlined below:

- A. Turn movements (indicated in advance by an Advance Route Turn assembly) shall be marked by a Directional assembly with a route sign displaying the number of the turning route and a single-headed arrow pointing in the direction of the turn.
- B. The beginning of a route (indicated in advance by a Junction assembly) shall be marked by a Directional assembly with a route sign displaying the number of that route and a single-headed arrow pointing in the direction of the route.
- C. The end of a route shall be marked by a Directional assembly with an END auxiliary sign and a route sign displaying the number of that route.
- D. An intersected route (indicated in advance by a Junction assembly) shall be designated by:
 1. Two Directional assemblies, each with a route sign displaying the number of the intersected route, a Cardinal Direction auxiliary sign, and a single-headed arrow pointing in the direction of movement on that route; or
 2. A Directional assembly with a route sign displaying the number of the intersected route and a double-headed arrow, pointing at appropriate angles to the left, right, or ahead.

Guidance:

Straight-through movements should be indicated by a Directional assembly with a route sign displaying the number of the continuing route and a vertical arrow. A Directional assembly should not be used for a straight-through movement in the absence of other assemblies indicating right or left turns, as the Confirming assembly sign beyond the intersection normally provides adequate guidance.

Directional assemblies should be located on the near right corner of the intersection. At major intersections and at Y or offset intersections, additional Directional assemblies should be installed on the far right or left corner to confirm the near-side assemblies. When the near-corner position is not practical for Directional assemblies, the far right corner should be the preferred alternative, with oversized signs, if necessary, for legibility. Where unusual conditions exist, the location of a Directional assembly should be determined by engineering judgment with the goal being to provide the best possible combination of view and safety.

Support:

It is more important that guide signs be readable at the ~~right~~ [appropriate](#) ~~edited to increase clarity~~ time and place than to be located with absolute uniformity.

Figure 2D-7 shows typical placements of Directional assemblies.

Section 2D.35 Combination Lane Use/Destination Overhead Guide Sign (D15-1)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Option:

[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](#)

Commented [REH11]: Page 705 lines 25 – 40, concur

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:

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.

Figure 2D-8 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.

Guidance:

The Combination Lane Use/Destination (D15-1) overhead guide sign should have a green background with a white border. As shown in Figure 2D-8, the lane-use sign (see Chapter 2B) should be placed near the bottom of the sign and the destination information should be placed near the top of the sign. The D15-1 sign should be located approximately over the center of the lane to which it applies.

Section ~~2D.31~~ 2D.36 Confirming or Reassurance Assemblies

NATIONAL COMMITTEE endorses editorial change.

Standard:

If used, Confirming or Reassurance assemblies shall consist of a Cardinal Direction auxiliary sign and a route sign.

Guidance:

A Confirming assembly should be installed just beyond intersections of numbered routes. It should be placed 7.6 to 60 m (25 to 200 ft) beyond the far shoulder or curb line of the intersected highway.

If used, Reassurance assemblies should be installed between intersections in urban ~~districts~~ **areas edited to increase consistency** as needed, and beyond the built-up area of any incorporated city or town.

Route signs for either confirming or reassurance purposes should be spaced at such intervals as necessary to keep road users informed of their routes.

~~Support:~~

~~Confirming and Reassurance assemblies are considered to be a type of Directional assembly.~~

Section ~~2D.32~~ 2D.37 Trailblazer Assembly

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

Trailblazer assemblies provide directional guidance to a particular road facility from other highways in the vicinity. This is accomplished by installing Trailblazer assemblies at strategic locations to indicate the direction to the nearest or most convenient point of access. The use of the word TO indicates that the road or street where the sign is posted is not a part of the indicated route, and that a road user is merely being directed progressively to the route.

Standard:

A Trailblazer assembly shall consist of a TO auxiliary sign, a route sign (or a special road facility symbol), and a single-headed Directional Arrow auxiliary sign pointing in the direction leading to the route.

Guidance:

If shields or other similar signs are used to provide route guidance in following a trail (see Section 2I.07), they should be designed in accordance with the sizes and other design principles for route signs, such as those described in Sections 2D.10 through 2D.12.

Option:

A Cardinal Direction auxiliary sign may be used with a Trailblazer assembly.

Guidance:

The TO auxiliary sign, Cardinal Direction auxiliary sign, and Directional Arrow auxiliary sign should be of the standard size specified for auxiliary signs of their respective type. The route sign should be the size specified in Section 2D.11.

Option:

Trailblazer assemblies may be installed with other Route Sign assemblies, or alone, in the immediate vicinity of the designated facilities.

Section ~~2D.33~~ 2D.38 Destination and Distance Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

In addition to guidance by route numbers, it is desirable to supply the road user information concerning the destinations that can be reached by way of numbered or unnumbered routes. This is done by means of Destination signs and Distance signs.

Option:

Route ~~and Cardinal Direction auxiliary~~ signs ~~and cardinal directions~~ may be included on the Destination sign ~~panel~~ ~~edited to increase accuracy~~ with the destinations and arrows.

Guidance:

If Route signs ~~and cardinal directions~~ are included on a Destination sign, the ~~size of the~~ Route signs ~~and Cardinal Direction auxiliary signs~~ should be at least the minimum size specified for these signs, ~~and the cardinal directions should be in all upper-case letters that are at least the minimum height specified for these signs.~~

Section ~~2D.34~~ 2D.39 Destination Signs (D1 Series)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 706, line 42 – Change “carrying” to “including”. Editorial.

Standard:

Except ~~where special on approaches to interchanges signing is prescribed (see Section 2D.47),~~ the Destination (D1-1 through D1-3) sign (see Figure 2D-8), if used, shall be a horizontal rectangle ~~carrying~~ ~~including~~ the name of a city, town, village, or other traffic generator, and a directional arrow.

Option:

The distance (see Section 2D.43) to the place named may also be ~~shown~~ ~~displayed~~ ~~edited to increase consistency~~ on the Destination (D1-1a through D1-3a) sign (see Figure 2D-8). If several destinations are to be ~~shown~~ ~~displayed~~ ~~edited to increase consistency~~ at a single point, the several names may be placed on a single ~~panel~~ ~~sign~~ ~~edited to increase accuracy~~ with an arrow (and the distance, if desired) for each name. If more than one destination lies in the same direction, a single arrow may be used for such a group of destinations.

Commented [REH12]: Page 706 line 42, change “carrying” to “including”

Guidance:

Adequate separation should be made between any destinations or group of destinations in one direction and those in other directions by suitable design of the arrow, spacing of lines of legend, heavy lines entirely across the ~~panel sign~~, or separate ~~panels signs~~. ~~edited to increase accuracy~~

Standard:

An arrow pointing to the right shall be at the extreme right of the sign, and an arrow pointing left or up shall be at the extreme left. The distance figures, if used, shall be placed to the right of the destination names.

Guidance:

Unless a sloping arrow will convey a clearer indication of the direction to be followed, the directional arrows should be horizontal or vertical.

If several individual name ~~panels signs~~ ~~edited to increase accuracy~~ are assembled into a group, all ~~panels signs~~ ~~edited to increase accuracy~~ in the assembly should be of the same ~~length horizontal width~~. ~~edited to increase clarity~~

Destination signs should be used:

- A. At the intersections of U.S. or State numbered routes with Interstate, U.S., or State numbered routes; and
- B. At points where they serve to direct traffic from U.S. or State numbered routes to the business section of towns, or to other destinations reached by unnumbered routes.

Standard:

Where a total of three or less destinations are provided on the Advance Guide (see Section 2E.29) and Supplemental Guide (see Section 2E.31) signs, not more than three destination names shall be used on a Destination sign. Where four destinations are provided by the Advance Guide and Supplemental Guide signs, not more than four destination names shall be used on a Destination sign.

Guidance:

If space permits, four destinations should be displayed as two separate signs ~~panels~~ ~~edited to increase accuracy~~ ~~at two separate locations~~.

Option:

Where space does not permit, or where all four destinations are in one direction, a single sign ~~assembly~~ ~~deleted to increase accuracy~~ may be used.

Standard:

Where a single four-name sign assembly is used, a heavy line entirely across the ~~panel sign~~ ~~edited to increase accuracy~~ or separated signs ~~panels~~ ~~edited to increase accuracy~~ shall be used to separate destinations by direction.

Guidance:

The next closest destination lying straight ahead should be at the top of the sign or assembly, and below it the closest destinations to the left and to the right, in that order. The destination ~~shown displayed~~ ~~edited to increase consistency~~ for each direction should ordinarily be the next county seat or the next principal city, rather than a more distant destination. In the case of overlapping routes, ~~there only one destination~~ should be ~~shown displayed~~ ~~edited to increase consistency~~ ~~only one destination~~ in each direction for each route.

Standard:

If ~~there is~~ more than one destination ~~is shown displayed~~ ~~edited to increase consistency~~ in the same direction, the name of the nearest destination shall appear above the names of any destinations that are farther away.

Section 2D.40 Destination Signs at Roundabouts

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 707, lines 49-51 - Change Option statement to Guidance adding “or route sign assemblies” to indicate preferred Signing method. Change “may” to “should”.
2. Page 708, line 52 – Begin Option statement.
3. Page 708, line 54 – Add “to depict the geometry of the roundabout” for clarity.
4. Page 708, line 56 – Add sentence “Overhead guide signs may be used for multi-lane roundabout approaches to direct drivers to the appropriate lane” to provide an option for multi-lane facilities.
5. Figure 2D-10, page 85, Show route designation sign and route sign assembly as options.
6. Figure 2D-10, page 86, Change to multi-lane roundabout and show overhead guide sign assembly option.

Standard:

Destination signs that are used at roundabouts shall comply with the provisions of Section 2D.39, except as indicated in this Section.

Guidance Option:

Exit destination (D1-1d, D1-1e) signs (see Figure 2D-9) with diagonal upward pointing arrows **or route sign assemblies should may** be used to designate a particular exit of a roundabout.

Option:

Exit destination (D1-2d, D1-3d) signs (see Figure 2D-9) with curved-stem arrows may be used on approaches to roundabouts to represent the left-turn movements.

Curved-stem arrows on roundabout destination signs may point in diagonal **directions to depict the geometry of the roundabout.**

Exit destination (D1-4) signs (see Figure 2D-9) with a diagram of the roundabout may be used on approaches to roundabouts.

Overhead guide signs may be used for signing multi-lane roundabout approaches to direct drivers to the appropriate lane (see Figure 2D-11 new).

Support:

Figure 2D-10 illustrates two examples of guide signing for roundabouts.

Diagrammatic signs might be preferable where space is available and where the geometry of the roundabout is non-typical, such as where more than four legs are present or where the legs are not at 90-degree angles to each other.

Chapter 2B contains information regarding regulatory signs at roundabouts, Chapter 2C contains information regarding warning signs at roundabouts, and Chapter 3C contains information regarding pavement markings at roundabouts.

Section 2D.41 Destination Signs at Jughandles

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Commented [REH13]: Page 707 lines 45 – 51, Page 708 lines 1 –13, *review by Roundabout task force.

Commented [REH14]: Page 708 lines 14 – 24, concur

Standard:

Destination signs that are used at jughandles shall comply with the provisions of Section 2D.39, except as indicated in this Section.

Option:

If engineering judgment indicates that standard destination signs alone are insufficient to direct road users to their destinations at a jughandle, a diagrammatic sign depicting the appropriate geometry may be used to supplement the normal destination signs.

Support:

Section 2B.33 contains information regarding regulatory signs for jughandle turns. Figure 2B-12 shows examples of regulatory and destination guide signing for various types of jughandle turns.

Section ~~2D.35~~ 2D.42 Location of Destination Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Guidance:

When used in high-speed areas, Destination signs should be located 60 m (200 ft) or more in advance of the intersection, and following any Junction or Advance Route Turn assemblies that ~~may~~ **might** ~~edited to increase consistency~~ be required. In rural areas, the minimum distance between a Destination sign and an Advance Route Turn assembly or a Junction assembly should be 60 m (200 ft).

Option:

In urban areas, shorter advance distances may be used.

Because the Destination sign is of lesser importance than the Junction, Advance Route Turn, or Directional assemblies, the Destination sign may be eliminated when sign spacing is critical.

Support:

Figure 2D-7 shows typical placements of Destination signs.

Section ~~2D.36~~ 2D.43 Distance Signs (D2 Series)

NATIONAL COMMITTEE endorses editorial change.

Standard:

If used, the Distance (D2-1 through D2-3) sign (see Figure 2D-8) shall be a horizontal rectangle of a size appropriate for the required legend, carrying the names of not more than three Cities, towns, junctions, or other traffic generators, and the distance (to the nearest kilometer or mile) to those places.

Guidance:

The distance ~~shown displayed~~ **edited to increase consistency** should be selected on a case-by-case basis by the jurisdiction that owns the road or by statewide policy. A well-defined central area or central business district should be used where one exists. In other cases, the layout of the community should be considered in relation to the highway being signed and the decision based on where it appears that most drivers would feel that they are in the center of the community in question.

The top name on the Distance sign should be that of the next place on the route having a post office or a railroad station, a route number or name of an intersected highway, or any other significant geographical identity. The bottom name on the sign should be that of the next major destination or control city. If three destinations are ~~shown displayed~~ **edited to increase**

consistency the middle line should be used to indicate communities of general interest along the route or important route junctions.

Option:

The choice of names for the middle line may be varied on successive Distance signs to give road users additional information concerning communities served by the route.

Guidance:

The control city should remain the same on all successive Distance signs throughout the length of the route until that city is reached.

Option:

If more than one distant point may properly be designated, such as where the route divides at some distance ahead to serve two destinations of similar importance, and if these two destinations cannot appear on the same sign, the two names may be alternated on successive signs.

On a route continuing into another State, destinations in the adjacent State may be ~~shown displayed~~. **edited to increase consistency**

Section ~~2D.37~~ 2D.44 Location of Distance Signs

NATIONAL COMMITTEE endorses editorial change.

Guidance:

If used, Distance signs should be installed on important routes leaving municipalities and just beyond intersections of numbered routes in rural areas. If used, they should be placed just outside the municipal limits or at the edge of the built-up ~~district~~ **area** if it extends beyond the limits.

Where overlapping routes separate a short distance from the municipal limits, the Distance sign at the municipal limits should be omitted. The Distance sign should be installed approximately 90 m (300 ft) beyond the separation of the two routes.

Where, just outside of an incorporated municipality, two routes are concurrent and continue concurrently to the next incorporated municipality, the top name on the Distance sign should be that of the place where the routes separate; the bottom name should be that of the city to which the greater part of the through traffic is destined.

Support:

Figure 2D-7 shows typical placements of Distance signs.

Section ~~2D.38~~ 2D.45 Street Name Signs (D3-1 or D3-1a)

The National Committee endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 710, lines 15-17 – Delete definition of pictograph authority.
2. Page 710, line 22, Delete guidance statement to move pictograph to right side of sign.
3. Page 710, line 30, add “except with a black background”.

Guidance:

Street Name (D3-1 **or D3-1a**) signs (see Figure 2D-11) should be installed in urban areas at all street intersections regardless of other route signs that ~~may~~ **might** be present and should be installed in rural areas to identify important roads that are not otherwise signed.

Option:

For streets that are part of a U.S., State, or county numbered route, a D3-1a Street Name sign (see Figure 2D-11) that incorporates a route shield may be used to assist road users who might not otherwise be able to associate the name of the street with the route number.

Standard:

The lettering for names of streets and highways on Street Name signs shall be composed of a combination of lower-case letters with initial upper-case letters (see Section 2A.13).

Guidance:

Lettering on ~~ground-~~ post-mounted ~~edited to increase consistency~~ Street Name signs should be ~~at least 150 mm (6 in) high in capital letters, or 150 mm (6 in) upper-case letters with 113 mm (4.5 in) composed of~~ lower-case letters ~~at least 113 mm (4.5 in) in height with initial upper-case letters at least 150 mm (6 in) in height.~~

On multi-lane streets with speed limits greater than 60 km/h (40 mph), the lettering on ~~ground-~~ post-mounted ~~edited to increase consistency~~ Street Name signs should be ~~at least 200 mm (8 in) high in capital letters, or 200 mm (8 in) upper-case letters with 150 mm (6 in) composed of~~ lower-case letters ~~at least 150 mm (6 in) in height with initial upper-case letters at least 200 mm (8 in) in height.~~

Option:

For local roads with speed limits of 40 km/h (25 mph) or less, the lettering ~~height on post-mounted Street Name signs~~ may be ~~a minimum composed of~~ lower-case letters ~~at least 75 mm (3 in) in height with initial upper-case letters at least 100 mm (4 in) in height.~~

Guidance:

If overhead Street Name signs are used, the lettering should be ~~at least 300 mm (12 in) high in capital letters, or 300 mm (12 in) upper-case letters with 225 mm (9 in) composed of~~ lower-case letters ~~at least 225 mm (9 in) in height with initial upper-case letters at least 300 mm (12 in) in height.~~ ~~relocated from 2nd to last paragraph of this section~~

Support:

The recommended minimum letter heights for Street Name signs are summarized in Table 2D-2.

Option:

Supplementary lettering to indicate the type of street (such as Street, Avenue, or Road) or the section of the city (such as NW) may be in smaller lettering, at least 75 mm (3 in) high. Conventional abbreviations (see Section 1A.15) may be used except for the street name itself.

~~A symbol or letter designation pictograph may be used on a Street Name sign to identify the governmental jurisdiction, an area of jurisdiction, a governmental agency, a military base or branch of service, a governmental-approved university or college, or other a government-approved institution.~~

Standard:

If a ~~symbol or letter designation~~ pictograph is used, the height and width of the ~~symbol or letter designation~~ pictograph shall not exceed the letter height of the sign.

Guidance:

~~The ~~symbol or letter designation~~ pictograph should be positioned to the ~~left~~ right of the street name.~~

Standard:

The Street Name sign shall be retroreflective or illuminated to show the same shape and similar color both day and night. The legend and background shall be of contrasting colors.

Guidance:

Commented [REH15]: Page 710 lines 15 –17, delete definition of pictograph authority.

Commented [REH16]: Page 710 line 22, delete guidance statement.

~~Street Name signs should have a white legend on a green background. A border, if used, should be the same color as the legend.~~

Option:

The border may be omitted from a Street Name sign **except with a black background.**

An alternative background color other than the normal guide sign color of green may be used for Street Name (D3-1 or D3-1a) signs where the highway agency determines this is necessary to assist road users in determining jurisdictional authority for roads.

Standard:

Alternative background colors shall not be used for Advance Street Name (D3-2) signs (see Section 2D.46).

The only acceptable alternative background colors for Street Name (D3-1 or D3-1a) signs shall be blue, brown, or black. Regardless of whether green, blue, brown, or black is used as the background color for Street Name (D3-1 or D3-1a) signs, the legend (and border, if used) shall be white.

Guidance:

An alternative background color for Street Name signs, if used, should be applied to the Street Name (D3-1 or D3-1a) signs on all roadways under the jurisdiction of a particular highway agency.

In business or commercial districts areas and on principal arterials, Street Name signs should be placed at least on diagonally opposite corners. In residential areas, at least one Street Name sign should be mounted at each intersection. Signs naming both streets should be installed at each intersection. They should be mounted with their faces parallel to the streets they name.

Option:

To optimize visibility, Street Name signs may be mounted overhead. Street Name signs may also be placed above a regulatory or STOP or YIELD sign with no required vertical separation.

Guidance:

In urban or suburban areas, especially where Advance Street Name signs for signalized and other major intersections are not used, the use of overhead-mounted edited to increase consistency Street Name signs should be strongly considered.

Option:

At intersection crossroads where the same road has two different street names for each direction of travel, both street names may be shown displayed edited to increase consistency on the same sign along with directional arrows.

Support:

Information regarding the use of street names on supplemental plaques for use with intersection-related warning signs is contained in Section 2C.61.

Section ~~2D.39~~ 2D.46 Advance Street Name Signs (D3-2)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

Advance Street Name (D3-2) signs (see Figure 2D-11) identify an upcoming intersection. Although this is often the next intersection, it could also be several intersections away in cases where the next signalized intersection is referenced.

Standard:

Commented [REH17]: Page 710 line 30, add "except with a black background". Concur with other language.

Advance Street Name (D3-2) signs, if used, shall supplement rather than be used instead of the Street Name (D3-1) signs at the intersection.

Option:

Advance Street Name (D3-2) signs may be installed in advance of signalized or unsignalized intersections to provide road users with advance information to identify the name(s) of the next intersecting street to prepare for crossing traffic and to facilitate timely deceleration and/or lane changing in preparation for a turn.

Guidance:

On arterial highways in rural areas, Advance Street Name signs should be used in advance of all signalized intersections and in advance of all intersections with exclusive turn lanes.

In urban areas, Advance Street Name signs should be used in advance of all signalized intersections on major arterial streets, except where signalized intersections are so closely spaced that advance placement of the signs is impractical.

The heights of the letters on Advance Street Name signs should be the same as those used for Street Name signs (see Section 2D.45).

Standard:

If used, Advance Street Name signs shall have a white legend and border on a green background.

If used, Advance Street Name signs shall provide the name(s) of the intersecting street(s) on the top line(s) of the legend and the distance to the intersecting streets or messages such as NEXT SIGNAL, NEXT INTERSECTION, [NEXT ROUNDABOUT](#), or directional arrow(s) on the bottom line of the legend.

Option:

Directional arrow(s) may be placed to the right or left of the street name or message such as NEXT SIGNAL, as appropriate, rather than on the bottom line of the legend. [Curved-stem arrows may be used on Advance Street Name signs on approaches to roundabouts.](#)

For intersecting crossroads where the same road has a different street name for each direction of travel, the different street names may be ~~shown displayed~~ [edited to increase consistency](#) on the same Advance Street Name sign along with directional arrows.

In advance of two closely spaced intersections where it is not practical to install separate Advance Street Name signs, the Advance Street Name sign may include the street names for both intersections along with appropriate supplemental legends for both street names, such as NEXT INTERSECTION, 2ND INTERSECTION, or NEXT LEFT and NEXT RIGHT, or ~~advance~~ directional arrows.

An Advance Street Name (W16-8P) plaque ([see Section 2C.61](#)) with black legend on a yellow background, installed supplemental to an Intersection (W2) or Advance Traffic Control (W3) series warning sign may be used instead of an Advance Street Name guide sign (~~see Section 2C.61~~).

[Guidance:](#)

[If two street names are used on the Advance Street Name plaque, the street names should be displayed in the following order:](#)

- [A. For a single intersection where the same road has a different street name for each direction of travel, the name of the street to the left should be displayed above the name of the street to the right; or](#)
- [B. For two closely spaced intersections, the name of the first street encountered should be displayed above the name of the second street encountered, and the arrow associated with](#)

Commented [REH18]: Page 712 line 1 – 8, concur

[the second street encountered should be an advance arrow, such as the arrow shown on the W16-6P arrow plaque \(see Figure 2C-14\).](#)

Section 2D.47. Signing on Conventional Roads on Approaches to Interchanges **text**
for this new Section was relocated from Section 2E.49

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

Because there are a number of different ramp configurations that are commonly used at interchanges with conventional roads, drivers on the conventional road cannot reliably predict whether they will be required to turn left or right in order to enter the correct ramp to access the freeway or expressway in the desired direction of travel. Consistently applied signing for conventional road approaches to freeway or expressway interchanges is highly desirable.

Standard:

On multi-lane conventional roads approaching an interchange, guide signs shall 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.

Guidance:

The signing of conventional roads with one lane of traffic approaching an interchange should consist of a sequence containing the following signs (see Figure 2D-12):

- A. Junction Assembly
- B. Destination sign
- C. Directional Assembly or Entrance Direction sign for the first ramp
- D. Advance Route Turn Assembly or Advance Entrance Direction sign with an advance turn arrow
- E. Directional Assembly or Entrance Direction sign for the second ramp

Option

On multi-lane conventional roads approaching an interchange, Advance Entrance Direction signs may be mounted overhead.

Standard:

If used, the Entrance Direction sign shall consist of a white legend and border on a green background. It shall contain the freeway or expressway route shield(s), cardinal direction, and directional arrow(s).

Option:

The Entrance Direction sign may contain a destination(s) and/or an action message such as NEXT RIGHT.

At minor interchanges, the following sequence of signs may be used (see Figure 2D-13):

- A. Junction Assembly
- B. Directional Assembly for the first ramp
- C. Directional Assembly for the second ramp

Guidance:

On multi-lane conventional roads approaching an interchange, the sign sequence should contain the following signs (see Figures 2D-14, 2D-15, and 2D-16):

- A. Junction Assembly
- B. Advance Entrance Direction sign(s) for both directions (if applicable) of travel on the freeway or expressway

Commented [REH19]: Page 712 lines 17 – 20, concur

- C. Entrance Direction sign for first ramp
- D. Advance Turn Assembly
- E. Entrance Direction sign for the second ramp

Support:

Advance Entrance [Direction](#) **added to increase consistency** signs are used to direct road users to the appropriate lane(s).

Standard:

The Advance Entrance [Direction](#) **added to increase consistency** sign shall consist of a white legend and border on a green background. It shall contain the freeway or expressway route shield(s) and cardinal direction(s).

Option:

The Advance Entrance [Direction](#) **added to increase consistency** sign may have destinations, directional arrows, and/or an action message such as LEFT LANE, NEXT LEFT, or SECOND RIGHT. Signs in this sequence may be mounted overhead to improve visibility.

Section 2D.48 Freeway Entrance Signs (D13-3 and D13-3a) **text relocated from Section 2E.50**

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Commented [REH20]: Page 713 lines 8 –16, concur

Option:

Guide [FREEWAY ENTRANCE \(D13-3\)](#) signs or [FREEWAY ENTRANCE with downward pointing diagonal arrow \(D13-3a\)](#) signs (see [Figure 2D-15](#)) may be used on entrance ramps near the crossroad to inform road users of the freeway or expressway entrance, as appropriate (see [Figure 2E-37](#)).

Support:

[Section 2B.48](#) contains information regarding the use of regulatory signs to deter wrong-way movements at intersections of freeway or expressway ramps with conventional roads, and in the area where entrance ramps intersect with the mainline lanes.

Section ~~2D.40~~ 2D.49 Parking Area or Parking Wayfinding Sign (D4-1 and D4-1a)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 713, lines 26-28 - Change color on Parking Wayfinding sign from blue to green. Avoid confusion with "Police".

Option:

The Parking Area (D4-1) sign or [Parking Wayfinding \(D4-1a\) sign](#) (see [Figure 2D-11](#)) may be used to show the direction to a nearby public parking area or [parking facility](#).

Standard:

If used, the [Parking Area \(D4-1\)](#) sign shall be a horizontal rectangle with a standard size of 750 x 600 mm (30 x 24 in), or with a smaller size of 450 x 375 mm (18 x 15 in) for minor, low-speed streets. It shall carry the word PARKING, with the letter P five times the height of the remaining letters, and a directional arrow. The legend and border shall be green on a retroreflectorized white background.

If used, the [Parking Wayfinding \(D4-1a\)](#) sign shall be a vertical rectangle with a white letter P in a [blue green](#) circle symbol at the top of the sign and a [blue green](#) directional

arrow at the bottom of the sign. The edge of the blue green circular symbol shall be separated by 25 mm (1 in) from the blue green border of the sign.

Guidance:

If used, the Parking Area or Parking Wayfinding sign should be installed on major thoroughfares at the nearest point of access to the parking facility and where it can advise drivers of a place to park. The sign should not be used more than four blocks from the parking area.

Section ~~2D.41~~ 2D.50 PARK & RIDE Sign (D4-2)

NATIONAL COMMITTEE endorses editorial change.

Option:

PARK & RIDE (D4-2) signs (see Figure 2D-11) may be used to direct road users to park and ride facilities.

Standard:

The signs shall contain the word message PARK & RIDE and direction information (arrow or word message).

Option:

PARK & RIDE signs may contain the local transit logo pictograph and/or carpool symbol within the sign border.

Standard:

If used, the local transit logo pictograph and/or carpool symbol shall be located in the top part of the sign above the message PARK & RIDE. In no case shall the vertical dimension of the local transit logo pictograph and/or carpool symbol exceed 450 mm (18 in).

Guidance:

If the function of the parking facility is to provide parking for persons using public transportation, the local transit logo symbol pictograph should be used on the guide sign. If the function of the parking facility is to serve carpool riders, the carpool symbol should be used on the guide sign. If the parking facility serves both functions, both the logo pictograph and carpool symbol should be used.

Standard:

These signs shall have a retroreflective white legend and border on a rectangular green background. The carpool symbol shall be as shown for the D4-2 sign ~~D4-2~~, edited to increase consistency. The color of the local transit logo pictograph shall be selected by the local transit authority.

Option:

To increase the target value and contrast of the local transit logo pictograph, and to allow the local transit logo pictograph to retain its distinctive color and shape, the logo pictograph may be included within a white border or placed on a white background.

~~Section 2D.42 Rest Area Signs (D5 Series)~~ relocated to new Chapter 2F

~~Section 2D.43 Scenic Area Signs (D6 Series)~~ relocated to new Chapter 2F

Section ~~2D.44~~ 2D.51 Weigh Station Signing (D8 Series)

NATIONAL COMMITTEE endorses editorial change.

Support:

The general concept for Weigh Station signing is similar to Rest Area signing (see Section 2F.05) because in both cases traffic using either area remains within the right-of-way.

Standard:

The standard installation for Weigh Station signing shall include three basic signs:

- A. Advance sign (D8-1),
- B. Exit Direction sign (D8-2), and
- C. Gore sign (D8-3).

Support:

Example locations of these signs are shown in Figure 2D-17.

Option:

Where State law requires a regulatory sign (R13-1) in advance of the Weigh Station, a fourth sign (see Section 2B.65) may be located following the Advance sign.

Guidance:

The Exit Direction sign (D8-2) or the Advance sign (D8-1) should display, either within the sign border or on a supplemental [sign added to increase consistency](#) panel, the changeable message OPEN or CLOSED.

~~Section 2D.45 – General Service Signs (D9 Series)~~ [relocated to new Chapter 2F](#)

~~Section 2D.46 – Reference Location Signs (D10-1 through D10-3) and Intermediate Reference Location Signs (D10-1a through D10-3a)~~ [relocated to new Chapter 2I](#)

~~Section 2D.47 – Traffic Signal Speed Sign (H-1)~~ [relocated to new Chapter 2I](#)

~~Section 2D.48 – General Information Signs (I Series)~~ [relocated to new Chapter 2I](#)

Section 2D.52 Community Wayfinding Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 714, lines 39-40 – Move to after line 11, Page 715, to clarify language.
2. Page 715, lines 3-6 – Change “shall” to “may” in Option statement.
3. Page 715, line 11 – Add Guidance as noted in item #1.
4. Page 715, line 30 – add “and fluorescent orange, fluorescent yellow, fluorescent pink, fluorescent yellow-green, and purple” to restricted colors.
5. Page 715, line 41 – Change limit to “no more than 4” destinations.
6. Page 716, line 22 – Must state both upper and lower case minimum.
7. Page 716, line 25 – Must state both upper and lower case minimum.
8. Figure page 73, 2D-1, Change color squared to be 2 times the letter height.
9. Figure page 94, 2D-18, Explain arrow designs origins. Must be labeled.
10. Figure page 95, 2D-19, Remove “P” symbol from Riverfront sign.

Support:

[Community wayfinding guide signs direct tourists and other road users to key civic, cultural, visitor, and recreational attractions and other destinations within a city or a local urbanized or downtown area.](#)

Color coding is sometimes used on community wayfinding signs to help road users distinguish between multiple potentially confusing traffic generator destinations within a community or area.

Commented [REH21]: Page 714 lines 39 – 40, Move to after line 11 on Page 715 to clarify.

Community wayfinding guide signs are a type of destination guide sign for conventional roads with a common color and/or enhancement marker identifier for destinations within an overall wayfinding guide sign plan for an area.

Standard:

Because regulatory, warning, and other guide signs have a higher priority, community wayfinding guide signs shall only be installed where adequate spacing is available between the community wayfinding guide sign and other higher priority signs. Community wayfinding guide signs shall not be installed in a position where they would obscure the road users' view of other traffic control devices.

Option:

At the boundaries of the geographical area within which community wayfinding guide signing is used, informational guide signs shall may be posted to inform road users about the presence of wayfinding signing and to identify the meanings of the various color codes or pictographs that are being used. These informational guide signs shall may have a white legend and border on a green background and shall may have a design similar to that illustrated in Figure 2D-1.

Commented [REH22]: Page 715 lines 3 – 6, change to option.

Standard:

These informational guide signs shall not be installed on freeway mainlines.

Option:

The informational guide signs described in the previous paragraph may be installed on expressways and on freeway exit ramps near the downstream end of the ramp.

Guidance:

Wayfinding Signs intended for pedestrians should not be visible to motorist traveling along roadway.

Standard:

The color coding and enhancement markers of the community wayfinding guide signing system shall be included on the informational guide sign posted at the boundary of the wayfinding guide sign area. The color coding shall be accomplished by the use of different colored square or rectangular panels on the face of the informational guide sign. The size of the colored square or rectangular panels shall be in accordance with the size requirements for pictographs (see Section 2D.07).

Option:

The different colored square or rectangular panels may include either a black or a white (whichever provides the better contrast with the color of the panel) letter, numeral, or other appropriate designation to identify the destination.

Except for the informational guide sign posted at the boundary of the wayfinding guide sign area, community wayfinding guide signs may include panels that have background colors other than green in order to provide a color “identity” for the wayfinding destinations by type or group of destinations or by geographical area within the overall wayfinding guide signing system. Except as noted in the Standard below, in addition to the colors that are approved in the MUTCD for use on official traffic control signs (see Section 2A.10), other colors may also be used for the color coding of individual panels on community wayfinding guide signs.

Standard:

The MUTCD standard colors of red, orange, and yellow, and fluorescent orange, fluorescent yellow, fluorescent pink, fluorescent yellow-green, and purple shall not be used as background colors (color coding) for community wayfinding guide signs, in order to minimize possible confusion with crucial regulatory and warning sign color meanings readily understood by motorists.

Commented [REH23]: Page 715 line 30, add and fluorescent orange, fluorescent yellow and fluorescent yellow-green

The minimum contrast value of legend color to background color for community wayfinding guide signs shall be at least 0.70 (or 70%).

All messages, borders, and legends of community wayfinding guide signs shall be retroreflective and all backgrounds shall be retroreflective or illuminated.

Guidance:

Wayfinding guide signs should be rectangular in shape. Simplicity and uniformity in design, and application as described in Section 2A.06 are important and should be incorporated into the wayfinding guide sign design and location plans for the area.

Wayfinding signs should be limited to **3** no more than **4** destinations per sign (see Section 2D.07).

Commented [REH24]: Page 715 line 41,

Abbreviations (see Section 1A.15) should be kept to a minimum, and should include only those that are commonly recognized and understood, such as AVE (for Avenue), BLVD (for Boulevard), N (for North), or JCT (for junction).

Option:

White or black (whichever provides the better contrast with the color of the panel) horizontal lines may be used to separate destinations that have the same wayfinding background panel color from each other.

Support:

The basic requirement for all highway signs is that they be legible to those for whom they are intended and that they be understandable in time to permit a proper response. Among the desirable attributes of a sign are high visibility by day and night, high legibility (adequately sized letters or symbols), and a short legend for quick comprehension by the road user approaching the sign.

Standard:

Except as noted in the Option below, all of the lettering on community wayfinding guide signs shall be in the fonts provided in the “Standard Highway Signs and Markings” book (see Section 1A.11) in order to provide optimum legibility.

Commented [REH25]: Page 716 lines 1 – 3, Question/Comment? Can you add Futura font, which has met Option lines 5-8

Option:

A font other than those provided in the “Standard Highway Signs and Markings” book may be used on community wayfinding guide signs if an engineering study determines that the legibility and recognition values for the chosen font meet or exceed the values for the fonts provided in the “Standard Highway Signs and Markings” book for the same legend height and brush stroke width.

Standard:

Except for signs that are intended to be viewed only by pedestrians, bicyclists, or occupants of parked vehicles, Internet and e-mail addresses shall not be shown on any community wayfinding guide sign, including on any supplemental plaques, sign panels, or changeable message signs that are associated with the sign.

The lettering for street names and destinations on community wayfinding guide signs shall be a combination of lower-case letters with initial upper-case letters (see Section 2D.05). All other word messages on wayfinding guide signs shall be in upper-case letters.

Guidance:

Word messages should be as brief as possible and the lettering should be large enough to provide the necessary legibility distance.

