CHAPTER 2E. GUIDE SIGNS—FREEWAYS AND EXPRESSWAYS

Chapter 2E Subchapter and Section Organization

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GENERAL

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

Support:

01 The provisions of this Chapter provide a uniform and effective system of 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 1C.02 includes definitions of freeway and expressway.

02 Guide signs for freeways and expressways are primarily identified by the name of the sign rather than by an assigned sign designation. Guidelines for the design of guide signs for freeways and expressways are provided in the "Standard Highway Signs" publication and in Caltrans' California Sign Specifications (see Section 1A.05).

Standard:

03 **The provisions of this Chapter shall apply to any highway that meets the definition of freeway or expressway facilities.**

Section 2E.02 Freeway and Expressway Signing Principles

Support:

01 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 unfamiliar 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.

02 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:

03 *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.*

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

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 navigational value to the road user.

Section 2E.03 Guide Sign Classification

Support:

01 Freeway and expressway guide signs are classified and addressed as follows:

A. Interchange signs (see Sections 2E.21 through 2E.23 and 2E.25 through 2E.44);
B. Interchange Sequence signs (see Section 2E.24);
C. Post-Interchange signs (see Sections 2E.47 through 2E.49);
D. Community Interchanges Identification signs (see Section 2E.52);
E. Next Exits signs (see Section 2E.53);
F. Weigh Station signs (see Section 2E.54);
G. Route signs and Trailblazer Assemblies (see Section 2E.55);

H. At-Grade Intersection signs (see Section 2E.58);
I. General Information signs (see Chapter 2H);
J. Reference Location signs (see Sections 2H.11 and 2H.12);
K. General Service signs (see Chapter 2I);
L. Rest and Scenic Area signs (see Section 2I.05);
M. Tourist Information and Welcome Center signs (see Section 2I.08);
N. Radio Information, Travel Information, and Roadside Assistance signs (see Sections 2I.09 through 2I.13);
O. Carpool and Ridesharing signs (see Section 2I.14);
P. Specific Service signs (see Chapter 2J); and
Q. Recreational and Cultural Interest Area signs (see Chapter 2M).

02 Refer to FHWA's List of Known Errors for error in Paragraph 1, Item H text. Refer to Section 1A.04 for more details.

Section 2E.04 Characteristics of Urban Signing

Support:

01 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 that are closely spaced;
E. Roadway and interchange lighting;
F. Three or more interchanges serving the major city;
G. A loop, circumferential, or spur route serving a sizable portion of the urban population; and
H. Visual clutter from roadside development.

02 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.24);
B. Use of sign spreading to the maximum extent possible (see Section 2E.43);
C. Elimination of General Service or Specific Service signing (see Chapters 2I and 2J);
D. Reduction to a minimum of post-interchange signs (see Section 2E.47);
E. Display of advance signs at distances closer to the interchange, with appropriate adjustments in the legend (see Section 2E.23);
F. Use of overhead signs on roadway structures and independent sign supports (see Section 2E.19);
G. Use of Overhead Arrow-per-Lane guide signs in advance of interchanges with option lanes (see Section 2E.40), or Diagrammatic Advance guide signs in advance of interchanges with complex geometric configurations of ramp departures (see Section 2E.41); and
H. Frequent use of street names as the principal message in guide signs.

03 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.05 Characteristics of Rural Signing

Support:

01 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:

02 *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 signing 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.06 Signing of Named Highways

Guidance:

01 *Signing of named highways on freeways and expressways should comply with the provisions of Section 2D.56.*

Support:

02 Section 2M.10 contains information regarding memorial or dedication signing of routes, bridges, or highway components.

Option:

03 At interchanges other than freeway-to-freeway, Interchange Guide (G77(CA) and G78(CA) series) signs may be used to direct traffic to the named freeway by displaying both the freeway name and the appropriate route shield.

04 In rural areas, ground-mounted freeway name signs may be installed beyond major freeway interchanges at approximately 10-mile intervals.

Guidance:

05 *Freeway names should not be used on signs directing motorists to freeways in rural areas.*

Section 2E.07 Designation of Destinations

Standard:

01 **The direction of a freeway and the major destinations or control cities along it shall be clearly identified through the use of appropriate destination legends (see Section 2D.35). 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 (see Figure 2E-1).**

Guidance:

02 *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:

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

04 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: List of Control Cities for Use in Guide Signs on Interstate Highways," published by and available from the American Association of State and Highway Transportation Officials.

04a Refer to FHWA's List of Known Errors for error in Paragraph 4 text. Refer to Section 1A.04 for more details.

Guidance:

05 *Each Caltrans District should establish its list of control cities in coordination with neighboring districts and adjacent states to ensure consistent and uniform signage for through traffic on State highways. The same control cities should be used along a given route for each direction of travel.*

SIGN DESIGN

Section 2E.08 General

Support:

01 Effective signs are legible to road users approaching them, and are readable and comprehensible in the viewing time provided to permit proper responses. Desired design characteristics include: (a) long visibility distances; (b) large lettering, symbols, and arrows; and (c) short legends.

Section 2E.09 Color of Guide Signs

Standard:

01 **Guide signs on freeways and expressways, except as otherwise provided in this Manual, shall have white letters, symbols, arrows, and borders on a green background.**

Support:

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

Section 2E.10 Retroreflection or Illumination

Standard:

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

Support:

02 Where there is no serious interference from extraneous light sources, retroreflective post-mounted signs usually provide adequate nighttime visibility.

03 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:

04 *Overhead sign installations should be illuminated (see Section 2A.21) unless an engineering study shows that retroreflection alone will perform effectively. The type of illumination chosen should provide effective and reasonably uniform illumination of the sign face and message.*

Section 2E.11 Interchange Classification

Support:

01 For signing purposes, interchanges are classified as major, intermediate, and minor. Minimum letter and numeral sizes based on interchange classification are contained in Tables 2E-2 and 2E-4. 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.12 Size of Signs and Letters

Standard:

01 **Except as provided in Section 2A.07, the sizes of freeway and expressway guide signs that have standardized designs shall be as shown in Table 2E-1.**

Support:

02 Section 2A.07 contains information regarding the applicability of the various columns in Table 2E-1.

Option:

03 Signs larger than those shown in Table 2E-1 may be used (see Section 2A.07).

Standard:

04 **The nominal loop height of the lower-case letters shall be ¾ of the height of the initial upper- case letter (see Paragraph 3 of Section 2D.05 for additional information on the specification of letter heights). Other word legends such as cardinal directions, action messages, and special characters shall be composed of all upper-case letters with a minimum letter height of 8 inches. Interline and edge spacing shall be as provided in Section 2E.13.**

05 **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. Minimum numeral and letter sizes for expressway guide signs according to interchange classification, type of sign, and component of sign legend 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 shall be as shown in Tables 2E-4 and 2E-5. The minimum numeral and letter sizes for overhead- mounted expressway and freeway guide signs shall be those shown in the "Overhead" columns of Tables 2E-2 and 2E-4, respectively, except where a larger minimum numeral or letter height is provided in the columns for the applicable type of interchange (major, intermediate, or minor).**

06 **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 FHWA Standard Alphabet Series E (modified) as provided in the "Standard Highway Signs" publication (see Section 1A.05).**

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

Support:

08 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.

09 Designs for upper-case and lower-case FHWA Standard Alphabets, together with tables of recommended letter spacing, are shown in the "Standard Highway Signs" publication (see Section 1A.05).

Guidance:

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

11 *Other sign letter size requirements not specifically identified elsewhere in this Manual should be guided by these specifications. Abbreviations should be kept to a minimum, except as provided in Section 2E.16.*

Support:

12 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.13 Interline and Edge Spacing

Guidance:

01 *Interline spacing of upper-case letters should be approximately ¾ of the average of upper-case letter heights in adjacent lines of letters.*

02 *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.14 Sign Borders

Guidance:

01 *For guide signs larger than 120 x 72 inches, the border should have a width of 2 inches. For smaller guide signs, a border width of 1.25 inches should be used. On unusually large signs with oversized letter heights, route shields, or other legend elements, the border should be 2.5 inches wide and should not exceed 3 inches in width. In all cases, the width of the border should not exceed the stroke width of the lettering of the principal legend on the sign.*

02 *Corner radii of sign borders should be approximately ⅛ of the minimum sign dimension on guide signs, except that the radii should not exceed 12 inches on any sign.*

Support:

03 The "Standard Highway Signs" publication (see Section 1A.05) contains detailed information on border widths and corner radii for ranges of sign sizes.

Option:

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

Section 2E.15 Amount of Legend on Guide Signs

Guidance:

01 *No more than two destination names or street names should be displayed on any Interchange 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 street 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, exclusive of the exit number and action or distance information.*

Support:

02 Where only one interchange serves a community, the intersecting street name is generally superfluous to the city name on the Interchange Advance guide and Exit Direction signs. Where a community is served by multiple interchanges, the city name is typically displayed on either a Community Interchanges Identification sign (see Section 2E.52) or a Next Exits sign (see Section 2E.53). Each interchange is then identified by its intersecting roadway name on the Interchange Advance guide and Exit Direction signs rather than by the city name.

Section 2E.16 Abbreviations

Standard:

01 **The use of abbreviations on freeway and expressway guide signs shall comply with the provisions of Section 2D.07 of this Manual.**

Section 2E.17 Symbols

Support:

01 Symbols are not normally displayed on freeway and expressway guide signs. One exception is the PARK - RIDE Supplemental guide sign (see Section 2E.51), which displays the Carpool symbol. In some cases, General Information symbols (see Chapter 2H) might be included in the legend of a guide sign to shorten an unusually lengthy legend on the sign.

Guidance:

02 *When a General Information symbol is incorporated into the legend of a guide sign, all components of the legend should be balanced in size and arrangement for maximum legibility. The General Information (I series) sign, rather than the symbol alone, should be placed as a sign panel within the guide sign so that adequate recognition of the symbol is provided by the border. The General Information sign panel should be positioned to the left of the legend to which it applies. The size of the General Information sign panel should be similar in size to that specified for a route shield for the type of guide sign on which it is displayed.*

Section 2E.18 Arrows for Interchange Guide Signs

Standard:

01 **Arrows used on interchange guide signs shall be of the types shown in Figure 2D-3 and shall comply with the provisions of this Section and Section 2D.08.**

02 **Except on Overhead Arrow-per-Lane guide signs (see Section 2E.40) and on Exit Direction signs for lane drops (see Section 2E.28), and except as provided in Paragraph 5 of this Section, directional arrows on all overhead and post-mounted Exit Direction signs shall point diagonally upward. Directional arrows on overhead Exit Direction signs shall be located on the side of the sign consistent with the direction of the exiting movement. Directional arrows on post-mounted Exit Direction signs shall be located at the bottom portion of the sign and centered under the legend.**

Option:

03 On overhead Exit Direction signs that are located fully over the tapered portion of the exit ramp at the theoretical gore, and 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.

Standard:

04 **Directional arrows on guide signs for multi-lane exits shall be positioned below the legend over the approximate center of each lane to which the arrow applies (see Figure 2E-38).**

05 **Down arrows shall only be used on overhead signs to indicate a lane to be followed and shall be positioned over the approximate center of each lane pointing 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 displayed on the sign.**

06 **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.**

Support:

06a Refer to Section 2B.38 and Figure 2B-10(CA) for sign options that allow trucks to legally use a lane other than the rightmost lane. This is accomplished by placing the TRUCKS (R70A(CA)) and OK (R70B(CA)) sign panels adjacent to a down arrow.

07 Directional and down arrows for use on guide signs are shown in Figure 2D-3. Detailed drawings and standardized sizes based on ranges of letter heights for these arrows are provided in the "Standard Highway Signs" publication (see Section 1A.05). Information on the dimensions for arrows used in Overhead Arrow- per-Lane and Diagrammatic Advance guide signing is also provided in the "Standard Highway Signs" publication (see Section 1A.05).

INSTALLATION

Section 2E.19 Overhead Sign Installations

Support:

01 Specifications for the design and construction of structural supports for 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. Conditions that might warrant the installation of overhead signs are given in Section 2A.14 and throughout this Chapter. Vertical clearance of overhead signs is discussed in Section 2A.15.

Section 2E.20 Lateral Offset

Standard:

01 **Except where shielded by a rigid traffic barrier, the minimum lateral offset outside the usable roadway shoulder for post-mounted freeway and expressway signs or for overhead sign supports, either to the right-hand or left-hand side of the roadway, shall be 6 feet. This minimum clearance shall also apply outside of a curb. If located within the clear zone, the signs shall be mounted on crashworthy (see definition in Section 1C.02) supports or shielded by appropriate crashworthy barriers.**

Guidance:

02 *Where practicable, a sign should not be less than ~~10~~ 12 feet from the edge of the nearest traffic lane. Large guide signs especially should be farther removed, preferably 30 feet or more from the nearest traffic lane.*

03 *Where an expressway median is 12 feet or less in width, consideration should be given to spanning both roadways without a center support.*

04 *Where an overhead sign support cannot be placed sufficiently far away from the line of traffic, it should either be designed to minimize the impact forces, or be adequately shielded by a traffic barrier of suitable design.*

Standard:

05 **Butterfly-type sign supports and other overhead non-crashworthy sign supports shall not be installed in gores or other unshielded locations within the clear zone.**

Option:

06 Lesser clearances, but not generally less than 6 feet, may be used on connecting roadways or ramps at interchanges.

Support:

07 Refer to Section 2A.16 for additional information about lateral offset.

GUIDE SIGNING FOR INTERCHANGES

Section 2E.21 Interchange Guide Signs

Support:

01 For some applications, guide signing for interchanges depends upon the interchange classifications that are described in Section 2E.11. Provisions on guide signing for interchanges that are based on interchange classifications are found in Sections 2E.23 through 2E.26, 2E.46 through 2E.48, and 2E.51 through 2E.53.

Standard:

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

Guidance:

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

04 *Guide signs placed in advance of an interchange deceleration lane should be spaced at least 800 feet apart.*

05 *Use of Supplemental guide signing should be minimized as provided in Section 2E.51.*

Support:

06 Figure 2E-2 shows a typical sequence of interchange guide signs.

07 In some instances the interchange that provides the most direct or preferred access to a destination might be different in opposing directions of travel due to circumstances such as the configuration of the crossroads, or the fact that an interchange is a partial interchange.

Guidance:

08 *For each direction of travel, guide signing to a destination should be via the exit with the most direct or preferred access, even when this results in a destination being served by different interchanges for opposing directions of travel (see Figure 2E-1).*

Support:

09 Refer to Section 2D.31 for additional Interchange Guide signs.

Guidance:

10 *Exits should be identified on signs using street names, community names, control cities and/or route markers.*

11 *When an interchange provides more than one exit to the same street, cardinal direction identifiers should be included on the signs to distinguish between the exits.*

Option:

12 The Destination and Street Name with Arrow (G8(CA) series) signs may be used in freeway interchange areas.

Section 2E.22 Interchange Exit Numbering

Standard:

01 **Interchange exit numbering shall use the reference location sign exit numbering method. The consecutive exit numbering method shall not be used. The exit numbers shall correspond to the posted Reference Location or Enhanced Reference Location signs.**

Support:

02 Reference location sign exit numbering assists road users in determining their destination distances and travel mileage, assists road users in reporting their location in the event of an incident or breakdown, assists responders in responding to incidents, and assists highway agencies because the exit numbering sequence does not have to be changed if new interchanges are added to a route.

03 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:

04 **Interchange exit numbering shall be used in signing each freeway interchange exit. Interchange exit numbers shall be displayed with each Interchange Advance Guide sign, Exit Direction sign, and Exit Gore sign. The exit number shall be displayed on a separate plaque on top (above and abutting) of the Interchange Advance Guide or**

Exit Direction sign. The Exit Number (E1-5P series) plaque (see Figure 2E-9) shall include the word EXIT(S) and the appropriate exit number(s) in a single-line format.

04a **Rest areas, vista points, weigh stations, HOV facility exits, and HOV-to-HOV system connector ramps are not considered interchange exits and shall not be assigned or signed with exit numbers.**

05 **Suffix letters shall only be used to supplement exit numbers where there is more than one exit associated with the reference mile points of the freeway. Suffix letters shall not be used for an exit ramp for the purpose of identifying a downstream ramp split providing access to multiple highways or different directions on the same highway. 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 between ½ and ¾ of the height of the suffix letter. The suffix letters assigned shall be in ascending alphabetical order starting with the letter A for ramps in the direction of travel with increasing exit numbers, and in descending alphabetical order ending in the letter A in the opposite direction of travel. Exit numbers shall not include the cardinal direction initials corresponding to the directions of the cross route. The minimum numeral and letter sizes shall be as given in Tables 2E-2 through 2E-5. If used, the exit numbering system for expressways shall comply with the provisions prescribed for freeways.**

06 **Where suffix letters are used for exit numbering, an exit of the same number without a suffix letter shall not be used on the same route in the same direction. 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 in the same direction.**

Guidance:

07 *To the extent practical, exit numbering should be determined based upon the location of the crossroad with respect to reference location signs as given in the following examples:*

A. *If a crossroad intersects the mainline approximately at or after Mile 15 and before Mile 16, the interchange should be designated as EXIT 15 (see Drawings A and B in Figure 2E-3).*
B. *If the interchange crossroad is split into two roadways by direction where one direction of the crossroad is downstream of Mile 18 and the other direction is upstream of Mile 18, the interchange exit number should be EXIT 18 (see Drawings A and B in Figure 2E-3).*
C. *If there are three closely-spaced interchanges, such as less than 1 mile apart, starting before Mile 16 and ending near or at Mile 17, the interchanges should be designated as EXIT 15, EXIT 16, and EXIT 17.*
D. *If there are multiple interchanges so closely spaced together that it is impracticable to designate the exit numbers by the freeway mainline reference mile numbers, suffix letters should be used as provided in this Section (see Drawings C and D in Figure 2E-3).*

Option:

08 Exit numbers may also be used with Supplemental guide signs in compliance with the provisions of Section 2E.51, and Motorist Service signs in compliance with the provisions of Chapters 2I and 2J.

Standard:

09 **Where exit suffix letters are used and the number of exits is not equal in both directions of travel, the exit suffix lettering for each direction shall be based on the number of exits in that direction. For example, if in the northbound direction of a freeway there are three exits for Mile 25 and two exits in the southbound direction, the exit numbers northbound shall be EXIT 25 A, EXIT 25 B, and EXIT 25 C; and the exit numbers southbound shall be EXIT 25 B followed by EXIT 25 A (see Drawing D in Figure 2E-3).**

10 **Except as provided in Section 2E.36 for Collector-Distributor Roadways or as otherwise provided for in this Chapter, exit numbers and suffix letters shall only be used to designate individual exit departure points directly from the freeway mainline. Exit numbers and suffix letters shall not be used for designating ramp splits into two ramps after leaving the mainline.**

11 **The Exit Number (E1-5P) plaque shall be positioned above the top right-hand edge (above and abutting) of the sign for an exit to the right (see Figure 2E-9).**

12 **Because road users might not expect an exit to the left and might have difficulty in maneuvering to the left, a Left Exit Number (~~E1-5bP~~ E1-5fP to E1-5kP) plaque (see Figure 2E-9) shall be added above the top left-hand edge (above and abutting) of the sign for all numbered left-hand exits (see Figures 2E-18 and 2E-34). The word LEFT on the Left Exit Number plaque shall be a black legend on a yellow rectangular sign panel and shall be centered above the word EXIT.**

Support:

13 Example Exit Number plaque designs are shown in Figure 2E-9. The incorporation of Exit Number plaques on

guide signs is illustrated in Figures 2E-9, 2E-9(CA), 2E-12, 2E-12(CA), 2E-14, 2E-35, 2E-36(CA), and 2E-41.

14 Figure 2E-4 provides an example of Interstate route loops and spurs around major metropolitan areas. The general plan for numbering interchange exits is shown in Figures 2E-5 through 2E-8. Figure 2E-5 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-6 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. For the purpose of Interstate route numbering, a three-digit Interstate route that provides connectivity between two different Interstate routes is also defined as a loop (see Figure 2E-4). Figure 2E-7 shows a spur route, which is a route that departs from a mainline route and never rejoins the same mainline route. Figure 2E-8 shows two mainline routes that overlap each other.

Standard:

15 **Regardless of whether a mainline route originates within a State or crosses into the State from an adjacent State, the southernmost or westernmost terminus within that State shall be the beginning point for interchange exit numbering.**

16 **For circumferential routes, interchange exit numbering 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-5).**

17 **The interchange exit numbers on loop routes shall begin at the loop interchange nearest the south or west junction and increase in magnitude toward the north or east junction (see Figure 2E-6).**

18 **Spur route interchanges shall be numbered in ascending order starting at the interchange where the spur leaves the mainline route (see Figure 2E-7).**

19 **If a circumferential, loop, or spur route crosses State boundaries, the numbering sequence shall be coordinated by the States to provide continuous interchange exit numbering.**

20 **Where numbered routes overlap, continuity of interchange exit numbering shall be established for only one of the routes (see Figure 2E-8). If one of the routes is an Interstate and the other route is not an Interstate, the Interstate route shall maintain continuity of exit interchange numbering.**

Support:

20a Refer to FHWA's List of Known Errors for error in Paragraph 20 text. Refer to Section 1A.04 for more details.

Guidance:

21 *The route chosen for continuity of interchange exit numbering should also have reference location sign continuity (see Figure 2E-8).*

Standard:

22 **Caltrans shall utilize mileage-based interchange exit numbering to identify the location of each interchange exit on the California Freeway System. A statewide listing of freeway exit numbers, indexed by route and direction, shall be available at the following website: https://dot.ca.gov/programs/safety-programs/exit**

23 **The placement and location of interchange exit numbers on State highways shall conform to the database maintained by Caltrans' Division of Safety Programs for reference posts. This database is distinct from the TASAS Highway database.**

Section 2E.23 Interchange Advance Guide Signs (E1-1 through E1-3)

Support:

01 An Interchange Advance guide sign (see Figure 2E-9 and Figure 2E-9(CA)) gives notice well in advance of the exit point of the principal destinations served by the next interchange and the distance to that interchange.

Standard:

02 **Except as provided in Paragraph 16 of this Section, and in Paragraph 18 of Section 2E.25, at least one Interchange Advance guide sign shall be used for all interchange classifications.**

Guidance:

03 *At major and intermediate interchanges (see Section 2E.11), at least two Interchange Advance guide signs should be used, placed at ½ mile and at 1 mile in advance of the exit. A third Interchange Advance guide sign should be placed at 2 miles in advance of the exit if spacing permits.*

04 *At minor interchanges, the Interchange Advance guide sign should be located ½ to 1 mile from the exit gore.*

Support:

05 Sections 2E.29 through 2E.44 contain additional provisions regarding the number, location, and mounting of Interchange Advance guide signs for certain interchange configurations.

Standard:

06 **Except as provided in Section 2E.28, the legend on Interchange Advance guide signs shall contain the distance message. For each direction of travel, the legend on the Interchange Advance guide signs shall be the same as the legend on the Exit Direction sign, except that the last line shall be the distance message. The distance message shall read XX MILE(S) where exit numbers are used. Where exit numbers are not used, the distance message shall read EXIT XX MILE(S) for an interchange with one exit ramp, and EXITS XX MILE(S) for an interchange with two or more exit ramps.**

Guidance:

07 *Where an Interchange Advance guide sign is located more than 1,000 feet to ½ mile but not more than 1 mile from the exit, the distance displayed should be to the nearest ¼ mile. Where the distance to be displayed on an Interchange Advance guide sign is 1,000 feet or less, the distance should be displayed in feet, rather than miles, to the nearest 100 feet.*

Support:

07a Refer to FHWA's List of Known Errors for error in Paragraph 7 text. Refer to Section 1A.04 for more details.

Standard:

08 **When a distance is displayed in miles, fractions of a mile, rather than decimals, shall be displayed in all cases.**

09 **For numbered exits, the exit number used with the Interchange Advance guides signs shall be displayed using an Exit Number plaque above and abutting the Interchange Advance guide sign.**

10 **For numbered exits to the right, an Exit Number (E1-5P through E1-5eP) plaque (see Figure 2E-9) shall be added to the top right-hand edge (above and abutting) of the sign.**

11 **For numbered exits to the left, a Left Exit Number (E1-5fP through E1-5kP) plaque (see Figure 2E-9) shall be added above the top left-hand edge (above and abutting) of the sign (see Figures 2E-18 and 2E-34).**

12 **For unnumbered exits to the left, a LEFT (E1-5mP) plaque (see Figure 2E-9) shall be added to the top left-hand edge of the sign, abutting the sign.**

Support:

13 Section 2E.22 contains additional information regarding exit numbering.

Standard:

14 **Interchange Advance guide signs for multi-lane exits having an optional exit lane that also carries the through route at major interchanges (see Figures 2E-36, 2E-36(CA), 2E-37, and 2E-42) and for splits with an option lane (see Figures 2E-38, and 2E-39) shall be Overhead Arrow-per-Lane signs designed in accordance with Sections 2E.39 and 2E.40.**

Option:

15 Where the distance between interchanges is more than 1 mile, but less than 2 miles, the first Interchange Advance guide sign may be closer than 2 miles, but not placed so as to overlap the signing for the preceding exit. Duplicate Interchange 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:

16 *Where there is less than 800 feet between the theoretical gores of successive interchange entrance or exit ramps, Interchange Sequence Series signs (see Section 2E.24) should be used instead of Interchange Advance guide signs for the affected interchanges.*

17 *The Interchange 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) plaque (see Section 2F.10 and Figure 2F-4). The plaque should be installed above the Interchange Advance guide signs, but below the Exit Number or LEFT plaque, if used.*

Option:

18 The W16-16P plaque may be formatted as a header panel within the guide sign.

Section 2E.24 Interchange Sequence Signs (E9-1 and E9-2)

Support:

01 Interchanges are sometimes closely spaced, particularly through large urban areas, so that typical guide signs cannot be adequately spaced. In such cases, Interchange Sequence signs identifying the next two (E9-1 or G23-7(CA)) or three (E9-2) interchanges (see Figure 2E-10 and 2E-10(CA)) can provide the necessary exit destination guidance.