A minimum specific ratio of 25 mm (1 in) of letter height per 9 m (30 ft) of legibility distance, should be used. Except as noted in the Option below, the minimum letter height for community wayfinding guide sign legends should be 150 mm (6 in).

Option:

On local streets that have a speed limit of 40 km/h (25 mph) or less, a minimum letter height of 100 mm (4 in) may be used for community wayfinding guide sign legends.

Standard Guidance:

The arrow location and priority order should follow the provisions described in Sections 2D.08 and 2D.34. Except as noted in the Option below, arrowheads should be the same design as that specified in Section 2D.08.

Option:

The alternative arrow designs that are shown in Figure 2D-18 may be used on community wayfinding guide signs.

Standard:

If the alternative arrow designs that are shown in Figure 2D-18 are used, they shall be the same overall size as the prescribed standard arrows.

Option:

Pictographs (see Section 1A.13) that comply with the size and design provisions of Section 2D.07 may be used on community wayfinding guide signs.

Standard:

Except for the pictographs described in the previous paragraph, symbols that are not approved in the MUTCD for use on guide signs shall not be used on community wayfinding guide signs.

Commercial graphics (logos) for businesses shall not be used on community wayfinding guide signs, including within the pictographs.

Option:

Other graphics that specifically identify the wayfinding system, including enhancement markers, may be used on the overall signing assembly and sign posts.

Support:

An enhancement marker consists of a shape, color, and/or pictograph that is used as an aesthetic identifier for the community wayfinding guide signing system for an area as a whole. Figure 2D-19 shows examples of enhancement marker designs that can be used with community wayfinding signs.

Option:

An enhancement marker may be used with community wayfinding guide signs, or may be incorporated into the overall design of a wayfinding guide sign, as a means of aesthetically identifying the wayfinding guide sign.

Standard:

The sizes and shapes of enhancement markers shall be smaller than the community wayfinding signs themselves. Enhancement markers shall not be designed to have an appearance that could be mistaken by road users as being a traffic control device.

Section 2D.53 Truck, Passing, or Climbing Lane Signs (D17-1 and D17-2)

Commented [REH26]: Page 716 line 22, need to state upper case and lower case minimum

Commented [REH27]: Page 716 line 25, need to state upper case and lower case minimum

Commented [REH28]: Page 717 lines 8 – 17, concur

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Guidance:

If an extra lane has been provided for trucks and other slow-moving traffic, a NEXT TRUCK LANE XX km (MILES) (D17-1) sign and/or a TRUCK LANE XX km (MILES) (D17-2) sign (see Figure 2D-20) should be installed in advance of the lane.

Option:

Alternative legends such as PASSING LANE or CLIMBING LANE may be used instead of TRUCK LANE.

Option:

Section 2B.39 contains information regarding regulatory signs for these types of lanes.

Section 2D.54 Slow Vehicle Turn-Out Sign (D17-7)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Guidance:

If a slow vehicle turn-out area has been provided for slow-moving traffic, a SLOW VEHICLE TURN-OUT XX km (MILES) (D17-7) sign (see Figure 2D-20) should be installed in advance of the turn-out area.

Option:

Section 2B.43 contains information regarding regulatory signs for slow vehicle turn-out areas.

Section ~~2D.49~~ 2D.55 Signing of Named Highways the first four paragraphs have been relocated to new Section 2I.07

NATIONAL COMMITTEE endorses editorial change.

Option:

Guide signs may contain street or highway names if the purpose is to enhance driver communication and guidance; however, they are to be considered as supplemental information to route numbers.

Standard:

Highway names shall not replace official numeral designations.

Memorial names (see Section 2I.07) shall not appear on supplemental signs or on any other information sign either grammar – more than two choices on or along the highway or its intersecting routes.

The use of route signs shall be restricted to signs officially used for guidance of traffic in accordance with this Manual and the “Purpose and Policy” statement of the American Association of State Highway and Transportation Officials that applies to Interstate and U.S. numbered routes (see Page i for AASHTO’s address).

Option:

Unnumbered routes having major importance to proper guidance of traffic may be signed if carried out in accordance with the aforementioned policies. For unnumbered highways, a name to enhance route guidance may be used where the name is applied consistently throughout its length.

Guidance:

Commented [REH29]: Page 717 lines 18 – 23, concur

Only one name should be used to identify any highway, whether numbered or unnumbered.

Section ~~2D.50~~ Trail Signs relocated to new Chapter 21

Section ~~2D.51~~ 2D.56 Crossover Signs (D13-1 Series and D13-2)

NATIONAL COMMITTEE endorses editorial change.

Option:

Crossover signs may be installed on divided highways to identify median openings not otherwise identified by warning or other guide signs.

Standard:

A CROSSOVER (D13-1) sign (see Figure 2D-20) shall not be used to identify a median opening that is permitted to be used only by official or authorized vehicles. If used, the sign shall be a horizontal rectangle of appropriate size to carry the word CROSSOVER and a horizontal directional arrow. The CROSSOVER sign shall have a white legend and border on a green background.

Guidance:

If used, the CROSSOVER sign should be installed immediately beyond the median opening, either on the right-hand ~~edited to increase clarity~~ side of the roadway or in the median.

Option:

The Advance Crossover (D13-2) sign (see Figure 2D-20) may be installed in advance of the CROSSOVER sign to provide advance notice of the crossover.

Standard:

If used, the Advance Crossover sign shall be a horizontal rectangle of appropriate size to carry the word CROSSOVER and the distance to the median opening. The sign shall have white legend and border on a green background.

Guidance:

The distance ~~shown displayed~~ ~~edited to increase consistency~~ on the Advance Crossover sign should be 2 km, 1 km, or 500 m (or should be 1 MILE, 1/2 MILE, or 1/4 MILE), unless unusual conditions require some other distance. If used, the sign should be installed either on the right-hand ~~edited to increase clarity~~ side of the roadway or in the median at approximately the distance ~~shown displayed~~ ~~edited to increase consistency~~ ~~on the sign~~.

Section ~~2D.52~~ 2D.57 National Scenic Byways Signs (D6-4, D6-4a)

NATIONAL COMMITTEE endorses no change.

Support:

Certain roads have been designated by the U.S. Secretary of Transportation as National Scenic Byways or All-American Roads based on their archeological, cultural, historic, natural, recreational, or scenic qualities.

Option:

State and local highway agencies may install the National Scenic Byways (D6-4 or D6-4a) signs at entrance points to a route that has been recognized by the U.S. Secretary of Transportation as a National Scenic Byway or an All-American Road. The D6-4 or D6-4a sign may be installed on route sign assemblies (see Figure 2D-21) or as part of larger roadside structures. National Scenic Byways signs may also be installed at periodic intervals along the designated route and at intersections where the designated route turns or follows a different

numbered highway. At locations where roadside features have been developed to enhance the traveler's experience such as rest areas, historic sites, interpretive facilities, or scenic overlooks, the National Scenic Byways sign may be placed on the associated sign assembly to inform travelers that the site contributes to the byway travel experience.

Standard:

When a National Scenic Byways sign is installed on a National Scenic Byway or an All-American Road, the design shown for the D6-4 or D6-4a sign in Figure 2D-21 shall be used. Use of this design shall be limited to routes that have been designated as a National Scenic Byway or All-American Road by the U.S. Secretary of Transportation.

If used, the D6-4 or D6-4a sign shall be placed such that the roadway route signs have primary visibility for the road user.

CHAPTER 2E. GUIDE SIGNS—FREEWAYS AND EXPRESSWAYS

Section 2E.01 Scope of Freeway and Expressway Guide Sign Standards

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 719, line 4 – Typo should be 2E. Editorial.

Support:

~~These standards~~ The provisions of Chapter 4 2E provide a uniform and effective system of ~~highway~~ deleted to increase consistency signing for high-volume, high-speed motor vehicle traffic on freeways and expressways. The requirements and specifications for expressway signing exceed those for conventional roads (see Chapter 2D), but are less than those for freeway signing. Since there are many geometric design variables to be found in existing roads, a signing concept commensurate with prevailing conditions is the primary consideration. Section 2A.01 includes definitions of freeway and expressway.

Guide signs for freeways and expressways are primarily identified by the name of the sign rather than by an assigned sign ~~code~~ designation. Guidelines for the design of guide signs for freeways and expressways are provided in Chapter 8 (Design Guidelines) of the “Standard Highway Signs and Markings” book (see Section 1A.11).

Standard:

~~The standards prescribed herein for freeway or expressway guide signing~~ Chapter 2E shall apply to any highway that meets the definition of ~~such~~ freeway or expressway facilities.

Section 2E.02 Freeway and Expressway Signing Principles

NATIONAL COMMITTEE endorses editorial change.

Support:

The development of a signing system for freeways and expressways is approached on the premise that the signing is primarily for the benefit and direction of road users who are not familiar with the route or area. The signing furnishes road users with clear instructions for orderly progress to their destinations. Sign installations are an integral part of the facility and, as such, are best planned concurrently with the development of highway location and geometric design. For optimal results, plans for signing are analyzed during the earliest stages of preliminary design, and details are correlated as final design is developed. The excessive signing found on many major highways usually is the result of using a multitude of signs that are too small and that are poorly designed and placed to accomplish the intended purpose.

Freeway and expressway signing is to be considered and developed as a planned system of installations. An engineering study is sometimes necessary for proper solution of the problems of many individual locations, but, in addition, consideration of an entire route is necessary.

Guidance:

Road users should be guided with consistent signing on the approaches to interchanges, when they drive from one State to another, and when driving through rural or urban areas. Because geographical, geometric, and operating factors regularly create significant differences between urban and rural conditions, the signing should take these conditions into account.

Guide signs on freeways and expressways should serve distinct functions as follows:

Commented [REH30]: Page 719 line 4, typo should be 2E.

- A. Give directions to destinations, or to streets or highway routes, at intersections or interchanges;
- B. Furnish advance notice of the approach to intersections or interchanges;
- C. Direct road users into appropriate lanes in advance of diverging or merging movements;
- D. Identify routes and directions on those routes;
- E. Show distances to destinations;
- F. Indicate access to general motorist services, rest, scenic, and recreational areas; and
- G. Provide other information of value to the road user.

Section ~~2E.24~~ 2E.03 Guide Sign Classification

NATIONAL COMMITTEE endorses editorial change.

Support:

Freeway and expressway guide signs are classified and treated in the following categories:

- A. Route signs and Trailblazer Assemblies (see Section 2E.24),
- B. At-Grade Intersection signs (see Section 2E.25),
- C. Interchange signs (see Sections 2E.26 through 2E.35),
- D. Interchange Sequence signs (see Section 2E.36),
- E. Community Interchanges Identification signs (see Section 2E.37),
- F. NEXT ~~XX~~ EXITS signs (see Section 2E.38),
- G. Weigh Station signing (see Section 2E.50),
- H. General Service signs (see ~~Section 2E.51~~ Chapter 2F),
- I. Rest and Scenic Area signs (see Section 2F.05),
- J. Tourist Information and Welcome Center signs (see Section 2F.06),
- K. Radio Information signing (see Section 2F.07),
- L. Carpool and Ridesharing signing (see Section 2F.09),
- M. Specific Service signs (see Chapter 2G), and
- N. Reference Location signs (see Section 2I.02),
- O. Miscellaneous guide signs (see Section 2I.06), and
- P. Recreational and Cultural Interest Area signs (see Chapter 2J).

Section ~~2E.03~~ 2E.04 General

NATIONAL COMMITTEE endorses no change.

Support:

Signs are designed so that they are legible to road users approaching them and readable in time to permit proper responses. Desired design characteristics include: (a) long visibility distances, (b) large lettering and symbols, and (c) short legends for quick comprehension.

Standard:

Standard shapes and colors shall be used so that traffic signs can be promptly recognized by road users.

Section ~~2E.04~~ 2E.05 Color of Guide Signs

NATIONAL COMMITTEE endorses no change.

Standard:

Guide signs on freeways and expressways, except as noted herein, shall have white letters, symbols, and borders on a green background.

Support:

Color requirements for route signs and trailblazers, signs with blank-out or changeable messages, signs for services, rest areas, park and recreational areas, and for certain miscellaneous signs are specified in the individual sections dealing with the particular sign or sign group.

Section ~~2E.05~~ 2E.06 Retroreflection or Illumination

The National Committee endorses editorial change.

Standard:

Letters, numerals, symbols, and borders of all guide signs shall be retroreflectorized. The background of all guide signs that are not independently illuminated shall be retroreflective.

Support:

Where there is no serious interference from extraneous light sources, retroreflectorized ~~ground-~~ post-mounted ~~edited to increase consistency~~ signs usually provide adequate nighttime visibility.

On freeways and expressways where much driving at night is done with low-beam headlights, the amount of headlight illumination incident to an overhead sign display is relatively small.

Guidance:

Overhead sign installations should be illuminated unless an engineering study shows that retroreflectorization alone will perform effectively. The type of illumination chosen should provide effective and reasonably uniform illumination of the sign face and message.

Section ~~2E.06~~ 2E.07 Characteristics of Urban Signing

NATIONAL COMMITTEE endorses editorial change.

Support:

Urban conditions are characterized not so much by city limits or other arbitrary boundaries, as by the following features:

- A. Mainline roadways with more than two lanes in each direction;
- B. High traffic volumes on the through roadways;
- C. High volumes of traffic entering and leaving interchanges;
- D. Interchanges closely spaced;
- E. Roadway and interchange lighting;
- F. Three or more interchanges serving the major city;
- G. A loop, circumferential, or spur serving a sizable portion of the urban population; and
- H. Visual clutter from roadside development.

Operating conditions and road geometrics on urban freeways and expressways usually make special sign treatments desirable, including:

- A. Use of Interchange Sequence signs (see Section 2E.36);
- B. Use of sign spreading to the maximum extent possible (see Section 2E.11);
- C. Elimination of General Service signing (see ~~Section 2E.54~~ Chapter 2F);
- D. Reduction to a minimum of post-interchange signs (see Section 2E.34);
- E. Display of advance signs at distances closer to the interchange, with appropriate adjustments in the legend (see Section 2E.29);
- F. Use of overhead signs on roadway structures and independent sign supports (see Section 2E.22);

- G. Use of **diagrammatic** signs in advance of intersections and interchanges (see Section 2E.20); and
- H. Frequent use of street names as the principal message in guide signs.

Lower speeds which are often characteristic of urban operations do not justify lower signing standards. Typical traffic patterns are more complex for the road user to negotiate, and large, easy-to-read legends are, therefore, just as necessary as on rural highways.

Section 2E.07 2E.08 Characteristics of Rural Signing

NATIONAL COMMITTEE endorses no change.

Support:

Rural areas ordinarily have greater distances between interchanges, which permits adequate spacing for the sequences of signs on the approach to and departure from each interchange. However, the absence of traffic in adjoining lanes and on entering or exiting ramps often adds monotony or inattention to rural driving. This increases the importance of signs that call for decisions or actions.

Guidance:

Where there are long distances between interchanges and the alignment is relatively unchanging, signs should be positioned for their best effect on road users. The tendency to group all signing in the immediate vicinity of rural interchanges should be avoided by considering the entire route in the development of sign plans. Extra effort should be given to the placement of signs at natural target locations to command the attention of the road user, particularly when the message requires an action by the road user.

Section 2E.08 2E.09 Memorial Highway Signing of Named Highways the previous text in this section is now contained in Section 2I.07 – overlap with Section 2D.49 of the 2003 MUTCD has been eliminated

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

[Section 2D.55 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.](#)

[Section 2I.07 contains information regarding memorial signing of routes, bridges, or highway components.](#)

Guidance:

~~Freeways and expressways should not be signed as memorial highways. If a route, bridge, or highway component is officially designated as a memorial, and if notification of the memorial is to be made on the highway right-of-way, such notification should consist of installing a memorial plaque in a rest area, scenic overlook, recreational area, or other appropriate location where parking is provided with the signing inconspicuously located relative to vehicle operations along the highway.~~

Option:

~~If the installation of a memorial plaque off the main roadway is not practical, a memorial sign may be installed on the mainline.~~

Standard:

Commented [REH31]: Page 721 lines 31 – 34, Editorial

~~Where such memorial signs are installed on the mainline, (1) memorial names shall not appear on directional guide signs, (2) memorial signs shall not interfere with the placement of any other necessary highway signing, and (3) memorial signs shall not compromise the safety or efficiency of traffic flow. The memorial signing shall be limited to one sign at an appropriate location in each route direction.~~

Section ~~2E.09~~ 2E.10 Amount of Legend on Guide Signs

The National Committee endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 722, line 6 – Delete “including route numbers and exit instructions”. Too restrictive.
2. Page 722, line 11 – Delete “If sign space is available”. Editorial.

Guidance:

No more than two destination names or street names should be ~~shown~~ displayed ~~edited to~~ increase consistency on any Advance Guide sign or Exit Direction sign. A city name and street name on the same sign should be avoided. Where two or three signs are placed on the same supports, destinations or names should be limited to one per sign, or to a total of three in the display. Sign legends should not exceed three lines of copy, ~~including route numbers and exit instructions.~~

Commented [REH32]: Page 722 line 6, delete including route numbers and exit instructions.

Option:

~~Sign legends may include symbols, route numbers, arrows, cardinal directions, and exit instructions.~~

~~If sign space is available, pictographs may be used on guide signs in conjunction with destinations that are associated with governmental jurisdictions or agencies, military bases, universities, or other government-approved institutions.~~

Commented [REH33]: Page 722 line 9, editorial

Standard:

The maximum dimension (height or width) of a pictograph shall not exceed the size of the route shield on the guide sign. If the guide sign does not include a route shield, the maximum size of the pictograph shall not exceed two times the letter height of the destination legend.

Section ~~2E.10~~ 2E.11 Number of Signs at an Overhead Installation and Sign Spreading

NATIONAL COMMITTEE endorses editorial change.

Guidance:

If overhead signs are warranted, as set forth in Section 2A.17, the number of signs at these locations should be limited to only those essential in communicating pertinent destination information to the road user. Exit Direction signs for a single exit and the Advance Guide signs should have only one ~~panel sign~~ edited to increase consistency with one or two destinations. Regulatory signs, such as speed limits, should not be used in conjunction with overhead guide sign installations. Because road users have limited time to read and comprehend sign messages, there should not be more than three guide signs displayed at any one location either on the overhead structure or its support.

Option:

At overhead locations, more than one sign may be installed to advise of a multiple exit condition at an interchange. If the roadway ramp or crossing roadway has complex or unusual

geometrics, additional signs with confirming messages may be provided to properly guide the road user.

Support:

Sign spreading is a concept where major overhead signs are spaced so that road users are not overloaded with a group of signs at a single location. Figure 2E-1 illustrates an example of sign spreading.

Guidance:

Where overhead signing is used, sign spreading should be used at all single exit interchanges and to the extent possible at multi-exit interchanges. Sign spreading should be accomplished by use of the following:

- A. The Exit Direction sign should be the only sign used in the vicinity of the gore (other than the Gore sign). It should be located overhead near the theoretical gore and generally on an overhead sign support structure.
- B. The Advance Guide sign to indicate the next interchange exit should be placed near the crossroad location. If the crossroad goes over the mainline, the Advance Guide sign should be placed on the overcrossing structure.

Section ~~2E.11~~ 2E.12 Pull-Through Signs (E6-2, E6-2a)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

5. Page 723, line 1 – Revise terminology from “diagrammatic” to “Arrow Per Lane”

Support:

Pull-Through ([E6-2, E6-2a](#)) signs (see Figure 2E-2) are overhead lane-use signs intended for through traffic.

Guidance:

Pull-Through signs should be used where the geometrics of a given interchange are such that it is not clear to the road user as to which is the through roadway, or where additional route guidance is desired. Pull-Through signs with down arrows should be used where the alignment of the through lanes is curved and the exit direction is straight ahead, where the number of through lanes is not readily evident, and at multi-lane exits where there is a reduction in the number of through lanes.

Support:

Sections 2E.20, 2E.21, and 2E.32 contain information regarding the use of [diagrammatic Arrow Per Lane](#) signs at multi-lane exits where there is a reduction in the number of through lanes or where a through lane becomes an option lane for through or exiting traffic.

Section ~~2E.12~~ 2E.13 Designation of Destinations

NATIONAL COMMITTEE endorses editorial change.

Standard:

The direction of a freeway and the major destinations or control cities (~~see Section 2D.39~~) along it shall be clearly identified through the use of appropriate destination legends ([see Section 2D.39](#)). Successive freeway guide signs shall provide continuity in destination names and consistency with available map information. At any decision point, a given destination shall be indicated by way of only one route.

Guidance:

Control city legends should be used in the following situations along a freeway:

- A. At interchanges between freeways;
- B. At separation points of overlapping freeway routes;
- C. On directional signs on intersecting routes, to guide traffic entering the freeway;
- D. On Pull-Through signs; and
- E. On the bottom line of post-interchange distance signs.

Support:

Continuity of destination names is also useful on expressways serving long-distance or intrastate travel.

The determination of major destinations or control cities is important to the quality of service provided by the freeway. Control cities on freeway guide signs are selected by the States and are contained in the “[Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways, 4th Edition / Guide Signs, Part II: Guidelines for Airport Guide Signing / Guide Signs, Part III: ~~edited to increase accuracy~~ List of Control Cities for Use in Guide Signs on Interstate Highways,](#)” published and available from American Association of State and Highway Transportation Officials (see [Page i for AASHTO’s address Section 1A.11 ~~edited to increase consistency~~](#)).

Section ~~2E.13~~ 2E.14 **Size and Style of Letters and Signs**

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

Except as noted in Section 2A.11, the sizes of freeway and expressway guide signs that have standardized designs shall be as shown in Table 2E-1.

Support:

Section 2A.11 contains information regarding the applicability of the various columns in Table 2E-1.

Option:

Signs larger than those shown in Table 2E-1 may be used (see Section 2A.11).

Standard:

~~With~~ For all freeway and expressway signs that do not have a standardized design, the message dimensions shall be determined first, and the outside sign dimensions secondarily. Word messages in the legend of expressway guide signs shall be in letters at least 200 mm (8 in) high. Larger lettering shall be used for major guide signs at or in advance of interchanges and for all overhead signs. Minimum numeral and letter sizes for expressway guide signs according to interchange classification, type of sign, and component of sign legend ~~are~~ shall be as shown in Tables 2E-2 and 2E-3. Minimum numeral and letter sizes for freeway guide signs according to interchange classification, type of sign, and component of sign legend ~~appear~~ shall be as shown in Tables 2E-4 and 2E-5. All names of places, streets, and highways on freeway and expressway guide signs shall be composed of lower-case letters with initial upper-case letters. The letters and the numerals used shall be Series E(M) of the “Standard Highway Signs and Markings” book (see Section 1A.11). Other word legends shall be in ~~capital~~ upper-case letters. Interline and edge spacing shall be as specified in Section 2E.15.

Lettering size on freeway and expressway signs shall be the same for both rural and urban conditions.

Support:

Sign size is determined primarily in terms of the length of the message and the size of the lettering necessary for proper legibility. Letter style and height, and arrow design have been standardized for freeway and expressway signs to assure uniform and effective application.

Designs for upper-case, ~~and~~ lower-case, ~~and capital~~ alphabets together with tables of recommended letter spacing, are shown in the “Standard Highway Signs [and Markings](#)” book (see Section 1A.11).

Guidance:

Where 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. Freeway lettering sizes (see Tables 2E-4 and 2E-5) should be used when expressway geometric design is comparable to freeway standards.

Other sign letter size requirements not specifically identified elsewhere in this Manual should be guided by these specifications. Abbreviations ([see Section 2E.17](#)) should be kept to a minimum.

Support:

A sign mounted over a particular roadway lane to which it applies might have to be limited in horizontal dimension to the width of the lane, so that another sign can be placed over an adjacent lane. The necessity to maintain proper vertical clearance might also place a further limitation on the size of the overhead sign and the legend that can be accommodated.

Section ~~2E.14~~ [2E.15](#) Interline and Edge Spacing

NATIONAL COMMITTEE endorses no change.

Guidance:

Interline spacing of upper-case letters should be approximately three-fourths the average of upper-case letter heights in adjacent lines of letters.

The spacings to the top and bottom borders should be equal to the average of the letter height of the adjacent line of letters. The lateral spacing to the vertical borders should be essentially the same as the height of the largest letter.

Section ~~2E.15~~ [2E.16](#) Sign Borders

NATIONAL COMMITTEE endorses no change.

Standard:

Signs shall have a border of the same color as the legend in order to outline their distinctive shape and thereby give them easy recognition and a finished appearance.

Guidance:

For guide signs larger than 3000 x 1800 mm (120 x 72 in), the border should have a width of 50 mm (2 in). For smaller guide signs, a border width of 31 mm (1.25 in) should be used, but the width should not exceed the stroke width of the major lettering on the sign.

Corner radii of sign borders should be one-eighth of the minimum sign dimension on guide signs, except that the radii should not exceed 300 mm (12 in) on any sign.

Option:

The sign material in the area outside of the corner radius may be trimmed.

Section ~~2E.16~~ [2E.17](#) Abbreviations

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Guidance:

Abbreviations should be kept to a minimum; however, they are useful when complete destination messages produce excessively long signs. If used, abbreviations should be unmistakably recognized by road users (see Section 1A.15).

Periods, apostrophes, question marks, ampersands, or other punctuation or characters that are not letters or numerals (except as otherwise provided in Table 1A-1) should not be used in abbreviations, unless a cardinal direction is abbreviated as part of a destination name absolutely necessary to avoid confusion.

Standard:

The words NORTH, SOUTH, EAST, and WEST shall not be abbreviated when used with route signs to indicate cardinal directions on guide signs.

Section ~~2E.17~~ 2E.18 Symbols

NATIONAL COMMITTEE endorses editorial change.

Standard:

Symbol designs shall be essentially like those shown in this Manual and in the “Standard Highway Signs and Markings” book (see Section 1A.11).

Guidance:

A special effort should be made to balance legend components for maximum legibility of the symbol with the rest of the sign.

Option:

Educational plaques may be used below symbol signs where needed.

Section ~~2E.18~~ 2E.19 Arrows for Interchange Guide Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 725, lines 12 - Revise terminology from “diagrammatic” to “Arrow Per Lane”
2. Page 725, line 5 – Add design characteristics for arrows
3. Page 725, lines 21 – 31 – Change Standard statement to Guidance and make editorial change
4. Page 725, line 34 – Editorial change

Standard:

Arrows used on interchange guide signs shall be of the types shown in Figure 2D-2 and shall conform to the provisions of this Section and Section 2D.08.

~~On all~~ Except on ~~diagrammatic~~ Arrow Per Lane Exit Direction signs (see Section 2E.20) and on Exit Direction signs for lane drops (see Section 2E.21), directional arrows on ~~both~~ all overhead and ~~ground-~~ post-mounted ~~edited to increase consistency,~~ arrows Exit Direction signs shall be upward slanting and shall be located on the side of the sign consistent with the direction of the exiting movement. ~~For multi-lane exits, upward slanting arrows shall be located on the bottom of the overhead mounted~~

sign with each arrow positioned near the center of each exiting lane. Upward slanting arrows on the bottom of an overhead mounted Exit Direction sign shall be at the same angle as the arrow on post-mounted Exit Direction Signs (see Figure 2E-20). The size of upward slanting arrows on the bottom of the sign panel shall be based on the EXIT ONLY letter size in accordance with the “Standard Highway and Markings Signs” book.

Option:

On post-mounted ~~non-diagrammatic~~ Exit Direction signs that are located where a directional arrow to the side of the legend farthest from the roadway might create an unusually wide sign that limits the road user’s view of the arrow, the directional arrow may be placed at the bottom portion of the sign, centered under the legend.

Guidance Standard:

~~Downward pointing arrows shall be used only for overhead guide signs to prescribe lane assignment for traffic bound for a destination or route that can be reached only by being in the designated lane(s).~~

On overhead signs where ~~down arrows are used it is desirable~~ to indicate a lane to be followed, a down arrow ~~shall should~~ be positioned ~~approximately~~ over the center of the lane and ~~shall should~~ point vertically downward toward the approximate center of that lane. Down arrows ~~shall should~~ be used only 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. Down arrows ~~shall should~~ 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.

Guidance

If down arrows are used, having 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) ~~should shall not be used permitted~~.

Option:

~~Downward pointing arrows may be tilted where it is desired to emphasize the separation of roadways.~~

Provided that the arrow is positioned ~~approximately~~ over the center of the lane, a directional arrow pointing diagonally downward may be used instead of a vertical down arrow on an overhead guide sign for the purpose of emphasizing a separation of diverging roadways.

Support:

~~Examples of~~ Arrows for use on guide signs are shown in Figure 2D-2. Detailed ~~dimensions of drawings and standardized sizes based on ranges of letter heights for these~~ arrows are provided in the “Standard Highway Signs and Markings” book (see Section 1A.11).

Section ~~2E.19~~ 2E.20 **Diagrammatic Arrow Per Lane Signs**

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 725, line 41 through page 727, line 23 – Revise terminology from “Diagrammatic” to “Arrow Per Lane”. Revise description of Arrow Per Lane sign. State the applications of Arrow Per Lane signs. Add two design criteria.

Support:

Diagrammatic Arrow Per Lane signs are guide signs that display an arrow for each travel lane indicating the movement(s) permitted from that lane show a graphic view of the exit arrangement in relationship to the main highway. Use of such guide signs has been shown to be superior to conventional guide signs for some interchanges. On freeways and expressways, Arrow Per Lane signs can be used for the Advance Guide and Exit Direction signs for freeway splits with an option lane (see Figure 2E-E) and multi-lane exits with an option lane (see Figure 2E-G).

Standard:

On freeways and expressways, diagrammatic Arrow Per Lane signs (see Figure 2E-3) shall be used for the Advance Guide and Exit Direction signs for all multi-lane exits that have an optional exit lane that also carries the through route (see Figures 2E-4 and 2E-5) and for all splits that include an option lane (see Figure 2E-6). Diagrammatic Arrow Per Lane signs shall not be used 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.

Diagrammatic Arrow Per Lane signs used on freeways and expressways shall include one arrow for each lane and shall be designed in accordance with the following criteria:

- ~~A. The graphic legend shall be of a plan view showing the off-ramp arrangement (see Figure 2E-3).~~
- ~~B. No other symbols or route shields shall be used as a substitute for arrowheads.~~
- ~~C. They shall not be installed at the exit direction location (see Section 2E.33).~~
- ~~D. The EXIT ONLY panel shall not be used on diagrammatic signs at any major split.~~
- AA. Arrow Per Lane signs shall be mounted overhead.**
- A. The sign shall include an upward pointing arrow for each lane of the approach to the split or exit, and the shaft of each arrow shall be located approximately over the center of the lane to which it applies.
- B. Arrows for continuing through lanes shall be vertically upward pointing unless those lanes are on a significantly curved alignment beyond the theoretical gore, in which case the arrows for the continuing through lanes shall indicate the approximate degree of curvature (see Figure 2E-5 E).
- C. The arrow for a lane that must exit shall be curved in the direction of the exit and shall be accompanied by black-on-yellow EXIT and ONLY (E11-1b) sign panels adjacent to the lower end of the arrow shaft. The E11-1b sign panels shall not be used for a split of two overlapping routes when neither of the diverging routes is designated as an exit. Where the through lanes curve and the exit continues on a straight alignment, upward pointing vertical arrows shall be used for the exiting movement and curved arrows for the through movement.
- D. The arrow for an optional exit lane that also carries the through route shall have a single shaft that bifurcates into a vertically upward-pointing arrow and a curving arrow corresponding to the configuration of the through and exit lanes.
- E. For splits with an option lane, the arrow for the lane from which either direction of the split can be accessed shall have a single shaft that bifurcates into two upward-pointing curving arrows showing the approximate degrees of curvature of the two roadways beyond the theoretical gore (see Figure 2E-6 E).
- F. A vertical white line shall be used to separate the route shields and destinations for the two diverging movements from each other.
- G. The sign at the exit shall be located near, but not downstream of, the point where the exiting lanes begin to diverge from the through lanes.**

Guidance:

Diagrammatic Arrow Per Lane signs used on freeways and expressways should be designed in accordance with the following additional criteria:

- ~~A. The graphic should not depict deceleration lanes.~~
- A. No more than one destination should be ~~shown~~ displayed ~~edited to increase consistency~~ for each ~~arrowhead~~ movement, and no more than two destinations should be ~~shown~~ displayed ~~edited to increase consistency~~ per sign.
- ~~C. A black on yellow EXIT ONLY panel should be used to supplement a lane drop graphic.~~
- B. The ~~shaft~~ arrowhead(s) for the ~~exit ramp~~ diverging movement should be ~~shorter than, but not separated from, the through movement graphic~~ positioned lower on the sign than the arrowhead(s) for the movement that continues straight ahead, independent of which movement carries the through route. Where the movements are freeway or expressway splits rather than exits, the ~~shafts~~ arrowheads should be ~~equal in length~~ positioned at approximately the same height on the sign.
- ~~E. Arrow shafts should contain lane lines where appropriate.~~
- C. Route shields, cardinal directions, and destinations should be ~~positioned on the sign such that they are~~ clearly related to the arrowhead(s), ~~and the arrowhead should point toward the route shield~~ for the off movement to which they apply.
- D. The cardinal direction should be placed adjacent to the route shield, ~~and the destination should be placed below and justified with the route shield~~ for exits or splits leading in a single cardinal direction.
- E. The vertical white line that is used to separate the route shields and destinations for the ~~two diverging movements from each other~~ should not descend below the top of the arrowheads for the through lanes, and should be positioned approximately halfway between the diverging arrowheads for the optional movement lane (see Figure 2E-3 G).

~~Diagrammatic signs should be used at the Advance Guide sign location(s) for the following:~~

- ~~A. Left exits (see Figure 2E-3).~~
- ~~B. Splits where the off route movement is to the left (see Figure 2E-4).~~
- ~~C. Optional lane splits for non-overlapping routes (see Figure 2E-5).~~
- ~~D. Where a two-lane exit has an optional lane that carries the through route (see Figures 2E-6 and 2E-7). These interchanges create serious expectancy problems for drivers who are unfamiliar with the interchange.~~
- ~~E. Left exit interchange lane drop situations. In this situation, an EXIT ONLY (E11-1e) panel should be used without a down arrow for Advance Guide signs (see Figure 2E-8).~~

Standard:

Diagrammatic Arrow Per Lane signs ~~have been shown to be inferior to conventional signs shall not be used at cloverleaf interchanges and shall not be used at these locations:~~ **except in the following cases for which **diagrammatic Arrow Per Lane** signs shall be used:**

- A. Where the outer (non-loop) exit ramp of the cloverleaf is a multi-lane exit having an optional exit lane that also carries the through route; and**
- B. At cloverleaf interchanges that include collector-distributor roadways, such as those illustrated in Figure 2E-30, that are accessed from the mainline by a multi-lane exit having an optional exit lane that also carries the through route. In this case, the **diagrammatic Arrow Per Lane** sign shall only show the configuration of the lanes at the exit point to the collector-distributor roadway and not the entire interchange configuration.**

Support:

Specific guidelines for more detailed design of **diagrammatic Arrow Per Lane** signs are contained in the “Standard Highway Signs and Markings” book (see Section 1A.11).

Option:

Where extra emphasis of an especially low advisory ramp speed is needed, an EXIT XX km/h (MPH) legend (see Section 2E.32 and Figure 2E-21) may be shown at the bottom of the diagrammatic sign to supplement, but not to replace, the exit or ramp advisory speed warning signs.

Section 2E.V Diagrammatic Signs

NATIONAL COMMITTEE recommends the addition of this Section.

Support:

Diagrammatic signs are guide signs that show a graphic view of the exit arrangement in relationship to the main highway.

Standard:

Diagrammatic signs shall be designed in accordance with the following criteria:

- A. The graphic legend shall be of a plan view showing the off-ramp arrangement (see Figure 2E-3).
- B. No other symbols or route shields shall be used as a substitute for arrowheads.
- C. They shall not be installed at the exit direction location (see Section 2E.33).
- D. The EXIT ONLY panel shall not be used on diagrammatic signs at any major split.

Guidance:

Diagrammatic signs used on freeways and expressways should be designed in accordance with the following additional criteria:

- A. The graphic should not depict deceleration lanes.
- B. No more than one destination should be displayed for each arrowhead, and no more than two destinations should be displayed per sign.
- C. A black on yellow EXIT ONLY panel should be used to supplement a lane drop graphic.
- D. The shaft for the exit ramp movement should be shorter than, but not separated from, the through movement graphic. Where the movements are freeway or expressway splits rather than exits, the shafts should be equal in length.
- E. Arrow shafts should contain lane lines where appropriate.
- F. Route shields, cardinal directions, and destinations should be positioned on the sign such that they are clearly related to the arrowhead(s), and the arrowhead should point toward the route shield for the off movement to which they apply.
- G. For splits or other exits leading in a single cardinal direction, the cardinal direction should be placed adjacent to the route shield.
- H. The destination should be placed below and justified with the route shield.