Guidance:

02 *Where there is less than 800 feet between the theoretical gores of successive interchange entrance or exit ramps, Interchange Sequence signs should be used instead of Interchange Advance guide signs for the affected interchanges.*

03 *If used, Interchange Sequence (E9-1 or E9-2) signs should be used over the entire length of a route in an urban area.*

Support:

04 Interchange Sequence signs generally supplement Interchange Advance guide signs. Signing of this type is illustrated in Figure 2E-11, and is compatible with the sign spreading concept described in Paragraph 3 of Section 2E.43.

Standard:

05 **Interchange Sequence signs shall be installed in a series. Interchange Sequence signs shall display the next two or three interchanges by name or route number with distances to the nearest ¼ mile.**

06 **The first Interchange Sequence sign in the series shall be located in advance of the first Interchange Advance guide sign for the first interchange.**

07 **Where the exit direction is to the left, a LEFT (E11-2) sign panel (see Figure 2E-17) shall be displayed on the same line immediately to the right of the interchange name or route number.**

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

Guidance:

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

Standard:

10 **Interchange Sequence signs located in the median shall be installed at overhead sign height (see Section 2A.14).**

Support:

10a Refer to FHWA's List of Known Errors for error in Paragraph 10 text. Refer to Section 1A.04 for more details.

Option:

11 ~~Interchange numbers may be displayed to the left of the interchange name or route number.~~

Support:

11a Refer to FHWA's List of Known Errors for error in Paragraph 11 text. Refer to Section 1A.04 for more details.

Option:

12 The Interchange Sequence (G23-7(CA)) sign (see Figure 2E-10(CA)) may be used to display two successive interchanges when one of the interchanges includes a cross street with different names on opposite sides of the freeway. A horizontal white line may be used to separate the exits for the two interchanges. For the interchange with two exit names, the names may be combined and shown with a single distance, placed either above or below the horizontal separator.

Section 2E.25 Exit Direction Signs (E4 Series)

Support:

01 The Exit Direction sign (see Figure 2E-12 and 2E-12(CA)) repeats the route and destination information that was displayed on the Interchange 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 left for that destination.

Standard:

02 **Exit Direction signs shall be used at major and intermediate interchanges. Populations or other similar information shall not be displayed on Exit Direction signs.**

Guidance:

03 *Exit Direction signs should be used at minor interchanges (see Section 2E.30).*

Support:

04 Sections 2E.28, 2E.30, 2E.31, 2E.33 through 2E.35, 2E.38, and 2E.40 through 2E.42 illustrate the use, location, and mounting of Exit Direction signs for certain interchange configurations. The placement location of the Exit Direction

sign at the interchange depends on the type of mounting, post-mounted or overhead, and whether there is a deceleration lane (see Figure 2E-13).

Guidance:

05 *When post-mounted, the Exit Direction sign should be installed at the beginning of the deceleration lane taper. When mounted overhead, the Exit Direction sign should be installed over the exiting lane in the vicinity of the theoretical gore. If there is less than 300 feet from the beginning of the taper to the theoretical gore, the Exit Direction sign should be installed overhead (see Figure 2E-13).*

Standard:

06 **Except where Overhead Arrow-per-Lane guide signs are used (see Sections 2E.40 and 2E.42, and Paragraph 7 of this Section), where a through lane is being terminated (dropped) at an exit, the Exit Direction sign shall be placed overhead at the theoretical gore (see Figures 2E-18, 2E-19, 2E-33, 2E-42, and 2E-46).**

07 **Except as provided in Paragraph 4 of Section 2E.40, where Overhead Arrow-per-Lane guide signs are used for the Interchange 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.40), an Overhead Arrow-per-Lane guide sign shall also be used instead of the Exit Direction sign and located near, but not downstream from, the point where the outside edge of the dropped lane begins to diverge from the main roadway (see Figures 2E-36 through 2E-38). The Overhead Arrow-per-Lane guide sign shall be designed in accordance with the provisions of Section 2E.40.**

08 **The following provisions shall govern the design and application of overhead Exit Direction signs:**

- **A. The sign shall display the Exit Number plaque (if exit numbering is used), the route number, cardinal direction, and destination, as applicable, with a diagonally upward-pointing directional arrow (see Figure 2E-12 and Figure 2E-12(CA)).**
- **B. The message EXIT ONLY in black on a yellow sign panel (E11-1d or E11-1e) shall be used on the overhead Exit Direction sign to advise road users of a lane drop situation (see Figures 2E-18, 2E-19, 2E-42, and 2E-44). The sign shall comply with the provisions of Section 2E.28.**

09 **For numbered exits to the right, an Exit Number (E1-5P through E1-5eP) plaque (see Figure 2E-9) shall be added above the top right-hand edge (above and abutting) of the sign.**

10 **For numbered exits to the left, a Left Exit Number (E1-5fP through E1-5kP) plaque (see Figure 2E-9) shall be added above the top left-hand edge (above and abutting) of the sign.**

11 **For unnumbered exits to the left, a LEFT (E1-5mP) plaque (see Figure 2E-9) shall be added above the top left-hand edge (above and abutting) of the sign.**

11a **The ONLY (E11-1b) sign panel shall not be used without the EXIT (E11-1a) sign panel.**

Support:

12 Section 2E.22 contains additional information regarding exit numbering.

Guidance:

13 *At multi-exit interchanges, the Exit Direction sign should be located directly over the exiting lane for the first exit, in accordance with this Section. An Interchange Advance guide sign for the second exit should be installed at the same location, normally over the right-hand through lane. Only for those conditions where the through movement is not evident should a confirmatory message (a Pull-Through sign as shown in Figure 2E-16 and Figure 2E-16(CA)) be used over the left-hand lane(s) to guide road users traveling through an interchange (see Section 2E.43 for additional information on sign spreading).*

14 *Where the freeway or expressway is on an overpass, the Exit Direction sign for the second exit should be installed on an overhead support over the exit lane in advance of the gore point, as near as practicable to the theoretical gore. Where the freeway or expressway passes under the crossroad and the exit ramp is located beyond the overcrossing structure, the overhead Exit Direction sign for the second exit should be placed either on the overcrossing structure (see Figures 2E-29 through 2E-31) or on a separate structure located immediately in front of the overcrossing structure.*

Option:

15 Where extra emphasis of an especially low advisory ramp speed is needed, an Exit Direction Advisory Speed (E13-2) sign panel (see Figure 2E-14) may be placed at the bottom of the Exit Direction sign to supplement, but not to replace, the exit or ramp advisory speed warning signs.

16 Warning Beacons in compliance with Paragraph 17 of this Section may be used with the E13-2 sign panel.

Standard:

17 **Where Warning Beacons are used in conjunction with the E13-2 sign panel within a guide sign (see Figure**

2E-14), the nearest edges of the beacons shall be placed at least 12 inches from the edges of the E13-2 sign panel, from the edges of the guide sign, and from any other legend within the guide sign. The design and operation of Warning Beacons shall otherwise comply with the provisions of Chapter 4S of this Manual.

Option:

18 In cases, where sight distance is restricted because of structures or unusual alignment, principally in urban areas, making it impossible to locate the Exit Direction sign without violating the required minimum spacing between major guide signs (see Section 2E.23), Interchange Sequence signs (see Section 2E.24) may be substituted for an Interchange Advance guide sign.

Guidance:

19 *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 2F.10 and Figure 2F-4) should be installed above the Exit Direction sign, but below the Exit Number or LEFT plaque, if used.*

Option:

20 The W16-16P plaque may be formatted as a header panel within the guide sign.

Section 2E.26 Exit Gore Signs and Plaque (E5-1 Series)

Support:

01 The Exit Gore sign (see Figure 2E-15) 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 to provide adequate visibility of the departure of the exit roadway from the main roadway.

Standard:

02 **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. An Exit Gore sign shall be located in the gore for each ramp that departs from the main roadway of a freeway or expressway, or departs from a collector-distributor roadway, and shall display the word EXIT (E5-1) if interchange exit numbering is not used or EXIT XX (E5-1a or E5-1c) if interchange exit numbering is used, and an appropriate diagonally upward-pointing arrow. If suffix letters are used for exit numbering at a multi-exit interchange, the suffix letter shall also be included on the Exit Gore (E5-1a or E5-1c) sign ~~or Exit Gore Number (E5-1bP) plaque~~ and shall be separated from the exit number by a space having a width of between ½ and ¾ of the height of the suffix letter. Breakaway or yielding supports shall be used.**

Guidance:

03 *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:

04 The Narrow Exit Gore (E5-1c) sign (see Figure 2E-15) may be used in gore areas of limited width where the width of the Exit Gore (E5-1a) sign would not permit sufficient lateral offset (see Section 2A.16), such as for ramp departures that are nearly parallel to the main roadway where the Exit Gore sign would be mounted on a narrow island or barrier. Where the E5-1c sign is mounted at a height of 14 feet or more from the roadway, the directional arrow may point diagonally downward.

Guidance:

05 *The E5-1c sign should not be used in gore areas where an E5-1a sign could be installed with sufficient lateral offset.*

Option:

06 Where extra emphasis of an especially low advisory ramp speed is needed, the Confirmation Advisory Speed (W13-1aP) plaque (see Section 2C.59) indicating the advisory speed may be mounted below the Exit Gore sign (see Figure 2E-15) to supplement, but not to replace, the exit or ramp advisory speed warning signs.

07 To improve the visibility of the gore for exiting drivers, a Type 1 object marker (see Chapter 2C) may be installed 4 feet above the ground line on each sign support below the Exit Gore sign.

08 ~~An Exit Gore Number (E5-1bP) plaque (see Figure 2E-15) may be installed above an existing Exit Gore (E5-1) sign when an unnumbered exit is converted to a numbered exit until such time as an E5-1 sign is being replaced for other reasons (see Paragraph 9 of this Section).~~

Standard:

09 **An Exit Gore (E5-1a) sign shall be used when the replacement of an existing assembly of an E5- 1 sign and**

E5-1bP plaque becomes necessary.

10 **An Exit Gore (E5-1a) sign shall replace an existing Exit Gore (E5-1) sign when an unnumbered exit is converted to a numbered exit.**

Section 2E.27 Pull-Through Signs (E6-1 Series and E6-2 Series)

Support:

01 Pull-Through (E6-1 series and E6-2 series) signs (see Figure 2E-16 and Figure 2E-16(CA)) are overhead guide signs intended for through traffic.

Guidance:

02 *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. Pull-Through signs should not be used at exits with option lanes where full-width Overhead Arrow-per-Lane signs are being used.*

Standard:

03 **When used, Pull-Through signs shall display the route shield and the cardinal direction for the through route.**

Option:

04 Pull-Through signs may display the control city and down arrows (see Figure 2E-16, 2E-16(CA), and Section 2E.18).

04a Pull-Through signs may also display the control city and LEFT/RIGHT __ LANES legend instead of using down arrows (refer to Figure 2E-16(CA)).

Support:

05 Sections 2E.28, 2E.39, and 2E.40 contain information regarding the use of Overhead Arrow-per-Lane guide signs at multi-lane exits where there is a reduction in the number of through lanes and a through lane becomes an interior option lane for through or exiting traffic.

Section 2E.28 Signing for Interchange Lane Drops Without an Optional Exit Lane

Standard:

01 **The provisions of this Section shall only apply to lane drops at exits that do not have an optional exit lane. At exits that have an optional exit lane in addition to the dropped lane, the provisions of Sections 2E.39 through 2E.42 shall apply.**

Support:

01a Refer to FHWA's List of Known Errors for error in Paragraph 1 text. Refer to Section 1A.04 for more details.

Standard:

02 **Except as provided in Paragraph 15 of this Section, major guide signs for all lane drops at interchanges shall be mounted overhead. An EXIT ONLY sign panel shall be used for all interchange lane drops at which the through route is carried on the main roadway.**

Support:

02a Refer to FHWA's List of Known Errors for error in Paragraph 2 text. Refer to Section 1A.04 for more details.

Standard:

03 **Except on Overhead Arrow-per-Lane and Diagrammatic Advance guide signs (see Sections 2E.39 through 2E.41), the EXIT ONLY (down arrow) (E11-1 or E11-1f) sign panel (see Figure 2E-17) shall be used on all overhead Advance guide signs of lane drops (see Figures 2E-18, 2E-19, and 2E-34). The number of arrows on each sign shall correspond to the number of dropped lanes at the location of each sign. Placement of the down arrow shall comply with the provisions of Section 2E.18.**

04 **For lane drops, the bottom portion of the overhead Exit Direction sign shall be yellow with a black border and shall include a diagonally upward-pointing black directional arrow (left or right, as appropriate) for each lane dropped at the exit (see Figures 2E-18 and 2E-19). The sign shall be designed and placed so that each arrow is located over the approximate center of each lane being dropped. Except as provided in Paragraph 5 of this Section, the words EXIT and ONLY shall be positioned to the left and right, respectively, of the arrow on the E11-1d sign panel (see Figure 2E-17) 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 (see Figure 2E-17). The number of arrows on the sign**

shall correspond to the number of dropped lanes at the location of the sign.