Standard:

Diagrammatic signs shall not be used at cloverleaf interchanges.

Support:

Specific guidelines for more detailed design of diagrammatic signs are contained in the "Standard Highway Signs and Markings" book (see Section 1A.11).

Option:

Where extra emphasis of an especially low advisory ramp speed is needed, an EXIT XX km/h (MPH) legend (see Section 2E.32 and Figure 2E-21) may be shown at the bottom of the diagrammatic sign to supplement, but not to replace, the exit or ramp advisory speed warning signs.

Additional Recommendation

The current design of diagrammatic arrows shown in the 2003 MUTCD and in “Standard Highway Signs” must be improved in the following ways to improve legibility.

Wider stem widths for the arrows.

Bolder lane line markings within the arrow stems.

Larger arrow heads.

~~Section 2E.21 Changeable Message Signs~~ the text from this Section has been relocated to new Chapter 2M

Section ~~2E.20~~ 2E.21 Signing for Interchange Lane Drops

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 727, lines 27-28 – Editorial to reflect change in terminology.
2. Page 727, lines 34-35 – Modification to be compatible with use of both Arrow per Lane and Diagrammatic designs
3. Page 727, line 37 – Add statement regarding lateral placement
4. Page 728, line 17. Add reference to two figures that illustrate lane drops.

Standard:

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, diagrammatic signs (see Section 2E.20) shall be used the provisions of Sections 2E-X and 2E-Y shall apply.

Major guide signs for all lane drops at interchanges shall be mounted overhead. An EXIT ONLY sign edited to increase consistency panel shall be used for all interchange lane drops at which the through route is carried on the mainline.

~~Guidance:~~

The EXIT ONLY (down arrow) (E11-1 or E11-1f) sign edited to increase consistency panel (see Figure 2E-7) should shall be used on all signing of lane drops on all ~~non-diagrammatic~~ overhead Advance Guide signs except those that use Arrow Per Lane or Diagrammatic designs for right exits (see Figures 2E-8 through 2E-10 2E-B, 2E-C, 2E-D, and 2E-J). For lane drops on the left side, diagrammatic signing with the EXIT ONLY (E11-1e) panel (see Figure 2E-9) should be used without a down arrow for Advance Guide signs (see Figure 2E-8). Each sign shall be designed and placed so that each arrow on the EXIT ONLY sign panel is located over the approximate center of each lane being dropped.

~~Standard:~~

For lane drops, the Exit Direction sign (see Section 2E.32 and Figure 2E-20) and E11-1a panel (see Figure 2E-9) shall be of the format shown in Figures 2E-8 and through 2E-10 2E-B through 2E-D for all lane drops. The standard slanted up arrow (left or right side) shall be included on the Exit Direction sign. The bottom portion of the Exit Direction sign shall be yellow with a black border and shall include an upward diagonal black arrow (left or right) for each lane dropped at the exit, with the sign designed and placed so that each arrow is located over the approximate center of each lane being dropped. The words EXIT and ONLY shall be positioned to the left and right, respectively, of the arrow on the E11-1d

sign panel for a single-lane drop. For a two-lane drop, the words EXIT ONLY shall be located between the two arrows on the E11-1e sign panel.

Option:

EXIT ONLY messages of either E11-1b or E11-1c formats may be used to retrofit existing signing to warn of a lane drop situation ahead.

Standard:

If used **to retrofit** an existing Advance Guide sign, the E11-1b sign **added to increase consistency** panel (see Figure 2E-7) shall be placed on either side of a white down arrow. The E11-1c sign **added to increase consistency** panel, if used **to retrofit** an existing nondiagrammatic sign, shall be placed between the lower destination message and the white down arrow.

Guidance:

Advance Guide signs for lane drops within 2 km or 1 mile of the interchange should not contain the distance message.

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 2 km or 1 mile, the first Advance Guide sign in the sequence downstream from the entrance ramp should contain the distance message.

Wherever the dropped lane carries the through route, **diagrammatic** signs should be used without the EXIT ONLY panel.

Support:

Section 2B.23 contains information regarding regulatory signing that can also be used for freeway lane drop situations and Section 2C.42 contains information regarding the advance guide signing that can also be used for freeway lane drop situations.

Figures 2E-B and 2E-C show lane drop signing for exits to the right and to the left.
Section 2E.W Signing for Multi-lane Exits with an Option Lane at Freeway to Freeway Interchanges

NATIONAL COMMITTEE recommends the addition of this Section.

Guidance

Signing for Multi-lane Exits with an Option Lane at Freeway to Freeway interchanges should use the Arrow Per Lane sign designs shown in Figure 2E-G.

For Advance Guide signs at locations where the number of lanes is different from the number of lanes immediately upstream of the exit, the arrows on the Advance Guide sign should show the number of lanes existing at the location of the Advance Guide sign.

Option

Signing for Multi-lane Exits with an Option Lane at Freeway to Freeway interchanges may use the diagrammatic Advance Guide signs and Pull-Through and Exit Direction sign designs shown in Figure 2E-H.

Guidance

If the sign designs in Figure 2E-H are used, Advance Guide signs at locations where the number of lanes is different from the number of lanes immediately upstream of the exit should show the number of lanes existing at the location of the Advance Guide sign.

Standard

If the sign designs in Figure 2E-H are used, the Diagrammatic Advance Guide signs for this application shall be mounted overhead.

Guidance

If the sign designs in Figure 2E-H are used, the Diagrammatic Advance Guide signs should be centered over the approach lanes.

Standard

If the sign designs in Figure 2E-H are used, the Pull-Through and Exit Direction signs shall be longitudinally located at the theoretical gore.

If the sign designs in Figure 2E-H are used, the Pull-Through and Exit Direction signs shall be mounted overhead and laterally located so that each arrow is centered above the lane to which it applies.

Guidance

Advance Guide signs should be placed at 1 km or 0.5 miles and at 2 km or 1 mile in advance of the exit with a third Advance Guide sign placed at 4 km (2 mi) in advance of the exit if spacing permits (see Section 2E.29).

Section 2E.X. Signing for Multi-lane Exits with an Option Lane at Other than Freeway to Freeway Interchanges

NATIONAL COMMITTEE recommends the addition of this Section.

Guidance

Signing for Multi-lane Exits with an Option Lane at Other than Freeway to Freeway interchanges should use the Arrow Per Lane sign designs shown in Figure 2E-I.

For Advance Guide signs at locations where the number of lanes is different from the number of lanes immediately upstream of the exit, the arrows on the Advance Guide sign should show the number of lanes existing at the location of the Advance Guide sign.

Option

Signing for Multi-lane Exits with an Option Lane at Other than Freeway to Freeway interchanges may sign these location under the provisions of Section 2E-W.

Signing for Multi-lane Exits with an Option Lane at Other than Freeway to Freeway interchanges may use the Text Message designs shown in Figure 2E-J.

Standard

If the sign designs in Figure 2E-J are used, the signs for this application shall be mounted overhead.

If the sign designs in Figure 2E-J are used, the Exit Direction sign shall be longitudinally located at the theoretical gore.

Guidance

If the sign designs in Figure 2E-J are used, Advance Guide signs of this design should be used only where the exit lane is fully developed.

If the sign designs in Figure 2E-J are used, the signs should be mounted such that the arrows are centered over the lanes to which they apply.

An Advance Guide sign should be placed at 1 km or 0.5 miles in advance of the exit if spacing permits (see Section 2E.29).

Option

An additional Advance Guide sign may be placed at 2 km or 1 mile in advance of the exit if spacing permits (see Section 2E.29).

Section 2E.Y. Signing for Freeway Splits with Dedicated Lanes

NATIONAL COMMITTEE recommends the addition of this Section.

Standard

Signing for Freeway Splits with Dedicated Lanes shall use the sign designs shown in Figure 2E-D.

A 15 year compliance date is recommended for the above standard and noted in Compliance Dates.

Guidance

For Advance Guide signs at locations where the number of lanes is different from the number of lanes immediately upstream of the exit, the arrows on the Advance Guide signs should show the number of lanes existing at the location of the Advance Guide sign.

Standard

The signs for this application shall be mounted overhead. Arrows shall be centered over the lanes to which they apply.

Guidance

The Pull-Through and Exit Direction signs should be longitudinally located at the theoretical gore.

Advance Guide signs should be placed at 1 km or 0.5 miles and at 2 km or 1 mile in advance of the exit with a third Advance Guide sign placed at 4 km (2 mi) in advance of the exit if spacing permits (see Section 2E.29).

Section 2E.Z. Signing for Freeway Splits with an Option Lane

NATIONAL COMMITTEE recommends the addition of this Section.

Guidance

Signing for Freeway Splits with an Option Lane should use the Arrow Per Lane sign designs shown in Figure 2E-E.

For Advance Guide signs at locations where the number of lanes is different from the number of lanes immediately upstream of the exit, the arrows on the Advance Guide sign should show the number of lanes existing at the location of the Advance Guide sign.

Option

Signing for Freeway Splits with an Option Lane may use the diagrammatic Advance Guide signs and Pull-Through and Exit Direction sign designs shown in Figure 2E-F.

Guidance

If the sign designs in Figure 2E-F are used, Advance Guide signs at locations where the number of lanes is different from the number of lanes immediately upstream of the exit should show the number of lanes existing at the location of the Advance Guide sign.

Standard

If the sign designs in Figure 2E-F are used, the Diagrammatic Advance Guide signs for this application shall be mounted overhead.

Guidance

If the sign designs in Figure 2E-F are used, the Diagrammatic Advance Guide signs should be centered over the approach lanes.

Standard

If the sign designs in Figure 2E-F are used, the Pull-Through and Exit Direction signs shall be longitudinally located near, but not upstream of, the theoretical gore.

Standard

If the sign designs in Figure 2E-F are used, the Pull-Through and Exit Direction signs shall be mounted overhead and laterally located so that each arrow is centered above the lane to which it applies.

Guidance

Advance Guide signs should be placed at 1 km or 0.5 miles and at 2 km or 1 mile in advance of the exit with a third Advance Guide sign placed at 4 km (2 mi) in advance of the exit if spacing permits (see Section 2E.29).

Section 2E.22 **Overhead Sign Installations**

NATIONAL COMMITTEE endorses editorial change.

Support:

Specifications for the design and construction of structural supports for ~~highway~~ ~~deleted to~~ ~~increase consistency~~ signs have been standardized by the American Association of State Highway and Transportation Officials (AASHTO). Overcrossing structures can often serve for the support of overhead signs, and might in some cases be the only practical location that will provide adequate viewing distance. Use of these structures as sign supports will eliminate the need for additional sign supports along the roadside. Factors justifying the installation of overhead signs are given in Section 2A.17. Vertical clearance of overhead signs is discussed in Section 2A.18.

Section 2E.23 **Lateral Offset**

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

The minimum lateral ~~clearance offset~~ **edited to increase consistency** outside the usable roadway shoulder for ~~ground- post-mounted~~ **edited to increase consistency** freeway and expressway signs or for overhead sign supports, either to the ~~right-hand~~ **edited to increase clarity** or ~~left-hand~~ **edited to increase clarity** side of the roadway, shall be 1.8 m (6 ft). This minimum clearance shall also apply outside of a ~~barrier~~ curb. If located within the clear zone, the signs shall be mounted on crashworthy supports or shielded by appropriate crashworthy barriers.

Guidance:

Where practical, a sign should not be less than 3 m (10 ft) from the edge of the nearest traffic lane. Large guide signs especially should be farther removed, preferably 9 m (30 ft) or more from the nearest traffic lane.

Where an expressway median is 3.7 m (12 ft) or less in width, consideration should be given to spanning both roadways without a center support.

Where overhead sign supports cannot be placed ~~a reasonably safe distance~~ **sufficiently far** away from the line of traffic or in an otherwise protected site, they should either be designed to minimize the impact forces, or be adequately shielded by a ~~physical traffic barrier or guardrail~~ of suitable design.

Standard:

Butterfly-type sign supports and other overhead noncrashworthy sign supports shall not be installed in gores or other unprotected locations within the clear zone.

Option:

Lesser clearances, but not generally less than 1.8 m (6 ft), may be used on connecting roadways or ramps at interchanges.

Section ~~2E.25~~ 2E.24 Route Signs and Trailblazer Assemblies

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 729, line 25 – Deleted specific reference to auto tour route signs to match new section title.
2. Page 729, line 27 – Added statement to allow for route signs to incorporate the word TOLL in trailblazing signs.
3. Page 729, line 29 – Added reference to Section 2D.25 to provide information on use.

Standard:

The official Route sign for the Interstate Highway System shall be the red, white, and blue retroreflective distinctive shield adopted by the American Association of State Highway and Transportation Officials (see Section 2D.11).

Guidance:

Route signs (see Figure 2E-11) should be incorporated as cut-out shields or other distinctive shapes on large directional guide signs. Where the Interstate shield is displayed in an assembly or on the face of a guide sign with U.S. or State Route signs, the Interstate numeral should be at least

equal in size to the numerals on the other Route signs. The use of independent Route signs should be limited primarily to route confirmation assemblies.

Route signs and auxiliary signs showing junctions and turns should be used for guidance on approach roads, for route confirmation just beyond entrances and exits, and for reassurance along the freeway or expressway. When used along the freeway or expressway, the Route signs should be enlarged [to a 900 mm x 900 mm \(36 x 36 in\) minimum size for routes with one or two digits and to a 1125 x 900 mm \(45 x 36 in\) minimum size for routes with three digits](#) as shown in the “Standard Highway Signs [and Markings](#)” book (see Section 1A.11). When independently mounted Route signs are used in place of Pull-Through signs, they should be located just beyond the exit.

Option:

The standard Trailblazer Assembly (see Section 2D.37) may be used on roads leading to the freeway or expressway. Component parts of the Trailblazer Assembly may be included on a single sign ~~panel~~. ~~deleted to increase accuracy~~ Independently mounted Route signs may be used instead of Pull-Through signs ([see Section 2E.12](#)) as confirmation information (~~see Section 2E.12~~).

Guidance:

[If shields or other similar signs are used to provide route guidance in following a trail \(see Section 2I.08\), they should be designed in accordance with the sizes and other design principles for route signs, such as those described in Sections 2D.10 through 2D.12. The trailblazer for a toll facility may include a standard route marker with the word TOLL as long as the shape of the original route marker is preserved.](#)

Option:

The commonly used name or trailblazer symbol for a toll facility ([see Section 2D.25](#)) may be displayed on nontoll sections of the Interstate Highway System at:

- A. The last exit before entering a toll section of the Interstate Highway System;
- B. The interchange or connection with a toll facility, whether or not the toll facility is a part of the Interstate Highway System; and
- C. Other locations within a reasonable approach distance of toll facilities when the name or trailblazer symbol for the toll facility would provide better guidance to road users unfamiliar with the area than would place names and route numbers.

The toll facility name or symbol may be included as a part of the guide sign installations on intersecting highways and approach roads to indicate the interchange with a toll section of an Interstate route. Where needed for the proper direction of traffic, a trailblazer for a toll facility that is part of the Interstate Highway System may be displayed with the Interstate Trailblazer Assembly.

Section ~~2E.26~~ 2E.25 Signs for Intersections at Grade

NATIONAL COMMITTEE endorses no change.

Guidance:

If there are intersections at grade within the limits of an expressway, guide sign types specified in Chapter 2D should be used. However, such signs should be of a size compatible with the size of other signing on the expressway.

Option:

Advance Guide signs for intersections at grade may take the form of [diagrammatic](#) layouts depicting the geometrics of the intersection along with essential directional information.

Section ~~2E.27~~ 2E.26 **Interchange Guide Signs**

NATIONAL COMMITTEE endorses no change.

Standard:

The signs at interchanges and on their approaches shall include Advance Guide signs and Exit Direction signs. Consistent destination messages shall be displayed on these signs.

Guidance:

New destination information should not be introduced into the major sign sequence for one interchange, nor should destination information be dropped.

Reference should be made to Section 2E.11 and Sections 2E.29 through 2E.38 for a detailed description of the signs in the order that they should appear at the approach to and beyond each interchange. Guide signs placed in advance of an interchange deceleration lane should be spaced at least 245 m (800 ft) apart.

Supplemental guide signing should be used sparingly as provided in Section 2E.31.

Section ~~2E.28~~ 2E.27 **Interchange Exit Numbering**

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 730, line 31 – Delete “vicinity” replace with “on the same route and in the same direction”.

Support:

Interchange exit numbering provides valuable orientation for the road user on a freeway or expressway. The feasibility of numbering interchanges or exits on an expressway will depend largely on the extent to which grade separations are provided. Where there is appreciable continuity of interchange facilities, interrupted only by an occasional intersection at grade, the numbering will be helpful to the expressway user.

Standard:

Interchange numbering shall be used in signing each freeway interchange exit. Interchange exit numbers shall be displayed with each Advance Guide sign, Exit Direction sign, and Gore sign. The exit number shall be displayed on a separate plaque at the top of the Advance Guide or Exit Direction sign. The ~~standard~~ exit number (E1-5P) plaque (see Figure 2E-15) shall be 750 mm (30 in) in height and shall include the word EXIT; and the appropriate exit number, ~~and the suffix letter (on multi-exit interchanges) separated from the exit number by a space~~ in a single-line format ~~on a plaque 750 mm (30 in) in height. If suffix letters are used for exit numbering at a multi-exit interchange, the suffix letter shall also be included on the exit number plaque and shall be separated from the exit number by a space having a width of at least half of the height of the suffix letter.~~ Exit numbers shall not include the cardinal initials corresponding to the directions of the cross route. Minimum numeral and letter sizes are given in Tables 2E-2 through 2E-5. If used, the interchange numbering system for expressways shall ~~conform to~~ comply with the provisions prescribed for freeways.

~~If suffix letters are used for exit numbering at a multi-exit interchange, then an exit of the same number without a suffix letter shall not be used. For example, if an exit is designated as EXIT 256 A, then there shall not be an exit designated as EXIT 256 on the same route and in the same direction vicinity.~~

Option:

Commented [REH34]: Page 730 line 31, delete vicinity.

There are two approaches to Interchange exit numbering that the State and local highway agencies may shall use: (1) the reference location sign exit numbering method, or (2) The consecutive exit numbering method shall not be used.

Support:

Reference location sign exit numbering is preferred over consecutive exit numbering for two reasons: (1) if new interchanges are added to a route, the highway agencies do not have to change the numbering sequence; and (2) reference location sign numbering assists road users in determining their destination distances and travel mileage, and assists highway agencies because the exit numbering sequence does not have to be changed if new interchanges are added to a route.

Option:

Exit numbers may also be used with Supplemental Guide signs and Road User Motorist Service signs.

Guidance:

Exit number (E1-5P) plaques should be located added toward the top left edge of the sign for a left exit and toward the top right-hand edge for right exits an exit to the right. edited to increase clarity

Standard:

Because road users might not expect a left an exit to the left edited to increase clarity and might have difficulty in maneuvering to the left, the word LEFT should be added to the a left exit number (E1-5bP) plaque (see Figure 2E-15) shall be added to the top left-hand edge for all left-hand exits (see Figures 2E-8 and 2E-9). Where a left exit is not numbered (no exit number plaque), a plaque with the word LEFT should be added to the top left edge of the sign. The portion of the exit number plaque containing the word LEFT on the E1-5bP plaque may shall have be a black legend and border on a yellow rectangular background and shall be centered above the word EXIT. the last sentence was formerly an

Option paragraph

Support:

Example exit number plaque designs are shown in Figures 2E-3 and 2E-15. Figures 2E-1, 2E-20, 2E-24, 2E-28 through 2E-33, and 2E-42 2E-15, 2E-19, and 2E-21 illustrate the incorporation of exit number plaques on guide signs. relocated ahead of subsequent paragraph to increase continuity

The general plan for numbering interchange exits is shown in Figures 2E-12 through 2E-14. Figure 2E-12 shows a circumferential route, which is a route that makes a complete circle around a city or town and usually has two interchanges (one on each side of the city or town) with each of the mainline routes that travel through the city or town. Figure 2E-13 shows a loop route, which is a route that departs from a mainline route and then rejoins the same mainline route at a subsequent point downstream, and a spur route, which is a route that departs from a mainline route and never rejoins the same mainline route. Figure 2E-14 shows two mainline routes that overlap each other.

Standard:

Where Regardless of whether a mainline route originates within a State or crosses into a State from another State, edited to increase accuracy the southernmost or westernmost terminus within that State shall be the beginning point for interchange numbering. edited to increase consistency If a loop, spur, or circumferential route crosses State boundaries, the sequence of numbering shall be coordinated by the States to provide continuous numbering. relocated to three paragraphs below to increase continuity

For circumferential routes, ~~the interchange numbering of interchanges~~ **edited to increase consistency** shall be in a clockwise direction. The numbering shall begin with the first interchange west of the south end of an imaginary north-south line bisecting the circumferential route, at a radial freeway or other Interstate route, or some other conspicuous landmark in the circumferential route near a south polar location (see Figure 2E-12).

The interchange numbers on loop routes shall begin at the loop interchange nearest the south or west mainline junction and increase in magnitude toward the north or east mainline junction (see Figure 2E-13).

Spur route interchanges shall be numbered in ascending order starting at the interchange where the spur leaves the mainline ~~of the principal~~ **edited to increase consistency** route (see Figure 2E-13).

If a circumferential, loop, or spur route crosses State boundaries, the numbering sequence shall be coordinated by the States to provide continuous interchange numbering, relocated from three paragraphs above to increase continuity

Where numbered routes overlap, continuity of interchange numbering shall be established for only one of the routes (see Figure 2E-14). **If one of the routes is an Interstate and the other route is not an Interstate, added to increase clarity** the Interstate route shall maintain continuity of interchange numbering.

Guidance:

The route chosen for continuity of interchange numbering should also have reference location sign continuity (see Figure 2E-14).

Section ~~2E-29~~ 2E.28 Interchange Classification

NATIONAL COMMITTEE endorses no change.

Support:

For signing purposes, interchanges are classified as major, intermediate, and minor. The minimum alphabet sizes contained in Tables 2E-2 and 2E-4 are based on this classification. Descriptions of these classifications are as follows:

- A. Major interchanges are subdivided into two categories: (a) interchanges with other expressways or freeways, or (b) interchanges with high-volume multi-lane highways, principal urban arterials, or major rural routes where the volume of interchanging traffic is heavy or includes many road users unfamiliar with the area.
- B. Intermediate interchanges are those with urban and rural routes not in the category of major or minor interchanges.
- C. Minor interchanges include those where traffic is local and very light, such as interchanges with land service access roads. Where the sum of exit volumes is estimated to be lower than 100 vehicles per day in the design year, the interchange is classified as minor.

Section ~~2E-30~~ 2E.29 Advance Guide Signs (E1-1, E1-1a, E1-2, and E1-2a)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 732, lines 20-21 – Remove Support statement that is self-referring and makes no sense.
2. Page 732, lines 22-26 – Remove Standard statement that is redundant with other locations in Part 2E.

Support:

The Advance Guide (E1-1, E1-1a, E1-2, and E1-2a) sign (see Figure 2E-15) gives notice well in advance of the exit point of the principal destinations served by the next interchange and the distance to that interchange (see Figure 2E-15).

Guidance:

For major and intermediate interchanges (see Section 2E.28), Advance Guide signs should be placed at 1 km or 0.5 miles and at 2 km or 1 mile in advance of the exit with a third Advance Guide sign placed at 4 km (2 mi) in advance of the exit if spacing permits. At minor interchanges, only one Advance Guide sign should be used. It should be located 1 to 2 km or 0.5 to 1 mile from the exit gore. If the sign is located less than 1 km or 0.5 miles from the exit, the distance shown displayed edited to increase consistency should be to the nearest 400 m or 1/4 mile. Fractions of kilometers or decimals of kilometers should not be used. Fractions of a mile, rather than decimals, should be shown displayed edited to increase consistency in all cases.

Standard:

Instead of an exit number (E1-5P) plaque, a LEFT (E1-5aP) plaque (see Figure 2E-15) shall be added to the top left edge of the sign for non-numbered exits to the left.

Support:

Section 2E.29 contains information regarding Advance Guide signs for numbered exits to the left.

Standard:

Where Advance Guide signs are provided for a left exit, for multi-lane exits having an optional exit lane that also carries the through route (see Figures 2E-4 and 2E-5) and for splits with an option lane (see Figure 2E-6) shall be diagrammatic signs should be used (see Figure 2E-3) designed in accordance with Section 2E.20.

Standard:

When used, Advance Guide signs shall contain the distance message. 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 km (~~EXIT X MILES~~). If the interchange has two or more exit roadways, the bottom line shall read EXITS XX km (~~EXITS X MILES~~).

Guidance:

Where interchange exit numbers are used, the word EXIT(S) ~~may~~ should be omitted from the bottom line.

Option:

Where the distance between interchanges is more than 2 km or 1 mile, but less than 4 km or 2 miles, the first Advance Guide sign may be closer than 4 km or 2 miles, but not placed so as to overlap the signing for the previous exit. Duplicate Advance Guide signs or Interchange Sequence Series signs may be placed in the median on the opposite side of the roadway and are not included in the minimum requirements of interchange signing.

Guidance:

Where there is less than 245 m (800 ft) between interchanges, Interchange Sequence Series signs (see Section 2E.36) should be used instead of Advance Guide signs for the affected interchanges.

The Advance Guide signs for the last exit from a highway before it becomes a facility on which toll payments are required should include the LAST EXIT BEFORE TOLL (W16-16P)

Commented [U35]: The GMI Signs Technical Committee notes that the designations E1-1, E1-1a, E1-2, and E1-2a are not shown in Figure 2E-15.

plaque (see [Section 2C.68](#) and [Figure 2C-9](#)). The plaque should be installed above the Advance Guide signs.

Option:

If there is insufficient space above the Advance Guide sign because of the presence of an exit number plaque, the W16-16P plaque may be installed below the Advance Guide sign.

Section ~~2E.31~~ 2E.30 Next Exit Supplemental Signs (E2-1 and E2-1a)

NATIONAL COMMITTEE endorses editorial change.

Option:

Where the distance to the next interchange is unusually long, Next Exit ([E2-1 and E2-1a](#)) supplemental signs (see [Figure 2E-16](#)) may be installed to inform road users of the distance to the next interchange (see [Figure 2E-16](#)).

Guidance:

The Next Exit supplemental sign should not be used unless the distance between successive interchanges is more than 8 km (5 mi).

Standard:

The Next Exit supplemental sign shall carry the legend NEXT EXIT XX km (~~MI~~ MILES). If the Next Exit supplemental sign is used, it shall be placed below the Advance Guide sign nearest the interchange. It shall be mounted so as to not adversely affect the breakaway feature of the sign support structure.

Option:

The legend for the Next Exit supplemental sign may be displayed in either one or two lines. The one-line message is the more desirable choice unless the message causes the sign to have a horizontal dimension greater than that of the Advance Guide sign.

Section ~~2E.32~~ 2E.31 Other Supplemental Guide Signs

NATIONAL COMMITTEE endorses editorial change.

Support:

Supplemental Guide signs can be used to provide information regarding destinations accessible from an interchange, other than places ~~shown displayed~~ **edited to increase consistency** on the standard interchange signing. However, such Supplemental Guide signing can reduce the effectiveness of other more important guide signing because of the possibility of overloading the road user's capacity to receive visual messages and make appropriate decisions. "The AASHTO Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways" is incorporated by reference in this section (see Page 1 for AASHTO's address).

Guidance:

No more than one Supplemental Guide sign should be used on each interchange approach.

A Supplemental Guide sign (see [Figure 2E-17](#)) should not list more than two destinations. Destination names should be followed by the interchange number (and suffix), or if interchanges are not numbered, by the legend NEXT RIGHT or SECOND RIGHT or both, as appropriate. The Supplemental Guide sign should be installed as an independent guide sign assembly.

Where two or more Advance Guide signs are used, the Supplemental Guide sign should be installed approximately midway between two of the Advance Guide signs. If only one Advance Guide sign is used, the Supplemental Guide sign should follow it by at least 245 m (800 feet). If the interchanges are numbered, the interchange number should be used for the action message.

States and other agencies should adopt an appropriate policy for installing supplemental signs using “The AASHTO Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways.” In developing policies for such signing, such items as population, amount of traffic generated, distance from the route, and the significance of the destination should be taken into account.

Standard:

Guide signs directing drivers to park and ride facilities shall be considered as Supplemental Guide signs (see Figures 2E-18 and 2E-19).

Section ~~2E.33~~ 2E.32 Exit Direction Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 734, lines 7-16 – Revise terminology from “diagrammatic” to “Arrow Per Lane” Modification to be compatible with use of both Arrow per Lane and Diagrammatic designs
2. Page 734, line 52 through Page 735, line 2 – Reword Option statement to eliminate repetitiveness in wording.

Support:

The Exit Direction sign (see Figure 2E-20) repeats the route and destination information that was ~~shown~~ displayed ~~edited to increase consistency~~ on the Advance Guide sign(s) for the next exit, and thereby assures road users of the destination served and indicates whether they exit to the right or ~~the~~ ~~deleted to improve grammar~~ left for that destination.

Standard:

Exit Direction signs (see Figure 2E-20) shall be used at major and intermediate interchanges. Population figures or other similar information shall not be used on Exit Direction signs.

Guidance:

Exit Direction signs should be used at minor interchanges.

~~Ground-~~ Post-mounted ~~edited to increase consistency~~ Exit Direction signs should be installed at the beginning of the deceleration lane. If there is less than 90 m (300 ft) from the beginning of the deceleration lane to the theoretical gore (see Figure 3B-8), the Exit Direction sign should be installed overhead over the exiting lane in the vicinity of the theoretical gore.

Standard:

~~Except where diagrammatic signs are required (see Section 2E.20), Except where Arrow Per Lane or Diagrammatic signs are used,~~ where a through lane or auxiliary lane at a multi-lane exit is being terminated (dropped) at an exit, the Exit Direction sign shall be placed overhead at the theoretical gore (see Figures ~~2E-5, 2E-6, and 2E-8 through 2E-10~~ 2E-B, 2E-C and 2E-D).

Where ~~diagrammatic-~~ Arrow Per Lane 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 (see Section 2E.20), ~~a diagrammatic~~ an Arrow Per Lane sign shall also be used instead of the Exit Direction sign. This diagrammatic sign shall include the exit number (E1-5P) plaque (if a numbered exit) and it shall be located near, but not beyond, the point where the outside edge of the dropped lane begins to diverge from the mainline (see Figures 2E-4 and 2E-5).

The following provisions shall govern the design and application of the overhead ~~non-diagrammatic~~ Exit Direction signs, except those using Arrow Per Lane or Diagrammatic designs:

- A. The sign shall carry the exit number (if used), the route number, cardinal direction, and destination with an appropriate upward slanting arrow (see Figure 2E-20).
- B. The message EXIT ONLY in black on a yellow sign added to increase consistency panel (E11-1e or E11-1f c) shall be used on the overhead Exit Direction sign to advise road users of a lane drop situation (see Figures 2E-8 through 2E-10 2E-B, 2E-C, and 2E-D). The sign shall ~~conform to~~ comply with the provisions of Section 2E.21.

~~C. Diagrammatic signs shall not be employed at the exit direction location.~~

Guidance:

For numbered exits to the right, an exit number (E1-5P) plaques (see Figure 2E-15) should be ~~located~~ added toward the left edge of the sign for a left exit and toward the top right-hand edge of the sign for right exits.

Standard:

For numbered exits to the left, a left exit number (E1-5bP) plaque (see Figure 2E-15) shall be added to the top left-hand edge of the sign (see Figure 2E-A).

For non-numbered exits to the left, a LEFT (E1-5aP) plaque (see Figure 2E-15) shall be added to the top left-hand edge of the sign.

Support:

Section 2E.29 contains information regarding Advance Guide signs for numbered exits to the left.

Option:

In some cases, principally in urban areas, where restricted sight distance because of structures or unusual alignment make it impossible to locate the Exit Direction sign without violating the required minimum spacing (see Section 2E.29) between major guide signs, Interchange Sequence signs (see Section 2E.36) may be substituted for an Advance Guide sign.

Guidance:

At multi-exit interchanges, the Exit Direction sign should be located directly over the exiting lane for the first exit. At the same location, and normally over the right-hand through lane, an Advance Guide sign for the second exit should be located. Only for those conditions where the through movement is not evident should a confirmatory message (Pull-Through sign as shown in Figure 2E-2) be used over the left lane(s) to guide road users traveling through an interchange. In the interest of sign spreading, three signs on one structure should not be used. When the freeway or expressway is on an overpass, the Exit Direction sign should be installed on an overhead support over the exit lane in advance of the gore point.

Option:

If the second exit is beyond an underpass, the Exit Direction sign may be mounted on the face of the overhead structure.

~~Where extra emphasis of an especially low advisory ramp speed is needed, an EXIT XX km/h (MPH) legend may be shown at the bottom the Exit Direction sign to supplement, but not replace, the exit or ramp advisory speed warning signs by adding an EXIT XX km/h (MPH) (E13-2) sign panel to the face of the Exit Direction sign near the bottom of the sign (see Figure 2E-21).~~

Where extra emphasis of an especially low advisory ramp speed is needed, an EXIT XX km/h (MPH) (E13-2) sign panel may be added at the bottom the Exit Direction sign to supplement, but not replace, the exit or ramp advisory speed warning signs (see Figure 2E-21).

Guidance:

At the last exit from a highway before it becomes a facility on which toll payments are required, the LAST EXIT BEFORE TOLL (W16-16P) plaque (see Section 2C.68 and Figure 2C-9) should be installed above the Exit Direction sign.

Option:

If there is insufficient space above the Exit Direction sign because of the presence of an Exit Number (E1-5P) plaque, the W16-16P plaque may be installed below the Exit Direction sign.

Section ~~2E.34~~ 2E.33 Exit Gore Signs (E5-1 and E5-1a)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

The Exit Gore (E5-1 or E5-1a) sign (see Figure 2E-22) in the gore indicates the exiting point or the place of departure from the main roadway. Consistent application of this sign at each exit is important.

Standard:

The gore shall be defined as the area located between the main roadway and the ramp just beyond where the ramp branches from the main roadway. The Exit Gore sign shall be located in the gore and shall carry the word EXIT or EXIT XX (if interchange numbering is used) and an appropriate upward slanting arrow (see Figure 2E-22). 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 at least half of the height of the suffix letter. Breakaway or yielding supports shall be used.

Guidance:

The arrow should be aligned to approximate the angle of departure. Each gore should be treated similarly, whether the interchange has one exit roadway or multiple exits.

Option:

Where extra emphasis of an especially low advisory ramp speed is needed, an E13-1P ~~panel~~ plaque edited to increase accuracy indicating the advisory speed may be mounted below the Exit Gore sign (see Figure 2E-22) to supplement, but not to replace, the exit or ramp advisory speed warning signs.

To improve the visibility of the gore for exiting drivers, a Type 1 object marker (see Chapter 2L) may be installed on each sign support below the Exit Gore sign.

For narrow gore areas of limited width, the Exit Gore (E5-1a) sign may be in the shape of a vertical rectangle with the arrow placed below the exit number.

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.

Standard:

An Exit Gore (E5-1a) sign shall be used when the replacement of an existing assembly of an E5-1 sign and an E5-1bP plaque becomes necessary.

Section ~~2E.35~~ 2E.34 **Post-Interchange Signs**

NATIONAL COMMITTEE endorses editorial change.

Guidance:

If space between interchanges permits, as in rural areas, and where undue repetition of messages will not occur, a fixed sequence of signs should be displayed beginning 150 m (500 ft) beyond the [downstream](#) end of the acceleration lane. At this point a Route sign assembly should be installed followed by a Speed Limit sign and a Distance sign, each at a spacing of 300 m (1,000 ft).

If space between interchanges does not permit placement of these three post-interchange signs without encroaching on or overlapping the Advance Guide signs necessary for the next interchange, or in rural areas where the interchanging traffic is primarily local, one or more of the post-interchange signs should be omitted.

Option:

Usually the Distance sign will be of less importance than the other two signs and may be omitted, especially if Interchange Sequence signs are used. If the sign for through traffic on an overhead assembly already contains the route sign, the post-interchange route sign assembly may also be omitted.

Section ~~2E.36~~ 2E.35 **Distance Signs**

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

If used, the Post-Interchange Distance sign shall consist of a two- or three-line sign carrying the names of significant destination points and the distances to those points. The top line of the sign shall identify the next meaningful interchange with the name of the community near or through which the route passes, or if there is no community, the route number or name of the intersected highway (see Figure 2E-23).

Support:

The minimum sizes of the route shields identifying a significant destination point are prescribed in Tables ~~2E-1 through 2E-3~~ and 2E-5.

Option:

The text identification of a route may be ~~shown displayed~~ **edited to increase consistency** instead of a route shield, such as “US XX,” “State Route XX,” or “County Route XX.”

Guidance:

If a second line is used, it should be reserved for communities of general interest that are located on or immediately adjacent to the route or for major traffic generators along the route.

Option:

The choice of names for the second line, if it is used, may be varied on successive Distance signs to give road users maximum information concerning communities served by the route.

Standard:

The third, or bottom line, shall contain the name and distance to a control city (if any) that has national significance for travelers using the route.

Guidance:

Distances to the same destinations should not be shown more frequently than at 8 km (5 mi) intervals. The distances displayed on these signs should be the actual distance to the destination

points and not to the exit from the freeway or expressway. [A well-defined central area or central business district should be used where one exists. In other cases, the layout of the community should be considered in relation to the highway being signed and the decision based on where it appears that most drivers would feel that they are in the center of the community in question.](#)

Section ~~2E.37~~ 2E.36 Interchange Sequence Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Option:

If interchanges are closely spaced, particularly through large urban areas, so that guide signs cannot be adequately spaced, Interchange Sequence signs identifying the next two or three interchanges may be used. [the sequence of this paragraph and the next two paragraphs was rearranged to increase clarity](#)

Guidance:

If used, Interchange Sequence signs should be used over the entire length of a route in an urban area. [Except as noted in the next paragraph](#), they should not be used on a single interchange basis.

If there is less than 245 m (800 ft) between interchanges, Interchange Sequence signs should be used instead of the Advance Guide signs for the affected interchanges.

Support:

Interchange Sequence signs are generally supplemental to Advance Guide signs. Signing of this type is illustrated in Figures 2E-24 and 2E-25, and is compatible with the sign spreading concept.

These signs are installed in a series and display the next two or three interchanges by name or route number with distances to the nearest 400 m or 1/4 mile.

Standard:

If used, the first sign in the series shall be located in advance of the first Advance Guide sign for the first interchange.

Where the exit direction is to the left, [a LEFT EXIT \(E11-2\) sign panel or a LEFT \(E11-2a\) sign panel \(see Figure 2E-7\) shall be displayed on the same line immediately to the right of the interchange names or route numbers shown on such signs shall be followed by the legend LEFT or LEFT EXIT in black letters on a yellow rectangular background.](#)

Interchange Sequence signs shall not be substituted for Exit Direction signs.

Guidance:

Interchange Sequence signs should be located in the median. After the first of the series, Interchange Sequence signs should be placed approximately midway between interchanges.

Standard:

Interchange Sequence signs located in the median shall be installed at overhead sign height.

Option:

Interchange numbers may be ~~shown~~ [displayed](#) [edited to increase consistency](#) to the left of the interchange name or route number.

Section ~~2E.38~~ 2E.37 Community Interchanges Identification Signs

NATIONAL COMMITTEE endorses editorial change.

Support:

For suburban or rural communities served by two or three interchanges, Community Interchanges Identification signs are useful (see Figure 2E-26).

Guidance:

In these cases, the name of the community followed by the word EXITS should be ~~shown~~ [displayed](#) [edited to increase consistency](#) on the top line; the lines below should display the destination, road name or route number, and the corresponding distances to the nearest 400 m or 1/4 mile.

The sign should be located in advance of the first Advance Guide sign for the first interchange within the community.

Option:

If interchanges are not conveniently identifiable or if there are more than three interchanges to be identified, the NEXT XX EXITS sign (see Section 2E.38) may be used.

Section ~~2E.39~~ 2E.38 NEXT XX EXITS Sign

NATIONAL COMMITTEE endorses editorial change.

Support:

Many freeways or expressways pass through historical or recreational regions, or urban areas served by a succession of several interchanges.

Option:

Such regions or areas may be indicated by a NEXT XX EXITS sign (see Figure 2E-27) located in advance of the Advance Guide sign or signs for the first interchange.

Guidance:

The sign legend should identify the region or area followed by the words NEXT XX EXITS.

Section ~~2E.40~~ 2E.39 Signing by Type of Interchange

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

Road users need signs to help identify the location of the exit, as well as to obtain route, direction, and destination information for specific exit ramps. Figures 2E-28 through 2E-33 show examples of guide signs for common types of interchanges. The interchange layouts shown in most of the figures illustrate only the major guide signs for one direction of traffic on the ~~through road~~ [freeway](#) and on the ~~crossroad~~ [exit ramps](#). [Section 2D.47 contains information regarding the signing of the crossroad approaches and connecting roadways to freeways and expressways.](#)

Standard:

Interchange guide signing shall be consistent for each type of interchange along a route.

Guidance:

The signing layout for all interchanges having only one exit ramp in the direction of travel should be similar, regardless of the interchange type (see Figures 2E-9, 2E-10, and Figures 2E-28 through 2E-33). For the sake of uniform application, the significant features of the signing plan for each of the more frequent kinds of interchanges (illustrated in Figures 2E-28 through 2E-33) should be followed as closely as possible. Even when unusual geometric features exist, variations in signing layout should be held to a minimum.

Section ~~2E.41~~ 2E.40 Freeway-to-Freeway Interchange

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 738, lines 15-18 – Remove portion of Standard statement that duplicates language elsewhere in Part 2E.
2. Page 738, line 28 – Add Support statement referring to figure that shows one type of Freeway to Freeway interchange

Support:

Freeway-to-freeway interchanges are major decision points where the effect of taking a wrong ramp cannot be easily corrected. Reversing direction on the connecting freeway or reentering to continue on the intended course is usually not possible. Figure 2E-28 shows examples of guide signs at a freeway-to-freeway interchange.

Guidance:

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, unless a diagrammatic representation of the interchange layout requires otherwise (see Section 2E.20).

Support:

At splits where the off-route movement is to the left or where there is an optional lane split, expectancy problems usually result, ~~and diagrammatic signs should be used at the Advance Guide sign location.~~

Standard:

~~At splits where the off-route movement is to the left, the word LEFT shall be added to the exit number (E1-5P) plaque (see Section 2E.27). Diagrammatic signs (see Section 2E.20) also shall be used at the Advance Guide sign locations for interchanges where two-lane exits with an optional lane carry the through route on the exiting lanes, freeway splits with an option lane and for multi-lane freeway-to-freeway exits having an option lane.~~

Standard:

Overhead signs shall be used at a distance of 2 km or 1 mile and at the theoretical gore of each connecting ramp. When diagrammatic signs are used, they shall ~~conform to~~ comply with the provisions of Section 2E.20.

Option:

Overhead signs may also be used at the 1 km or 0.5 mile and 4 km or 2 mile points.

The arrow and/or the name of the control city may be omitted on signs that indicate the straight-ahead continuation of a route.

An Exit Speed sign may be used where an engineering study shows that it is necessary to display a speed reduction message for ramp signing (see Section 2C.14).

Support:

See Section 2E.W for Signing for Multi-lane Exits with an Option Lane at Freeway to Freeway Interchanges

Section ~~2E.41~~ 2E.40 Freeway-to-Freeway Interchange

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

3. Page 738, lines 15-18 – Remove portion of Standard statement that duplicates language elsewhere in Part 2E.

4. Page 738, line 28 – Add Support statement referring to figure that shows one type of Freeway to Freeway interchange

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Freeway-to-freeway interchanges are major decision points where the effect of taking a wrong ramp cannot be easily corrected. Reversing direction on the connecting freeway or reentering to continue on the intended course is usually not possible. Figure 2E-28 shows examples of guide signs at a freeway-to-freeway interchange.

Guidance:

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, unless a diagrammatic representation of the interchange layout requires otherwise (see Section 2E.20).

Support:

At splits where the off-route movement is to the left or where there is an optional lane split, expectancy problems usually result, ~~and diagrammatic signs should be used at the Advance Guide sign location.~~

Standard:

~~At splits where the off-route movement is to the left, the word LEFT shall be added to the exit number (E1-5P) plaque (see Section 2E.27). Diagrammatic signs (see Section 2E.20) also shall be used at the Advance Guide sign locations for interchanges where two-lane exits with an optional lane carry the through route on the exiting lanes freeway splits with an option lane and for multi-lane freeway-to-freeway exits having an option lane.~~

Standard:

~~Overhead signs shall be used at a distance of 2 km or 1 mile and at the theoretical gore of each connecting ramp. When diagrammatic signs are used, they shall conform to comply with the provisions of Section 2E.20.~~

Option:

Overhead signs may also be used at the 1 km or 0.5 mile and 4 km or 2 mile points.

The arrow and/or the name of the control city may be omitted on signs that indicate the straight-ahead continuation of a route.

An Exit Speed sign may be used where an engineering study shows that it is necessary to display a speed reduction message for ramp signing (see Section 2C.14).

Support:

See Section 2E.W for Signing for Multi-lane Exits with an Option Lane at Freeway to Freeway Interchanges.

Section 2E.43 2E.42 Cloverleaf Interchange with Collector-Distributor Roadways

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

Examples of guide signs for full cloverleaf interchanges with collector-distributor roadways are shown in Figure 2E-30.

Guidance:

Signing on the collector-distributor roadways should be the same as the signing on the mainline of a cloverleaf interchange.

Standard:

Guide signs at exits from the collector-distributor roadways shall be overhead and located at the theoretical gore of the collector-distributor roadway and the exit ramp.

Option:

Exits from the collector-distributor roadways may be numbered with an appropriate suffix. [If the exits from a collector-distributor roadway are numbered with suffixes](#), the Advance Guide signs [on the mainline](#) may include two place names and their corresponding exit numbers [with the plural EXITS](#). [If only the exit from the mainline is numbered or if interchange numbering is not used, the Advance Guide signs on the mainline](#) ~~or~~ may use the singular EXIT.

Section ~~2E.44~~ 2E.43 Partial Cloverleaf Interchange

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

Examples of guide signs for partial cloverleaf interchanges are shown in Figure 2E-31.

Guidance:

As shown in Figure 2E-31, the overhead Exit Direction sign should be placed on the structure if the mainline passes under the crossroad and the exit roadway is located beyond the [crossroad](#) structure.

Option:

[The Exit Direction sign for the second exit may be mounted on an overhead support in front of and as close as practical to the crossroad structure if it is not feasible to mount the Exit Direction sign directly on the crossroad structure.](#)

Standard:

A ~~ground-~~ **post-mounted** **edited to increase consistency** Exit Gore sign shall also be installed in the ramp gore.

Section ~~2E.45~~ 2E.44 Diamond Interchange

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

Examples of guide signs for diamond interchanges are shown in Figure 2E-32.

Standard:

The singular message EXIT shall be used on the Advance Guide and Exit Direction signs. ~~Exit numbers shall not include the cardinal initials corresponding to the direction of the cross route.~~

Support:

The typical diamond interchange ramp departs from the mainline roadway such that a speed reduction generally is not necessary in order for a driver to ~~reasonably safely~~ negotiate an exit maneuver from the mainline onto the ramp roadway.

Guidance:

When a speed reduction is not necessary, an exit speed sign should not be used.

Option:

An Exit Speed sign may be used where an engineering study shows that it is necessary to display a speed reduction message for ramp signing (see Section 2C.14).

Guidance:

The Exit Speed sign should be located along the deceleration lane or along the ramp such that it is visible to the driver far enough in advance ~~so that a reasonably safe slowing and to allow the driver to decelerate before reaching the curve associated with the~~ exiting maneuver ~~can be made~~.

Option:

A Stop Ahead or Signal Ahead warning sign may be placed, where engineering judgment indicates a need, along the ramp in advance of the cross street, to give notice to the driver (see Section 2C.35).

Guidance:

When used on two-lane ramps, Stop Ahead or Signal Ahead signs should be used in pairs with one sign on each side of the ramp.

Section ~~2E.46~~ 2E.45 Diamond Interchange in Urban Area

NATIONAL COMMITTEE endorses editorial change.

Support:

Examples of guide signs for diamond interchanges in an urban area are shown in Figure 2E-33. This example includes the use of the Community Interchanges Identification sign (see Section 2E.37), which might be useful if two or more interchanges serve the same community.

In urban areas, street names are often ~~shown~~ displayed edited to increase consistency as the principal message in destination signs.

Option:

If interchanges are too closely spaced to properly locate the Advance Guide signs, they may be placed closer to the exit, and the distance figures adjusted accordingly.

Section ~~2E.47~~ 2E.46 Closely Spaced Interchanges

NATIONAL COMMITTEE endorses editorial change.

Option:

When a series of interchanges is closely spaced, the advance guide sign for the next interchange may be mounted on an overhead structure located downstream from the gore of the preceding interchange.

Guidance:

Interchange Sequence signs ([see Section 2E.36](#)) should be used at closely spaced interchanges. When used, they should identify and show street names and distances for the next two or three exits as shown in Figure 2E-24.

Standard:

Advance Guide signs for closely spaced interchanges shall show information for only one interchange.

Section ~~2E.48~~ 2E.47 Minor Interchange

NATIONAL COMMITTEE endorses no change.

Option:

Less signing may be used for minor interchanges because such interchanges customarily serve low volumes of local traffic.

Support:

Examples of guide signs for minor interchanges are shown in Figure 2E-34.

Standard:

At least one Advance Guide sign and an Exit Gore sign shall be placed at a minor interchange.

Guidance:

An Exit Direction sign should also be used.

Section ~~2E.49~~ 2E.48 Signing of on Conventional Road Approaches and Connecting Roadways text of this Section was relocated to Chapter 2D

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

[Section 2D.47 contains information regarding the signing on conventional roads on the approaches to interchanges and the signing on connecting roadways.](#)

Section ~~2E.50~~ 2E.49 Wrong-Way Traffic Control at Interchange Ramps text of this Section was relocated to Section 2B.48 because it relates more to regulatory signs rather than guide signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

[Section 2B.48 contains information regarding the use of regulatory signs to deter wrong-way movements at intersections of freeway or expressway ramps with conventional roads, and in the area where entrance ramps intersect with the mainline lanes.](#)

Section ~~2E.51~~ General Service Signs relocated to new Chapter 2F

Section ~~2E.52~~ Rest and Scenic Area Signs relocated to new Chapter 2F

Section ~~2E.53~~ Tourist Information and Welcome Center Signs relocated to new Chapter 2F

Section ~~2E.54~~ Reference Location Signs and Enhanced Reference Location Signs (D10-4, D10-5) relocated to new Chapter 2I

Section ~~2E.55~~ Miscellaneous Guide Signs relocated to new Chapter 2I

Section ~~2E.56~~ Radio Information Signing relocated to new Chapter 2F

Section ~~2E.57~~ Carpool and Ridesharing Signing relocated to new Chapter 2F

Section ~~2E.58~~ 2E.50 Weigh Station Signing

NATIONAL COMMITTEE endorses editorial change.

Standard:

Weigh Station signing on freeways and expressways shall be the same as that specified in Section 2D.51, except for lettering size and the advance posting distance for the Exit Direction sign, which shall be located a minimum of 450 m (1,500 ft) in advance of the gore.

Support:

Weigh Station sign layouts for freeway and expressway applications are shown in the “Standard Highway Signs and Markings” book (see Section 1A.11).

Section 2E.59 2E.51 Preferential Only Lane Guide Signs – General existing Section 2E.59 was split into four sections and substantially edited

The NATIONAL COMMITTEE Committee endorses the content of this section as proposed by the FHWA with the following exceptions:

1. p. 742, Lines 20 – 21 - Added the text ‘where high occupancy vehicles travel free of charge at all time’. NATIONAL COMMITTEE wants NPA to clarify that the HOV diamond symbol should only be used on those facilities where HOVs travel is free. Some managed lanes operations only give a discounted toll to HOV. GMI feels that applying the HOV diamond symbol to these facilities is inappropriate and will cause driver confusion.
2. Page 742, Line 26 - Added paragraph to the standard because some managed lane facilities require HOVs to have special identifiers to allow them to use the lane. Examples of this are available from Minnesota I-394 MnPass Lanes and Florida I-95 Express Lanes.
‘If a specific transponder, advance registration, or other identifier is needed by the high occupancy vehicle in order to use the lane, this appropriate information shall be shown on each Advance Guide sign, Preferential Lane Entrance Direction sign, and Preferential Lane Entrance Gore sign.’
3. P 742, Lines 41-44. Editorial. Strike out entire provision because it repeats information provided in lines 31-35
4. P. 742, Lines 46-49. Editorial, this option statement should follow the Standard beginning on Line 49
5. P. 743, Line 2. Request for additional figure. We would like to see at least one example of such a sign where the “applicable white symbol or white word message” is not HOV, such as TOLL LANE, EXPRESS LANE, etc.
6. Page 743, Line 18. Added language to allow CMS panels shown in Figure 2E-45 in addition to the lane use control signals mentioned in NPA
7. Page 743, Line 26. Editorial, Created separate standard statement. The paragraph about not using EXIT is very important and was buried as an afterthought in a standard about CMS size.
8. Page 743, Line 29. Added language to exclude grade-separated ramp connection entry points from this prohibition of EXIT. This section prohibits the use of the word EXIT on preferential lane entry signs. All of the examples provided in the figure show at-grade left slip ramp entrances. Some preferential lanes are access by flyover ramps. This will allow the use of traditional EXIT ONLY plaques for lane-drop ramp entrances to preferential lanes.
9. Page 743, Line 31. Added language to clarify that this prohibition of EXIT only applies to entrances to preferential lanes on the same facility.

Support:

Preferential lanes are used on freeways, expressways, and conventional roads. Except as otherwise noted, Sections 2E.51 through 2E.54 apply only to guide signs for preferential lanes on freeways and expressways.

Guidance:

On conventional roads, guide signs applicable only to preferential lanes are ordinarily not needed, but if used they should conform to the provisions for guide signs in Chapter 2D and any principles for Preferential Lane guide signs in Sections 2E.51 through 2E.54 that engineering judgment finds to be appropriate for the conditions.

Support:

Consistency in signs and pavement markings for preferential lanes plays a critical role in building public awareness, understanding, and acceptance, and makes enforcement more effective.

Additional guidance and standards related to the designation, operational considerations, signing signs, pavement markings, and other considerations for preferential ~~only~~ lanes is provided in Sections 2B.26 through 2B.30, 2C.64, 3B.24, and 3B.25.

Guidance:

~~Because consistency in signing and pavement markings for preferential only lanes within a State or metropolitan area plays a critical role in building public awareness, understanding, and acceptance, and makes enforcement more effective, an engineering study should be conducted to determine~~ The appropriate combinations of pavement markings and standard overhead signs, and ground- post-mounted ~~edited to increase consistency~~ regulatory, warning, and guide signs and pavement markings for a specific preferential ~~only~~ lane application should be selected based on an engineering study.

If overhead signs applicable only to a preferential lane are located in approximately the same longitudinal position along the highway as overhead signs applicable only to the general purpose lanes, the signs for the preferential lane should be separated laterally from the signs for the general purpose lanes to the maximum extent practical to minimize conflicting information.

The Preferential ~~Only~~ Lane signing signs should be designed and located to avoid overloading the road user. Based on the importance of the sign, ~~the following priority~~ regulatory signs should be given: ~~regulatory, advance regulatory, priority over guide, then~~ signs. The order of priority of guide signs should be Advance Guide, Preferential Lane Entrance Direction, and finally ~~next~~ Preferential Lane Exit Destination supplemental guide signs.

Standard:

Signs applicable only to a preferential lane shall be distinguished from signs applicable to general purpose lanes by the inclusion of the applicable symbol(s) and/or word(s).

Support:

The symbol and/or word message that appears on a particular guide sign applicable only to a preferential lane will vary based on the specific type of allowed traffic and on other related operational constraints that have been established for a particular lane, such as an HOV lane, a bus lane, or a taxi lane. Sections 2E.56 through 2E.60 contain additional provisions regarding signs, symbols, and pictographs that are used with ETC Only lanes.

Standard:

For HOV lanes and managed lanes that incorporate a vehicle occupancy requirement where high occupancy vehicles travel free of charge at all times, the diamond symbol shall appear on each Advance Guide sign, Preferential Lane Entrance Direction sign, and Preferential Lane Entrance Gore sign, as shown in Figures 2E-35 through 2E-38 and

Figures 2E-41 through 2E-43, for the designated entry and exit points for barrier- and buffer-separated geometric configurations and direct access ramps to or from such lanes. The diamond symbol shall not be used with preferential lanes for other types of traffic, such as bus lanes or taxi lanes.

If a specific transponder, advance registration, or other identifier is needed by the high occupancy vehicle in order to use the lane, this appropriate information shall be shown on each Advance Guide sign, Preferential Lane Entrance Direction sign, and Preferential Lane Entrance Gore sign.

~~Either the HOV abbreviation or~~ The diamond symbol shall appear in the legend of each preferential ~~only~~ lane guide sign at the designated entry and exit points for all types of HOV lanes (including barrier- and buffer-separated, ~~concurrent flow~~ contiguous, and direct access ramps) in order to alert motorists that there is a minimum allowable vehicle occupancy requirement for vehicles to use the HOV lanes ~~and to inform them of the times during which these vehicle occupancy requirements are in effect.~~ Guide signs shall not display the occupancy requirement for the preferential lane.

A combination of guide and regulatory signs shall be used in advance of and at the initial entry point and all intermediate entry points from general purpose lanes or facilities to all barrier- and buffer-separated preferential only lanes. ~~The Advance Guide signs for preferential only lanes shall be consistent with the requirements of Section 2E.30.~~ The regulatory signs shall comply with the provisions of Sections 2B.26 through 2B.30.

Regulatory signs alone shall be used in advance of, at the beginning of, and at all intermediate entry points from the adjoining general purpose lanes to contiguous preferential lanes (see Figures 2E-39 and 2E-40). The design and placement of the regulatory signs shall comply with the provisions of Sections 2B.26 through 2B.30.

Except as otherwise provided in Sections 2E.51 through 2E.54, guide signs applicable to a preferential lane with a vehicle occupancy requirement shall be distinguished from those applicable to general purpose lanes by displaying the white diamond symbol on a black background at the left-hand edge of these signs.

Option:

When post-mounted guide signs applicable only to a preferential lane are installed on a median barrier with limited lateral clearance to the adjacent travel lanes or shoulders, the guide signs may have a vertical rectangular shape.

Standard:

When vertical rectangular shaped guide signs applicable only to a preferential lane are installed on a median barrier, the top portion of the signs shall be comprised of the applicable white symbol or white word message that identifies the type of preferential lane (such as the diamond symbol for an HOV lane) on a black background with a white border, and the bottom portion of the sign shall be comprised of the appropriate guide sign legend on a green background with a white border (see Figures 2E-44, 2E-47, and 2E-48).

Guidance:

Where lateral clearance is limited, such as when a ~~ground-~~ post-mounted edited to increase consistency Preferential ~~Only~~ Lane guide sign is installed on a median barrier, the edges of the sign should not project beyond the outer edges of the barrier.

Option:

Where lateral clearance is limited, Preferential ~~Only~~ Lane (R3-10, R3-11, and R3-12 series) guide signs that are 1800 mm (72 in) or less in width may be skewed up to 45 degrees in order to fit within the barrier width or may be mounted ~~at a height of~~ with a vertical clearance of not less

than 4.3 m (14 ft) ~~or more above the roadway~~ to the sign, light fixture, or structural support, over the entire width of the pavement and shoulders.

Guidance:

Where lateral clearance is limited, Preferential ~~Only~~ Lane guide signs that are wider than 1800 mm (72 in) should be mounted ~~at a height of at least~~ with a vertical clearance of not less than 4.3 m (14 ft) ~~above the roadway~~ to the sign, light fixture, or structural support, over the entire width of the pavement and shoulders.

Option:

Lane-use control signals (see Chapter 4M), changeable message signs, or changeable message sign panels incorporated into a static sign (as shown in Figure 2E-45), may be used at access points to preferential lanes to indicate that a ramp or access roadway leading to or from the preferential lane or facility, or one or more specific lanes of the facility, are open or closed.

Changeable message signs may be used ~~to supplement~~ in combination with or as substitutes for static guide signs where travel conditions change or where multiple types of operational strategies (such as variable occupancy requirements, vehicle types, or pricing policies) are used and varied throughout the day or week to manage the use of, control of, or access to preferential ~~only~~ lanes.

Standard:

When changeable message signs (see ~~Section 2A.07~~ Chapter 2M) are used as ~~regulatory~~ or ~~guide~~ signs for preferential ~~only~~ lanes, they shall be the required sign size and shall display the required letter height and legend format that corresponds to the type of roadway facility and design speed.

Standard:

Except for those entry points that are grade-separated, Advance Guide signs, Preferential Lane Entrance Direction signs, and Preferential Lane Entrance Gore signs for the initial entry point and intermediate entry points into a preferential lane from the general purpose lanes of the same facility shall not identify the entry point as an exit by using the word “EXIT” on the sign or on a plaque.

Guidance:

Advance Guide signs and Preferential Lane Entrance Direction signs for initial and intermediate entry points into a preferential lane should use the word “ENTRANCE,” such as “HOV LANE ENTRANCE” (see Figures 2E-45 and 2E-46).

Preferential Lane Entrance Gore signs at the initial entry point to a preferential lane should use the word “ENTRANCE” (see Figures 2E-35 and 2E-44). Preferential Lane Entrance Gore signs at intermediate entry points to a barrier-separated preferential lane where the sign would be located immediately adjacent to and directly viewed by traffic in the preferential lane should not use the word “ENTRANCE” (see Figures 2E-36 and 2E-44).

Standard:

When the entry point is on the left-hand side of the general purpose lanes, A LEFT (E1-5aP) plaque (see Figure 2E-15) may be added to the top left edge of the Advance Guide and Preferential Lane Entrance Direction signs. The LEFT plaque shall not be used on a preferential lane regulatory sign.

~~Reversible flow or express lanes that do not have any specific vehicle occupancy or designation restrictions shall be consistent with the requirements of Chapters 2B and 3B.~~

~~Overhead preferential only lane guide signs shall be used only as a supplement to ground-mounted preferential only lane guide signs unless an engineering study identifies that ground-mounted guide signs are not appropriate for a particular situation or location.~~

~~Existing sign and bridge structures should be used to the extent practical for the installation of preferential only lane signs. Where possible, advance guide and guide signs that are provided for preferential only lanes should share sign structures spanning the preferential only lanes and the adjoining freeway facility.~~

~~Standard:~~

~~Ground-mounted and overhead advance guide signs, guide signs, and exit signs applicable to HOV lanes and direct access ramps to HOV lanes shall contain the HOV diamond symbol in the upper left corner of the sign as shown in Figures 2E-46 through 2E-52. The diamond symbol shall not be used with lanes designated for bus or taxi traffic.~~

~~Option:~~

~~Agencies may select from either the HOV abbreviation or the diamond symbol to reference the HOV lane designation.~~

~~Standard:~~

~~For concurrent flow preferential only lanes, including those where a preferential only lane is added to the roadway (see Figure 2E-48 for HOV lanes) and those where a general purpose lane transitions into a preferential only lane on the roadway (see Figure 2E-49 for HOV lanes), an overhead regulatory (R3-14 or R3-14a) sign shall be used.~~

Section 2E.52 Guide Signs for Initial Entry Points to Preferential Lanes **relocated from existing Section 2E.59**

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

4. Page 744, lines ?? – Definitions for contiguous and buffer separated in this section differ from Section 1A. These definitions must be consistent.

Standard:

~~Ground-mounted~~ Except where a contiguous preferential lane is added or where a general purpose lane becomes a contiguous preferential lane as illustrated in Figures 2E-39 and 2E-40, an Advance Guide sign shall be provided at least 800 m (0.5 mi) prior to the ~~beginning or~~ initial entry point to all types of preferential only lanes in any type of geometric configuration (including barrier-separated, buffer-separated, and concurrent flow). ~~Ground-mounted guide signs shall be provided at the beginning or initial entry point and at intermediate access points to all types of preferential only lanes.~~ 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 use the word "EXIT" (see Section 2E.51).

Guidance:

An Advance Guide sign should also be installed and located approximately 1.6 km (1 mi) in advance of the initial entry point to a barrier- or buffer-separated preferential lane.

Option:

~~Overhead advance guide signs and overhead guide signs may be used in advance of, at the beginning or initial entry point, and at designated intermediate access points to any type of preferential only lane.~~ An Advance Guide sign may also be installed and located approximately

1.6 km (1 mi) and 3.2 km (2 mi) in advance of the beginning or initial entry point to any type of a barrier- or buffer-separated preferential only lane.

Standard:

For barrier- or buffer-separated separated preferential only lanes, overhead the Advance Guide and overhead guide Preferential Lane Entrance Direction signs shall be provided in advance of and at the beginning or initial entry point to the preferential only lanes (see Figure 2E-46 for HOV lanes) overhead. Overhead guide signs shall also be used at all intermediate entry points to barrier-separated preferential only lanes (see Figure 2E-47 for HOV lanes).

Guidance:

Advance Preferential Lane Exit Destination guide signs, identifying final destination and downstream exit locations accessible from the preferential lane (see Figures 2E-35, 2E-41 through 2E-43, and 2E-49), should be installed in advance of designated the initial entry points and along the length of to access restricted preferential only lanes (such as barrier- and buffer-separated). In addition to the routes that typically appear on advance destination guide signs, these signs should also include destinations. These signs should be located based on the priority of the message, the available space, the existing signs on adjoining general purpose traffic lanes, roadway and traffic characteristics, the proximity to existing overhead signs, the ability to install overhead signs, and other unique local factors.

Standard:

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 (see Figure 2E-49).

Support:

Figure 2E-35 shows an example of signs for the initial entry point to a preferential lane.

Guidance:

Where conditions restrict the ability to provide more than one advance guide sign in advance of any type of preferential only lane, the advance guide sign that is installed should be placed at least 800 m (0.5 mi) in advance of the beginning or entry point to the preferential only lane.

Option:

Advance guide signs may be provided for preferential only lanes with unrestricted access, such as concurrent flow preferential only lanes.

Guidance:

For barrier-separated preferential only lanes where conditions restrict the ability to provide more than one advance guide sign prior to the entrance to the preferential only lane, the sign should be placed approximately 800 m (0.5 mi) in advance of the exit. In these situations, the installation of the corresponding regulatory and next exit supplemental signs should be located based on the priority of the message and the available space.

Section 2E.53 Guide Signs for Intermediate Entry Points to Preferential Lanes
relocated from existing Section 2E.59

The NATIONAL COMMITTEE Committee endorses the content of this section as proposed by the FHWA with the following exceptions:

1. Page 745, line 1. Request an additional figure to see at least one example of such a sign where the “applicable white symbol or white word message” is not HOV, such as TOLL LANE, EXPRESS LANE, etc.
2. Page 746, line 5. Changed wording to use term usually associated with surface streets. Struck “advance guide signs” and replaced it with “trailblazer signs.”
3. Page 745, line 40. The inclusion of LEFT warning is a standard in 2E.51 and entirely omitted in this section. Information was added here because it’s relevant to the signs discussed in this paragraph but are concerned that it’s only a guidance statement here and a standard in 2E.51.

Standard:

For barrier-separated and buffer-separated preferential lanes where entry is restricted only to designated points, an overhead Preferential Lane Entrance Direction sign shall be provided at intermediate entry points to the preferential lane from the general purpose lanes.

Guidance:

The Preferential Lane Entrance Direction sign should be located between one-half and one-quarter of the length of the designated entry area, as measured from the downstream end of the entry area (see Figure 2E-38).

Standard:

For barrier- and buffer-separated preferential lanes, the Advance Guide signs, if used for intermediate entry points to a preferential lane from the general purpose lanes, shall be overhead.

Option:

Advance Guide signs may be provided at approximately 800 m (0.5 mi), 1.6 km (1 mi), and 3.2 km (2 mi) in advance of intermediate entry points from the general purpose lanes to a barrier- or buffer-separated preferential lane.

Guidance:

For barrier- and buffer-separated preferential lanes where intermediate entry from the general purpose lanes is via a separate lane or ramp, at least one Advance Guide sign should be provided in addition to the Preferential Lane Entrance Direction sign. **For entry points to the left, the Advance Guide signs should be centered over the left-most general purpose lane and show the LEFT warning plaque (See Section 2E.51)**

Standard:

Advance Guide and Preferential Lane Entrance Direction signs for intermediate entry points shall not include the word “EXIT” (see Section 2E.51).

Guidance:

Advance destination guide signs, identifying the final destination and downstream exit locations accessible from the preferential lane, should be installed in advance of intermediate entry points from the general purpose lanes to barrier- and buffer-separated preferential lanes.

Support:

Section 2E.52 contains information on the design of Preferential Lane Exit Destination guide signs. Figures 2E-36 through 2E-38 show examples of signs for various geometric configurations of intermediate entry to and exit from a barrier- or buffer-separated preferential lane.

Standard:

For direct access ramps to **HOV preferential lanes**, ~~advance guide signs shall be provided along the adjoining surface streets to direct traffic into from~~ a transit facility (such as a park & ride lot or a transit station or terminal) that ~~ultimately leads to HOV lanes~~ is accessible from surface streets, **advance guide signs** ~~trailblazer signs~~ shall be provided along **the adjoining surface streets to direct traffic into and through the transit facility to the preferential lane** (see Figure 2E-41 ~~for HOV lanes~~).

Support:

Figures 2E-41 and 2E-42 provide examples of recommended uses and layouts of signs for HOV lanes for direct access ramps, park & ride lots, ~~and~~ access from surface streets, ~~and exclusive preferential only lane ramps at interchanges that directly connect two freeway facilities. Direct access ramps to preferential only lanes sometimes form a three or four legged intersection that is controlled by either static signs or traffic control signals.~~

Section 2E.54 Guide Signs for Exits **Egress from Preferential Lanes to General Purpose Lanes or Directly to Another Highway** ~~relocated from existing Section 2E.59~~

The NATIONAL COMMITTEE Committee endorses the content of this section as proposed by the FHWA with the following exceptions:

1. Page 746, line 13. Retitled Section because 2E.51 prohibits the use of EXIT on the entry signs to preferential lanes. Have substituted the word EGRESS for EXIT.
2. Page 746, line 24. Editorial, “next general purpose exit” is confusing, suggest exit number or numbers on the general purpose lanes.

Standard:

For barrier-separated ~~and buffer-separated~~ preferential only lanes **where egress is restricted only to designated points**, ~~ground- post-mounted~~ **edited to increase consistency** Advance ~~exit Guide~~ and ~~ground- post-mounted~~ **edited to increase consistency** Exit **Direction** signs shall be installed ~~prior to and at the intermediate exit points of the preferential only lanes (see Figure 2E-47 for HOV lanes).~~ ~~Ground-mounted guide signs shall be mounted in the median or on median barriers that separate two directions of traffic prior to and at the intermediate exit points from the preferential lanes to the general purpose lanes (see Figures 2E-38 and 2E-48).~~

The Exit Direction signs for egress from the preferential lanes to the general purpose lanes shall not refer to the egress as an exit. The legends of these signs shall refer to the next **general purpose exit number or numbers on the general purpose lanes** or exits by displaying the appropriate destination information, exit number(s), or both.

Support:

Section 2E.51 contains information on the design of post-mounted guide signs applicable to a preferential lane when installed on a median barrier.

Guidance:

For barrier-separated and buffer-separated preferential lanes where egress from a preferential lane to the general purpose lanes is restricted only to designated points via a separate lane or ramp, the Advance Guide and Exit Direction signs for the egress should be mounted overhead and a Pull-Through sign should be mounted with the Exit Direction sign (see Figure 2E-37).

Standard:

For preferential lanes that incorporate a vehicle occupancy requirement, the design of the overhead Advance Guide and Exit Direction signs for intermediate egress from the preferential lanes to the general purpose lanes shall display a white diamond symbol on a black background at the left-hand edge of the signs.

The design of Pull-Through signs when used in conjunction with an Exit Direction sign at an intermediate egress from the preferential lanes to the general purpose lanes shall be distinguished from those applicable to general purpose lanes by inclusion of an upper section with the applicable black legend on a white background, such as HOV LANE. For preferential lanes that incorporate a vehicle occupancy requirement, the white diamond symbol on a black background shall be displayed at the left-hand edge of this upper section.