04a **The ONLY (E11-1b) sign panel shall not be used without the EXIT (E11-1a) sign panel.**

Option:

05 Where an existing sign structure length or adjacent signs constrain the width or placement of the Interchange Advance guide sign on that structure, the down arrow may be positioned to the right or left of the words EXIT ONLY, instead of between the words, to allow for the positioning of the arrow over the approximate center of the lane. Where the width of the Exit Direction sign extends over the adjacent lane, the directional arrow may be placed to the right of the words EXIT ONLY for an exit to the right, or to the left of the words EXIT ONLY for an exit to the left, to allow for the positioning of the arrow over the dropped lane.

06 EXIT ONLY messages of either the combination of E11-1a and E11-1b, or the E11-1c sign panels (see Figure 2E-17) may be used to retrofit existing signing to warn of a lane drop situation ahead.

Standard:

07 **If used to retrofit an existing guide sign, the E11-1a and E11-1b sign panels (see Figure 2E-17) shall be placed on either side of a white down arrow on an Interchange Advance guide sign and on either side of a white directional arrow on an Exit Direction sign. The E11-1c sign panel (see Figure 2E- 17), if used to retrofit an existing Interchange Advance guide sign, shall be placed between the lower destination message and the white down arrow.**

07a **The ONLY (E11-1b) sign panel shall not be used without the EXIT (E11-1a) sign panel.**

Guidance:

08 *Except as provided in Paragraph 9 of this Section for an auxiliary lane, Interchange Advance guide signs for lane drops within 1 mile of the interchange should not display the distance message.*

09 *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 1 mile, the first Interchange Advance guide sign in the sequence downstream from the entrance ramp should display the distance message (see Figures 2E-20 and 2E-21).*

10 *Where the dropped lane carries the through route, signs should be used without the EXIT ONLY sign panel.*

Support:

11 Figures 2E-20 and 2E-21 show examples of guide sign for a dropped auxiliary lane between separate interchanges using post-mounted and overhead guide signs, respectively. Figure 2E-22 shows guides signs used for an auxiliary lane that is ½ mile or longer.

11a Refer to FHWA's List of Known Errors for error in Paragraph 11 text. Refer to Section 1A.04 for more details.

12 Sections 2E.39 through 2E.42 contain information on the signing of lane drops at exits that also have an option lane.

13 Section 2B.31 contains information regarding regulatory signs that can also be used for freeway lane drop situations and Section 2C.50 contains information regarding warning signs that can also be used for freeway lane drop situations.

Guidance:

14 *In limited cases in which conditions are so constrained that it is impossible to locate an Interchange Advance guide sign either overhead or partly over the dropped lane, precluding positioning of the down arrow as provided in Paragraph 3 of this Section, a sign panel displaying the legend RIGHT (LEFT) LANE ONLY in a black legend on a yellow background should be substituted for the EXIT ONLY panel on that sign. In such cases, the Interchange Advance guide signs should be alternated with RIGHT (LEFT) LANE FOR EXIT ONLY (W9-7) signs (see Section 2C.50).*

15 *Where a mainline lane is terminated immediately after an exit ramp, overhead and/or post mounted warning signs should be used to warn traffic as shown in Figure 2E-23.*

Section 2E.29 Signing by Type of Interchange

Support:

01 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-26 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 freeway and on the exit ramps. Section 2D.49 contains information regarding the signing of the crossroad approaches and connecting roadways to freeways and expressways.

Guidance:

02 *The signing layout for all interchanges of the same type should be similar. For the purpose of uniform application,*

the significant features of the signing layout for each of the more frequent types of interchanges (illustrated in Figures 2E-26 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.

03 *Where a single interchange combines a different type of ramp configuration for each direction of travel, the main roadway major guide signing should be determined by the specific interchange type for that direction of travel.*

Support:

04 Figure 2E-24 shows an example of signing for a complex interchange that combines intermediate interchange ramps within a major interchange.

05 Figure 2E-25 shows an example of signing for an interchange exit ramp with a downstream split.

Section 2E.30 Minor Interchange

Option:

01 Less signing may be used for minor interchanges because such interchanges customarily serve low volumes of mostly local traffic.

Support:

02 An example of guide signs for a minor interchanges is shown in Figure 2E-26.

02a Refer to FHWA's List of Known Errors for error in Paragraph 2 text. Refer to Section 1A.04 for more details.

Standard:

03 **In accordance with the provisions of Sections 2E.23 and 2E.26, at least one Interchange Advance guide sign and an Exit Gore sign shall be used at a minor interchange.**

Guidance:

04 *An Exit Direction sign in compliance with Section 2E.25 should also be used.*

Section 2E.31 Diamond Interchange

Support:

01 An example of guide signs for a diamond interchange is shown in Figure 2E-27.

02 The typical diamond interchange ramp departs from the main roadway such that a speed reduction generally is not necessary in order for a driver to negotiate an exit maneuver from the main roadway onto the ramp roadway. Section 2C.12 contains provisions for the use of an Advisory Exit Speed (W13-2) sign for situations where a speed reduction is necessary.

Guidance:

03 *When a speed reduction is not necessary, an Advisory Exit Speed sign should not be used.*

04 *The Advisory Exit Speed sign, if used, should be located along the deceleration lane or along the ramp such that it is visible to the driver far enough in advance to allow the driver to decelerate before reaching the curve associated with the exiting maneuver. Use and placement of the Advisory Exit Speed sign should otherwise comply with Section 2C.12 of this Manual.*

Option:

05 A Stop Ahead (W3-1) or Signal Ahead (W3-3) warning sign (see Section 2C.35) may be placed, where engineering judgment indicates a need, along the ramp in advance of the crossroad, to give notice to the driver.

Guidance:

06 *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.*

07 *Where the exit ramp allows traffic to turn in either direction onto the crossroad, a Destination (D1 series) sign (see Section 2D.36) that includes each destination displayed on the Advance, Exit Direction, and Supplemental guide signs along the main roadway for that exit should be placed along the ramp.*

Section 2E.32 Diamond Interchange in Urban Area

Support:

01 An example of guide signs for a diamond interchange in an urban area is shown in Figure 2E-28. This example includes the use of the Community Interchanges Identification sign (see Section 2E.52), which might be useful if two or more interchanges serve the same community.

02 In urban areas, street names are often displayed as the principal message in destination signs.

Option:

03 If interchanges are too closely spaced to locate the Interchange Advance guide signs at the distances specified in Section 2E.23, they may be placed closer to the exit with the distances displayed adjusted accordingly.

Section 2E.33 Cloverleaf Interchange

Support:

01 A cloverleaf interchange has two exits for each direction of travel. The exits are closely spaced and have common Advance guide signs. An example of guide signs for a cloverleaf interchange is shown in Figure 2E-29.

Guidance:

02 *The Advance guide signs should include two place names, one corresponding to each exit ramp, with the name of the place served by the first exit on the upper line.*

Standard:

03 **An overhead guide sign assembly shall be placed at the theoretical gore of the first exit ramp, with an Exit Direction sign for the first exit and an Interchange Advance guide sign for the second exit, as shown in Figure 2E-29. The second exit shall be indicated by an overhead Exit Direction sign over the auxiliary lane.**

04 **Interchanges with more than one exit from the main roadway shall be numbered as described in Section 2E.22 with an appropriate suffix.**

05 **Diagrammatic Advance signs shall not be used for cloverleaf interchanges except as otherwise provided in Section 2E.41.**

Guidance:

06 *Where the main roadway passes under the crossroad and the exit roadway is located beyond the overcrossing structure, the placement of the overhead Exit Direction sign for the second exit should comply with Section 2E.25 (see Figure 2E-29).*

Section 2E.34 Cloverleaf Interchange with Collector-Distributor Roadways

Support:

01 An example of guide signs for a full cloverleaf interchange with collector-distributor roadways is shown in Figure 2E-30.

Guidance:

02 *Destination names and route numbers shown on the collector-distributor roadway signing should be the same as those used on the upstream Interchange Advance guide signs on the main roadway.*

Standard:

03 **Exit Direction 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.**

Guidance:

04 *Exits from the collector-distributor roadways should be numbered with an appropriate suffix. If the exits from a collector-distributor roadway are numbered, the Interchange Advance guide and Exit Direction signs on the main roadway should include, in addition to two place names, their corresponding exit number and suffixes with the plural EXITS in the Exit Number (E1-5P series) plaque. If only the exit from the main roadway is numbered, the Interchange Advance guide and Exit Direction signs on the main roadway should use the singular EXIT in the Exit Number plaque. If interchange exit numbering is not used, the Interchange Advance guide signs on the main roadway should use the singular EXIT in the distance messages.*

Section 2E.35 Partial Cloverleaf Interchange

Support:

01 An example of guide signs for a partial cloverleaf interchange is shown in Figure 2E-31.

Guidance:

02 *For a partial cloverleaf with only one exit roadway in a direction of travel, where the main roadway passes under the crossroad and the exit roadway is located beyond the overcrossing structure, the overhead Exit Direction sign should be placed either on the overcrossing structure (see Figure 2E-31) or on a separate structure located immediately in front of the overcrossing structure.*

Support:

03 Partial cloverleaf interchanges with successive exit ramps from the same direction of travel are signed the same as cloverleaf interchanges for that direction of travel (see Section 2E.33).

Section 2E.36 Collector-Distributor Roadways for Successive Interchanges

Support:

01 Examples of guide signs for a collector-distributor roadway that provides access to multiple interchanges are shown in Figure 2E-32. Section 2J.09 contains provisions for General Service and Specific Service signs.

Guidance:

02 *Where access to successive interchanges is provided from a single collector-distributor roadway, the number of lines of destination information displayed on the major guide signs on the main roadway approach to the collector-distributor roadway should comply with the provisions of Section 2E.15. Where additional destinations are displayed on the main roadway, those destinations should be displayed on Supplemental guide signs (see Section 2E.51) on the approach to the collector-distributor roadway.*

03 *Where exit numbering is used, the exit numbers for exits accessed from the collector-distributor roadway should be displayed on the main roadway guide signs.*

04 *An Exit Gore sign (see Section 2E.26) should be placed in the gore where the collector-distributor roadway departs from the main roadway.*

05 *Interchange guide signing along the collector-distributor roadway should comply with the provisions for interchange signing in this Chapter.*

Section 2E.37 Freeway-to-Freeway Interchanges

Support:

01 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. Examples of guide signs for freeway-to-freeway interchanges are shown in Figure 2E-33.

Guidance:

02 *The sign messages should contain only the route shield, cardinal direction, and the name of the next control city on the route. Arrows should point as indicated in Section 2D.08, except where Overhead Arrow- per-Lane or Diagrammatic Advance signs are used in accordance with the provisions of Sections 2E.39 through 2E.41.*

Support:

03 An off-route movement is the movement that does not follow the through route. Drivers might not expect the off-route movement to be to the left or an optional lane at a split (see Figures 2E-38 and 2E-39). Section 2E.22 contains information about the use of the Left Exit Number (E1-5fP through E1-5kP) plaque at splits where the off-route movement is to the left. Sections 2E.39 and 2E.40 contain information about the use of Overhead Arrow-per-Lane guide signs for freeway splits with an option lane and for multi-lane freeway-to- freeway exits having an option lane. Section 2E.41 contains information about the use of a Diagrammatic Advance guide sign for complex geometric configurations at ramp departures.

Standard:

04 **The roadway for the off-route shall be signed as an exit. If exit numbering is used, the signs shall comply with the provisions of Section 2E.22. Distance messages on the Advance guide signs shall comply with the provisions of Section 2E.23.**

05 **Overhead signs shall be used at a distance of 1 mile and at the theoretical gore of each connecting ramp. When Overhead Arrow-per-Lane or Diagrammatic Advance guide signs are used, they shall be located in accordance with the provisions of Sections 2E.40 and 2E.41, respectively.**

Option:

06 The Advance guide signs at the ½-mile and 2-mile locations may also be mounted overhead.

Guidance:

07 *An Advisory Exit Speed (W13-2) sign should be used where an engineering study shows that it is necessary to display a speed reduction message for ramp signing (see Section 2C.12).*

Section 2E.38 Freeway Split with Dedicated Lanes

Standard:

01 **Signing for freeway splits with dedicated lanes shall use the sign designs shown in Figure 2E-34.**

02 **The arrows on each Interchange Advance guide sign shall match the number of lanes present at the location of the Advance guide sign.**

03 **The signs for this application shall be mounted overhead. When arrows are used, each arrow shall be located over the approximate center of the lane to which it applies.**

04 **Where one roadway of the split carries the through route, the other roadway of the split shall be signed as an exit. If exit numbering is used, the signs shall comply with the provisions of Section 2E.22. Distance messages on the Advance guide signs shall comply with the provisions of Section 2E.23.**

05 **The number and location of Advance guide signs shall comply with the provisions of Section 2E.23.**

Guidance:

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

07 *The Exit Direction and Pull Through signs should display down arrows if the alignment is straight or diagonal upward-pointing directional arrows if the alignment is curved (see Section 2D.08).*

Standard:

08 **The Exit Direction sign shall contain the EXIT ONLY (E11-1 series) sign panel (see Section 2E.28).**

Section 2E.39 Signing for Option Lanes at Splits and Multi-Lane Exits

Support:

01 Some freeway and expressway splits or multi-lane exit interchanges contain an interior option lane serving both movements in which traffic can either leave the route or remain on the route, or choose either destination at a split, from the same lane.