Option:

~~For barrier-separated preferential only lanes, an advance destination guide sign may be used in the vicinity of designated intermediate entry and exit points.~~

Standard:

~~For buffer-separated preferential only lanes (painted buffer of 0.6 m (2-ft) or more) where access is restricted to designated entry points, ground-mounted guide signs shall be mounted in the median or on median barriers separating two directions of traffic. Ground-mounted advance exit and ground-mounted exit signs shall be installed prior to and at the intermediate exit points of buffer-separated preferential only lanes (see Figure 2E-47 for HOV lanes).~~

Option:

~~For buffer-separated preferential only lanes, an advance destination guide sign may be used in the vicinity of designated intermediate entry and exit points.~~

Guidance:

~~For buffer-separated HOV lanes, guide and regulatory signs should be provided to alert HOV lane users and non-users of the minimum allowable vehicle occupancy requirement and the locations of the designated entry and exit points.~~

~~For concurrent flow contiguous HOV preferential lanes on the left-hand side of the roadway with unrestricted access, Advance Guide and guide signs, Exit Direction signs, and Exit Gore signs specifically applicable to the preferential lanes shall only be used on for exits to direct access ramps, such as HOV lane only ramps or ramps to park & ride lots (see Figures 2E-41 and 2E-42 for HOV lanes).~~

The design of Advance Guide, Exit Direction, and Pull-Through signs for direct exits from preferential lanes shall be distinguished from those applicable to general purpose lanes by inclusion of an upper section with the applicable black legend on a white background, such as HOV LANE (for Pull-Through signs) or HOV EXIT (for Advance Guide and Exit Direction signs). For preferential lanes that incorporate a vehicle occupancy requirement, the white diamond symbol on a black background shall be displayed at the left-hand edge of this upper section (see Figures 2E-42 and 2E-43).

Guidance:

Advance Guide and Exit Direction signs for exits to direct access ramps from a preferential lane should be mounted overhead. A Pull-Through sign should be used with the Exit Direction sign at exits to direct access ramps.

Standard:

Post-mounted guide signs in a vertical rectangular shape installed on a median barrier shall not be used for the Advance Guide and Exit Direction signs for exits to direct access ramps.

Because direct access ramps for preferential **only** lanes at interchanges connecting two freeways are typically left-hand side exits and typically have design speeds similar to the preferential **only** lane, overhead Advance Guide signs and overhead **guide Exit Direction** signs shall be provided in advance of and at the entry point to each **freeway-to-freeway preferential only lane ramp** (see Figure 2E-43 ~~for HOV lanes~~).

Guidance:

The use of guide signs for preferential **only** lanes at freeway interchanges should ~~conform to~~ **comply with** the ~~provisions for regulatory and~~ **provisions for regulatory and** guide signs ~~requirements~~ established in this Manual.

Support:

~~The use of advance guide and~~ Guide signs for direct access ramps for preferential **only** lanes at interchanges connecting two freeways is similar to a connecting ramp between two freeway facilities.

Section 2E.55 Toll Facility and Toll Plaza Guide Signs - General

The NATIONAL COMMITTEE Committee endorses the content of this section as proposed by the FHWA with the following exceptions:

1. Page 747, line 39 through Page 748, line 3. Deleted these sections and moved to Part 1A Definitions.
2. Page 748, line 18. Request for an additional Figure to see example of this (i.e., a rectangular panel with the black legend TOLL on a white background shall be incorporated into the guide signs leading road users to a toll facility) to understand where it should go relative to route marker and cardinal direction on a guide sign.
3. Page 748, lines 19 – 21. Request FHWA consider use of color-coding all advance and canopy signs for methods of payment. Many agencies currently use color-coding with good effect. FHWA's 'Traffic Control Strategies for Toll Plazas' report had something on this.
4. Page 748, lines 40 – 42. Remove the new Toll Taker symbol as a standard when there has been very little testing.
5. Page 748, lines 47 – 50. Remove the new Exact Change symbol as a standard when there has been very little testing. In addition, the Exact Change word message Standard, has been revised to accommodate toll operators that use the term "Exact" (and a toll amount). Finally, exact change toll rate signs are recommended as a Guidance statement.
6. Page 749, line 1. Standard to use an ETC pictograph and the word ONLY, was revised to accommodate toll collection that uses video tolling.
7. Page 749, line 16. Suggest Figure 2E-50 use an ETC logo that is not purple in this figure since this option is saying you can use the logo without the purple backplate.

Support:

~~Toll plazas are used on many toll highways, bridges, and tunnels for collection of toll fees from road users. Managed lanes often require the payment of a fixed or variable toll fee for use of one or more lanes on an otherwise free facility.~~

~~Attended lanes (also sometimes called Manual lanes) at toll plazas have booths with human~~

toll collection personnel who make change, issue receipts, and perform other toll-related functions. Exact Change lanes (also sometimes called Automatic lanes) are non-attended and have receptacles into which road users deposit coins totaling the exact amount of the toll fee. Attended lanes and Exact Change lanes at toll plazas typically require vehicles to stop to pay the toll.

Electronic Toll Collection (ETC) lanes are non-attended and have equipment that communicates wirelessly with transponders mounted in vehicles (moving or stopped) to automatically deduct the toll fee from a pre-paid toll account.

Open Road ETC lanes (also sometimes called Express ETC lanes) are designed to allow ETC toll fee collection from vehicles traveling at normal highway speeds. Open Road ETC lanes are typically physically separated from the toll plaza, often following the alignment of the mainline lanes, with toll plaza lanes for cash toll payments being on a different alignment after diverging from the mainline lanes or a subset thereof. Open Road ETC toll collection is also typically used on managed lanes and on toll facilities that only accept payment by ETC.

Some of the guide signs in Sections 2E.51 through 2E.61 include regulatory and/or warning messages in the form of plaques, header panels, or rectangular panels incorporated within the guide sign. See Section 2B.31 for other regulatory signs for toll plazas. Sections 2C.43, 2C.44, 2C.68, and 2C.69 contain information regarding other warning signs and plaques for toll facilities and toll plazas.

Sections 2D.25 and 2D.26 contain information regarding other guide signs for conventional roads involving directions to toll facilities.

Section 3B.29 contains information regarding pavement markings for certain toll plaza applications.

Standard:

Directional signs for entrances to a toll facility or managed lanes on which tolls are charged, or to a road leading directly to such facilities, shall clearly indicate that the facility is a toll facility. The TOLL (M4-8) auxiliary sign (see Section 2D.25) shall be used above the route sign of a numbered toll facility in any route sign assembly that provides directions to the toll route. The M4-8 auxiliary sign shall also be used above all route signs of a numbered toll facility when a parallel or nearby free facility has the same route number. A rectangular panel with the black legend TOLL on a white background shall be incorporated into the guide signs leading road users to a toll facility.

Guide signs for toll facilities, tolled managed lanes, and toll plazas shall have white legend and border on a green background, except as specifically provided by Sections 2E.58 through 2E.61.

Option:

Where conditions do not permit separate signs, or where it is important to associate a particular regulatory or warning message with specific guidance information, regulatory and/or warning messages may be combined with guide signs for toll plazas using plaques, header panels, or rectangular regulatory or warning panels incorporated within the guide signs, as long as the proper legend and background colors are preserved.

Standard:

When regulatory messages are incorporated within a guide sign, they shall be on a rectangular panel with black legend on a white background. When warning messages are incorporated within a guide sign, they shall be on a rectangular panel with black legend on a yellow background.

Guidance:

Guide signs for toll plazas should be designed in accordance with the general principles of guide signs and the specific provisions of other sections in Chapter 2E.

Signs for toll plazas should systematically provide road users with advance and toll plaza lane-specific information regarding:

- A. The amount of the toll fee, the types of payment accepted, and the type(s) of ETC transponder(s) accepted for payment.
- B. Which lane or lanes are required or allowed to be used for each available payment type; and
- C. Restrictions on the use of a toll plaza lane or lanes by certain types of vehicles (such as cars only or no trucks).

Standard:

Signs for Attended lanes at toll plazas shall incorporate the Toll-Taker (M4-17) symbol (see Figures 2E-50 and 2E-51) in a size that makes the symbol the predominant feature of the sign.

Option:

Signs for Attended lanes at toll plazas may include word messages such as FULL SERVICE, CASH, CHANGE, or RECEIPTS to supplement the Toll-Taker symbol.

Standard:

Except for signs with the amount of the toll for passenger vehicles, signs for Exact Change lanes at toll plazas shall incorporate the Exact-Change (M4-18) symbol in a size that makes the symbol the predominant feature of the sign accompanied by the word message "EXACT CHANGE" and Signs for Exact Change lanes at toll plazas that display the amount of the toll shall incorporate the word message "EXACT" or "EXACT CHANGE".

Guidance:

Signs for Exact Change lanes at toll plazas should display the amount of the toll fee for passenger vehicles (see Figures 2E-50 and 2E-51).

Standard:

If only ETC-equipped vehicles are allowed to use a toll plaza lane, a tolled managed lane on an otherwise free non-tolled facility, or all lanes of a toll highway, the signs for such lanes shall incorporate the pictograph adopted by the toll facility's ETC payment system (such as E-Z Pass or SunPass) and the word ONLY (see Figures 2E-50 and 2E-51), except toll lanes that use video tolling shall not use the word ONLY. If incorporated within the green background of a guide sign, the ETC pictograph shall be on a white rectangular or square panel set on a purple backplate with a white border. If used on a separate plaque with a guide sign or on a header panel within a guide sign, the ETC pictograph shall have a white border and the plaque or the header panel shall have a purple background with a white border.

Purple backplates for ETC pictographs or purple backgrounds for plaques and header panels shall only be used in the manner described above to distinguish signs for lanes reserved exclusively for ETC-equipped vehicles from signs for other lanes on the same facility, and on directional signs to an ETC-Only facility from a free facility or from a toll facility that accepts multiple payment forms.

Option:

A rectangular panel with the black legend NO CASH on a white background may be included within guide signs for toll plaza lanes, tolled managed lanes on an otherwise free facility, and toll highways when such lanes or entire highways are restricted to ETC-equipped vehicles only.

Commented [STC36]: Comment to FHWA, must assure that this agrees with the inclusion of the toll fee on the yellow supplemental plaques discussed in 2B.32, Figure 2C-9. Also in 2E.52, the yellow plaque with price is used on the first advance

Commented [STC37]: Editorial, This paragraph is misplaced in this standard. The first paragraph has to do with Exact change at toll plazas while this paragraph and the next lay out an important change (purple backplate) to all ETC signs for use at plazas and elsewhere.

The ETC payment system's pictograph, without a purple backplate or purple header panel, may be used on signs for Exact Change or attended lanes at toll plazas to indicate that ETC-equipped vehicles may also use those lanes (see Figure 2E-50).

Support:

Many different ETC payment systems are used by the various toll facility and managed lane operators. Most of these existing systems will not accept payment from other systems' transponders. Toll facility and managed lane operators are working toward a nationally interoperable ETC payment system in which a road user's transponder will be accepted for ETC toll fee deduction from the user's pre-paid account on all toll facilities that are participating in the nationally interoperable ETC payment system.

Standard:

Signs for an ETC payment system that is nationally interoperable with all other ETC payment system transponders shall incorporate the Nationally Interoperable ETC (M8-3) symbol (see Figure 2E-50). This symbol shall only be used on signs for ETC lanes that accept electronic payment from any toll operator's ETC transponder.

Support:

Sections 2B.32, 2D.25, 2D.26, 2E.51 through 2E.54, and 2E.59 contain additional provisions regarding signs for tolled managed lanes and toll facilities that only accept ETC toll payments.

Section 2E.56 Advance Signs for Conventional Toll Plazas

The NATIONAL COMMITTEE Committee endorses the content of this section as proposed by the FHWA with the following exceptions:

1. Page 749, line 40. Figure 2E-50. Suggest using an ETC logo that is not purple in this figure since this option is saying you can use the logo without the purple backplate.
2. Page 749, line 44. Insert "mainline" in front of toll plaza for clarity.

Guidance:

For conventional toll plazas (those without a divergence onto a separate alignment from mainline-aligned ETC Only lanes), one or more sets of overhead advance guide signs complying with the provisions of Section 2E.56 should be provided. The advance guide signs for multi-lane toll plazas should provide information regarding which lanes to use for all of the toll payment methods accepted at the toll plaza. These signs should include toll plaza lane numbers (if used), or phrases such as LEFT LANE(S), CENTER LANE(S), RIGHT LANE(S), or downward pointing arrows over the approximate center of each applicable lane. These signs should also incorporate regulatory messages indicating any restrictions or prohibitions on the use of the lanes associated with the various types of payment methods by certain types of vehicles. For mainline toll plazas, these signs should be at least 800 m (0.5 mi) in advance of the toll plaza, and farther if practical.

Additional guide signs with lane information for the toll payment types should be provided between approximately 400 m (0.25 mi) and 245 m (800 ft) in advance of the mainline toll plaza at a location that avoids or minimizes obstruction of toll plaza canopy signs (see Section 2E.58) and lane-use control signals.

The number and/or spacing of sets of advance signs for approaches to toll plazas on ramps, toll bridges, or tunnels, to accommodate a limited distance to the plaza from an intersection or from the start of the approach road to the bridge or tunnel, should be based on an engineering study or engineering judgment.

Support:

Figure 2E-51 shows an example of advance signs for a conventional toll plaza.

Section 2E.57 Advance Signs for Toll Plazas on Diverging Alignments from Open Road ETC Only Toll (ORT) Lanes

The NATIONAL COMMITTEE Committee endorses the content of this section as proposed by the FHWA with the following exceptions:

1. Page 749, lines 50-51 – Changed Title of section to reflect more accurate description of facilities. Change “ETC Only” to “Toll” throughout section.
2. Figure Page 149, Figure 2E-52. Reconfigure the illustration in Figure 2E-52 concerning the placement of the gantry offset from the toll booths longitudinally. In addition to current Figure 2E-52 add a companion figure with a two-lane approach with a one-lane egress.

Support:

Open Road ETC Only Toll lanes are sometimes located on the normal mainline alignment while the lanes for other toll payment methods are located at a toll plaza on a separate alignment (see Figure 2E-52). Since road users paying cash tolls must diverge from the mainline alignment similar to a movement for an exit, it is important that the guide signs in advance of and at the point of divergence clearly indicate the required lane use and/or movements.

Guidance:

For toll plazas located on a separate alignment that diverges from mainline-aligned Open Road ETC Only Toll lanes, overhead advance signs should be provided at approximately 1.6 km (1 mi) and 800 m (0.5 mi) in advance of the divergence point. Both the 1.6 km (1 mi) and 800 m (0.5 mi) advance signs should include:

- A. The ETC (pictograph) ONLY – NO CASH (R3-16) regulatory sign (see Section 2B.32) with a downward pointing arrow over the center of each lane that will become an Open Road ETC Toll lane;
- B. For the lane or lanes which will diverge to a toll plaza, guide signs conforming to the provisions of Section 2E.55, indicating which lane or lanes will diverge to the toll plaza for the various cash toll payment methods; and
- C. Regulatory signs, plaques, or panels within the guide signs, indicating any restrictions or prohibitions of certain types of vehicles from toll plaza lanes associated with the various types of payment methods.

At or near the theoretical gore of the divergence point, an additional set of overhead guide signs should be provided and should include:

- A. The ETC (pictograph) ONLY – NO CASH (R3-16) regulatory sign (see Section 2B.32) with a downward pointing arrow over the center of each Open Road ETC Toll lane;
- B. Guide signs conforming to the provisions of Section 2E.55, with directional arrow(s) indicating the direction of the divergence, and providing lane information for all types of payment methods accepted at the toll plaza. These signs should include toll plaza lane numbers (if used), or phrases such as LEFT LANE(S), CENTER LANE(S), RIGHT LANE(S), or diagonally upward pointing arrows over the center of the appropriate lanes; and
- C. Regulatory signs, plaques, or panels within the guide signs, indicating any restrictions or prohibitions on the use of the toll plaza lanes associated with the various types of payment methods by certain types of vehicles.

Approximately 245 m (800 ft) in advance of the toll plaza at a location that avoids or minimizes any obstruction of the toll plaza canopy signs (see Section 2E.58) and lane-use control

signals, an additional set of overhead advance signs with lane information for the toll payment types should be provided.

Support:

Figure 2E-52 shows an example of advance signs for toll plazas on a diverging alignment from Open Road ETC-Only Toll Lanes.

Section 2E.58 Toll Plaza Canopy Signs

The NATIONAL COMMITTEE Committee endorses the content of this section as proposed by the FHWA with the following exceptions:

1. Page 750, lines 38 – 41. Editorial comments made to Standard to clarify toll plaza canopy signs do not apply to Open Road toll lanes. Clarified canopy signs are optional for Attended lanes.
2. Page 750, lines 41 – 43. Editorial comments to clarify a Standard Toll Rate Schedule sign does not apply for ticket systems, and shall be mounted on the toll island. Added option that Toll Rate Schedule sign may display toll rates for multi-axle vehicles.
3. Page 750, lines 48 – 50. Deleted standard pertaining to mounting flashing beacon alongside an ETC Only lane.
4. Page 750, line 51 through Page 751, line 2. Delete standard to install lane-control signals at toll plazas material is covered in Part 4.
5. Page 750, lines 4 and 5. Delete Option statement to install lane-use control signals for Open Road toll lanes since this is not a common practice.

Standard:

Dedicated ETC, mixed-use, and exact change lanes at toll plazas with canopies, shall display a sign complying with the provisions of Section 2E.55 shall be provided above the center of each toll plaza lane that is not an Open Road ETC-Only lane, mounted on or suspended from the toll plaza canopy, or on a separate structure immediately in advance of the plaza canopy, indicating the payment type(s) accepted in the toll plaza lane and any restrictions or prohibitions of certain types of vehicles that apply to the lane.

Option:

Attended lanes at toll plazas may provide signs complying with provisions of Section 2E.55.

Standard:

Except for ticket systems, the toll for passenger or 2-axle vehicles shall be included on the canopy sign, on a separate sign mounted on the toll island, or on a Toll Rate Schedule (R3-28) sign mounted upstream of the toll plaza, or on a separate sign mounted on the upstream side of the tollbooth.

Option: The separate toll rate Schedule (R3-28) signs mounted on the toll island upstream of the tollbooth may display the toll rate for multi-axle vehicles.

Option:

One or two flashing yellow beacons (see Section 4L.03) may supplement a canopy sign over an ETC Only lane to call special attention to the location of the ETC Only lane within the plaza.

Standard:

Flashing beacons supplementing a canopy sign over an ETC-Only lane shall be mounted directly above or alongside the sign in a manner that is separated from any lane-use control signals for that lane (see Figure 2E-50).

For multi-lane toll plazas, lane-use control signals that can display a steady RED X signal indication and a steady DOWNWARD GREEN ARROW signal indication in compliance with Chapter 4M shall be provided above the center of each toll plaza lane that is not an Open Road ETC-Only lane to indicate the open or closed status of each lane. Lane-use control signals shall not be used to call attention to a lane for a specific toll payment type such as ETC-Only lanes.

Option:

Lane-use control signals may also be provided above the center of each Open Road ETC-Only lane to indicate the open or closed status of the lane.

Support:

Section 2B.31 contains provisions regarding regulatory signs for toll plazas and Sections 2C.43, 2C.44, 2C.68, and 2C.69 contain provisions regarding warning signs for toll plazas.

Figure 2E-50 shows examples of toll plaza canopy signs.

Section 2E.59 Guide Signs for Entrances to ETC-Only Facilities

The NATIONAL COMMITTEE Committee endorses the content of this section as proposed by the FHWA with the following exceptions:

1. Page 749, Lines 12 -13 – Editorial changes removing managed lanes and changing from transponder to payment system.

Support:

Some toll highways, bridges, and tunnels, and managed lanes are restricted to use only by vehicles equipped with a specific type of ETC transponder payment system

Standard:

Guide signs for an ETC Only facility or ETC Only managed lane shall comply with the applicable provisions of Chapter 2E and specifically with the applicable provisions of Section 2E.55.

Guide signs for the entrance ramps to ETC Only facilities and for the initial and intermediate entry points to ETC Only managed lanes (including direct access ramps) shall incorporate the pictograph of the toll facility's ETC payment system and the word "ONLY" designed in accordance with the provisions of Section 2E.55 (see Figure 2E-53).

Support:

Section 2D.26 contains information regarding ETC Only auxiliary signs for use with route signs in route sign assemblies.

Section 2E.60 ETC Program Information Signs

The NATIONAL COMMITTEE Committee endorses the content of this section as proposed by the FHWA with the following exceptions:

1. Page 751 Line 27. Inserted 'types of ETC payment systems accepted' and 'discounts for using ETC payment systems' to included additional sources.
2. Page 751 Line 25-29. Added option

Standard:

Signs that inform road users of telephone numbers, Internet addresses, or e-mail addresses for enrolling in an ETC program of a toll facility or managed lane, obtaining an ETC transponder, types of ETC payment systems accepted, discounts for using ETC payment systems, and/or obtaining ETC program information shall only be installed in rest areas, in parking areas, or on low-speed roadways in accordance with the provisions of Section 2A.06.

Option

In areas having ETC program or managed lane services, ETC Program Information signs may be provided adjacent to highways with preferential lanes or along any other highway.

Carpool Information signs may include Internet addresses or telephone numbers of more than four characters within the legend.

Section 2E.61 Guide Signs for Managed Lanes

The NATIONAL COMMITTEE Committee endorses the inclusion of guidance for managed lanes signing.

1. Page 751 Line 35. Deleted sentence describing managed lanes as typically barrier-separated. Most new managed lanes are buffer separated
2. Page 751 :Lines 44-49. Strike Figure 2E-54. The group objects to the inclusion of these comparative travel time signs because there has been no prior use or comprehension testing with these signs. We do endorse the guidance concerning the posting of comparative travel times, but want research or practice to support specific sign design.
3. Page 752. Lines 6-12. The group is concerned that the word EXPRESS implies limited access or limited stops like busses and trains. Further, we do not believe that this standard statement sufficiently addresses the wide variety of management strategies and operations that currently exist and are under development. We therefore strike the entire standard and Figure 2E-53.

We therefore encourage FHWA to develop new sections and accompanying figures which address the wide variety of managed lanes and tolled facilities. These should include managed lanes where:

- A. All users pay a toll regardless of occupancy, these may be called toll lanes
- B. All users pay a toll but high occupancy vehicles may receive a discounted toll rate, but never travel for free
- C. All users pay a toll but high occupancy vehicles may travel for free during peak hours only
- D. Single occupant vehicles are allowed at all times and pay a toll at all times and high occupancy vehicles travel for free at all times.
- E. Single occupant vehicles are allowed only during off-peak hours for a toll and high occupancy vehicles travel for free at all times.

- F. Registered carpools. If a specific transponder, advance registration, or other identifier is needed by the high occupancy vehicle in order to use the lane
 - G. Managed lanes with variable occupancy requirements by time of day or congestion level. For instance HOV3+ may travel for free, but HOV2+ must pay a toll
 - H. Managed lane facilities which offer direct access ramp connections initial and intermediate entrance and exit points
 - I. Managed lane facilities which offer at-grade slip ramp initial and intermediate entrance and exit points
 - J. Direct access ramp connections between two managed lane facilities, similar to existing Figure 2E-43
 - K. A tolled direct connect ramp between two non-tolled highways
4. Add text and figure illustrating advance destination guide signs similar to Section 2E.52 Page 744 Line 46. The destination guide shown in Figure 2E-49 illustrates a managed lane but is currently in the section on preferential lanes. The sign shown in the figure also violates the description of the content and color of the header panels described in Section 2E.55 Page 749 Line 1

Support:

Managed lanes are preferential lanes for which operational strategies such as tolls, vehicle occupancy requirements, and vehicle type restrictions are variable and put into effect on a real-time basis as might be needed to respond to changing conditions. Managed lanes are typically barrier-separated lanes parallel to the general purpose lanes of a highway. There are also some highways on which all lanes are managed.

Standard:

Except as otherwise noted in this Section, guide signs for barrier-separated, buffer-separated, and contiguous managed lanes shall follow the specific provisions for Preferential Lane guide signs contained in Sections 2E.51 through 2E.54. Except as otherwise noted in this Section, guide signs for highways on which all lanes are managed shall follow the general provisions for freeway and expressway guide signs as contained in Chapter 2E as a whole.

If fixed or variable toll fees are used as an operational strategy for a managed lane, the guide signs shall comply with the provisions of Sections 2E.55 through 2E.60.

Guidance:

For managed lanes that are available as an alternative to travel on parallel general purpose lanes or on a nearby non-managed highway, changeable message signs indicating the comparative travel times or congestion levels using the managed lanes versus the general purpose lanes or alternate highway (see Figure 2E-54) should be installed in advance of the initial and intermediate entry points to the managed lanes and in advance of exit points from the managed lanes.

Support:

As managed lanes become more prevalent as an operational strategy, it will be important to establish a uniform naming convention to distinguish those lanes that are an alternative to travel on parallel general purpose lanes to effectively communicate to motorists the requirements for similar facilities in different regions.

Standard:

Guide signs at the initial and intermediate entry points to a managed lane that allows all vehicles regardless of occupancy shall include the legend EXPRESS or EXPRESS LANE(S). Guide signs at the initial and intermediate entry points to a managed lane that uses fixed or variable toll fees as an operational strategy, but allows HOV traffic without charging a toll, shall include the legend EXPRESS or EXPRESS LANE(S) and shall incorporate the HOV diamond symbol. Guide signs at the initial and intermediate entry points to a managed lane that allows only HOV traffic with either a fixed or variable occupancy requirement shall follow the provisions of Sections 2E.51 through 2E.54.

Guidance:

The legends EXPRESS and EXPRESS LANE(S) should not be used on guide signs for entrances to facilities on which all lanes are managed and there are no parallel general purpose lanes.

CHAPTER 2F. GENERAL SERVICE SIGNS new chapter with relocated text from Chapters 2D and 2E

Section 2F.01 Sizes of General Service Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

Except as noted in Section 2A.11, the sizes of General Service signs that have a standardized design shall be as shown in Table 2F-1.

Support:

Section 2A.11 contains information regarding the applicability of the various columns in Table 2F-1.

Option:

Signs larger than those shown in Table 2F-1 may be used (see Section 2A.11).

Section ~~2D.45~~ 2F.02 General Service Signs (D9-Series) for Conventional Roads

NATIONAL COMMITTEE endorses editorial change.

Support:

On conventional roads, commercial services such as gas, food, and lodging generally are within sight and are available to the road user at reasonably frequent intervals along the route. Consequently, on this class of road there usually is no need for special signs calling attention to these services. Moreover, General Service signing is usually not required in urban areas except for hospitals, law enforcement assistance, tourist information centers, and camping.

Option:

General Service signs (see Figure 2F-1) may be used where such services are infrequent and are found only on an intersecting highway or crossroad.

Standard:

All General Service signs and supplemental sign added to increase consistency panels shall have white letters, symbols, and borders on a blue background.

Guidance:

General Service signs should be installed at a suitable distance in advance of the turn-off point or intersecting highway.

States that elect to provide General Service signing should establish a statewide policy or warrant for its use, and criteria for the availability of services. Local jurisdictions electing to use such signing should follow State policy for the sake of uniformity.

Option:

Individual States may sign for whatever alternative fuels are available at appropriate locations.

Standard:

General Service signs, if used at intersections, shall be accompanied by a directional message.

Option:

The General Service legends may be either symbols or word messages.

Standard:

Symbols and word message General Service legends shall not be intermixed on the same sign. The Pharmacy (D9-20) sign shall only be used to indicate the availability of a pharmacy that is open, with a State-licensed pharmacist present and on duty, 24 hours per day, 7 days per week, and that is located within 4.8 km (3 mi) of an interchange on the Federal-aid system. The D9-20 sign shall have a 24 HR (D9-20aP) plaque mounted below it.

Guidance:

If used, the ~~word message~~ Truck Parking (D9-16) sign should be placed on a separate ~~panel sign~~ edited to increase consistency below the other general motorist services.

Support:

Formats for displaying different combinations of these services are presented in Section 2F.03.

Option:

If the distance to the next point at which services are available is 16 km (10 mi) or more, a sign NEXT SERVICES XX km (~~XX~~ MILES) (D9-17) may be used as a separate ~~panel sign~~ edited to increase consistency installed below the General Service sign (see Figure 2F-2).

The International Symbol of Accessibility for the Handicapped (D9-6) sign may be used beneath General Service signs where paved ramps and rest room facilities accessible to, and usable by, the physically handicapped are provided.

The Recreational Vehicle Sanitary Station (D9-12) sign may be used as needed to indicate the availability of facilities designed for the use of dumping wastes from recreational vehicle holding tanks.

The Litter Container (D9-4) sign may be placed in advance of roadside turnouts or rest areas, unless it distracts the driver's attention from other more important regulatory, warning, or directional signs.

~~A Carpool Information (D12-2) sign (see Figure 2D-12) may be installed as needed (see Section 2E.57).~~

~~Option:~~

The Emergency Medical Services (D9-13) symbol sign may be used to identify medical service facilities that have been included in the Emergency Medical Services system under a signing policy developed by the State and/or local highway agency.

Standard:

The Emergency Medical Services symbol sign shall not be used to identify services other than qualified hospitals, ambulance stations, and qualified free-standing emergency medical treatment centers. If used, the Emergency Medical Services symbol shall be supplemented by a sign identifying the type of service provided.

Option:

The Emergency Medical Services symbol sign may be used above the HOSPITAL (D9-13a) word message sign or H (D9-2) symbol sign or above a sign with either the legend AMBULANCE STATION (D9-13b), ~~or~~ EMERGENCY MEDICAL CARE (D9-13c), or TRAUMA CENTER (D9-13d). The Emergency Medical Services symbol sign may also be used to supplement Telephone (D9-1), Channel 9 Monitored (D12-3), or POLICE (D9-14) signs.

Standard:

The legend EMERGENCY MEDICAL CARE shall not be used for services other than qualified free-standing emergency medical treatment centers.

Guidance:

Each State should develop guidelines for the implementation of the Emergency Medical Services symbol sign.

The State should consider the following guidelines in the preparation of its policy:

A. AMBULANCE

1. 24-hour service, 7 days per week.
2. Staffed by two State-certified persons trained at least to the basic level.
3. Vehicular communications with a hospital emergency department.
4. Operator should have successfully completed an emergency vehicle operator training course.

B. HOSPITAL

1. 24-hour service, 7 days per week.
2. Emergency department facilities with a physician (or emergency care nurse on duty within the emergency department with a physician on call) trained in emergency medical procedures on duty.
3. Licensed or approved for definitive medical care by an appropriate State authority.
4. Equipped for radio voice communications with ambulances and other hospitals.

C. Channel 9 Monitored

1. Provided by either professional or volunteer monitors.
2. Available 24 hours per day, 7 days per week.
3. The service should be endorsed, sponsored, or controlled by an appropriate government authority to guarantee the level of monitoring.

Section ~~2E-51~~ 2F.03 General Service Signs for Freeways and Expressways

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

General Service ([D9-18](#) or [D9-18a](#)) signs (see Figure 2F-3) are generally not appropriate at major interchanges (see Section 2E.28 for definition) and in urban areas.

Option:

If interchanges are not numbered, an action message such as NEXT EXIT or SECOND RIGHT may be ~~used~~ [incorporated within the sign legend \(D9-18e\)](#) or [placed on a separate E2-2P plaque](#) (see Figure 2F-4).

Standard:

General Service signs shall have white letters, symbols, and borders on a blue background. Letter and numeral sizes shall ~~conform to~~ [comply with](#) the minimum requirements of Tables 2E-2 through 2E-5. All approved symbols shall be permitted as alternatives to word messages, but symbols and word service messages shall not be intermixed. If the services are not visible from the ramp of a single-exit interchange, the service signing shall be repeated in smaller size at the intersection of the exit ramp and the crossroad. Such service signs shall use arrows to indicate the direction to the services.

Guidance:

Distance to services should be ~~shown displayed~~ [edited to increase consistency](#) on General Service signs where distances are more than 2 km or 1 mile.

General Service signing should only be provided at locations where the road user can return to the freeway or expressway and continue in the same direction of travel.

Only services that fulfill the needs of the road user should be ~~shown displayed~~ [edited to increase consistency](#) on General Service signs. If State or local agencies elect to provide General

Service signing, there should be a statewide policy for such signing and criteria for the availability of the various types of services. The criteria should consider the following:

- A. Gas, Diesel, LP Gas, EV Charging, and/or other alternative fuels if all of the following are available:
 - 1. Vehicle services such as gas, oil, and water;
 - 2. Modern sanitary facilities and drinking water;
 - 3. Continuous operations at least 16 hours per day, 7 days per week; and
 - 4. Public telephone.
- B. Food if all of the following are available:
 - 1. Licensing or approval, where required;
 - 2. Continuous operation to serve at least two meals per day, at least 6 days per week;
 - 3. Public telephone; and
 - 4. Modern sanitary facilities.
- C. Lodging if all of the following are available:
 - 1. Licensing or approval, where required;
 - 2. Adequate sleeping accommodations;
 - 3. Public telephone; and
 - 4. Modern sanitary facilities.
- D. Public Telephone if continuous operation, 7 days per week is available.
- E. Hospital if continuous emergency care capability, with a physician on duty 24 hours per day, 7 days per week is available. A physician on duty would include the following criteria and should be signed in accordance with the priority as follows:
 - 1. Physician on duty within the emergency department;
 - 2. Registered nurse on duty within the emergency department, with a physician in the hospital on call; or
 - 3. Registered nurse on duty within the emergency department, with a physician on call from office or home.
- F. 24-Hour Pharmacy if a pharmacy is open, with a State-licensed pharmacist present and on duty, 24 hours per day, 7 days per week and is located within 4.8 km (3 mi) of an interchange on the Federal-aid system.
- G. Camping if all of the following are available:
 - 1. Licensing or approval, where required;
 - 2. Adequate parking accommodations; and
 - 3. Modern sanitary facilities and drinking water.

Standard:

For any service that is operated on a seasonal basis only, the General Service signs shall be removed or covered during periods when the service is not available.

The General Service signs shall be mounted in an effective location, between the Advance Guide sign and the Exit Direction sign, in advance of the exit leading to the available services.

Guidance:

The General Service sign should contain the interchange number, if any, as illustrated in Figure 2F-3.

Option:

If the distance to the next point where services are available is greater than 16 km (10 miles), a NEXT SERVICES XX km (~~XX~~ MILES) (D9-17) sign (see Figure 2F-2), may be used as a separate sign ~~panel~~ **deleted to increase accuracy** installed below the Exit Direction sign.

Standard:

Signs for services shall ~~conform to~~ comply with the format for General Service signs (see Section 2F.02) and as specified herein. Letter and numeral sizes shall be as shown in Tables 2E-2 through 2E-5. No more than six general road user services shall be displayed on one sign, which includes any appended sign panels. General Service signs shall carry the legends for one or more of the following services: Food, Gas, Lodging, Camping, Phone, Hospital, 24-Hour Pharmacy, or Tourist Information.

The qualified services available shall be ~~shown~~ displayed ~~edited to increase consistency~~ at specific locations on the sign.

To provide flexibility for the future when the service might become available, the sign space normally reserved for a given service symbol or word shall be left blank when that service is not present.

Guidance:

The standard display of word messages should be FOOD and PHONE in that order on the top line, and GAS and LODGING on the second line. If used, HOSPITAL and CAMPING should be on separate lines (see Figures 2F-3 and 2F-4).

Option:

Signing for DIESEL, LP-Gas, or other alternative fuel services may be substituted for any of the general services or appended to such signs. The International Symbol of Accessibility for the Handicapped (D9-6) sign ([see Figure 2F-1](#)) may be used for facilities that qualify.

Guidance:

When symbols are used for the road user services, they should be displayed as follows:

- A. Six services:
 - 1. Top row—GAS, FOOD, and LODGING
 - 2. Bottom row—PHONE, HOSPITAL, and CAMPING
- B. Four services:
 - 1. Top row—GAS and FOOD
 - 2. Bottom row—LODGING and PHONE
- C. Three services:
 - 1. Top row—GAS, FOOD, and LODGING

Option:

Substitutions of other services for any of the services shown above may be made by placing the substitution in the lower right (four or six services) or extreme right (three services) portion of the sign ~~panel~~. ~~deleted to increase accuracy~~ An action message or an interchange number may be used for symbol signs in the same manner as they are used for word message signs. The Diesel Fuel (D9-11) symbol or the LP-Gas (D9-15) symbol may be substituted for the symbol representing fuel or appended to such assemblies. The Tourist Information (D9-10) symbol or the 24-Hour Pharmacy (D9-20 and D9-20aP) symbol may be substituted on any of the above configurations.