Standard:

02 **On freeways and expressways, either the Overhead Arrow-per-Lane guide sign designs as provided in Sections 2E.40 and 2E.41 shall be used for all multi-lane exits at major interchanges (see Section 2E.11) that have an optional exit lane that also carries the through route (see Figures 2E-36, 2E-36(CA), 2E- 37, and 2E-42) and for all splits that include an option lane (see Figure 2E-38). Overhead Arrow-per- Lane guide 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.**

Support:

02a Refer to FHWA's List of Known Errors for errors in Paragraph 2 text. Refer to Section 1A.04 for more details.

Guidance:

03 *The Overhead Arrow-per-Lane guide sign design (see Section 2E.40) should also be considered for multi-lane exits with an option lane at intermediate interchanges (see Section 2E.11) based on such factors as the extent of the need to optimize the mainline operation by maximizing the usage of the option lane, the extent of the period(s) of the day during which the exiting volumes warrant the multi-lane exit arrangement, and the nature of the traffic that primarily uses the option lane during the high-volume periods.*

04 *Signing at intermediate interchanges (see Section 2E.11) that have an optional exit lane at which it has been determined that the Overhead Arrow-per-Lane guide sign design is not warranted or at multi-lane exits at minor interchanges (see Section 2E.11) that have an optional exit lane should use signing in accordance with the provisions of Section 2E.42.*

Section 2E.40 Design of Overhead Arrow-per-Lane Guide Signs for Option Lanes

Support:

01 Overhead Arrow-per-Lane guide signs (see Figure 2E-35) are used where an option lane is present at freeway and expressway multi-lane exit interchanges and splits. They display an upward-pointing arrow above each lane that conveys the direction(s) of travel that the lane serves at the point of departure. At locations where an option lane is present at a multi-lane exit or split, Overhead Arrow-per-Lane guide signs have been shown to be superior to other guide sign designs because they convey positive direction about which destination and direction each approach lane serves, particularly for the option lane, which is otherwise difficult to clearly sign.

Standard:

02 **Overhead Arrow-per-Lane guide signs as provided in Section 2E.39 shall be used at all new or reconstructed freeway and expressway locations and at freeway and expressway locations where replacement of existing sign support structures is necessitated by reconstruction. The Overhead Arrow- per-Lane guide sign at the exit or split shall be located at or in the immediate vicinity of the point where the exiting lanes begin to diverge from the through lanes or, for a split, at the point where the approach lanes begin to diverge from one another, preserving the relation of the arrows displayed on the sign to their respective lanes. The Overhead Arrow-per-Lane guide sign at the exit shall not be located at or near the theoretical gore.**

Option:

03 At existing or non-reconstructed locations where an overhead Exit Direction sign exists at the theoretical gore, and the existing sign support structure is retained, an overhead Exit Direction sign may continue to be used on the existing sign support structure in conjunction with a replacement of the advance signs using the Overhead Arrow-per-Lane guide sign design.

Standard:

04 **If an existing Exit Direction sign is being retained at an interchange as provided in Paragraph 3 of this Section, an Overhead Arrow-per-Lane guide sign shall not be used at the location of the Exit Direction sign at or in the vicinity of the theoretical gore. New installations of Exit Direction and Pull- Through signs shall not be permitted in conjunction with Overhead Arrow-per-Lane guide signs on new or reconstructed facilities.**

Guidance:

05 *Overhead Arrow-per-Lane guide signs should be located at approximately ½ mile and 1 mile in advance of the exit or split, and at approximately 2 miles in advance of the exit or split where space is available and conditions allow.*

Standard:

06 **Overhead Arrow-per-Lane guide signs used on freeways and expressways shall be designed in accordance with the following criteria:**

- **A. Except as provided in Section 2E.42 for partial width Overhead Arrow-per-Lane signs, the sign shall include an upward-pointing (vertical, curved, or bifurcated) arrow for each lane of the approach to the split or exit.**
- **B. The shaft of each arrow shall be located over the approximate center of the lane to which it applies.**
- **C. Arrows for continuing through lanes shall be vertically upward-pointing (see Figure 2E-36 and Figure 2E-36(CA)) unless the continuing through lanes are on a significantly curved alignment beyond the theoretical gore (see Figure 2E-37).**
- **D. 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 (E11-1a) and ONLY (E11-1b) sign panels adjacent to the lower end of the arrow shaft. The E11-1a and E11-1b sign panels shall not be used for a split of two overlapping routes where 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 (see Figure 2E-37).**
- **E. 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.**
- **F. 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 (see Figure 2E-38).**
- **G. A vertical white line shall be used to separate the route shields and destinations for the two diverging movements from each other.**
- **H. The distance to the exit or split shall be displayed below the off-movement destination on the advance signs at the 1-mile and 2-mile locations.**
- **I. The number of lanes displayed on a sign shall correspond to the number of lanes at the location of that sign. An advance sign shall not depict lanes that are added downstream of the sign location.**
- **J. For numbered exits, the Exit Number (E1-5P) or Left Exit Number (E1-5bP) plaque shall be used at the top (above and abutting) of the sign in accordance with Section 2E.23. For unnumbered exits to the left, a LEFT (E1-5mP) plaque shall be added on the top left-hand edge of and adjacent (above and abutting) to**

the sign.

06a **The ONLY (E11-1b) sign panel shall not be used without the EXIT (E11-1a) sign panel.**

Guidance:

07 *Overhead Arrow-per-Lane guide signs used on freeways and expressways should be designed in accordance with the following additional criteria:*

A. No more than one destination should be displayed for each movement, and no more than two destinations should be displayed per sign.

B. The arrowhead(s) for the diverging movement should be 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 arrowheads should be positioned at approximately the same height on the sign.

C. Route shields, cardinal directions, and destinations should be positioned on the sign such that they are clearly related to the arrowhead(s) for the movement to which they apply.

D. The cardinal direction should be placed adjacent to 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-35).

Standard:

08 **Overhead Arrow-per-Lane guide signs shall not be used to depict a downstream split of an exit ramp on a sign located on the mainline.**

Support:

09 Specific guidelines for more detailed design of Overhead Arrow-per-Lane guide signs are contained in the "Standard Highway Signs" publication (see Section 1A.05).

Standard:

10 **The arrow heights for Overhead Arrow-per-Lane guide signs on freeways and expressways shall be as shown in Table 2E-6.**

Option:

11 Where extra emphasis of an especially low advisory ramp speed is needed, an EXIT XX MPH (E13- 2) sign panel (see Figure 2E-14) may be placed below the applicable destination legend to supplement, but not to replace, the exit or ramp advisory speed warning signs.

12 Warning Beacons in compliance with the provisions of Section 2E.25 may be used with the E13-2 sign panel.

Support:

13 An example of guide signing for a narrow gore at a split with an option lane is shown in Figure 2E-39, and an example of guide signing for a narrow gore at a two-lane exit with an option lane is shown in Figure 2E-40.

Option:

14 Where there is 800 feet or more between the beginning of the lane diverge and the theoretical gore, signs indicating the destinations allowed by each lane may be added in the vicinity of the theoretical gore to reinforce positive guidance (see Figures 2E-39 and 2E-40).

Section 2E.41 Design of Freeway and Expressway Diagrammatic Advance Guide Signs

Support:

01 The Diagrammatic Advance guide sign (~~see Figure 2E-41~~) is a guide sign that shows a simplified graphic view of the exit departure arrangement in relationship to the main highway at an interchange. Its purpose is to provide advance notice of complex or unexpected road geometry or ramp departures at an interchange and/or depict successive decision points where additional context might be helpful to interpreting the subsequent primary Interchange Advance guide signs. Unlike Diagrammatic signs that were included in previous editions of this Manual, the Diagrammatic Advance guide sign does not depict which or the number of specific lanes that serve a particular destination or depict lanes added or reduced.

Option:

02 A Diagrammatic Advance guide sign may be used in advance of the interchange guide sign sequence, or in lieu of an

Interchange Advance guide sign located 2 miles in advance of the exit, to supplement conventional or Overhead Arrow-per-Lane guide signs used for a downstream interchange.

Standard:

03 **Diagrammatic Advance guide signs shall be designed in accordance with the following criteria:**

- **A. The graphic legend shall be of a plan view showing a simplified schematic graphic of the relative through and off-ramp movements.**
- **B. No symbols or route shields shall be used as a substitute for arrowheads.**
- **C. They shall not be installed at the Exit Direction sign location (see Section 2E.25).**
- **D. The EXIT ONLY sign panel shall not be used on Diagrammatic Advance guide signs in advance of the interchange.**
- **E. For numbered exits, the Exit Number (E1-5P) or Left Exit Number (E1-5bP) plaque shall be used at the top (above and abutting) of the sign in accordance with Section 2E.22. For unnumbered left exits, the LEFT (E1-5aP) plaque shall be used at the top left edge (above and abutting) of the sign.**
- **F. The graphic shall not depict deceleration or auxiliary lanes.**
- **G. Arrow shafts shall not contain lane lines.**
- **H. Destination legends for off-movements shall be positioned to the side of the arrow from which the ramp departs.**

Guidance:

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

- *A. No more than one destination should be displayed for each movement.*
- *B. The arrowhead for the diverging movement should be positioned lower on the sign than the arrowhead for the movement that continues straight ahead, independent of which movement carries the through route (~~see Figure 2E-42~~). Where the movements are freeway or expressway splits rather than exits, the arrowheads should be positioned at approximately the same height on the sign.*
- *C. Arrow shaft widths should not vary for different movements.*
- *D. 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 for the off movement should point toward the route shield or, for unnumbered routes, the upper line of destination legend for the off movement.*
- *E. For exits or splits leading in a single direction, the cardinal direction should be placed adjacent to the route shield, and the destination should be placed below the route shield and cardinal direction.*
- *F. Where two exits are displayed on a Diagrammatic Advance guide sign, the control destination for the through route should be omitted from the sign.*
- *G. The distance legend should be placed below the exit destination legend. For splits where neither direction carries a through route, the distance legend should be centered below the diagrammatic arrow. Where successive exits from the same side of the roadway are displayed, the distance legend should be placed below the destination legend for the first exit, with the distance to the second exit omitted. Where successive exits from opposite sides of the roadway are displayed, the distance to the first exit should be centered below the diagrammatic arrow, with the distance to the second exit omitted.*

Standard:

05 **Diagrammatic Advance guide signs shall not be used at cloverleaf interchanges for the purpose of depicting separate downstream departures from a collector-distributor roadway.**

06 **Diagrammatic Advance guide signs located on the main roadway shall not be used to depict a downstream split of an exit ramp.**

Support:

07 Specific guidelines for more detailed design of Diagrammatic Advance guide signs are contained in the "Standard Highway Signs" publication (see Section 1A.05).

Option:

08 Where extra emphasis of an especially low advisory ramp speed is needed, an EXIT XX MPH (E13- 2) sign panel (see Figure 2E-14) may be placed below the applicable destination legend to supplement, but not to replace, the exit or ramp advisory speed warning signs.

09 Warning Beacons in compliance with the provisions of Section 2E.25 may be used with the E13-2 sign panel.

10 Diagrammatic Advance guide signs may be used on any class of roadway and may be modified to depict relative movements for intersections on conventional roads.

Section 2E.42 Signing for Intermediate and Minor Interchange Multi-Lane Exits with an Option Lane

Support:

01 Intermediate and minor multi-lane exits might have an operational need for the presence of an option lane for only the peak period during which excessive queues might otherwise develop if the option lane were not available. In such cases, the Overhead Arrow-per-Lane guide signing described for option lanes in Sections 2E.39 and 2E.40 might not be practical, depending on the level of use of the option lane and the spacing of nearby interchanges, particularly in non-rural areas.

Guidance:

02 *When full-width Overhead Arrow-per-Lane guide signing is not practical, as described in Paragraph 1 of this Section, signing for an intermediate or minor interchange that has a multi-lane exit with an option lane that also carries the through route should use a partial-width form of the Overhead Arrow-per-Lane guide sign (see Figures 2E-43 through 2E-45(CA)). The partial-width Overhead Arrow-per-Lane sign should display arrows only for the option lane and the mandatory exit lane(s) using the same bifurcated arrow type for the option lane and curved arrow type for the exit only lane(s) as are used for the full-width Overhead Arrow-per-Lane sign. The legend displayed for the exit movement should be clearly aligned with the arrows pointing in the direction of the exit and not with the vertical arrow head of the bifurcated arrow depicting the through movement.*

Standard:

03 **The through route and/or destination shall not be displayed on the partial-width Overhead Arrow-per-Lane guide sign.**

04 **Partial-width Overhead Arrow-per-Lane signs shall be located in compliance with the provisions of Section 2E.40 for full-width Overhead Arrow-per-Lane signs (see Figures 2E-44 and 2E- 45).**

Option:

05 At an intermediate or minor interchange that has a multi-lane exit with an option lane that also carries the through route, where full-width Overhead Arrow-per-Lane guide signing is not practical, conventional signing as provided in Paragraphs 7 through 9 of this Section may be used (see Figures 2E-46 and 2E-47).

06 When either full-width or partial-width Overhead Arrow-per-Lane signing is used at existing or non- reconstructed locations where an overhead Exit Direction sign exists at the theoretical gore, and the existing sign support structure is retained, an overhead Exit Direction sign may continue to be used on the existing sign support structure in conjunction with a replacement of the advance signs using the partial-width Overhead Arrow-per-Lane guide sign design (see Figure 2E-44).

Support:

06a Refer to FHWA's List of Known Errors for error in Paragraph 6 text. Refer to Section 1A.04 for more details.

Guidance:

07 *When conventional signing is used, the option lane should not be signed on the Interchange Advance guide signs. For such exits that involve the addition of an auxiliary lane that is not present at the Interchange Advance guide sign locations, but do not involve a lane drop (see Figure 2E-47), a sequence of post-mounted or overhead-mounted Interchange Advance guide signs should be used, located in accordance with the interchange classification (see Section 2E.11). The Exit Direction sign should be located at the theoretical gore and should display a diagonally upward-pointing directional arrow above each lane that departs from the mainline alignment. The Exit Direction sign should not contain the EXIT ONLY legend.*

08 *For such interchanges that also have a lane drop (see Figure 2E-46), the Interchange Advance guide and Exit Direction signs should follow the provisions of Section 2E.28. The Exit Direction sign should be located at the theoretical gore and should contain the EXIT ONLY (E11-1e) sign panel.*

09 *Where the modified Overhead Arrow-per-Lane guide signs are not used, the presence of the option lane should be conveyed by the use of post-mounted lane-use (R3-8 series) signs (see Section 2B.30). When used, the R3-8 signs should be of an appropriate size for their application to optimize their conspicuity. The signs should be located in succession with the Interchange Advance guide signs, where the option and exit lanes have developed (see Figure 2E-46). In cases where the exiting lane or lanes have not developed and the option lane is created by the addition of an auxiliary lane that exits, the R3-8 signs should be located only adjacent to where the lanes have been fully developed and not in*

advance of the lane or along its transition (see Figure 2E-47).

Support:

09a Refer to FHWA's List of Known Errors for error in Paragraph 9 text. Refer to Section 1A.04 for more details.

10 The use of a down arrow on overhead freeway or expressway guide signs has been shown to be misinterpreted by road users as an indication of a dedicated lane.

Standard:

11 **Interchange Advance guide signs that are mounted overhead shall not display a down arrow over an option lane.**

Section 2E.43 Number of Signs at an Overhead Installation and Sign Spreading

Guidance:

01 *If overhead signs are warranted, as set forth in Section 2A.13, 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 Interchange Advance Guide signs should have only one sign 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.*

Support:

01a Refer to FHWA's List of Known Errors for error in Paragraph 1 text. Refer to Section 1A.04 for more details.

Option:

02 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 crossroad has complex or unusual geometrics, additional signs with confirming messages may be provided to properly guide the road user.

Support:

03 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-48 illustrates an example of sign spreading.

Guidance:

04 *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 guide sign used in the vicinity of the gore (other than the Exit Gore sign). It should be located overhead near the theoretical gore and generally on an overhead sign support structure.

B. The Interchange Advance guide sign to indicate the next interchange exit should be placed near the crossroad location. If the crossroad goes over the mainline, the Interchange Advance guide sign should be placed on the overcrossing structure or on a separate structure immediately in front of the overcrossing structure.

Section 2E.44 Closely-Spaced Interchanges

Support:

01 Section 2E.43 contains information regarding sign spreading where the Exit Direction sign and the Interchange Advance guide sign for the next interchange are mounted overhead. Sign spreading is particularly beneficial where interchanges are closely spaced and overhead signing is used in conjunction with Interchange Sequence signs as provided in Paragraph 2 of this Section.

Guidance:

02 *Interchange Sequence signs (see Section 2E.24) 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-11.*

Standard:

03 **Interchange Advance guide signs for closely-spaced interchanges shall show information for only one interchange.**

Section 2E.45 Guide Signing in Tunnels and Similar Structures

Support:

01 The application of the provisions for freeway and expressway guide signs in tunnels and other similar structures can

present unique challenges not encountered elsewhere due to the extended and continuous distances of constrained vertical and horizontal clearances in which to place signs. The effect of these constraints is particularly evident when there are interchange exit ramps inside the tunnel that require guide signing. As a result, it might not always be possible to use the typical layouts for guide signs inside a tunnel. In addition, interchange guide signs might need to be limited to one destination only, with other destinations displayed separately on Supplemental guide signs (see Section 2E.51). Acceptable methods to modify the layout of a sign to fit the space available in a tunnel are provided in Paragraph 2 of this Section.

Option:

02 Overhead-mounted guide signs in tunnels, or in other similar structures with extended constrained vertical and horizontal clearances, may be modified in accordance with the following when needed to accommodate limited vertical clearance available for signs:

A. Some sign legend elements may be arranged side by side, such as by placing route shields to the left of the destination instead of above.
B. The Exit Number plaque (see Section 2E.22) may be placed at the right-hand edge of the sign for right exits or at the left-hand edge of the sign for left exits instead of at the top edge of the sign. The legend of the Exit Number plaque may use a reduced letter height of not less than 6 inches for the word EXIT(S) and not less than 12 inches for numerals and suffixes.
C. Destination and roadway names may be displayed in reduced letter heights of not less than 10.67 inches, when determined acceptable based on consideration of reduced speed and other relevant factors, while maintaining adequate space between the legend and edges of the sign to ensure legibility and quick recognition.
D. Unusually long destination and roadway names that cannot be adequately shortened or otherwise acceptably abbreviated may be displayed using Series D letters in lieu of Series E(modified).

Support:

02a Refer to FHWA's List of Known Errors for error in Paragraph 2, Item C text. Refer to Section 1A.04 for more details.

Standard:

03 **Applicability of the provisions of Paragraph 2 of this Section shall be limited to those signs within the limits of the tunnel or other similar structure and shall not be extended to the approaches to or departures from the tunnel.**

Support:

04 Unlike typical guide signs that are exposed to rain, guide signs in tunnels accumulate grime and residue quickly. This accumulation can reduce visual contrast between legend and background and reduce the retroreflectivity of the sign sheeting. Therefore, guide signs in tunnels generally need more maintenance.

Guidance:

05 *Overhead signs in tunnels should have external or internal sign illumination to ensure adequate visibility between scheduled maintenance and cleanings.*

06 *One or more Interchange Sequence signs (see Section 2E.24) should be used on the approach to the tunnel entrance to display the distances to the next interchanges that have exit ramps inside the tunnel or immediately following the end of the tunnel.*

07 *Supplementary pavement markings, such as word, arrow, and/or route shield markings, should be considered inside the tunnel in addition to the basic lane and edge line markings.*

OTHER GUIDE SIGNS

Section 2E.46 Next Exit Plaques (E2-1P and E2-1aP)

Option:

01 Where the distance to the next interchange is unusually long, a Next Exit (E2-1P or E2-1aP) plaque (see Figure 2E-49) may be installed to inform road users of the distance to the next interchange.

Guidance:

02 *The Next Exit plaque should not be used unless the distance between successive interchanges is more than 5 miles.*

03 *Where the Next Exit plaque is used, the E2-1P plaque should be used where the width of the Interchange Advance guide sign is equal to or greater than the width of the E2-1P plaque. The E2-1aP plaque should be used where the width of the E2-1P plaque exceeds the width of the Interchange Advance guide sign.*

Standard:

04 **The Next Exit plaque shall display the legend NEXT EXIT XX MILES. If the Next Exit plaque is used, it shall be placed below the Interchange Advance guide sign nearest the interchange. It shall be mounted so as to not adversely affect the breakaway feature of the sign support structure.**

Section 2E.47 Post-Interchange Signs

Guidance:

01 *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 500 feet 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 1,000 feet (see Figure 2E-2).*

02 *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:

03 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.48 Post-Interchange Distance Signs (E7-1 through E7-3)

Standard:

01 **If used, the Post-Interchange Distance sign (see Figure 2E-50) shall consist of a one-line, two- line, or three-line sign displaying 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.**

Support:

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

Option:

03 The text identification of a route may be displayed instead of a route shield, such as "U S XX," "[State abbreviation] XX" (such as "Del XX"), or "County XX."

Guidance:

04 *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:

05 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:

06 **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:

07 *Distances to the same destinations should not be shown more frequently than at 5-mile 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. The distance displayed for each community should comply with the provisions of Section 2D.43.*

Support:

08 Refer to Section 2D.43 for additional guidance on distance legends.

09 Refer to Section 2D.44 for additional guidance on the placement of distance signs.

Section 2E.49 Post-Interchange Travel Time Sign (E7-4)

Support:

01 At certain locations, it might be more meaningful to recurrent road users to display the travel time rather than the distance to a destination. Such instances might be areas of adverse roadway conditions due to weather, such as in mountain passes or high elevations, congestion that occurs during peak travel seasons, or recurring congestion.

02 Section 2E.50 contains information on Distance and Travel Time and Comparative Travel Time signs.

Standard:

03 **If used, the Post-Interchange Travel Time (E7-4) sign (see Figure 2E-51) shall replace of the Post-Interchange Distance sign in the series of post-interchange signs (see Section 2E.47).**

04 **The Post-Interchange Travel Time sign shall comply with the provisions of Paragraph 1 of Section 2E.47 with the following exceptions:**

A. The distance shall be replaced with a changeable message element to display the current travel time to the applicable destination; and

B. The abbreviation MINS shall follow the changeable message element.

Support:

04a Refer to FHWA's List of Known Errors for error in Paragraph 4 text. Refer to Section 1A.04 for more details.

Standard:

05 **Travel times shall not be used on Interchange guide signs (see Section 2E.21).**

Section 2E.50 Distance and Travel Time Sign (E7-5) and Comparative Travel Time Sign (E7-6)

Support:

01 Some locations might benefit from a travel time message displayed with the distance, or comparative travel times displayed for alternative routes to a common destination. These locations are often in advance of an urbanized area where interchanges become more closely spaced and/or in advance of a circumferential or other alternative route(s) where the road user can decide to divert depending on the destination. Nonetheless, these signs are typically located in advance of a decision point where the road user can divert to an alternate route to avoid recurring congestion.

02 Section 2E.49 contains information on Post-Interchange Travel Time signs.

03 Section 2G.19 contains information on Comparative Travel Time signs for parallel lanes within the same highway route, such as for general-purpose lanes and managed lanes.

Standard:

04 **The Distance and Travel Time (E7-5) sign (see Figure 2E-52) shall display a major destination, landmark, or junction; a distance message; and a travel time message, each on a separate line. The distance units shall be displayed in the distance message. The travel time shall be displayed in a changeable message element and the abbreviation MINS shall follow the changeable message element. The Distance and Travel Time sign shall not display distance and time to more than one destination or junction.**

05 **The Comparative Travel Time (E7-6) sign (see Figure 2E-52) shall display a major destination, landmark, or junction, and two alternative routes with travel time messages. Each alternative route and associated travel time message shall be on a separate line. The travel time shall be displayed in a changeable message element and the abbreviation MINS shall follow the changeable message element.**

06 **Comparative travel times shall not be used to promote different modes of travel, such as personal vehicle highway travel compared with transit, or different forms of transit.**

Guidance:

07 *Where used, the Distance and Travel Time sign should be located between interchanges and away from the sequence of interchange guide signs or other major signs.*

08 *Where used, the Comparative Travel Time sign should be located in advance of the sequence of interchange guide signs to provide adequate time for the road user to decide whether to reroute.*

Section 2E.51 Supplemental Guide Signs (E3 Series)

Support:

01 Supplemental guide signs (see Figure 2E-53) can be used to provide information regarding destinations accessible from an interchange, other than places displayed 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.

Guidance:

02 *Use of Supplemental guide signs should be limited to situations where there is a demonstrated need to sign for more destinations from an interchange than those that are displayed on the Interchange Advance guide and Exit Direction signs.*

03 *A Supplemental guide sign should not be installed unless a destination meets the criteria established by the State or agency policy. States and other agencies should adopt an appropriate policy for installing Supplemental guide 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.*

04 *No more than one Supplemental guide sign should be used on each interchange approach.*

05 *A Supplemental guide sign should display no more than two destinations and no more than three lines of destination names. 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.*

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

07 *A Supplemental guide sign should not be installed in the same location with or where it will detract from guide signs for a different interchange.*

Support:

07a Refer to Section 2D.36 and Table 2D-101(CA) for additional guidance and specific criteria regarding Supplemental guide signs.