At rural interchange areas where limited road user services are available and where it is unlikely that additional services will be provided within the near future, a sign panel having one to three services (words or symbols) may be appended to ~~ground~~ post-mounted ~~edited to increase consistency~~ interchange guide signs.

Standard:

If more than three services become available at rural interchange areas where limited road user services were anticipated, any appended sign panel shall be removed and replaced with an independently mounted General Service sign as described in this Section.

Option:

A separate Telephone Service (D9-1) sign (see Figure 2F-1) may be installed if telephone facilities are located adjacent to the route at places where public telephones would not normally be expected.

The Recreational Vehicle Sanitary Station (D9-12) sign (see Figure 2F-1) may be used as needed to indicate the availability of facilities designed for dumping wastes from recreational vehicle holding tanks.

In some locations, signs may be used to indicate that services are not available.

A separate TRUCK PARKING (D9-16) sign (see Figure 2F-1) may be ~~used on a separate sign panel mounted~~ below the other general road user services to direct truck drivers to designated parking areas. ~~this sentence was edited to increase accuracy~~

Section 2F.04 Interstate Oasis Signing

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Commented [REH38]: Page 758 lines 14 – 53, Page 759 lines 1 – 8, concur.

Support:

An Interstate Oasis is a facility near an Interstate highway that provides products and services to the public, 24-hour access to public restrooms, and parking for automobiles and heavy trucks. Interstate Oasis guide signs inform road users on Interstate highways as to the presence of an Interstate Oasis at an interchange and which businesses have been designated by the State within which they are traveling as having met the eligibility criteria of the Federal Highway Administration's Interstate Oasis policy. The FHWA's policy, which is dated October 18, 2006, and which can be viewed on the MUTCD website at <http://mutcd.fhwa.dot.gov/res-policy.htm>, provides a more detailed definition of an Interstate Oasis and specifies the eligibility criteria for an Interstate Oasis designation in compliance with the requirements of laws enacted by Congress.

Guidance:

If a State elects to provide or allow Interstate Oasis signing, there should be a statewide policy, program, procedures, and criteria for the designation and signing of a facility as an Interstate Oasis that complies with FHWA's policy and with the provisions of this Section.

States electing to provide or allow Interstate Oasis signing should use the following signing practices on the freeway for any given exit to identify the availability of a designated Interstate Oasis:

- A. If adequate sign spacing allows, a separate Interstate Oasis sign should be installed in an effective location with spacing of at least 245 m (800 ft) from other adjacent guide signs, including any Specific Service signs. This Interstate Oasis sign should be located upstream from the Advance Guide sign or between the Advance Guide sign and the Exit Direction sign for the exit leading to the Interstate Oasis. The Interstate Oasis sign should have a white legend with a letter height of at least 250 mm (10 in) and a white border on a blue background and should contain the words INTERSTATE OASIS and the exit number or, for an unnumbered interchange, an action message such as NEXT RIGHT. The names or logos of the businesses designated as Interstate Oases should not be included on this sign.
- B. If the spacing of the other guide signs precludes the use of a separate sign as described in Item A, a supplemental panel with a white INTERSTATE OASIS legend with a letter height of at least 250 mm (10 in) and a white border on a blue background should be

appended above or below an existing D9-18 series General Service sign for the interchange.

If a separate Interstate Oasis sign as described in Item A of the previous paragraph is installed, an Interstate Oasis (D5-12) sign panel (see Figure 2F-1) should be incorporated into the design of the sign.

Standard:

The Interstate Oasis (D5-12) sign panel shall only be used on the separate Interstate Oasis sign where it is accompanied by the words INTERSTATE OASIS and shall not be used independently without the words.

Option:

If Specific Service signing is provided at the interchange, a business designated as an Interstate Oasis and having a business logo sign panel on the Food and/or Gas Specific Service signs may use the bottom portion of the business logo sign panel to display the word OASIS.

Standard:

If Specific Services signs containing the OASIS legend as a part of the business logo(s) are not used on the ramp and if the Interstate Oasis is not clearly visible and identifiable from the exit ramp, a sign with a white INTERSTATE OASIS legend with a letter height of at least 150 mm (6 in) and a white border on a blue background shall be provided on the exit ramp to indicate the direction and distance to the Interstate Oasis.

If needed, additional trailblazer guide signs shall be used along the crossroad to guide road users to an Interstate Oasis.

Section ~~2D.42~~ 2F.05 Rest Area and Other Roadside Area Signs (D5 Series) this Section contains edited text that was formerly in Sections 2D.42, 2D.43, and 2E.52

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Section ~~2D.43~~ Scenic Area Signs (D6 Series)

Section ~~2E.52~~ Rest and Scenic Area Signs

Standard:

Rest Area signs ~~for this purpose~~ (see Figure 2F-5) shall have a retroreflective white letters, symbols, legend and border on a blue background.

Rest Area Signs (see Figure ~~2D-9~~) that include the legend REST AREA shall be used only where parking and restroom facilities are available.

Option:

Messages such as REST AREA X km (X MILE) (D5-1), REST AREA (D5-2), PARKING AREA X km (X MILE) (D5-3), PARKING AREA (D5-4), ROADSIDE TABLE X km (X MILE), ROADSIDE PARK X km (X MILE), and PICNIC AREA X km (X MILE) may be used, as well as other appropriate messages.

Guidance:

A roadside area that does not contain restroom facilities should be signed to indicate the major road user service that is provided. For example, the sign legends for an area with only parking should be signed with a use the words PARKING AREA (D5-4) sign (see Figure 2E-44) instead of REST AREA. The sign legends for an area with picnic tables and parking should be

signed with a use words such as PICNIC AREA, (D5-5c) sign or a Picnic Table Area (D5-5a) symbol sign ROADSIDE TABLE, or ROADSIDE PARK instead of REST AREA.

Rest areas that have tourist information and welcome centers should be signed as discussed in Section 2F.06.

Scenic area signing should be consistent with that specified for rest areas, Standard messages except that the legends should read use words such as SCENIC AREA (D6-1), SCENIC VIEW (D6-2), or SCENIC OVERLOOK (D6-3), or the equivalent instead of REST AREA.

Option:

Scenic areas may be marked by signs (see Figure 2F-5) carrying the message SCENIC AREA, SCENIC VIEW, SCENIC OVERLOOK, or the equivalent, together with appropriate directional information.

Guidance:

The design of the signs should be consistent with that specified for rest areas in Section 2D.42 and should be white letters, symbols, and border on a blue background. An advance sign and an additional sign at the turnoff point should be used for this kind of attraction.

If used a rest area or other roadside area is provided on a conventional road, a D5-1 and/or D5-1b Rest Area signs should be installed in advance of roadside parks or the rest areas or other roadside area to permit the driver to reduce speed and leave in preparation for leaving the highway reasonably safely. A D5-5 sign (or a D5-2 sign if an exit ramp is provided) should be installed at the turnoff point where the driver needs to leave the highway to access the rest area or other roadside area.

Signing for rest areas and scenic other roadside areas should conform to the provisions set forth in Sections 2D.42 and 2D.43. However, the signs should be suitably enlarged for freeway or expressway applications.

Standard:

On the approach to rest areas If a rest area or other roadside area is provided on a freeway or expressway, a REST AREA advance guide D5-1 sign shall be placed 2 km or 1 mile and/or 4 km or 2 miles in advance of the rest area. A D5-2 sign shall be placed at the rest area or other roadside area exit gore, there shall be a sign with a message REST AREA together with an arrow indicating the appropriate turn as shown in Figure 2F-5.

Option:

A D5-1b sign may be placed between the REST AREA advance guide D5-1 sign and the exit gore of the rest area exit, there may be a REST AREA (D5-1b) sign (see Figure 2F-5) on a freeway or expressway. The words NEXT RIGHT (E2-2) or an arrow may be included as part of the message.

To provide the road user with information on the location of succeeding rest areas, a NEXT REST AREA XX km (XX MILES) (D5-6) sign (see Figure 2F-5) may be installed independently or as a supplemental sign panel deleted to increase accuracy mounted below one of the REST AREA advance guide signs.

Guidance:

Signing for rest areas and scenic other roadside areas should conform to the provisions set forth in Sections 2D.42 and 2D.43. However, the signs should be suitably enlarged for freeway or expressway applications.

Standard:

All signs on freeways and expressways for rest and scenic other roadside areas shall have white letters, symbols, and borders on a blue background. Letter and numeral sizes shall that conform to comply with the minimum requirements of Tables 2E-2 through 2E-5.

Option:

If the rest area has facilities for the physically impaired (see Section 2F.02), the International Symbol of Accessibility for the Handicapped (D9-6) sign (see Figure 2F-1) may be placed with or beneath the REST AREA advance guide sign.

If telecommunication devices for the deaf (TDD) are available at the rest area, the TDD Symbol (D9-21) sign (see Figure 2F-1) may be used to supplement the advance guide signs for the rest area.

If wireless Internet services are available at the rest area, the Wi-Fi Symbol (D9-22) sign (see Figure 2F-1) may be used to supplement the advance guide signs for the rest area.

Section ~~2E.53~~ 2F.06 Tourist Information and Welcome Center Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

Tourist information and welcome centers have been constructed within rest areas on freeways and expressways and are operated by either a State or a private organization. Others have been located within close proximity to these facilities and operated by civic clubs, chambers of commerce, or private enterprise.

Guidance:

An excessive number of supplemental sign **added to increase consistency** panels should not be installed with Tourist Information or Welcome Center signs so as not to overload the road user.

Standard:

Tourist Information or Welcome Center signs (see Figure 2F-6) shall have a white legend and border on a blue background. Continuously staffed or unstaffed operation at least 8 hours per day, 7 days per week, shall be required.

If operated only on a seasonal basis, the Tourist Information or Welcome Center signs shall be removed or covered during the off seasons.

Guidance:

For freeway or expressway rest area locations that also serve as tourist information or welcome centers, the following signing criteria should be used:

- A. The locations for tourist information and welcome center Advance Guide, Exit Direction, and Exit Gore signs should meet the General Service signing requirements described in Section 2F.03.
- B. If the signing for the tourist information or welcome center is to be accomplished in conjunction with the initial signing for the rest areas, the message on the Advance Guide (D5-7) sign should be REST AREA, TOURIST INFO CENTER, XX km (~~XX~~ MILES) or REST AREA, STATE NAME (optional), WELCOME CENTER XX km (~~XX~~ MILES). On the Exit Direction (D5-8 or D5-11) sign the message should be REST AREA, TOURIST INFO CENTER with an upward sloping arrow (or NEXT RIGHT), or REST AREA, STATE NAME (optional), WELCOME CENTER with an upward sloping arrow (or NEXT RIGHT).
- C. If the initial rest area Advance Guide and Exit Direction signing is in place, these signs should include, on supplemental sign **panels, edited to increase accuracy** the legend TOURIST INFO CENTER or STATE NAME (optional), WELCOME CENTER.
- D. The Gore sign should contain only the legend REST AREA with the arrow and should not be supplemented with any legend pertaining to the tourist information center or welcome center.

Option:

An alternative to the supplemental TOURIST INFO CENTER legend is the [Tourist Information Symbol](#) (D9-10) sign ([see Figure 2F-1](#)), which may be appended beneath the REST AREA advance guide sign.

The name of the State or local jurisdiction may appear on [the Advance Guide and Exit Direction](#) tourist information/welcome center signs if the jurisdiction controls the operation of the tourist information or welcome center and the center meets the operating criteria set forth herein and is consistent with State policies. ~~The State name may be used on the Advance Guide and the Exit Direction signs.~~

Guidance:

For tourist information centers [that are](#) located off the freeway or expressway facility, additional signing criteria should be as follows:

- A. Each State should adopt a policy establishing the maximum distance that a tourist information center can be located from the interchange in order to be included on official signs.
- B. The location of signing should be in accordance with requirements pertaining to General Service signing (see Section 2F.03).
- C. Signing along the crossroad should be installed to guide the road user from the interchange to the tourist information center and back to the interchange.

Option:

As an alternative, the [Tourist Information Symbol](#) (D9-10) sign ([see Figure 2F-1](#)) may be appended to the guide signs for the exit [providing that provides](#) access to the tourist information center. As a second alternative, the [Tourist Information Symbol](#) sign may be combined with General Service signing.

Section ~~2E.56~~ 2F.07 Radio Information Signing

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Option:

Radio-Weather Information (D12-1) signs ([see Figure 2F-7](#)) may be used in areas where difficult driving conditions commonly result from weather systems. Radio-Traffic Information signs may be used in conjunction with traffic management systems.

Standard:

Radio-Weather and Radio-Traffic Information signs shall have a white legend and border on a blue background. Only the numerical indication of the radio frequency shall be used to identify a station broadcasting travel-related weather or traffic information. No more than three frequencies shall be ~~shown displayed~~ [edited to increase consistency](#) on each sign. Only radio stations whose signal will be of value to the road user and who agree to broadcast either of the two items below shall be identified on Radio-Weather and Radio-Traffic Information signs:

- A. Periodic weather warnings at ~~no more than 15-minute intervals~~ [a rate of at least once every 15 minutes](#) during periods of adverse weather; or
- B. Driving condition information (affecting the roadway being traveled) at a rate of at least once every 15 minutes, or when required, during periods of adverse traffic conditions, and when supplied by an official agency having jurisdiction.

If a station to be considered operates only on a seasonal basis, its signs shall be removed or covered during the off season.

Guidance:

The radio station should have a signal strength to adequately broadcast 110 km (70 mi) along the route. Signs should be spaced as needed for each direction of travel at distances determined by an engineering study. The stations to be included on the signs should be selected in cooperation with the association(s) representing major broadcasting stations in the area to provide: (1) maximum coverage to all road users on both AM and FM frequencies; and (2) consideration of 24 hours per day, 7 days per week broadcast capability.

Option:

In roadway rest area locations, a smaller sign using a greater number of radio frequencies, but of the same general design, may be used.

Standard:

Radio-Weather and Radio-Traffic Information signs installed in rest areas shall be positioned such that they are not visible from the main roadway.

Option:

A Channel 9 Monitored (D12-3) sign (see Figure 2F-7) may be installed as needed. Official public agencies or their designees may be ~~shown displayed~~ edited to increase consistency as the monitoring agency on the sign (see Section 2E.56).

~~A Channel 9 Monitored (D12-3) sign or cellular phone sign may be installed as needed.~~

Standard:

Only official public agencies or their designee shall be ~~shown displayed~~ edited to increase consistency as the monitoring agency on the Channel 9 Monitored sign.

Option:

An EMERGENCY ~~DIAL CALL~~ ~~XX~~ (D12-4) sign (see Figure 2F-7), along with the appropriate number to ~~dial call~~, may be used for cellular phone communications. ~~legend revised~~ to be consistent with the D12-2 and the D12-5 signs

Section 2F.08 TRAVEL INFO CALL 511 Sign (D12-5) this Section contains edited text that was formerly in Sections 2D.45 and 2E.56

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

~~Support:~~

~~Section 2D.45 contains information about the use and application of TRAVEL INFO CALL 511 (D12-5) signs.~~

Option:

A TRAVEL INFO CALL 511 (D12-5) sign (see Figure 2F-7) may be installed if a 511 travel information services telephone number is available to road users for obtaining traffic, public transportation, weather, construction, or road condition information.

The ~~logo~~ pictograph of the transportation agency or the travel information service or program that is providing the travel information may be incorporated within the D12-5 sign either above or below the TRAVEL INFO CALL 511 legend.

Standard:

The ~~logo~~ pictograph of a commercial entity shall not be incorporated within the TRAVEL INFO CALL 511 sign.

The TRAVEL INFO CALL 511 sign shall have a white legend and border on a blue background.

Guidance:

If the ~~logo~~ [pictograph](#) of the transportation agency or the travel information service or program is used, the ~~logo's~~ [pictograph's](#) maximum height should not exceed two times the letter height used in the legend of the sign.

Section ~~2E.57~~ 2F.09 Carpool and Ridesharing Signing

NATIONAL COMMITTEE endorses no change.

Option:

In areas having carpool matching services, Carpool Information (D12-2) signs (see Figure 2F-7) may be provided adjacent to highways with preferential lanes or along any other highway.

Carpool Information signs may include Internet addresses or telephone numbers of more than four characters within the legend.

Guidance:

Because this is an information sign related to road user services, the Carpool Information sign should have a white legend and border on a blue background.

Standard:

If a local transit logo or carpool symbol is incorporated into the Carpool Information sign, the maximum vertical dimension of the logo or symbol shall not exceed 450 mm (18 in).

Section 2F.10 Brake Check Area Signs (D5-13 and D5-14)

The National Committee endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 762, lines 1-5 – Disagree. Entire section should remain a warning sign and go back to R/W.

Guidance:

If an area has been provided for drivers to check the brakes on their vehicle, a BRAKE CHECK AREA XX km (MILES) (D5-13) sign (see Figure 2F-8) should be installed in advance of the brake check area, and a D5-14 sign (see Figure 2F-8) should be placed at the entrance to the brake check area.

Section 2F.11 Chain Up Area Signs (D5-15 and D5-16)

The National Committee endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 762, lines 6-10 – Disagree. Entire section should remain a warning sign and go back to R/W.

Guidance:

If an area has been provided for drivers to pull off of the roadway to install chains on their tires, a CHAIN UP AREA XX km (MILES) (D5-15) sign (see Figure 2F-8) should be installed in advance of the chain up area, and a D5-16 sign (see Figure 2F-8) should be placed at the entrance to the chain up area.

Section 2F.12 Truck Escape Ramp Signs (D17-3, D17-4, and D17-5) relocated from Section 2C.13 and given new sign designations

The National Committee endorses the content of this section as proposed by FHWA, with the following exception:

Commented [REH39]: Page 762 lines 1 – 5, Entire section should remain a warning sign, go back to R/W.

Commented [REH40]: Page 762 lines 6 – 10, Entire section should remain a warning sign, go back to R/W.

Commented [REH41]: Page 762 lines 11 – 27, Entire section should remain a warning sign, go back to R/W.

1. Page 762, lines 11-27 – Disagree. Entire section should remain a warning sign and go back to R/W.

Guidance:

Where applicable, truck escape (or runaway truck) ramp advance ~~warning~~ signs (see Figure 2F-8) should be located approximately 1.6 km (1 mi), and 800 m (0.5 mi) in advance of the grade, and of the ramp. A sign also should be placed at the gore. A RUNAWAY VEHICLES ONLY (R4-10) sign (see ~~Figure 2B-8 Section 2B.42~~ ~~reference revised to a new section that has been added~~) should be installed near the ramp entrance to discourage other road users from entering ~~the ramp.~~ ~~added to increase clarity~~ No Parking (R8-3) signs should be placed near the ramp entrance.

Standard:

When truck escape ramps are installed, at least one of the ~~W7-4 series~~ [D17-3](#), [D17-4](#), or [D17-5](#) signs shall be used.

Option:

A SAND (~~W7-4d~~ [D17-5dP](#)), GRAVEL (~~W7-4e~~ [D17-5eP](#)), or PAVED (~~W7-4f~~ [D17-5fP](#)) supplemental plaque (see Figure 2D-21) may be used to describe the ramp surface. State and local highway agencies may develop appropriate word message signs for the specific situation.

CHAPTER ~~2F~~ 2G. SPECIFIC SERVICE SIGNS

Section ~~2F.01~~ 2G.01 Eligibility

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 763, lines 5-6 – Added eligible categories.

Standard:

Specific Service signs shall be defined as guide signs that provide road users with business identification and directional information for services and for eligible attractions. Eligible service categories shall be limited to gas, food, lodging, camping, attractions, and 24-hour pharmacies.

Guidance:

The use of Specific Service signs should be limited to areas primarily rural in character or to areas where adequate sign spacing can be maintained.

Option:

Where an engineering study determines a need, Specific Service signs may be used on any class of highways.

Guidance:

Specific Service signs should not be installed at an interchange where the road user cannot conveniently reenter the freeway or expressway and continue in the same direction of travel.

Standard:

Eligible service facilities shall comply with laws concerning the provisions of public accommodations without regard to race, religion, color, age, sex, or national origin, and laws concerning the licensing and approval of service facilities.

The attraction services shall include only facilities which have the primary purpose of providing amusement, historical, cultural, or leisure activities to the public.

Distances to eligible 24-hour pharmacies shall not exceed 4.8 km (3 mi) in any direction of an interchange on the Federal-aid system.

Guidance:

Except as noted in the Option below, distances to eligible services other than pharmacies should not exceed 4.8 km (3 mi) in any direction.

Option:

If, within the 4.8 km (3 mi) limit, facilities for the services being considered other than pharmacies are not available or choose not to participate in the program, the limit of eligibility may be extended in 4.8 km (3 mi) increments until one or more facilities for the services being considered chooses to participate, or until 25 km (15 mi) is reached, whichever comes first.

Guidance:

If State or local agencies elect to provide Specific Service signing, there should be a statewide policy for such signing and criteria for the availability of the various types of services. The criteria should consider the following:

- A. To qualify for a GAS logo sign added to increase consistency panel, a business should have:
 1. Vehicle services including gas and/or alternative fuels, oil, and water;
 2. Modern sanitary facilities and drinking water;

Commented [REH42]: Page 763, lines 5 - 6, eligible categories added, concur

3. Continuous operation at least 16 hours per day, 7 days per week for freeways and expressways, and continuous operation at least 12 hours per day, 7 days per week for conventional roads; and
 4. Public telephone.
- B. To qualify for a FOOD logo [sign](#) added to increase consistency panel, a business should have:
1. Licensing or approval, where required;
 2. Continuous operations to serve at least 2 meals per day, at least 6 days per week;
 3. Public telephone; and
 4. Modern sanitary facilities.
- C. To qualify for a LODGING logo [sign](#) added to increase consistency panel, a business should have:
1. Licensing or approval, where required;
 2. Adequate sleeping accommodations;
 3. Public telephone; and
 4. Modern sanitary facilities.
- D. To qualify for a CAMPING logo [sign](#) added to increase consistency panel, a business should have:
1. Licensing or approval, where required;
 2. Adequate parking accommodations; and
 3. Modern sanitary facilities and drinking water.
- E. To qualify for an ATTRACTION logo [sign](#) added to increase consistency panel, a facility should have:
1. Regional significance; and
 2. Adequate parking accommodations.

Standard:

If State or local agencies elect to provide Specific Service signing for pharmacies, both of the following criteria shall be met for a pharmacy to qualify for signing:

- A. The pharmacy shall be continuously operated 24 hours per day, 7 days per week, and shall have a State-licensed pharmacist present and on duty at all times; and
- B. The pharmacy shall be located within 4.8 km (3 mi) of an interchange on the Federal-aid system.

Support:

[Section 2F.04 contains information regarding the Interstate Oasis program.](#)

Section ~~2F.02~~ 2G.02 Application

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 764, lines 31-33 – Text added limiting logos to 3/3 or 4/2.
2. Page 764, line 36 – Changed number of signs from one to two.
3. Page 764, lines 40-41 – text added specifying succession of service type signs.

Standard:

The number of Specific Service signs along an approach to an interchange or intersection, regardless of the number of service types displayed, shall be limited to a

maximum of four. In the direction of traffic, successive Specific Service signs shall be for 24-hour pharmacy, attraction, camping, lodging, food, and gas services, in that order.

A Specific Service sign shall display the word message GAS, FOOD, LODGING, CAMPING, ATTRACTION, or 24-HOUR PHARMACY, an appropriate directional legend such as the word message EXIT XX, NEXT RIGHT, SECOND RIGHT, or directional arrows, and the related logo sign panels.

No more than three types of services shall be represented on any sign or sign assembly. If three types of services are shown displayed edited to increase consistency on one sign, then the logo sign added to increase consistency panels shall be limited to two for each service type (for a total of six logo sign added to increase consistency panels). If two types of services are displayed on one sign, then the logo sign panels shall be limited to either three for each service type (for a total of six logo sign panels) or four for one service type and two for the other service type (for a total of six logo sign panels). The legend and logo sign added to increase consistency panels applicable to a service type shall be displayed such that the road user will not associate them with another service type on the same sign.

No service type shall appear on more than one two signs.

The signs shall have a blue background, a white border, and white legends of upper-case letters, numbers, and arrows.

Guidance:

Where a service type is displayed on two signs, the signs for that service should follow one another in succession.

The Specific Service signs should be located to take advantage of natural terrain, to have the least impact on the scenic environment, and to avoid visual conflict with other signs within the highway right-of-way.

Option:

General Service signs (see Sections 2F.02 and 2F.03) may be used in conjunction with Specific Service signs for eligible types of services that are not represented by a Specific Service sign.

Support:

Examples of Specific Service signs are shown in Figure 2G-1. Examples of sign locations are shown in Figure 2G-2.

Section 2F.03 2G.03 Logos and Logo Sign added to increase consistency Panels

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 765, line 46 – Eliminate gas/food combination in dual logo option.
2. Page 765, lines 48 – 51 – Change Guidance to Standard. Change dual logo use from “should” to “shall not” “unless” housed under the same roof.
3. Page 766, line 1 – Change “should” to “shall”

Standard:

A logo shall be either an identification symbol/trademark or a word message. Each logo shall be placed on a separate logo sign added to increase consistency panel that shall be attached to the Specific Service sign. Symbols or trademarks used alone for a logo shall be reproduced in the colors and general shape consistent with customary use, and any integral legend shall be in proportionate size. A logo that resembles an official traffic control device shall not be used.

Commented [REH43]: Page 764, lines 31 - 33, text added limiting to 3/3 or 4/2, concur.

Commented [REH44]: Page 764, line 36, the word one changed to two, concur

Commented [REH45]: Page 764, lines 40 - 41, text added concerning succession of service type signs, concur

Guidance:

A word message logo, not using a symbol or trademark, should have a blue background with white legend and border, and should have the minimum letter heights described in Section 2G.05.

Option:

Where business identification symbols or trademarks are used alone for a logo, the border may be omitted from the logo sign added to increase consistency panel.

A portion ~~at the bottom~~ of a GAS logo sign added to increase consistency panel may be used to display ~~the legends for alternative fuels (see Section 2E.51) available at the facility a~~ supplemental message horizontally along the bottom of the logo sign panel (see Figure 2G-3). ~~A portion at the bottom of a FOOD logo panel may be used to display the word CLOSED and the day of the week when the facility is closed.~~

Standard:

All supplemental messages shall be displayed within the logo sign panel.

Guidance:

A logo sign panel should not display more than one supplemental message.

The supplemental message should be displayed in a color to contrast effectively with the background of the business sign or separated from the other legend or logo by a divider bar. Text for the supplemental message should have a minimum letter height of 100 mm (4 in) for logo sign panels on Specific Service signs on freeway and expressway mainlines and 50 mm (2 in) for logo sign panels on Specific Service signs for conventional roads, ramps, or trailblazers. State or local agencies that elect to allow supplemental messages on logo sign panels should develop a statewide policy for such messages.

Support:

Typical supplemental messages might include DIESEL, 24 HOURS, CLOSED and the day of the week when the facility is closed, ALTERNATIVE FUELS (see Section 2E.03), and RV ACCESS.

Option:

The RV ACCESS supplemental message may be circular.

Standard:

If the RV ACCESS supplemental message is circular, it shall be the abbreviation RV in black letters inside a yellow circle with a black border and it shall be displayed within the logo sign panel near the lower right-hand corner (see Figure 2G-4).

Guidance:

If the circular RV ACCESS supplemental message is used, the circle should have a diameter of 250 mm (10 in) and the letters should have a height of 150 mm (6 in).

Option:

If a business designated as an Interstate Oasis (see Section 2F.04) has a business logo sign panel on the Food and/or Gas Specific Service signs, the word OASIS may be displayed on the bottom portion of the business's logo sign panel.

Standard:

Except as noted in the Option below, dual logo sign panels shall not be used on Specific Service signs.

Option:

Dual logo sign panels that have two food logos or a gas and a food logo on the same logo sign panel may be used on Specific Service signs.

Commented [REH46]: Page 765, lines 16 - 30, new standard added concerning supplemental messages, concur

Commented [REH47]: Page 765, lines 31 - 41, new standard added concerning RV Access, concur

Standard Guidance:

Dual logo sign panels ~~should~~ shall not be used on Specific Service signs ~~only when unless~~ the two businesses are under the same roof and a separate display of the two logos is not possible because the two necessary sign panel positions are not available.

A Specific Service sign ~~should~~ shall not display more than two dual logo sign panels.

Section ~~2F.04~~ 2G.04 Number and Size of Signs and Logos ~~and Signs~~ Panels

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 766, line 22 – Remove text “or sign assemblies”, editorial.

Guidance:

Sign sizes should be determined by the amount and height of legend and the number and size of logo ~~sign~~ added to increase consistency panels attached to the sign. All logo ~~sign~~ added to increase consistency panels on a sign should be the same size.

Standard:

Each Specific Service sign or sign assembly shall be limited to no more than six logo ~~sign~~ added to increase consistency panels. ~~There shall be no more than four logo panels for one of the two service types on the same sign or sign assembly.~~

Option:

Where more than six businesses of a specific service type are eligible for logo sign panels at the same interchange, additional logo sign panels of that same specific service type may also be displayed provided that the Standards noted in the next paragraph are followed. The additional logo sign panels may be displayed either by placing more than one specific service type on the same sign (see Section 2G.02) or by using a second Specific Service sign of that specific service type if the additional sign can be added without exceeding the limit of four Specific Service signs at an interchange or intersection approach.

Standard:

Where logo sign panels for more than six businesses of a specific service type are displayed at the same interchange or intersection approach, the following provisions shall apply:

- A. No more than twelve logo sign panels of a specific service type shall be displayed on no more than two Specific Service signs ~~or sign assemblies~~;
- B. No more than six logo sign panels shall be displayed on a single Specific Service sign; and
- C. No more than four Specific Service signs shall be displayed on the approach.

Support:

Section 2G.08 contains information regarding Specific Service signs for double-exit interchanges.

Standard:

Each logo ~~sign~~ added to increase consistency panel attached to a Specific Service sign shall have a rectangular shape with a width longer than the height. A logo ~~sign~~ added to increase consistency panel on signs for freeways and expressways shall not exceed 1500 mm (60 in) in width and 900 mm (36 in) in height. A logo ~~sign~~ added to increase consistency panel on signs for conventional roads and ramps shall not exceed 750 mm (30 in) in width and 450 mm (18 in) in height. The vertical and horizontal spacing between logo ~~sign~~ added

Commented [REH48]: Page 766, line 22, remove text “or sign assemblies”, editorial.

to increase consistency panels shall not exceed 200 mm (8 in) and 300 mm (12 in), respectively.

Support:

Sections 2A.14, 2E.15, and 2E.16 contain information regarding borders, interline spacing, and edge spacing.

Section 2F.05 2G.05 Size of Lettering

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 766, lines 49-50 – Minimum letter height information added. Change dimensions to 100 mm (4 in.) upper-case and 75 mm (3 in.) lower-case because ramp panel is one-half size of mainline panel so letter height should reflect that size too.

Standard:

All letters and numerals on Specific Service signs, except on the logo sign added to **increase consistency** panels, shall be a minimum height of 250 mm (10 in) for signs on freeways and expressways, and 150 mm (6 in) for signs on conventional roads and ramps.

Guidance:

Any legend on a symbol/trademark should be proportional to the size of the symbol/trademark.

Standard:

If a logo sign panel displays only a word legend, the minimum letter height for logo sign panels displayed on the mainlines of freeways and expressways shall be 200 mm (8 in) for upper-case and 150 mm (6 in) for lower-case letters, and the minimum letter height for logo sign panels displayed on conventional roads and ramps shall be 150 mm (6 in) for upper-case and 100 mm (4 in) for lower-case letters.

Commented [REH49]: Page 766, lines 45 - 50, Minimum letter height information added.
Line 49, change dimensions to 100 mm (4 in) upper-case and 75 mm (3 in) for lower-case (Recommended Change) Ramp panel is one half the size of mainline panel so letter height should be one half the size.

Section 2F.06 2G.06 Signs at Interchanges

NATIONAL COMMITTEE endorses no change.

Standard:

The Specific Service signs shall be installed between the previous interchange and at least 245 m (800 ft) in advance of the Exit Direction sign at the interchange from which the services are available (see Figure 2G-2).

Guidance:

There should be at least a 245 m (800 ft) spacing between the Specific Service signs, except for Specific Service ramp signs. However, excessive spacing is not desirable. Specific Service ramp signs should be spaced at least 30 m (100 ft) from the exit gore sign, from each other, and from the ramp terminal.

Section 2F.07 2G.07 Single-Exit Interchanges

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

At single-exit interchanges, the name of the service type followed by the exit number shall be displayed on one line above the logo sign added to **increase consistency** panels. At unnumbered interchanges, the directional legend NEXT RIGHT (LEFT) shall be used.

At single-exit interchanges, Specific Service ramp signs shall be installed along the ramp or at the ramp terminal for facilities that have logo **sign added to increase consistency** panels displayed along the main roadway if the facilities are not readily visible from the ramp terminal. Directions to the service facilities shall be indicated by arrows on the ramp signs. Logo **sign added to increase consistency** panels on Specific Service ramp signs shall be duplicates of those displayed on the Specific Service signs located in advance of the interchange, but shall be reduced in size.

Guidance:

Specific Service ramp signs should include distances to the service facilities.

Option:

An exit number plaque (see Section 2E.27) may be used instead of the exit number on the signs located in advance of an interchange.

~~The reduced-size logo panels and signs also may be installed along the crossroad.~~

Section ~~2F.08~~ **2G.08** Double-Exit Interchanges

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Guidance:

At double-exit interchanges, the Specific Service signs should consist of two sections, one for each exit (see Figure 2G-1).

Standard:

At a double-exit interchange, the top section shall display the logo **sign added to increase consistency** panels for the first exit and the bottom section shall display the logo **sign added to increase consistency** panels for the second exit. The name of the service type and the exit number shall be displayed above the logo **sign added to increase consistency** panels in each section. At unnumbered interchanges, the word message NEXT RIGHT (LEFT) and SECOND RIGHT (LEFT) shall be used in place of the exit number. The number of logo **sign added to increase consistency** panels on the sign (total of both sections) or the sign assembly shall be limited to six.

Guidance:

At a double-exit interchange, where a service type is displayed on two Specific Service signs in accordance with the provisions of Section 2G.04, one of the signs should display the logo sign panels for that service type for the businesses that are accessible from one of the two exits and the other sign should display the logo sign panels for that service type for the businesses that are accessible from the other exit.

Option:

At a double-exit interchange where there are four logo **sign added to increase consistency** panels to be displayed for one of the exits and one or two logo **sign added to increase consistency** panels to be displayed for the other exit, the logo **sign added to increase consistency** panels may be arranged in three rows with two logo **sign added to increase consistency** panels per row.

At a double-exit interchange, where a service is to be signed for only one exit, one section of the Specific Service sign may be omitted, or a single exit interchange sign may be used. Signs on ramps and crossroads as described in Section 2G.07 may be used at a double-exit interchange.

Section **2G.09** Specific Service Trailblazer Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

Commented [REH50]: Page 767, lines 39 - 43 added concerning double exit interchanges, concur.

Commented [REH51]: Page 768, Lines 1 through 32, new section added concerning specific service trailblazer signs. (Recommended changes) as follows: Relocate sentence on Line 10 beginning with, Where it is... to the Guidance section on Line 14 and change the word *shall* to *should*.

1. Page 768, lines 10-14 – Move the sentence on line 10 beginning with “Where it is...” to the Guidance section on line 14. Change the word “shall” to “should” to reflect guidance.
2. Page 768, line 31-32 – remove entire sentence. Should not have a different sign placement standard for these signs.

Support:

Specific Service trailblazer signs are guide signs with one to four logo sign panels that display business identification and directional information for services and for eligible attractions. Specific Service trailblazer signs are installed along crossroads for facilities that have logo sign panels displayed along the main roadway and ramp, and that require additional vehicle maneuvers.

Standard:

Specific Service trailblazer signs shall be installed along crossroads where the route to the facility requires a direction change, where it is questionable as to which roadway to follow, or where additional guidance is needed. A Specific Service trailblazer sign shall not be required at the point where the facility is visible from the roadway and its access is readily apparent.

Guidance:

If used, a Specific Service trailblazer sign should be located no more than 150 m (500 ft) in advance any required turn. **Where it is not feasible or practical to install Specific Service trailblazer signs to such facilities, those facilities shall should not be considered eligible for signing from the ramp and main roadway.**

Standard:

The location of other traffic control devices shall take precedence over the location of a Specific Service trailblazer sign.

When used, each Specific Service trailblazer sign or sign assembly shall be limited to no more than four logo sign panels. The logo sign panels on Specific Service trailblazer signs shall be duplicates of those displayed on the Specific Service ramp signs.

Appropriate legends, such as directional arrows or the word message NEXT RIGHT or SECOND RIGHT, shall be displayed with the logo sign panel to provide proper guidance. The directional legend and border shall be white and shall be displayed on a blue background (see Figure 2G-5).

Option:

Specific Service trailblazer signs may contain various types of services on a single sign or sign assembly, as shown in Figure 2G-5. Advance Turn Arrow (M5 series) or Directional Arrow (M6 series) auxiliary signs (see Figure 2D-6) with white arrows on blue backgrounds may be used with logo sign panels to create a Specific Service trailblazer sign or assembly.

Specific Service trailblazer signs may be placed farther from the edge of the road than other traffic control signs.

Commented [REH52]: Page 768 Lines 31 and 32, remove the entire sentence

Section ~~2F.09~~ 2G.10 Signs at Intersections

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

Where both tourist-oriented information (see Chapter 2H) and specific service information would be needed at the same intersection, the design of the tourist-oriented

directional signs shall be used, and the needed specific service information shall be incorporated.

Guidance:

If Specific Service signs are used on conventional roads or at intersections on expressways, they should be installed between the previous interchange or intersection and at least 90 m (300 ft) in advance of the intersection from which the services are available.

The spacing between signs should be determined on the basis of an engineering study.

Logo sign added to increase consistency panels should not be displayed for a type of service for which a qualified facility is readily visible.

Standard:

If Specific Service signs are used on conventional roads or at intersections on expressways, the name of each type of service shall be displayed above its logo sign added to increase consistency panel(s), together with an appropriate legend, such as NEXT RIGHT (LEFT) or a directional arrow, either displayed on the same line as the name of the type of service or displayed below the logo sign panel(s).

Option:

~~If Specific Service signs are used on conventional roads or at intersections on expressways, the NEXT RIGHT (LEFT) or other applicable directional legend or action message may be displayed below instead of above the logo panels.~~ this paragraph was incorporated into the Standard in the previous paragraph

Signs similar to Specific Service ramp signs as described in Section 2G.07 may be provided on the crossroad.

Section ~~2F.10~~ 2G.11 Signing Policy

NATIONAL COMMITTEE endorses editorial change.

Guidance:

Each highway agency that elects to use Specific Service signs should establish a signing policy that includes, as a minimum, the guidelines of Section 2G.01 and at least the following criteria:

- A. Selection of eligible businesses;
- B. Distances to eligible services;
- C. The use of logo sign added to increase consistency panels, legends, and signs conforming with this Manual and State design requirements;
- D. Removal or covering of logo sign added to increase consistency panels during off seasons for business that operate on a seasonal basis;
- E. The circumstances, if any, under which Specific Service signs ~~may~~ are permitted to be used in nonrural areas; and
- F. Determination of the costs to businesses for initial permits, installations, annual maintenance, and removal of logo sign added to increase consistency panels.

CHAPTER ~~2G~~ 2H. TOURIST-ORIENTED DIRECTIONAL SIGNS

Section ~~2G.01~~ 2H.01 Purpose and Application

NATIONAL COMMITTEE endorses editorial change.

Support:

Tourist-oriented directional signs are guide signs with one or more **sign added to increase consistency** panels that display the business identification of and directional information for business, service, and activity facilities.

Standard:

A facility shall be eligible for tourist-oriented directional signs only if it derives its major portion of income or visitors during the normal business season from road users not residing in the area of the facility.

Option:

Tourist-oriented directional signs may include businesses involved with seasonal agricultural products.

Standard:

When used, tourist-oriented directional signs shall be used only on rural conventional roads and shall not be used on conventional roads in urban areas or at interchanges on freeways or expressways.

Where both tourist-oriented directional signs and Specific Service signs (see Chapter 2G) would be needed at the same intersection, the tourist-oriented directional signs shall incorporate the needed information from, and be used in place of, the Specific Service signs.

Guidance:

Each State that elects to use tourist-oriented directional signs should have a State policy for use as indicated in Section 2H.07.

Option:

Tourist-oriented directional signs may be used in conjunction with General Service signs (see Section 2F.02).

Section ~~2G.02~~ 2H.02 Design

NATIONAL COMMITTEE endorses editorial change.

Standard:

Tourist-oriented directional signs shall have one or more **sign added to increase consistency panels for the purpose of displaying the business identification of and directional information for eligible facilities. Each **sign added to increase consistency** panel shall be rectangular in shape and shall have a white legend and border on a blue background.**

The content of the legend on each **sign added to increase consistency panel shall be limited to the business identification and directional information for not more than one eligible business, service, or activity facility. The legends shall not include promotional advertising.**

Guidance:

Each **sign added to increase consistency** panel should have a maximum of two lines of legend including not more than one symbol, a separate directional arrow, and the distance to the facility

shown displayed edited to increase consistency beneath the arrow. Arrows pointing to the left or up should be at the extreme left of the sign panel. added to increase accuracy Arrows pointing to the right should be at the extreme right of the sign panel. added to increase accuracy Symbols, when used, should be to the left of the word legend or logo.

Option:

The tourist-oriented directional sign may have the word message TOURIST ACTIVITIES at the top of the sign.

Standard:

The TOURIST ACTIVITIES word message shall be a white legend and border on a blue background. If used, it shall be placed above and in addition to the sign added to increase consistency panels.

Option:

The General Service sign symbols (see Section 2F.02) and the symbols for recreational and cultural interest area signs (see Chapter 2J) may be used.

Logos for specific businesses, services, and activities may also be used. Based on engineering judgment, the hours of operation may be added on the sign added to increase consistency panels.

Standard:

When used, symbols and logos shall be an appropriate size (see Section 2H.04). Logos resembling official traffic control devices shall not be permitted.

Support:

Examples of tourist-oriented directional signs are shown in Figures 2H-1 and 2H-2.

Section 2G.03 2H.03 Style and Size of Lettering

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 771, line 10 – remove “except on the logos” and add “for optional messages” to clarify application.
2. Page 771, line 14 – add clarifying information on use of upper and lower case lettering.

Guidance:

All letters and numbers on tourist-oriented directional signs for optional messages, except on the logos, should be upper-case and at least 150 mm (6 in) in height. Any legend on a logo should be proportional to the size of the logo.

Standard:

Design standards for upper-case letters, lower-case letters, numerals, and spacing shall be as provided in the “Standard Highway Signs and Markings” book (see Section 1A.11). All letters and numbers on the sign panels for the purpose of displaying business identification for eligible facilities, except on the logos, shall be a combination of lower-case letters with initial upper-case letters.

Section 2G.04 2H.04 Arrangement and Size of Signs

NATIONAL COMMITTEE endorses editorial change.

Standard:

Commented [REH53]: Page 771, Line 10, remove “except on logos” and add “for optional messages”

Commented [REH54]: Page 771, line 14, add clarifying information

The size of a tourist-oriented directional sign shall be limited to a maximum height of 1.8 m (6 ft). However, additional height shall be allowed to accommodate the addition of the optional TOURIST ACTIVITIES message discussed in Section 2H.02 and the directional word messages discussed in Section 2H.05.

Guidance:

The number of intersection approach signs (one sign for tourist-oriented destinations to the left, one for destinations to the right, and one for destinations straight ahead) installed in advance of an intersection should not exceed three. The number of **sign added to increase consistency** panels installed on each sign should not exceed four. The **sign added to increase consistency** panels for right-turn, left-turn, and straight-ahead destinations should be on separate signs. The left-turn destination sign should be located farthest from the intersection, then the right-turn destination sign, with the straight-ahead destination sign located closest to the intersection (see Figure 2H-2). Signs for facilities in the straight-ahead direction should be considered only when there are signs for facilities in either the left or right direction.

When it is appropriate to combine the left-turn and right-turn destination **sign added to increase consistency** panels on a single sign, the left-turn destination **sign added to increase consistency** panels should be above the right-turn destination **sign added to increase consistency** panels (see Figure 2H-1). When there are multiple destinations in the same direction, they should be in order based on their distance from the intersection. Except as noted in the Option, a straight-ahead **sign added to increase consistency** panel should not be combined with a sign displaying left- and/or right-turn facilities.

The **sign added to increase consistency** panels should not exceed the size necessary to accommodate two lines of legend without crowding. Symbols and logos on a **sign added to increase consistency** panel should not exceed the height of two lines of word legends. All **sign added to increase consistency** panels and other parts of the sign should be the same width, which should not exceed 1.8 m (6 ft).

Option:

At intersection approaches where three or fewer facilities are **shown displayed, edited to increase consistency** the left-turn, right-turn, and straight-ahead destination **sign added to increase consistency** panels may be combined on the same sign.

Section ~~2G.05~~ 2H.05 Advance Signs

NATIONAL COMMITTEE endorses editorial change.

Guidance:

Advance signs should be limited to those situations where sight distance, intersection vehicle maneuvers, or other vehicle operating characteristics require advance notification of the services.

The design of the advance sign should be identical to the design of the intersection approach sign. However, the directional arrows and distances to the facilities should be omitted. The directional word messages NEXT RIGHT, NEXT LEFT, or AHEAD should be placed on the sign above the business identification **sign added to increase consistency** panels. The directional word messages should have the same letter height as the other word messages on the **sign added to increase consistency** panels (see Figures 2H-1 and 2H-2).

Standard:

The directional word messages shall be a white legend and border on a blue background.

Option:

The legend RIGHT 1 km or RIGHT 1/2 MILE or LEFT 1 km or LEFT 1/2 MILE may be used on advance signs when there are intervening minor roads.

The height required to add the directional word messages recommended for the advance sign may be added to the maximum sign height of 1.8 m (6 ft).

Section ~~2G.06~~ 2H.06 Sign Locations

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 772, lines 21-22 – Remove option statement on sign placement. Should not have a different sign placement standard.

Guidance:

If used, the intersection approach signs should be located at least 60 m (200 ft) in advance of the intersection. Signs should be spaced at least 60 m (200 ft) apart and at least 60 m (200 ft) from other traffic control devices.

If used, advance signs should be located approximately 1 km or 0.5 miles from the intersection with 150 m (500 ft) between these signs. In the direction of travel, the order of advance sign placement should be to show the facilities to the left first, then facilities to the right, and last, the facilities straight ahead.

Position, height, and lateral ~~clearance offset~~ **edited to increase consistency** of signs should be governed by Chapter 2A except as permitted in this Section.

Option:

~~Tourist-oriented directional signs may be placed farther from the edge of the road than other traffic control signs.~~

Standard:

The location of other traffic control devices shall take precedence over the location of tourist-oriented directional signs.

Section ~~2G.07~~ 2H.07 State Policy

NATIONAL COMMITTEE endorses editorial change.

Standard:

To be eligible for tourist-oriented directional signing, facilities shall comply with applicable State and Federal laws concerning the provisions of public accommodations without regard to race, religion, color, age, sex, or national origin, and with laws concerning the licensing and approval of service facilities. Each State that elects to use tourist-oriented directional signs shall adopt a policy that complies with these provisions.

Guidance:

The State policy should include:

- A. A definition of tourist-oriented business, service, and activity facilities.
- B. Eligibility criteria for signs for facilities.
- C. Provision for incorporating Specific Service signs into the tourist-oriented directional signs as required.
- D. Provision for covering signs during off seasons for facilities operated on a seasonal basis.
- E. Provisions for signs to facilities that are not located on the crossroad when such facilities are eligible for signs.

Commented [REH55]: Page 772, lines 21 –22, remove option statement.

- F. A definition of the immediate area. The major portion of income or visitors to the facility should come from road users not residing in the immediate area of the facility.
- G. Maximum distances to eligible facilities. The maximum distance should be 8 km (5 mi).
- H. Provision for information centers (plazas) when the number of eligible sign applicants exceeds the maximum permissible number of sign panel installations.
- I. Provision for limiting the number of signs when there are more applicants than the maximum number of signs permitted.
- J. Criteria for use at intersections on expressways.
- K. Provisions for controlling or excluding those businesses which have illegal signs as defined by the Highway Beautification Act of 1965 (23 U.S.C. 131).
- L. Provisions for States to charge fees to cover the cost of signs through a permit system.
- M. A definition of the conditions under which the time of operation is ~~shown~~ displayed.
edited to increase consistency
- N. Provisions for determining if advance signs will be permitted, and the circumstances under which they will be installed.

CHAPTER 2I. GENERAL INFORMATION SIGNS new chapter with relocated text from Chapters 2D and 2E

Commented [REH56]: Pages 774 – 778, concur

Section 2I.01 Sizes of General Information Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

Except as noted in Section 2A.11, the sizes of General Information signs that have a standardized design shall be as shown in Table 2I-1.

Support:

Section 2A.11 contains information regarding the applicability of the various columns in Table 2I-1.

Option:

Signs larger than those shown in Table 2I-1 may be used (see Section 2A.11).

Section ~~2D.46~~ 2I.02 Reference Location Signs (D10-1 through D10-3) and Intermediate Reference Location Signs (D10-1a through D10-3a)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

There are two types of reference location signs:

- A. Reference Location (D10-1, 2, and 3) signs show an integer distance point along a highway, and
- B. Intermediate Reference Location (D10-1a, 2a, and 3a) signs also show a decimal between integer distance points along a highway.

Standard:

Except as provided in the Option below when Enhanced Reference Location signs (see Section 2I.03) are used instead, Reference Location (D10-1 through D10-3) signs ~~(see Section 2D.46)~~ shall be placed on all expressway facilities that are located on a route where there is reference location sign continuity and on all freeway facilities to assist road users in estimating their progress, to provide a means for identifying the location of emergency incidents and traffic crashes, and to aid in highway maintenance and servicing. **relocated from Section 2E.54**

Option:

Reference Location (D10-1 to D10-3) signs (see Figure 2I-1) may be installed along any section of a highway route or ramp to assist road users in estimating their progress, to provide a means for identifying the location of emergency incidents and traffic crashes, and to aid in highway maintenance and servicing.

To augment the reference location sign system, Intermediate Reference Location (D10-1a to D10-3a) signs (see Figure 2I-2), which show the tenth of a kilometer (mile) with a decimal point, may be installed at one tenth of a kilometer (mile) intervals, or at some other regular spacing.

Standard:

When Intermediate Reference Location (D10-1a to D10-3a) signs are used to augment the reference location sign system, the reference location sign at the integer kilometer (mile) point shall display a decimal point and a zero numeral.

When placed on freeways or expressways, ~~Reference Location (D10-1 to D10-3) reference location~~ revised to also include the D10-1a to D10-3a signs shall contain 250 mm (10 in) white numerals on a 300 mm (12 in) wide green background with a white border. The signs shall be 600, 900, or 1200 mm (24, 36, or 48 in) in height for one, two, or three digits, respectively, and shall contain the abbreviation km (MILE) in 100 mm (4 in) white letters.

When placed on conventional roads, ~~Reference Location (D10-1 to D10-3) reference location~~ revised to also include the D10-1a to D10-3a signs shall contain 150 mm (6 in) white numerals on a green background that is at least 250 mm (10 in) wide with a white border. The signs shall contain the abbreviation km (MILE) in 100 mm (4 in) white letters.

~~The design details for reference location signs shall be as shown in the “Standard Highway Signs” book (see Section 1A.11).~~

Reference location signs shall have a minimum mounting height of 1.2 m (4 ft), ~~to be measured vertically from the bottom of the sign in accordance with the mounting height requirements of delineators (see Section 3D.04) to the elevation of the near edge of the roadway~~, and shall not be governed by the mounting height requirements prescribed in Section 2A.18.

The distance numbering shall be continuous for each route within a State, except where overlaps occur (see Section 2E.27). Where routes overlap, reference location sign continuity shall be established for only one of the routes. If one of the overlapping routes is an Interstate route, that route shall be selected for continuity of distance numbering.

Guidance:

The route selected for continuity of distance numbering should also have continuity in interchange exit numbering (see Section 2E.27). ~~relocated from Section 2E.54~~

On a route without reference location sign continuity, the first reference location sign beyond the overlap should indicate the total distance traveled on the route so that road users will have a means of correlating their travel distance between reference location signs with that shown on their odometer.

Standard:

For divided highways, the distance measurement shall be made on the northbound and eastbound roadways. The reference location signs for southbound or westbound roadways shall be set at locations directly opposite the reference location signs for the northbound or eastbound roadways.

Guidance:

Zero distance should begin at the south and west State lines, or at the south and west terminus points where routes begin within a State.

Standard:

Except as ~~provided noted~~ edited to increase consistency in the option below, reference location signs shall be installed on the right-hand ~~edited to increase clarity~~ side of the roadway.

Option:

Where conditions limit or restrict the use of reference location signs on the right-hand ~~edited to increase clarity~~ side of the roadway, they may be installed in the median. On two-lane conventional roadways, reference location signs may be installed on one side of the roadway only and may be installed back-to-back. Reference location signs may be placed up to 9 m (30 ft) from the edge of the pavement.

If a reference location sign cannot be installed in the correct location, it may be moved in either direction as much as 15 m (50 ft).

Guidance:

If a reference location sign cannot be placed within 15 m (50 ft) of the correct location, it should be omitted.

~~Option:~~

~~Enhanced reference location signs (see Section 2I.02) may also be used on conventional roads.~~

Section ~~2E.54~~ 2I.03 Reference Location Signs and Enhanced Reference Location Signs (D10-4, D10-5)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

~~Reference Location (D10-1 through D10-3) signs and Intermediate Reference Location (D10-1a through D10-3a) signs and their applications are described in Section 2D.46.~~

There are two types of enhanced reference location signs:

- A. Enhanced Reference Location signs (D10-4), and
- B. Intermediate Enhanced Reference Location signs (D10-5).

Option:

Enhanced Reference Location (D10-4) signs (see Figure 2I-3), which enhance the reference location sign system by identifying the route, may be placed on freeways or expressways (instead of Reference Location signs) or on conventional roads.

To augment an enhanced reference location sign system, Intermediate Enhanced Reference Location (D10-5) signs (see Figure 2I-3), which show the tenth of a kilometer (mile) with a decimal point, may be installed along any section of a highway route or ramp at one tenth of a kilometer (mile) intervals, or at some other regular spacing.

Standard:

If enhanced reference location signs are used, they shall be vertical ~~panels~~ **signs** ~~edited to increase accuracy~~ having blue or green backgrounds with white numerals, letters, and borders, except for the route shield, which shall be the standard color and shape. The top line shall consist of the cardinal direction for the roadway. The second line shall consist of the applicable route shield for the roadway. The third line shall identify the kilometer (mile) reference for the location and the bottom line of the Intermediate Enhanced Reference Location sign shall give the tenth of a kilometer (mile) reference for the location. The bottom line of the Intermediate Enhanced Reference Location sign shall contain a decimal point. The height of the legend on enhanced reference location signs shall be a minimum of 150 mm (6 in). The height of the route shield on enhanced reference location signs shall be a minimum of 300 mm (12 in).

The background color shall be the same for all enhanced reference location signs within a jurisdiction.

~~The design details for enhanced reference location signs shall be as shown in the "Standard Highway Signs" book (see Section 1A.11).~~

~~Enhanced reference location signs shall have a minimum mounting height of 1.2 m (4 ft) to the bottom of the sign in accordance with the mounting height requirements of delineators (see Section 3D.04), and shall not be governed by the mounting height requirements prescribed in Section 2A.18.~~

~~The distance numbering shall be continuous for each route within any State, except where overlaps occur (see Section 2E.28). Where routes overlap, enhanced reference location sign continuity shall be established for only one of the routes. If one of the overlapping routes is an Interstate route, that route shall be selected for continuity of distance numbering.~~

~~The distance measurement shall be made on the northbound and eastbound roadways. The enhanced reference location signs for southbound or westbound roadways shall be set at locations directly opposite the enhanced reference location signs for the northbound or eastbound roadways.~~

Guidance:

~~The route selected for continuity of distance numbering should also have continuity in interchange exit numbering (see Section 2E.28).~~ relocated to Section 2I.02 On a route without enhanced reference location sign continuity, the first enhanced reference location sign beyond the overlap should indicate the total distance traveled on the route so that road users will have a means of correlating their travel distance between enhanced reference location signs with that shown on their odometer.

Standard:

~~Except as provided in the Option below, enhanced reference location signs shall be installed on the right side of the roadway.~~

Option:

~~Where conditions limit or restrict the use of enhanced reference location signs on the right side of the roadway, they may be installed in the median. In urban areas, Intermediate Enhanced Reference Location signs may be installed on the right side of the roadway, in the median, or on ramps to replace or to supplement the reference location signs. Enhanced Reference Location signs may be installed back-to-back in median locations.~~

Support:

~~The provisions in Section 2I.02 regarding mounting height, distance numbering and measurements, sign continuity, and placement with respect to the right-hand shoulder and/or median for reference location signs also apply to enhanced reference location signs.~~ added to replace the previous six paragraphs in order to eliminate repetition

Section ~~2D.47~~ 2I.04 Traffic Signal Speed Sign (I1-1)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Option:

The Traffic Signal Speed (I1-1) sign (see Figure 2I-4), reading SIGNALS SET FOR XX km/h (~~XX~~ MPH), may be used to indicate a section of street or highway on which the traffic control signals are coordinated into a progressive system timed for a specified speed at all hours during which they are operated in a coordinated mode.

~~If different system progression speeds are set for different times of the day, a changeable message element may be used for the numerals of the Traffic Signal Speed (I1-1) sign. If the system is operated in coordinated mode only during certain times, a blank-out version of the Traffic Signal Speed (I1-1) sign may be used to display the message only during those times.~~

Guidance:

If used, the sign should be mounted as near as practical to each intersection where the timed speed changes, and at intervals of several blocks throughout any section where the timed speed remains constant.

Standard:

The Traffic Signal Speed sign shall be a minimum of ~~300 x 450~~ **600 x 900** mm (~~12 x 18~~ **24 x 36** in) with the longer dimension vertical. It shall have a white message and border on a green background.

Section ~~2D.48~~ 2I.05 General Information Signs (I Series)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

Of interest to the traveler, though not directly necessary for guidance, are numerous kinds of information that can properly be conveyed by general information signs (see Figure 2I-4) or [miscellaneous information signs \(see Section 2I.06\)](#). They include such items as State lines, city limits, other political boundaries, time zones, stream names, elevations, landmarks, and similar items of geographical interest, and safety and transportation-related messages. Chapter 2J contains recreational and cultural interest area symbol signs that are sometimes used in combination with general information signs.

Guidance:

General information signs should not be installed within a series of guide signs or at other equally critical locations, unless there are specific reasons for orienting the road user or identifying control points for activities that are clearly in the public interest. On all such signs, the designs should be simple and dignified, devoid of any advertising, and in general conformance with other guide signing.

Option:

An information symbol sign (I-5 through ~~I-8~~ [I-9, I-11](#)) may be used to identify a route leading to a transportation or general information facility, or to provide additional guidance to the facility. The symbol sign may be supplemented by an educational plaque where necessary; also, the name of the facility may be used if needed to distinguish between similar facilities.

Guide signs for commercial service airports and noncarrier airports may be provided from the nearest Interstate, other freeway, or conventional highway intersection directly to the airport, normally not to exceed 25 km (15 mi). The Airport (I-5) symbol sign along with a supplemental plaque may be used to indicate the specific name of the airport. An Airport symbol sign, with or without a supplemental name plaque or the word AIRPORT, and an arrow may be used as a trailblazer.

Standard:

Adequate trailblazer signs shall be in place prior to installing the airport guide signs.

Support:

Location and placement of all airport guide signs depends upon the availability of longitudinal spacing on highways.

Standard:

When a sign is used to display a safety or transportation-related message, the display format shall not be of a type that would be considered similar to advertising displays. Messages and symbols that resemble any official traffic control device shall not be used on safety or transportation-related message signs.

Option:

Political jurisdiction ~~logos~~ [pictographs](#) may be placed on the political boundary general information signs. The ~~logo~~ [pictograph](#) may have different colors and shapes ~~but should be provided that it is~~ simple, dignified, and devoid of any advertising.

Standard:

Except for political boundary ~~and scenic-by-way logos and~~ signs, general information signs shall have white legends and borders on green rectangular-shaped backgrounds.

Option:

The Recycling Collection Center (I-11) symbol sign may be used to direct road users to recycling collection centers.

Guidance:

The Recycling Collection Center symbol sign should not be used on freeways and expressways.

Standard:

If used on freeways or expressways, the Recycling Collection Center symbol sign shall be considered one of the supplemental sign destinations.

Section 2E.55 2I.06 Miscellaneous ~~Guide~~ Information Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Figure page 170, 2I-4, Ferry Terminal I-9 – Add Vehicle to label of Ferry Terminal to read Vehicle Ferry Terminal.

Support:

Miscellaneous ~~Guide~~ information signs (see Figure 2I-4) are used to point out geographical features, such as rivers and summits, and other jurisdictional boundaries (see Section 2I.05).

Option:

Miscellaneous ~~Guide~~ information signs may be used if they do not interfere with signing for interchanges or other critical points.

Guidance:

Miscellaneous ~~Guide~~ information signs should not be installed unless there are specific reasons for orienting the road users or identifying control points for activities that are clearly in the public interest. If Miscellaneous ~~Guide~~ information signs are to be of value to the road user, they should be consistent with other ~~freeway or expressway~~ guide signs in design and legibility. On all such signs, the design should be simple and dignified, devoid of any tendency toward flamboyant advertising, and in general conformance with other ~~freeway and expressway~~ signing.

Section 2I.07 Memorial Signing ~~this text was relocated from the first four paragraphs of Section 2D.49 of the 2003 MUTCD~~

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Support:

Legislative bodies will occasionally adopt an act or resolution memorializing a highway, bridge, or other component of the highway.

Guidance:

Such memorial names should not appear on or along a highway, or be placed on bridges or other highway components. ~~The requirement for signing should be carried out by placing~~ If a route, bridge, or highway component is officially designated as a memorial, and if notification of the memorial is to be made on the highway right-of-way, such notification should consist of installing ~~this text was relocated from Section 2E.08 of the 2003 MUTCD~~ a memorial plaque in a

rest area, scenic overlook, recreational area, or other appropriate location where parking is provided with the signing inconspicuously located relative to vehicle operations along the highway.

Option:

If the installation of a memorial plaque off the main roadway is not practical, memorial signs may be installed on the mainline.

Standard:

Where such memorial signs are installed on the mainline, (1) memorial names shall not appear on directional guide signs, (2) memorial signs shall not interfere with the placement of any other necessary highway deleted to increase consistency signing, and (3) memorial signs shall not compromise the safety or efficiency of traffic flow. The memorial signing shall be limited to one sign at an appropriate location in each route direction.

Memorial names shall not appear on supplemental signs or on any other information sign on or along the highway or its intersecting routes.

Guidance:

Freeways and expressways should not be signed as memorial highways. this sentence was relocated from Section 2E.08 of the 2003 MUTCD

Section ~~2D.50~~ 2I.08 ~~Trail Signs~~ Auto Tour Route Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 779, lines 7-8 – New Standard should be changed to Guidance. “Shall” to be changed to “Should”. To clarify application of guidance add the phrase “except nationally recognized trails”.

Change made to better reflect signing is to inform vehicle drivers and passengers of historic trails, etc., not trails for pedestrian use or trailheads.

Support:

~~Trail~~ Auto tour route signs are informational signs, plaques, or shields designed to provide road users with route guidance in following a ~~trail~~ an auto tour route of particular cultural, historical, or educational significance. Examples of such trails include the Great River Road and the Lewis and Clark Trail. Signed auto tour routes are used in some cases to generally follow the historical route of a trail, such as the National Historic Trails administered by the National Park Service. Examples include auto tour route that parallel the Lewis and Clark National Historic Trail, the Oregon National Historic Trail, and the Santa Fe National Historic Trail.

Guidance:

Primary guidance should be in the form of printed literature and strip maps rather than trail signing.

If shields or other similar signs are used to provide route guidance in following a ~~trail~~ an auto tour route, they should be designed in accordance with the sizes and other design principles for route signs, such as those described in Sections 2D.10 through 2D.12.

Option:

~~Trail~~ Auto tour route signs may be installed on a highway if they have been approved by the appropriate transportation agency.

Standard:

Trail signs shall not be installed on freeways or expressways.

Section 21.09 Acknowledgement Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 780, line 13 – Add “and not located at the top of the sign” to clarify position of acknowledgement logo on sign face.

Support:

Acknowledgment signs are a way of recognizing a company, business, or volunteer group that provides a highway-related service. Acknowledgment signs include sponsorship signs for adopt-a-highway litter removal programs, maintenance of a parkway or interchange, and other highway maintenance or beautification sponsorship programs.

Guidance:

A State or local highway agency that elects to have an acknowledgment sign program should develop an acknowledgement sign policy. The policy should require that eligible sponsoring organizations comply with State laws prohibiting discrimination based on race, religion, color, age, sex, national origin, and other applicable laws. The acknowledgment sign policy should include all of the provisions regarding sign placement and sign design that are described in this Section.

Standard:

Because regulatory, warning, and guide signs have a higher priority, acknowledgment signs shall only be installed where adequate spacing is available between the acknowledgment sign and other higher priority signs. Acknowledgment signs shall not be installed in a position where they would obscure the road users' view of other traffic control devices.

Acknowledgment signs shall not be installed at any of the following locations:

- A. On the front or back of, adjacent to, or around any other traffic control device, including traffic signs, highway traffic signals, and changeable message signs;**
- B. On the front or back of, adjacent to, or around the supports or structures of other traffic control devices, or bridge piers; or**
- C. At key decision points where a road user's attention is more appropriately focused on other traffic control devices, roadway geometry, or traffic conditions, including exit and entrance ramps, intersections, highway-rail grade crossings, toll plazas, temporary traffic control zones, and areas of limited sight distance.**

Guidance:

The minimum spacing between acknowledgment signs and any other traffic control signs, except parking regulation signs, should be:

- A. 45 m (150 ft) on roadways with speed limits of less than 50 km/h (30 mph),
- B. 60 m (200 ft) on roadways with speed limits of 50 to 70 km/h (30 to 45 mph), and
- C. 150 m (500 ft) on roadways with speed limits greater than 70 km/h (45 mph).

If the placement of a newly-installed higher-priority traffic control device, such as a higher-priority sign, a highway traffic signal, or a temporary traffic control device, conflicts with an existing acknowledgment sign, the acknowledgment sign should be relocated, covered, or removed.

Option:

State or local highway agencies may develop their own acknowledgment sign designs and may also use their own pictograph and/or a brief jurisdiction-wide program slogan as part of any portion of the acknowledgement sign.

Guidance:

Acknowledgment signs should clearly indicate the type of highway services provided by the sponsor.

Standard:

In addition to the general provisions for signs described in Chapter 2A and the sign design principles covered in the “Standard Highway Signs and Markings” book (see Section 1A.11), acknowledgment sign designs developed by State or local highway agencies shall comply with the following provisions:

- A. 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;
- B. Except for the lettering, if any, on the sponsor acknowledgment logo, all of the lettering shall be in upper-case letters as provided in the “Standard Highway Signs and Markings” book (see Section 1A.11);
- C. In order to keep the main focus on the highway-related service and not on the sponsor acknowledgment logo, the area reserved for the sponsor acknowledgment logo shall not be more than 1/3 of the total area of the sign and not more than 0.8 square meters (8 square feet) and not located at the top of the sign;
- D. The sign shall not contain any messages, lights, symbols, or trademarks that resemble any official traffic control devices;
- E. The sign shall not contain any light-emitting diodes, luminous tubing, fiber optics, luminescent panels, or other flashing, moving, or animated features; and
- F. The sign shall not distract from official traffic control messages such as regulatory, warning, or guidance messages.

Support:

Examples of acknowledgment sign designs are shown in Figure 2I-5.

CHAPTER ~~2H~~ 2J. RECREATIONAL AND CULTURAL INTEREST AREA SIGNS

Commented [REH57]: Pages 781 – 783, minor changes, concur.

Section ~~2H.01~~ 2J.01 **Scope**

NATIONAL COMMITTEE endorses no change.

Support:

Recreational or cultural interest areas are attractions or traffic generators that are open to the general public for the purpose of play, amusement, or relaxation. Recreational attractions include such facilities as parks, campgrounds, gaming facilities, and ski areas, while examples of cultural attractions include museums, art galleries, and historical buildings or sites.

The purpose of recreation and cultural interest area signs is to guide road users to a general area and then to specific facilities or activities within the area.

Option:

Recreational and cultural interest area signs that depict significant traffic generators may be used on freeways and expressways where there is direct access to these areas as discussed in Section 2J.09.

Recreational and cultural interest area signs may be used off the road network, as appropriate.

Section ~~2H.02~~ 2J.02 **Application of Recreational and Cultural Interest Area Signs**

NATIONAL COMMITTEE endorses editorial change.

Support:

Standards for signing recreational or cultural interest areas are subdivided into two different types of signs: (1) symbol signs and (2) destination guide signs.

Guidance:

When highway agencies decide to provide recreational and cultural interest area signing, these agencies should have a policy for such signing. The policy should establish signing criteria for the eligibility of the various types of services, accommodations, and facilities. These signs should not be used where they might be confused with other traffic control signs.

Option:

Recreational and cultural interest area [guide](#) signs may be used on any road to direct persons to facilities, structures, and places, and to identify various services available to the general public. These [guide](#) signs may also be used in recreational or cultural interest areas for signing nonvehicular events and amenities such as trails, structures, and facilities.

Support:

[Section 2A.12 contains information regarding the use of recreational and cultural interest area symbols on other types of signs.](#)

Section ~~2H.03~~ 2J.03 **Regulatory and Warning Signs**

NATIONAL COMMITTEE endorses editorial change.

Standard:

All regulatory and warning signs installed on public roads and streets within recreational and cultural interest areas shall ~~conform to~~ [comply with](#) the requirements of Chapters 2A, 2B, ~~and~~ 2C, [7B, 8B, 9B, and 10C](#).

Section ~~2H.04~~ 2J.04 General Design Requirements for Recreational and Cultural Interest Area Symbol Guide Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

Recreational and cultural interest area symbol [guide](#) signs shall be square or rectangular in shape and shall have a white symbol or message and white border on a brown background. The symbols shall be grouped into the following usage and series categories (~~see the “Standard Highway Signs” book for design details~~) **this was added to the Support sentence in the next paragraph for clarity:**

- A. ~~General Information (RG Series)~~ [Applications](#),
- B. ~~Accommodations Services (RA Series)~~,
- C. ~~Motorist Services (RM Series)~~,
- D. ~~Land Recreation (RL series)~~,
- E. ~~Water Recreation (RW Series)~~,
- F. ~~Winter Recreation (RS Series)~~, and
- G. [Prohibited Activities and Items](#).

Support:

Table 2J-1 contains a listing of the symbols within each series category. Drawings [showing the design details](#) for these symbols are found in the “Standard Highway Signs [and Markings](#)” book (see Section 1A.11).

Option:

Mirror images of symbols may be used where the reverse image will better convey the message.

Section ~~2H.05~~ 2J.05 Symbol Sign Sizes

NATIONAL COMMITTEE endorses editorial change.

Guidance:

Recreational and cultural interest area symbol signs should be 600 x 600 mm (24 x 24 in). Where greater visibility or emphasis is needed, larger sizes should be used. Symbol sign enlargements should be in 150 mm (6 in) increments.

Recreational and cultural interest area symbol signs should be 750 x 750 mm (30 x 30 in) when used on [guide signs on](#) freeways or expressways.

Option:

A smaller size of 450 x 450 mm (18 x 18 in) may be used on low-speed, low-volume roadways and on nonroad applications.

Section ~~2H.06~~ 2J.06 Use of Educational Plaques

NATIONAL COMMITTEE endorses no change.

Guidance:

Educational plaques should accompany all initial installations of recreational and cultural interest area symbol signs. The educational plaque should remain in place for at least 3 years after the initial installation. If used, the educational plaque should be the same width as the symbol sign.

Option:

Symbol signs that are readily recognizable by the public may be installed without educational plaques.

Support:

Figure 2J-1 illustrates some examples of the use of educational plaques.

Section 2H.07 2J.07 Use of Prohibitive Slash

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

Where it is necessary to indicate a ~~restriction~~ prohibition of an activity or an item within a recreational or cultural interest area for non-road use and a standard regulatory sign for such a prohibition is not provided in Chapter 2B, ~~a red diagonal slash may be used to indicate that the activity is prohibited~~ the appropriate recreational and cultural interest area symbol sign for prohibited activities and items (see Figure 2J-11) shall be used.