Standard:

08 **No more than two supplemental traffic generator destinations shall be signed from a single interchange approach and four from a single interchange along the main roadway (see Paragraphs 4 and 5 of this Section regarding the number of Supplemental guide signs at an interchange and the number of destinations displayed on a Supplemental guide sign).**

09 **Supplemental guide signs shall not be placed at the same location as Interchange Advance guide, Exit Direction, or other signs related to an exit or interchange.**

10 **Guide signs for park-and-ride facilities shall be considered as Supplemental guide signs (see Figure 2E-54 and Figure 2E-54(CA)).**

11 **Guide signs for recreational or cultural interest destinations (see Chapter 2M) shall be considered as Supplemental guide signs, except where the interchange provides direct access to such a destination and the destination is instead displayed on the Interchange Advance guide and Exit Direction signs.**

Option:

12 The pictograph of a transit provider (see definition in Section 1C.02) may be displayed on the Park – Ride Supplemental guide sign or on a Supplemental guide sign for a transit facility.

Guidance:

13 *The use of a transit pictograph and/or the carpool symbol on the PARK – RIDE Supplemental guide sign should comply with the provisions of Paragraph 5 of Section 2D.48.*

Standard:

14 **When a transit pictograph is displayed on the PARK – RIDE Supplemental guide sign, it shall be located on the same line as the carpool symbol, if used, above the word legend.**

15 **The maximum dimension (height or width) of a pictograph on a sign shall not exceed two times the upper-case letter height of the destination or PARK – RIDE legend.**

Option:

16 The PARK - RIDE (G95eP(CA)) plaque (refer to Figure 2E-54(CA)) may be installed below the Advance Guide (G83(CA) Series) signs on freeways and expressways to direct motorists to ridesharing parking lots.

17 The PARK - RIDE Supplemental Guide (G95A-1(CA)) sign (refer to Figure 2E-54(CA)) may be installed separately on freeways and expressways when it is not possible to use the G95eP(CA) plaque.

Standard:

18 **The following criteria shall be met for a privately owned facility to qualify for Park and Ride signing:**

- **A. The parking area must have reasonably convenient access to the major transportation facility it is intended to serve.**
- **B. The Park and Ride Facility must be accessible 24 hours a day, 7 days a week.**
- **C. A minimum of 50 parking spaces must be contributed.**
- **D. If needed, "Follow-Up" signing shall be provided between the exit point of the major transportation system and the Park and Ride facility by placing a PARK - RIDE (D4-2) sign at appropriate locations prior to the installation of the G95A-1(CA) sign on the major transportation system.**

Option:

19 The BUS SERVICE (G95dP(CA)) plaque (refer to Figure 2E-54(CA)) may be installed below the G95A-1(CA) sign at locations where bus service is available at a specific Park and Ride facility.

Guidance:

20 *If both transit and carpool parking are available, the local transit logo or symbol should be displayed to the left of the standard carpool symbol. If only transit parking is available, the local transit symbol or logo should be used in lieu of the carpool symbol.*

Option:

21 A Park and Ride supplemental destination guide sign may be formatted and combined with another supplemental destination guide sign on the same panel. The PARK - RIDE legend should appear at the top, separated by a horizontal white line, and both destinations must reference the same exit number or turn.

22 Supplemental guide signs may be omitted at low-traffic-volume interchanges or at major interchanges spaced 0.5 miles or less apart. Additionally, they may be omitted at interchanges 1 mile or less apart where Interchange Sequence signs are installed.

Section 2E.52 Community Interchanges Identification Signs (E9-4 and E9-5)

Support:

01 For suburban or rural communities served by two or three interchanges, Community Interchanges Identification (E9-4 and E9-5) signs (see Figure 2E-55) reduce the amount of information displayed on the Interchange Advance guide and Exit Direction signs by eliminating repetition of the same destinations for separate interchanges.

Guidance:

02 *In these cases, the name of the community followed by the word EXITS should be displayed on the top line; the lines below should display the destination, road name or route number, and the corresponding distances to the nearest ¼ mile.*

03 *The sign should be located in advance of the first Interchange Advance guide sign for the first interchange within the community (see Figure 2E-56).*

04 *The legend displayed on the Interchange Advance guide and Exit Direction signs for each interchange should be consistent with the interchange names displayed on the Community Interchanges Identification sign. The name of the community displayed on the Community Interchanges Identification signs should be omitted from the legends of the Interchange Advance guide and Exit Direction signs.*

Option:

05 If interchanges are not conveniently identifiable or if there are more than three interchanges to be identified, the Next Exits sign (see Section 2E.53) may be used.

Section 2E.53 Next Exits Signs (E9-3 and E9-3a)

Support:

01 Many freeways or expressways pass through historical or recreational regions, or urban areas served by a succession of several interchanges.

Option:

02 Such regions or areas may be indicated by a Next Exits (E9-3 or E9-3a) sign (see Figure 2E-57) located in advance of the Advance guide sign or signs for the first interchange.

Guidance:

03 *The sign legend should identify the region or area followed by the words NEXT XX EXITS.*

04 *The legend displayed on the Interchange Advance guide and Exit Direction signs for each interchange should not display the region or area name that is displayed on the Next Exits sign (see Figure 2E-58).*

Section 2E.54 Weigh Station Signing

Support:

01 Independent facilities or areas have been added along many highways where certain commercial vehicles are directed to stop to be weighed or inspected. These areas are sometimes permanent, such as in a roadside area, or temporary mobile facilities deployed along the roadway.

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

Standard:

03 **The standard sequence of signs for a Weigh Station on an expressway or freeway shall include four basic signs (see Figure 2E-59):**

- **A. An Advance Weigh Station Distance (D8-1) sign with the distance 1 MILE displayed,**
- **B. An Advance Weigh Station Distance (D8-1) sign with the distance ½ MILE displayed, or a Weigh Station Advance Direction (D8-2) sign,**
- **C. A Weigh Station Entrance Direction (D8-3) sign, and**
- **D. A Weigh Station Gore sign (with the same legend as the Entrance Direction (D8-3) sign).**

Option:

04 When spacing of 1 mile and ½ mile are not practical for the D8-1 signs, the 1 MILE and ½ MILE distances on the D8-1 signs may be adjusted to match the spacing determined by engineering judgment.

05 ~~Where State law requires trucks of a certain weight to enter the weigh station, a Weigh Station (R13-1) regulatory sign (see Section 2B.65) may be added to the sign sequence as shown in Figure 2E-59.~~

06 Where only commercial vehicle inspections are conducted in the inspection area and vehicles are not weighed, the WEIGH STATION legend of the D8 series signs may be replaced with the alternate legend, COMMERCIAL VEHICLE INSPECTION AREA.

Standard:

07 ~~**When the WEIGH STATION legend of the D8 series signs is replaced with COMMERCIAL VEHICLE INSPECTION AREA legend as provided for in Paragraph 6 of this Section, the WEIGH STATION legend of the R13-1 sign shall be replaced with the alternate legend INSPECTION AREA.**~~

08 **A changeable legend display that displays either OPEN or CLOSED shall be included in the signing sequence to indicate when trucks are required to enter the weigh station.**

Guidance:

09 *The required changeable legend display OPEN or CLOSED describe in Paragraph 8 of this Section should be displayed within and at the bottom of the Weigh Station Advance Direction (D8-2) sign or the Advance Weigh Station Distance (D8-1) sign, or on a supplemental plaque or sign panel.*

Option:

10 A plaque with the legend OPEN WHEN FLASHING may be added to one of the Advance Weigh Station Distance signs along with associated flashing beacons, in place of the changeable legend OPEN or CLOSED sign, to indicate when commercial vehicles are required to enter the weigh station.

Support:

11 Weigh Station Area sign layouts for freeway and expressway applications are shown in the "Standard Highway Signs" publication (see Section 1A.05). An example of weigh station signing for use on freeways and expressways is

shown in Figure 2E-59.

Section 2E.55 Route Signs and Trailblazer Assemblies

Guidance:

01 *Route signs (see Figure ~~2E-60~~ 2D-4 and Figure 2D-4(CA)) 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.*

02 *Route signs and auxiliary plaques 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 36 x 36-inch minimum size for route numbers with one or two digits and to a 45 x 36-inch minimum size for route numbers with three digits as shown in the "Standard Highway Signs" publication (see Section 1A.05). When independently-mounted Route signs are used in place of Pull-Through signs (see Section 2E.27), they should be located just beyond the exit.*

Option:

03 The standard Trailblazer Assembly (see Section 2D.34) may be used on roads leading to the freeway or expressway. Component messages of the Trailblazer Assembly may be incorporated into a single sign in accordance with the provisions of Section 2D.12. Independently-mounted Route signs may be used instead of Pull-Through signs as confirmation information.

Support:

04 Section 2D.58 contains information regarding the design of signs for Auto Tour Routes.

Option:

05 The commonly-used name or trailblazer route sign for a toll highway (see Chapter 2F) may be displayed on non-toll 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 highway, whether or not the toll highway is a part of the Interstate Highway System; and
C. Other locations within a reasonable approach distance of toll highways when the name or trailblazer symbol for the toll highway would provide better guidance to road users unfamiliar with the area than would place names and route numbers.

06 The toll highway name or route sign 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 highway that is part of the Interstate Highway System may be displayed with the Interstate Trailblazer Assembly.

Support:

07 Chapter 2F contains additional information regarding signing for toll highways.

Section 2E.56 Eisenhower Interstate System Signs (M1-10 ~~and M1-10a~~)

Option:

01 The Eisenhower Interstate System (M1-10 ~~and M1-10a~~) signs (see Figure 2E-61) may be used, in accordance with Paragraphs 2 and 3 of this Section, on Interstate highways at periodic intervals and in rest areas, scenic overlooks, or other similar roadside facilities on the Interstate Highway System.

Standard:

02 **If used, the ~~M1-10a~~ M1-10 sign shall be used only in rest areas or other similar facilities where the sign can be viewed by occupants of parked vehicles or by pedestrians. The ~~M1-10a~~ M1-10 sign shall not be installed on Interstate highway mainlines, ramps, or other roadways where it can be viewed by vehicular traffic.**

03 **The M1-10 ~~and M1-10a~~ signs shall not be used as part of a Junction, Advance Route Turn, Directional, or Trailblazer Assembly, or as part of a guide sign or similar assembly providing direction to a route or destination.**

SIGNS FOR ROUTE DIVERSION BY VEHICLE CLASS

Section 2E.57 Signs for Route Diversion by Vehicle Class

Support:

01 On some highways, a physical condition or highway feature might limit certain types or classes of vehicles from proceeding along that route through the site of that condition beyond which those vehicles are otherwise allowed. Examples include, but are not limited to, a restriction on taller legal-height vehicles through a tunnel with a low clearance; a restriction of hazardous materials through a tunnel or over a bridge; and a restriction on wider vehicles, such as large trucks, over a viaduct with narrow lanes. In such cases, the restricted vehicles might be diverted along another route to reach a destination beyond the location of the limiting condition.

Guidance:

02 *Where certain vehicles are prohibited at a downstream location along a route and those vehicles must divert to reach a through destination beyond that location, regulatory, warning, and/or guide signs advising those vehicle operators of the diversion should be installed in advance of the decision point to leave the through route for the diversion route.*

Option:

03 The interchange and pull-through guide signs for the last point at which restricted vehicles must exit may be modified to incorporate regulatory and/or warning panels with word legends to display the regulations and/or warning messages relative to the vehicle class restriction.

04 Standard post-mounted regulatory and warning signs, such as the No Hazardous Materials (R14-3) or Advance Low Clearance (W12-2) signs, may be used as provided elsewhere in this Manual at independent locations to supplement the regulatory and warning signs and panels referenced in Paragraphs 2 and 3 of this Section.

Support:

05 An example of signing for a route diversion by vehicle class is shown in Figure 2E-62.

INTERFACE WITH CONVENTIONAL ROADWAYS

Section 2E.58 Signing on Conventional Road Approaches and Connecting Roadways

Support:

01 Section 2D.49 contains information regarding the signing on conventional roads on the approaches to interchanges and the signing on connecting roadways.