The red diagonal slash, if used on a recreational and cultural interest area sign, shall be placed behind the symbol from the upper left corner to the lower right corner of the sign face (see Figures 2J-1 and 2J-11). Requirements for retroreflection of the red slash shall be the same as those requirements for legends, symbols, and borders.

Support:

Figure 2H-1 illustrates some examples of the use of prohibitive slashes.

Section 2H.08 2J.08 Placement of Recreational and Cultural Interest Area Symbol Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

If used, recreational and cultural interest area symbol signs shall be placed in accordance with the general requirements contained in Chapter 2A. The symbol(s) shall be placed in the uppermost part of the sign assembly and the directional information shall be placed below the symbol(s).

Except as noted in the Option below, where if the name of the recreational or cultural interest area facility or activity is ~~shown displayed~~ edited to increase consistency on a general directional guide sign and a symbol is used, the symbol shall be placed below the name (see Figure 2J-2).

Option:

When the legend Wildlife Viewing Area is displayed with the RS-076 symbol, the symbol may be placed to the left or right of the legend and the arrow may be placed below the symbol (see Figure 2J-2).

Standard:

Recreational and cultural interest area symbols installed for nonroad use shall be placed in accordance with the general sign position requirements of the authority having jurisdiction.

Support:

Figure 2J-3 illustrates typical height and lateral mounting positions. Figure 2J-4 illustrates some examples of the placement of symbol signs within a recreational or cultural interest area. Figures 2J-5 through 2J-11 illustrate some of the symbols that can be used.

Guidance:

The number of symbols used in a single sign assembly should not exceed four.

Option:

Symbols for recreational or cultural interest areas may be used as legend components for a directional sign assembly. The symbols may be used singularly, or in groups of two, three, or four on a single sign assembly (see Figures 2J-1, 2J-3, and 2J-4). Smaller-size secondary symbols (see Figure 2J-1) may be placed beneath the primary symbols, where needed.

Section ~~2H.09~~ 2J.09 Destination Guide Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Guidance:

When recreational or cultural interest area destinations are ~~shown~~ **displayed** **edited to increase consistency** on supplemental guide signs, the sign should be rectangular or trapezoidal in shape. The order of preference for use of shapes and colors should be as follows: (1) rectangular with a white legend and border on a green background; (2) rectangular with a white legend and border on a brown background; or (3) trapezoidal with a white legend and border on a brown background.

Standard:

Whenever the trapezoidal shape is used, the color combination shall be a white legend and border on a brown background.

Option:

White-on-brown destination guide signs may be posted at the first point where an access or crossroad intersects a highway where recreational or cultural interest areas are a significant destination along conventional roads, expressways, or freeways. White-on-brown supplemental guide signs may be used along conventional roads, expressways, or freeways to direct road users to recreational or cultural interest areas. Where access or crossroads lead exclusively to the recreational or cultural interest area, the advance guide sign and the exit direction sign may be white-on-brown.

Standard:

~~Linear parkway-type highways that primarily function as arterial connectors, even if they also provide access to recreational or cultural interest areas, shall not qualify for the use of white-on-brown destination guide signs. Directional guide signs used on these highways shall conform to Chapter 2D.~~

All gore signs shall have a white legend and border on a green background. The background color of the interchange exit number ~~panel~~ **plaque** **edited to increase accuracy** shall match the background color of the guide sign. Design characteristics of conventional road, expressway, or freeway guide signs shall ~~conform to~~ **comply with** Chapter 2D or 2E except as ~~specified~~ **noted** **edited to increase consistency** in this Section for color combination.

The advance guide sign and the Exit Direction sign shall retain the white-on-green color combination where the crossroad leads to a destination other than a recreational or cultural interest area.

Support:

Figure 2J-2 illustrates destination guide signs commonly used for identifying recreational or cultural interest areas or facilities.

CHAPTER ~~2I~~ 2K. EMERGENCY MANAGEMENT SIGNING

Section ~~2I.01~~ 2K.01 **Emergency Management**

NATIONAL COMMITTEE endorses no change.

Guidance:

Contingency planning for an emergency evacuation should be considered by all State and local jurisdictions and should consider the use of all applicable roadways.

In the event of a disaster where highways that cannot be used will be closed, a successful contingency plan should account for the following elements: a controlled operation of certain designated highways, the establishment of traffic operations for the expediting of essential traffic, and the provision of emergency centers for civilian aid.

Section ~~2I.02~~ 2K.02 **Design of Emergency Management Signs**

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

Emergency Management signs shall be used to guide and control highway traffic during an emergency.

Emergency Management signs shall not permanently displace any of the standard signs that are normally applicable.

Advance planning for transportation operations' emergencies shall be the responsibility of State and local authorities. The Federal Government shall provide guidance to the States as necessitated by changing circumstances.

Except as noted in Section 2A.11, the sizes for Emergency Management signs shall be as shown in Table 2K-1.

Support:

Section 2A.11 contains information regarding the applicability of the various columns in Table 2K-1.

Option:

Signs larger than those shown in Table 2K-1 may be used (see Section 2A.11).

Guidance:

As conditions permit, the Emergency Management signs should be replaced or augmented by standard signs.

The background of Emergency Management signs should be retroreflective.

Because Emergency Management signs might be needed in large numbers for temporary use during an emergency, consideration should be given to their fabrication from any light and economical material that can serve through the emergency period.

Option:

Any Emergency Management sign that is used to mark an area that is contaminated by biological or chemical warfare agents or radioactive fallout may be accompanied by ~~a~~ the standard ~~triangular plaque, as~~ symbol that is illustrated ~~for~~ in the upper left corner of the EM-7c and EM-7d signs in Figure 2K-1, ~~for marking areas contaminated by biological and chemical warfare agents and radioactive fallout.~~

Section ~~2I.03~~ 2K.03 **Evacuation Route Signs (EM-1 and EM-1a)** paragraphs were **relocated within this Section**

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 784, line 48 – Remove text “below which”. Editorial
2. Page 785, lines 10-11 – Need figure of Emergency Management symbol.
3. Page 785, lines 21-26 – Sign height and location shown in this section, section 2K.06 and 2K.08 are the same. Recommend using this one figure and refer to it in each section.

Standard:

The Evacuation Route (EM-1 and EM-1a) signs (see Figure 2I-1) shall be display a ~~rectangular sign with a~~ blue circular symbol ~~with on a white square sign without a border~~ as shown in Figure 2K-1. The EM-1 sign shall include a white directional arrow (except as noted in the Option below) and ~~the~~ a white legend EVACUATION ROUTE within the blue circular symbol. The EM-1a sign shall include the words TSUNAMI EVACUATION ROUTE within the blue circular symbol. The diameter of the blue circular symbol on the EM-1 and EM-1a signs shall be 25 mm (1 in) smaller than the height and width of the sign, and the entire sign shall be retroreflective.

An Advance Turn Arrow (M5 series) or Directional Arrow (M6 series) auxiliary sign (see Figure 2D-6) with a white arrow on a blue background below which shall be installed below the EM-1a sign.

Commented [REH58]: Page 784, Line 48 remove text, “below which” Editorial.

Option:

~~The arrow may be a separate panel attached to the face of the sign.~~

Instead of including a directional arrow within the blue circular symbol on the EM-1 sign, an Advance Turn Arrow (M5 series) or Directional Arrow (M6 series) auxiliary sign (see Figure 2D-6) with a white arrow on a blue background may be installed below the EM-1 sign.

~~The legend on the EVACUATION ROUTE sign may be modified to describe the type of evacuation route, such as HURRICANE.~~

If desired, the word HURRICANE, or a word that describes some other type of evacuation route, may be added as a third line of text above the white EVACUATION ROUTE legend within the blue circular symbol on the EM-1 sign.

An approved Emergency Management symbol with a diameter of 87 mm (3.5 in) may appear near the bottom of the an Evacuation Route sign with a diameter of 87 mm (3.5 in). Edited to increase clarity

Commented [REH59]: Page 785 Lines 10-11, need figure of Emergency Management Symbol

Standard:

~~The legend and arrow of the EVACUATION ROUTE sign shall be white on a blue circular background. The corners of the sign outside of the blue circle shall be white. The entire sign shall be retroreflective.~~ The arrow designs, if used, on the EM-1 sign shall include a straight, vertical arrow pointing upward, a straight horizontal arrow pointing to the left or right, or a bent arrow pointing to the left or right for advance warning of a turn. this paragraph edited to increase clarity

If used, the Evacuation Route sign, with the appropriate arrow, shall be installed 45 to 90 m (150 to 300 ft) in advance of, and at, any turn in an approved evacuation route. The sign shall also be installed elsewhere for straight-ahead confirmation where needed.

If used in urban areas, the Evacuation Route sign shall be mounted at the right-hand side of the roadway, not less than 2.1 m (7 ft) above the top of the curb, and at least 0.3 m (1 ft) back from the face of the curb. If used in rural areas, ~~it~~ the Evacuation Route sign shall be mounted at the right-hand side of the roadway, not less than 2.1 m (7 ft) above the

Commented [REH60]: Page 785, Lines 21-26. Sign height and location shown in this section, section 2K-06 and 2K-08 are the same. Consider using figure for these and refer to it in each section

pavement and not less than 1.8 m (6 ft) or more than 3 m (10 ft) to the right side of the right-hand roadway edge. this paragraph edited to increase clarity

Evacuation Route signs shall not be placed where they will conflict with other signs. Where conflict in placement would occur between the Evacuation Route sign and a standard regulatory sign, the regulatory sign shall take precedence.

Option:

In case of conflict with guide or warning signs, the ~~Emergency-Management~~ Evacuation Route sign may take precedence.

Guidance:

Placement of Evacuation Route signs should be made under the supervision of the officials having jurisdiction over the placement of other traffic signs. Coordination with Emergency Management authorities and agreement between contiguous political entities should occur to assure continuity of routes.

Section ~~2K.04~~ 2K.04 AREA CLOSED Sign (EM-2)

NATIONAL COMMITTEE endorses editorial change.

Standard:

The AREA CLOSED (EM-2) sign (see Figure 2K-1) shall be used to close a roadway in order to prohibit traffic from entering the area. It shall be installed on the shoulder as near as practical to the right-hand edited to increase clarity edge of the roadway, or preferably, on a portable mounting or barricade partly or entirely in the roadway.

Guidance:

For best visibility, particularly at night, the sign height should not exceed 1.2 m (4 ft) measured vertically from the pavement to the bottom of the sign. Unless adequate advance warning signs are used, it should not be placed to create a complete and unavoidable blocked route. Where feasible, the sign should be located at an intersection that provides a detour route.

Section ~~2K.05~~ 2K.05 TRAFFIC CONTROL POINT Sign (EM-3)

NATIONAL COMMITTEE endorses no change.

Standard:

The TRAFFIC CONTROL POINT (EM-3) sign (see Figure 2K-1) shall be used to designate a location where an official traffic control point has been set up to impose such controls as are necessary to limit congestion, expedite emergency traffic, exclude unauthorized vehicles, or protect the public.

The sign shall be installed in the same manner as the AREA CLOSED sign (see Section 2K.04), and at the point where traffic must stop to be checked.

The standard STOP (R1-1) sign shall be used in conjunction with the TRAFFIC CONTROL POINT sign. The TRAFFIC CONTROL POINT sign shall consist of a black legend and border on a retroreflectorized white background.

Guidance:

The TRAFFIC CONTROL POINT sign should be mounted directly below the STOP sign.

Section ~~2K.06~~ 2K.06 MAINTAIN TOP SAFE SPEED Sign (EM-4)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Option:

The MAINTAIN TOP SAFE SPEED (EM-4) sign (see Figure 2K-1) may be used on highways where conditions are such that it is prudent to evacuate or traverse an area as quickly as possible.

Where an existing Speed Limit (R2-1) sign is in a suitable location, the MAINTAIN TOP SAFE SPEED sign may conveniently be mounted directly over the face of the speed limit sign that it supersedes.

Support:

Since any speed zoning would be impractical under such emergency conditions, no minimum speed limit can be prescribed by the MAINTAIN TOP SAFE SPEED sign in numerical terms. Where traffic is supervised by a traffic control point, official instructions will usually be given verbally, and the sign will serve as an occasional reminder of the urgent need for maintaining the proper ~~reasonably safe~~ speed.

Guidance:

The sign should be installed as needed, in the same manner as other standard speed signs.

Standard:

If used in rural areas, the MAINTAIN TOP SAFE SPEED sign shall be mounted on the right-hand ~~side of the road~~ ~~at a horizontal distance of 1.8 to 3 m (6 to 10 ft) from the roadway edge, and with its lower edge not less than~~ ~~at a minimum height, measured vertically from the bottom of the sign to the elevation of the near edge of the pavement, of 1.5 m (5 ft) above the pavement, 1.8 to 3 m (6 to 10 ft) from the roadway edge.~~ ~~side of the road~~ ~~at a horizontal distance of 1.8 to 3 m (6 to 10 ft) from the roadway edge, and with its lower edge not less than~~ ~~at a minimum height, measured vertically from the bottom of the sign to the elevation of the near edge of the pavement, of 1.5 m (5 ft) above the pavement, 1.8 to 3 m (6 to 10 ft) from the roadway edge.~~ If used in urban areas, the ~~minimum height, measured vertically from the bottom of the sign to the top of the curb, or in the absence of curb, measured vertically from the bottom of the sign to the elevation of the near edge of the traveled way,~~ ~~shall be not less than~~ 2.1 m (7 ft), and the nearest edge of the sign shall be not less than 0.3 m (1 ft) back from the face of the curb.

Section ~~2K.07~~ 2K.07 ROAD (AREA) USE PERMIT REQUIRED FOR THRU TRAFFIC Sign (EM-5)

NATIONAL COMMITTEE endorses no change.

Support:

The intent of the ROAD (AREA) USE PERMIT REQUIRED FOR THRU TRAFFIC (EM-5) sign (see Figure 2K-1) is to notify road users of the presence of the traffic control point so that those who do not have priority permits issued by designated authorities can take another route, or turn back, without making a needless trip and without adding to the screening load at the post. Local traffic, without permits, can proceed as far as the traffic control post.

Standard:

If used, the ROAD (AREA) USE PERMIT REQUIRED FOR THRU TRAFFIC (EM-5) sign shall be used at an intersection that is an entrance to a route on which a traffic control point is located.

If used, the sign shall be installed in a manner similar to that of the MAINTAIN TOP SAFE SPEED sign (see Section 2K.06).

Section ~~2K.08~~ 2K.08 Emergency Aid Center Signs (EM-6 Series)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

In the event of emergency, State and local authorities shall establish various centers for civilian relief, communication, medical service, and similar purposes. To guide the public to such centers a series of directional signs shall be used.

Emergency Aid Center (EM-6 series) signs (see Figure 2K-1) shall carry the designation of the center and an arrow indicating the direction to the center. They shall be installed as needed, at intersections and elsewhere, on the **right-hand** ~~edited to increase clarity~~ side of the roadway, in urban areas at a minimum height, measured vertically from the bottom of the sign to the top of the curb, or in the absence of curb, measured vertically from the bottom of the sign to the elevation of the near edge of the traveled way, in urban areas of at least 2.1 m (7 ft), and not less than 0.3 m (1 ft) back from the face of the curb, and in rural areas at a minimum height, measured vertically from the bottom of the sign to the elevation of the near edge of the pavement, of 1.5 m (5 ft), and at a horizontal distance of 1.8 to 3 m (6 to 10 ft) from the roadway edge.

Emergency Aid Center signs shall carry one of the following legends, as appropriate, or others designating similar emergency facilities:

- A. MEDICAL CENTER (EM-6a),
- B. WELFARE CENTER (EM-6b),
- C. REGISTRATION CENTER (EM-6c), or
- D. DECONTAMINATION CENTER (EM-6d).

The Emergency Aid Center sign shall be a horizontal rectangle. Except as noted in the Option below, the identifying word and the word CENTER, the directional arrow, and the border shall be black on a white background.

Option:

When Emergency Aid Center signs are used in an incident situation, such as during the aftermath of a nuclear or biological attack, the background color may be fluorescent pink (see Chapter 6H).

Section ~~2I.09~~ 2K.09 Shelter Directional Signs (EM-7 Series)

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA.

Standard:

Shelter Directional (EM-7 Series) signs (see Figure 2K-1) shall be used to direct the public to selected shelters that have been licensed and marked for emergency use.

The installation of Shelter Directional signs shall ~~conform to~~ comply with established ~~highway~~ ~~deleted to increase consistency~~ signing standards. Where used, the signs shall not be installed in competition with other necessary highway guide, warning, and regulatory signs.

The Shelter Directional sign shall be a horizontal rectangle. Except as noted in the Option below, the identifying word and the word SHELTER, the directional arrow, the distance to the shelter, and the border shall be black on a white background.

Option:

When Shelter Directional signs are used in an incident situation, such as during the aftermath of a nuclear or biological attack, the background color may be fluorescent pink (see Chapter 6H).

The distance to the shelter may be omitted from the sign when appropriate.

Shelter Directional signs may carry one of the following legends, or others designating similar emergency facilities:

- A. EMERGENCY (EM-7a),
- B. HURRICANE (EM-7b),
- C. FALLOUT (EM-7c), or
- D. CHEMICAL (EM-7d).

If appropriate, the name of the facility may be used.

The Shelter Directional signs may be installed on the Interstate Highway System or any other major highway system when it has been determined that a need exists for such signs as part of a State or local shelter plan.

The Shelter Directional signs may be used to identify different routes to a shelter to provide for rapid movement of large numbers of persons.

Guidance:

The Shelter Directional sign should be used sparingly and only in conjunction with approved plans of State and local authorities.

As a general rule, the Shelter Directional sign should not be posted more than 8 km (5 mi) from a shelter.

CHAPTER 2M. CHANGEABLE MESSAGE SIGNS text was relocated from Sections 2A.07 and 2E.21 to form this new Section

Commented [REH61]: Pages 793 – 798, new material, concur.

Section 2M.01 Description of Changeable Message Signs

The National Committee endorses the content of this section as proposed by FHWA.

Support:

~~Changeable message signs, with more sophisticated technologies, are gaining widespread use to inform road users of variable situations, particularly along congested traffic corridors. Highway and transportation organizations are encouraged to develop and experiment (see Section 1A.10) with changeable message signs and to carefully evaluate such installations so that experience is gained toward adoption of future standards.~~

~~Because technology for changeable message signs continues to advance, a specific standard for changeable message signs is not practical. Considerations that influence the selection of the best sign for a particular application include conspicuity, legibility, operation, and maintenance of the changeable message sign. This Section applies to signs for use on freeway and expressway mainlines. It is recognized that similar signs might be used on ramps and at ramp terminals where smaller letter heights and the number of messages might differ from the provisions of this Section.~~

A changeable message sign (CMS) is a traffic control device that is capable of displaying one or more alternative messages. Some changeable message signs have a blank mode when no message is displayed, while others display multiple messages with only one of the messages displayed at a time (such as OPEN/CLOSED signs at weigh stations). Changeable message signs are referred to as “dynamic message signs” in the National Intelligent Transportation Systems (ITS) Architecture. The information in this Chapter applies to both changeable message and dynamic message signs and the terms are used interchangeably.

The provisions in this Chapter apply to both permanent and portable changeable message signs with electronic displays. Additional provisions that only apply to portable changeable message signs can be found in Section 6F.57. The provisions in this Chapter do not apply to changeable message signs with non-electronic displays that are changed either manually or electromechanically, such as a flip-panel or a rotating drum CMS.

Guidance Standard:

~~Except for safety or transportation-related messages as noted in the Option in Section 2M.02, changeable message signs should not be used to~~ **shall display information other than only traffic operational, regulatory, warning, and guidance information related to traffic control. Changeable message signs shall display pertinent traffic operational and guidance information only, not advertising. Advertising messages shall not be displayed on changeable message signs.**

~~The design of non-electronic display changeable message signs shall comply with the provisions of Chapters 2A through 2K of this Manual. To the extent practical, the design and application of changeable message signs should conform to the general principles of this Manual. To the extent practical, changeable message signs, which are traffic control devices designed to display variable messages, shall conform to the principles established in this Manual, and with the design and applications prescribed in Sections 2E.21, 6F.02, and 6F.55. All other changeable message signs shall comply with the design and application principles established in this Chapter and in Chapter 2A.~~

Section 2M.02 Applications of Changeable Message Signs

The National Committee endorses the content of this section as proposed by FHWA.

Support:

Changeable message signs have a large number of applications including, but not limited to, the following:

- A. Travel times (see Section 2M.07)
- B. Incident management and route diversion
- C. Warning of adverse weather conditions
- D. Control at crossing situations
- E. Lane, ramp, and roadway control
- F. Special event applications
- G. Traffic regulations
- H. Speed control
- I. Warning situations
- J. Destination guidance
- K. Toll and managed lanes

Option:

Changeable message signs, ~~both permanent and portable~~, may be used by State and local highway agencies to display safety or transportation-related messages, homeland security, and America's Missing: Broadcast Emergency Response (AMBER) alert messages.

Guidance:

State and local highway agencies may should develop and establish a policy regarding the display of safety and transportation-related messages ~~on permanent and changeable message signs that specifies the allowable messages and applications, consistent with the provisions of this Manual.~~

Support:

Examples of safety messages include "SEAT BELT BUCKLED?" and "DON'T DRINK AND DRIVE." Examples of transportation-related messages include "STADIUM EVENT SUNDAY, EXPECT DELAYS NOON TO 4 PM" and "OZONE ALERT CODE RED—USE TRANSIT."

Guidance:

When a CMS is used to display a safety or transportation related message, the ~~requirements of Section 6F.55 should be followed.~~ The message should be simple, brief, legible, and clear. A CMS should not be used to display a safety or transportation-related message if doing so would adversely affect ~~the~~ respect for the sign. "CONGESTION AHEAD" or other overly simplistic or vague messages should not be displayed alone. These messages should be supplemented with a message on the location or distance to the congestion or incident, ~~how much delay is expected and travel time~~, alternative route, or other similar messages.

Standard:

When a CMS is used to display a safety, ~~or~~ transportation-related, or AMBER alert message, the display format shall not be of a type that could be considered similar to advertising displays.

Support:

Section 2B.13 contains information regarding the design of changeable message signs that are used to display variable speed limits that change based on ambient or operational conditions, or that display the speed at which approaching drivers are traveling.

Section 2M.03 Legibility and Visibility of Changeable Message Signs

The National Committee endorses the content of this section as proposed by FHWA.

Support:

The maximum distance at which a driver can first correctly identify letters and words on a sign is called the legibility distance of the sign. Legibility distance is affected by the characteristics of the sign design and the visual capabilities of drivers. Visual capabilities, and thus legibility distances, vary among drivers.

For the more common types of changeable message signs, the longest measured legibility distances on sunny days occur during mid-day when the sun is overhead or during a washout condition when the sun is on the horizon and shining on the sign face. Legibility distances are much shorter when the sun is behind the sign face or at night.

Visibility is the characteristic that enables a CMS to be seen. Visibility is associated with the point where the CMS is first detected, whereas legibility is the point where the message on the CMS can be read. Environmental conditions such as rain, fog, and snow impact the visibility of changeable message signs and can reduce the available legibility distances. During these conditions, there might not be enough viewing time for drivers to read the message.

Guidance:

Changeable message signs used on roadways with speed limits of 90 km/h (55 mph) or higher should be visible from 800 m (0.5 mi) under both day and night conditions. The message should be designed to be legible from a minimum distance of 180 m (600 ft) for nighttime conditions and 245 m (800 ft) for normal daylight conditions. When environmental conditions that reduce visibility and legibility are present, messages composed of fewer units of information should be used (see Section 2M.05 for information regarding the lengths of messages displayed on changeable message signs).

If protective material is used on the front face of a CMS, the material should be regularly cleaned to improve visibility and legibility. It should be replaced when the surfaces become excessively scratched. When legibility distances are reduced because of deterioration of the protective material or the active pixels, the number of units of information in a message displayed should be lower than the maximum allowable units of information that are discussed in Section 2M.05.

Section 2M.04 Design Characteristics of Changeable Message Signs

The National Committee endorses the content of this section as proposed by FHWA.

Standard:

~~The display format~~ **Changeable message signs shall not include advertising, animation, rapid flashing, dissolving, exploding, scrolling, or other dynamic elements that are characteristic of sports scoreboards or advertising displays.**

Guidance:

Except in the case of a CMS (such as a blank-out or variable message regulatory sign) that is used in place of a static regulatory sign, changeable message signs should be used as a supplement to and not as a substitute for conventional signs and markings.

CMS should be limited to not more than 3 lines, with no more than 20 characters per line.

The spacing between characters in a word should be between 25 to 40 percent of the letter height. The spacing between words in a message should be between 75 and 100 percent of the letter height. Spacing between the message lines should be between 50 and 75 percent of the letter height.

Word messages on changeable message signs should be created using all capital upper-case letters and have a desirable letter size of 450 mm (18 in) or a minimum letter size of 265 mm (10.6 in). The minimum letter height should be 450 mm (18 in) for changeable message signs on roadways with speed limits of 70 km/h (45 mph) or higher. The minimum letter height should be 300 mm (12 in) for changeable message signs on roadways with speed limits of less than 70 km/h (45 mph).

Support:

Using letter heights of more than 450 mm (18 in) will not result in proportional increases in legibility distance.

Guidance:

The width-to-height ratio of the sign characters should be between 0.7 and 1.0. The stroke width-to-height ratio should be 0.2.

Support:

The width-to-height ratio is commonly accomplished using a minimum font matrix density of 5 pixels wide by 7 pixels high.

Standard:

Changeable message signs shall automatically adjust their brightness under varying light conditions to maintain legibility.

Guidance:

The luminance of changeable message signs should be greater than 1,000 cd/m² for daytime conditions and approximately 30 cd/m² for nighttime conditions. Luminance contrast should be between 8 and 12 for all conditions.

Contrast orientation of changeable message signs should always be positive, that is, with luminous characters on a dark or less luminous background.

Support:

Legibility distances for negative-contrast changeable message signs are likely to be at least 25 percent shorter than those of positive-contrast messages. In addition, the increased light emitted by negative-contrast changeable message signs has not been shown to improve detection distances.

Guidance:

The front face of a CMS should be covered with protective material.

Standard:

The colors used for the legends and backgrounds on changeable message signs shall be as indicated in Table 2A-4.

Option:

~~Changeable message signs (including portable changeable message signs) that display a regulatory or warning message may use a black background with a white, yellow, orange, red, or fluorescent yellow-green legend as appropriate, except where specifically restricted in this Manual for a particular sign.~~

Guidance:

If a black background is used, the color used for the legend on a changeable message sign should match the background color that would be used on a standard sign for that type of legend, such as white for regulatory, yellow for warning, orange for temporary traffic control, red for stop or yield, fluorescent pink for incident management, and fluorescent yellow-green for bicycle, pedestrian, and school warning.

Standard:

If a green background is used for a guide message on a CMS or if a blue background is used for a motorist services message on a CMS, the background color shall be provided by green or blue lighted pixels such that the entire CMS would be lighted, not just the white legend.

Section 2M.05 Message Length and Units of Information

The National Committee endorses the content of this section as proposed by FHWA.

Guidance:

The maximum length of a message should be dictated by the number of units of information contained in the message, in addition to the size of the CMS. A unit of information, which is a single answer to a single question that a driver can use to make a decision, should not be more than four words.

Support:

In order to illustrate the concept of units of information, Table 2M-1 shows an example message that is comprised of four units of information.

The maximum allowable number of units of information in a CMS message is based on the principles described in this Section, the current highway operating speed, the legibility characteristics of the CMS, and the lighting conditions.

Standard:

~~No more than two displays should be used within any message cycle. Each message shall consist of no more than two phases. A phase shall consist of no more than 3 lines of text. A three-line changeable message sign shall be limited to not more than two messages. Each display should convey a single thought. Each phase shall be understood by itself regardless of the sequence in which it is read.~~ Messages shall be centered within each line of legend. **Except at toll plazas, if more than one CMS is visible to road users, then only one sign shall display a sequential message at any given time.**

Techniques of message display such as fading, exploding, dissolving, or moving messages shall not be used. The text of the message shall not scroll or travel horizontally or vertically across the face of the sign.

~~Changeable message signs shall be capable of displaying several messages in a sequence. Such messages shall be changed manually, by remote control, or by automatic controls.~~

Guidance:

~~Within the context of Section 2A.07, these practices should be followed for mainline freeway and expressway applications~~ When designing and displaying messages on changeable message signs, the following principles relative to message design should be used:

- A. The minimum time that an individual phase is displayed should be based on 1 second per word or 2 seconds per unit of information, whichever produces a lesser value. The display time for a phase should never be less than 2 seconds.
- B. The maximum cycle time of a two-phase message should be 8 seconds.
- C. No more than 3 units of information should be displayed on a phase of a message.
- D. No more than 4 units of information should be in a message when the traffic operating speeds are 60 km/h (35 mph) or more.
- E. No more than 5 units of information should be in a message when the traffic operating speeds are less than 60 km/h (35 mph).
- F. Only 1 unit of information should appear on each line of the CMS.
- G. Compatible units of information should be displayed on the same message phase.

Option:

~~A unit of information may be displayed on more than one line. The entire message cycle should be readable at least twice by drivers traveling at the posted speed, the off-peak 85th-percentile speed, or the operating speed. Two changeable message signs may be used for the purpose of allowing the entire message to be read twice.~~

Guidance:

~~If more than two phases are needed to display a message, additional changeable message signs should be used.~~

~~Section 1A.15 contains information regarding the use of abbreviations on traffic control devices, including changeable message signs. When the message on a CMS includes an abbreviation, the provisions specified in Section 1A.15 should be used.~~

Section 2M.06 Installation of Permanent Changeable Message Signs

The National Committee endorses the content of this section as proposed by FHWA.

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

Page 797, line 11 – Add “to enable drivers to choose an alternate route” to clarify statement.

Guidance:

A CMS that is used in place of a static sign (such as a blank-out or variable legend regulatory sign) should be located in accordance with Chapter 2A. The following factors should be considered when installing other permanent changeable message signs:

- A. Changeable message signs should be located upstream of known bottlenecks and high crash locations ~~to enable drivers to choose an alternate route.~~
- B. Changeable message signs should be located upstream of major diversion decision points, such as interchanges.
- C. Changeable message signs should not be located within an interchange except for toll plazas or managed lanes.
- D. Changeable message signs should not be positioned at locations where the information load on drivers is already high because of guide signs and other types of information.
- E. Changeable message signs should not be located in areas where drivers frequently perform lane-changing maneuvers in response to static guide sign information, or because of merging or weaving conditions.

Support:

Information regarding the design and application of portable changeable message signs in temporary traffic control zones is contained in Section 6F.57.

Section 2M.07 Display of Travel Times on Changeable Message Signs

NATIONAL COMMITTEE endorses the content of this section as proposed by FHWA, with the following exception:

1. Page 797, lines 32–36, Remove guidance statement. Disagree with assessment and guidance to provide unnecessary information to drivers.
2. Page 797, lines 48-49 – Remove extra “to have”. Editorial
3. Page 798, Lines 1, 7, 8 – Change “must” to “should” in Guidance statement.
4. Page 798, lines 19-21 – Remove last sentence. Disagree with recommendation on relaxing time allowance of 1 second per word for message comprehension.

Support:

Most agencies in major metropolitan areas that are operating traffic management systems that include changeable message signs for real-time communication with drivers have the ability to

provide dynamic travel time information instead of providing generic messages such as “CONGESTION AHEAD” or “STAY ALERT.” While travel time messages are not appropriate for every location, they have proven successful in regions or corridors that experience periods of daily recurring congestion resulting from the traffic demand exceeding the available capacity.

Guidance:

Because drivers consider a blank message on a permanent CMS as a transportation investment that is not being fully used, no new permanent changeable message signs should be installed on freeways in a major metropolitan area or along a heavily traveled route unless the operating agency has the capability to display travel time messages as the default information available to motorists throughout the day.

Support:

Although travel time messages are sometimes overridden by more critical traffic incident or road construction messages, travel time messages can provide valuable motorist information in conjunction with the event messages, as well as after the incident or construction has been cleared if there is residual congestion. Because they typically generate traffic demand that exceeds capacity, special events (such as fairs, concerts, and sporting events) provide additional opportunities for providing travel time information to motorists.

Guidance:

To achieve solid public support for the display of travel time messages, the following items should be considered:

- A. The operating agency should seek feedback from and educate the public before starting to post travel time messages. A campaign of public awareness is critical in order for the travel time messages to have ~~to have~~ an initial positive effect. New types of CMS messages often cause motorists to slow down, so any efforts to reduce those surprise effects will help motorists more easily adapt to the new messages. Also engaging the public and the media in helping determine destinations and message forms will improve the quality of service and help achieve a positive response to the messages.
- B. Travel times ~~must should~~ be generated automatically and not require a human operator to manually enter travel time data. Effective travel time messages do not require the data to be 100% accurate. Research has indicated that data with error rates of 20% produce useful traveler information. When presenting a range of travel times on changeable message signs, the acceptable error rate might be even higher.
- C. Travel time messages are not appropriate for every CMS or for every hour of the day. The travel times displayed on the signs ~~must should~~ reflect reality and ~~must should~~ change. In other words, the traffic conditions ~~must should~~ be dynamic enough (such as in major metropolitan areas and along heavily traveled corridors) so that travel time messages are not viewed as merely static messages, which might result in credibility problems.
- D. Where there is a mixture of types of travelers, travel time messages can be constructed to benefit more than the local commuter. By including the distance to the destination in addition to the travel time, even those travelers unfamiliar with the area can determine the approximate level of congestion ahead.
- E. Travel time messages are different than emergency messages or AMBER Alert messages where the information is unique for each occurrence. Drivers require time to comprehend the message and determine what actions, if any, are needed. Once established in an area, drivers can become accustomed to reading travel time messages, being able to understand their format, and picking out the pertinent information quickly. Therefore, the guidance in Section 2M.05 for constructing dynamic messages that recommends allowing 1 second per word can be relaxed somewhat when dealing with a knowledgeable motorist base.

Commented [REH62]: Page 797 line 48, 49, typo

Commented [REH63]: Page 798 line 1, 7, 8

GMI review of Tables

General comment: all sign sizes should be reviewed to ensure proper design. Examples are given in following list. On many signs the minimum sizes are larger than necessary and could be reduced – Exit numbers E1-5P, E1-5bP, E1-5a.

Table 2D-1. Conventional Road Guide Sign and Plaque Sizes

GMI endorses the content of this section as proposed by FHWA.

Table 2D-2. Recommended Minimum Letter Heights on Street Name Signs

GMI endorses the content of this section as proposed by FHWA.

Table 2E-1. Freeway or Expressway Guide Sign and Plaque Sizes

GMI endorses the content of this section as proposed by FHWA, with the following exception:

Signs with minimum sizes that are not large enough to accommodate the message.
- Exit Number plaque, E5-1 P, all sizes, all applications

Table 2E-2. Minimum Letter and Numeral Sizes for Expressway Guide Signs According to Interchange Classification

GMI endorses the content of this section as proposed by FHWA.

Table 2E-3. Minimum Letter and Numeral Sizes for Expressway Guide Signs According to Sign Type

GMI endorses the content of this section as proposed by FHWA, with the following exception:

3 digit shield sign, 24x18, not large enough for numbers.

Table 2E-4. Minimum Letter and Numeral Sizes for Freeway Guide Signs According to Interchange Classification

GMI endorses the content of this section as proposed by FHWA, with the following exception:

No explanation of change to gore sign numeral and letter sizes to 18" from 15".

Table 2E-5. Minimum Letter and Numeral Sizes for Freeway Guide Signs According to Sign Type

GMI endorses the content of this section as proposed by FHWA, with the following exception:

No explanation of action message and fraction numerals change reducing from 10" to 8".

Table 2F-1. General Service Sign and Plaque Sizes

GMI endorses the content of this section as proposed by FHWA, with the following exception:

No minimums listed, remove columns.

Table 2I-1. General Information Sign Sizes

GMI endorses the content of this section as proposed by FHWA.

Table 2J-1. Category Chart for Recreational and Cultural Interest Area Symbols

GMI endorses the content of this section as proposed by FHWA.

Table 2K-1. Emergency Management Sign Sizes

GMI endorses the content of this section as proposed by FHWA, with the following exception:
Change title conventional road to minimum, add 3rd note specifying 18x18 size allowed for low volume roads.

Table 2M-1. Example of Units of Information

GMI endorses the content of this section as proposed by FHWA.