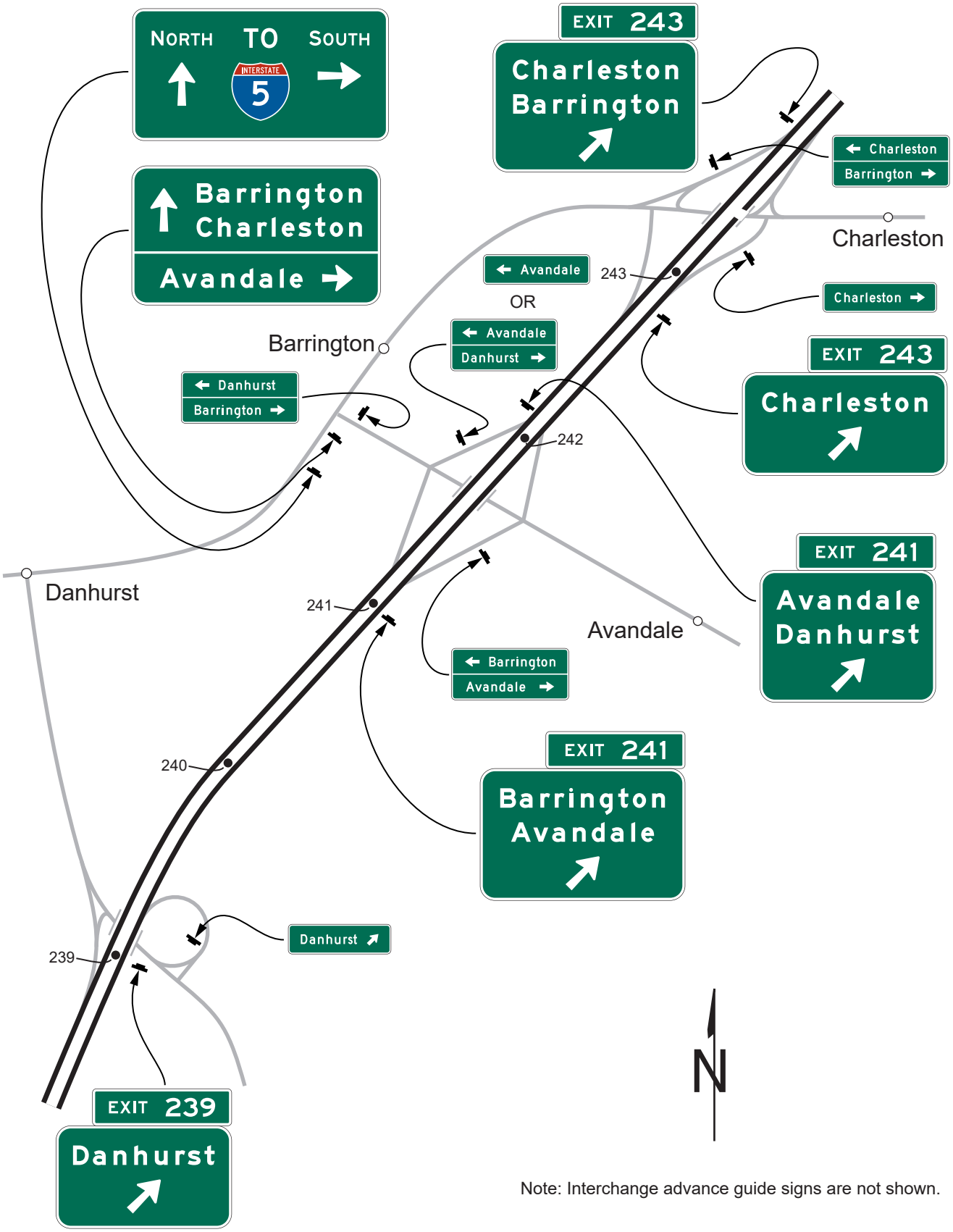
Section 2E.59 Wrong-Way Traffic Control at Interchange Ramps

Support:

01 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.

02 Section 2D.50 contains information regarding the use of a Directional assembly or a guide sign to mark the entrance to a freeway or expressway from a conventional road.

Figure 2E-1. Designation of Destination for Interchanges in Opposing Directions of Travel



Note: Interchange advance guide signs are not shown.

Figure 2E-2. Typical Sequence of Interchange Guide Signs

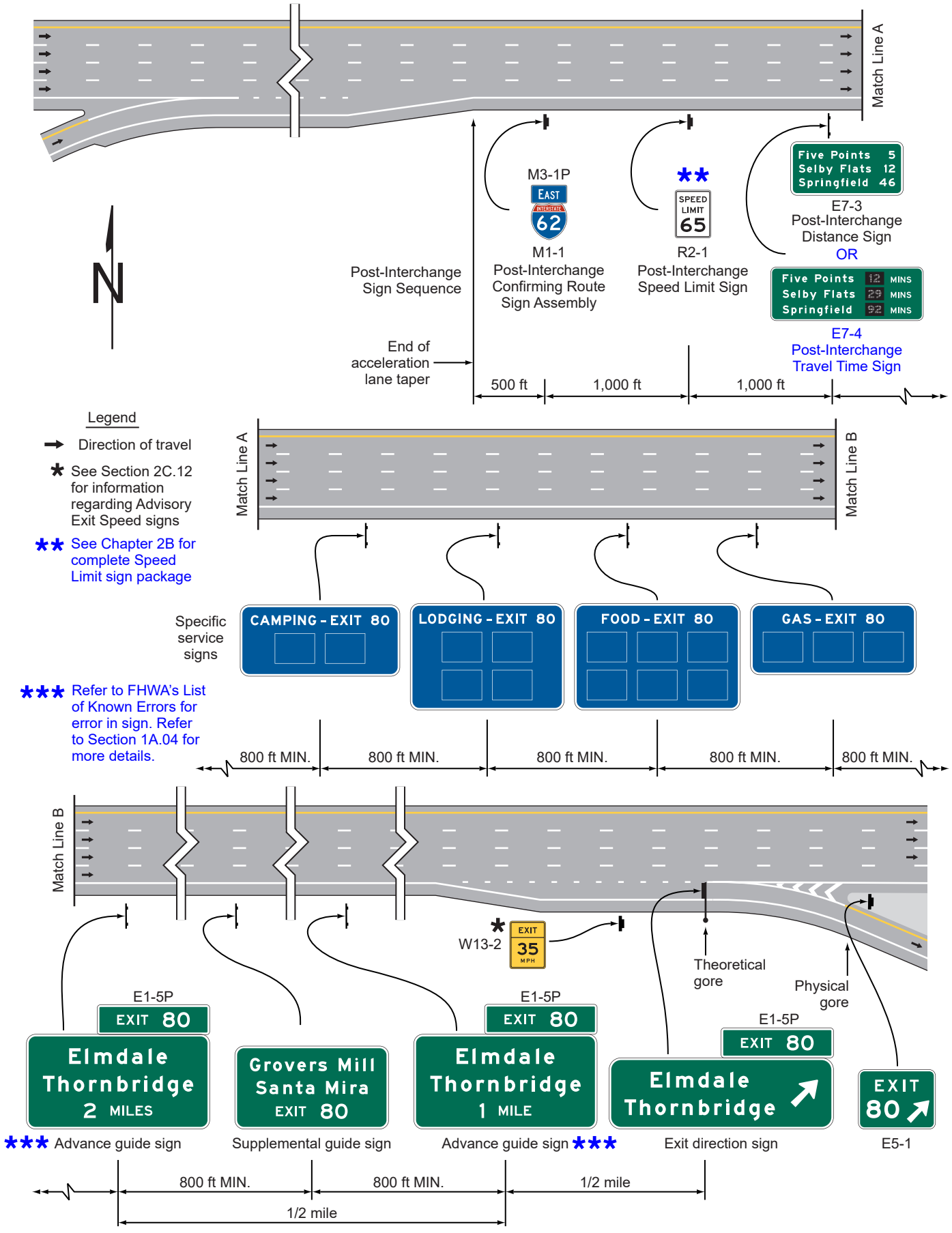
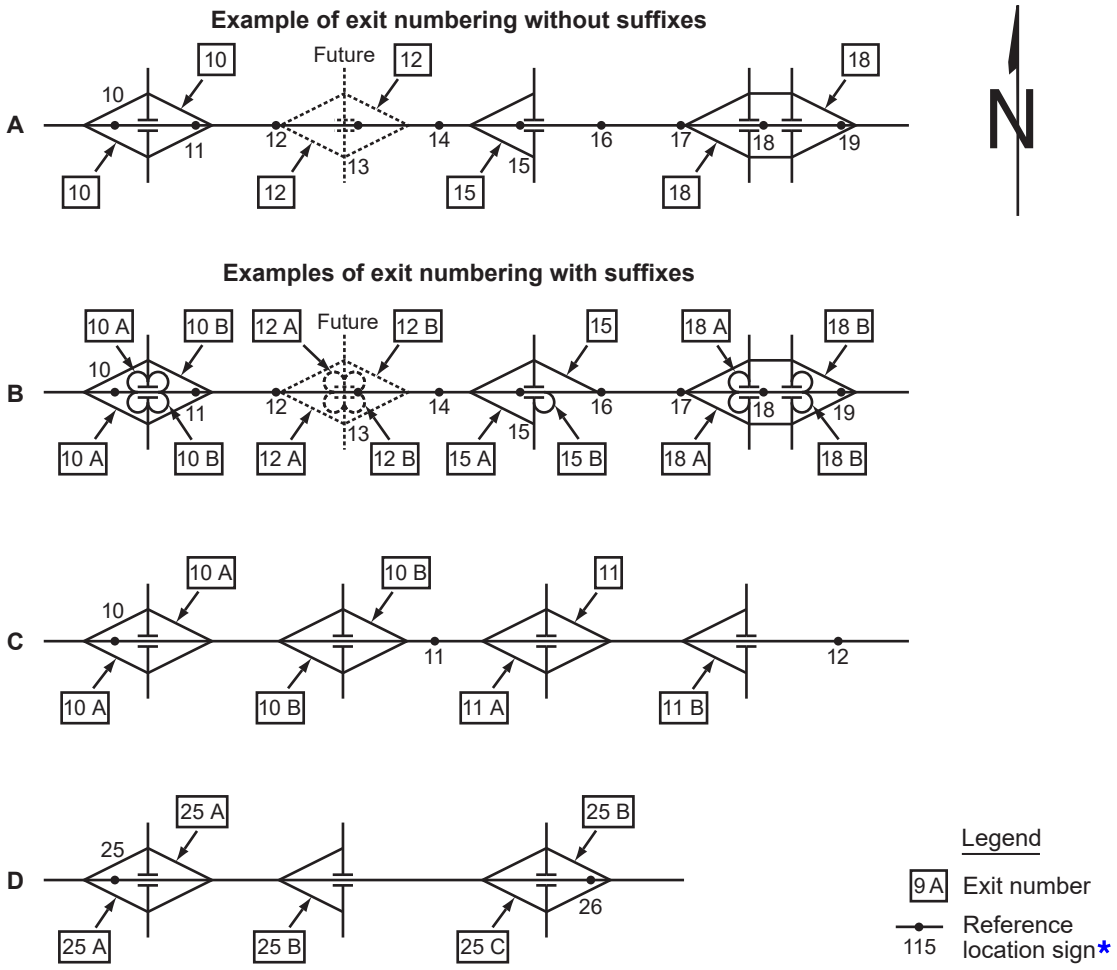


Figure 2E-3. Examples of Interchange Exit Numbering



Note: See California Numbered Exit Uniform System (Cal-NExUS) for information on interchange exit numbering in California.

* Refer to FHWA's List of Known Errors for error in Legend text. Refer to Section 1A.04 for more details.

Figure 2E-4. Example of Interstate Loops and Spurs

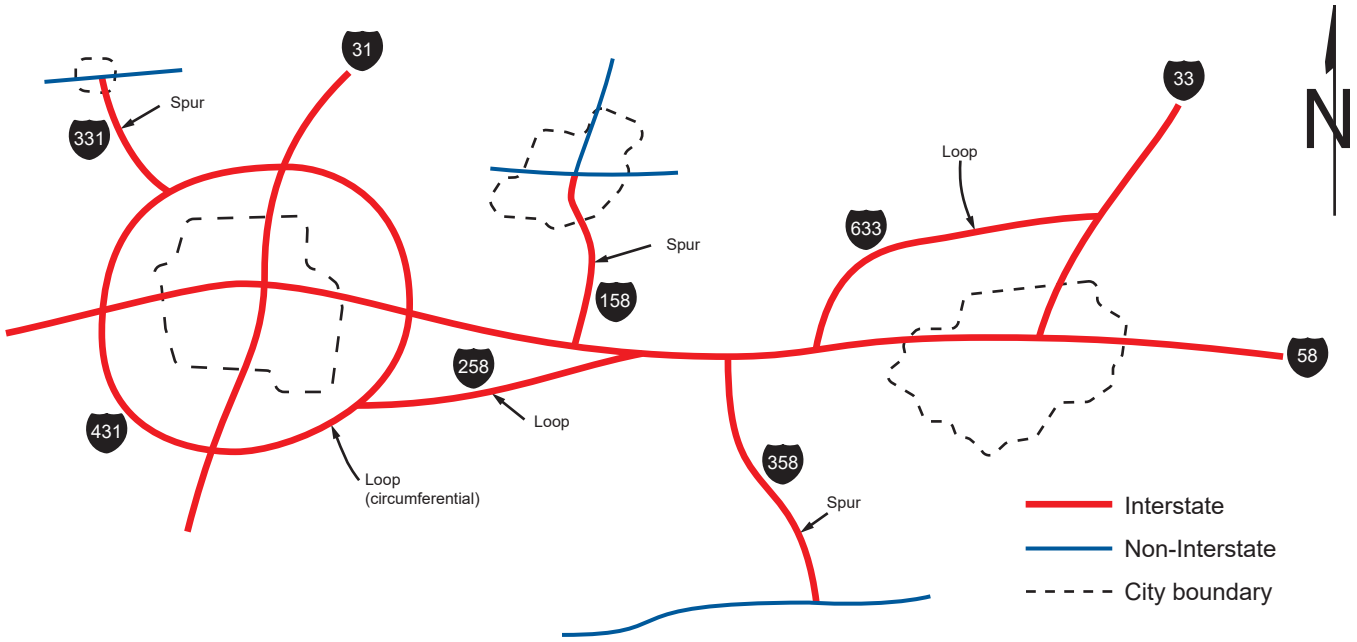
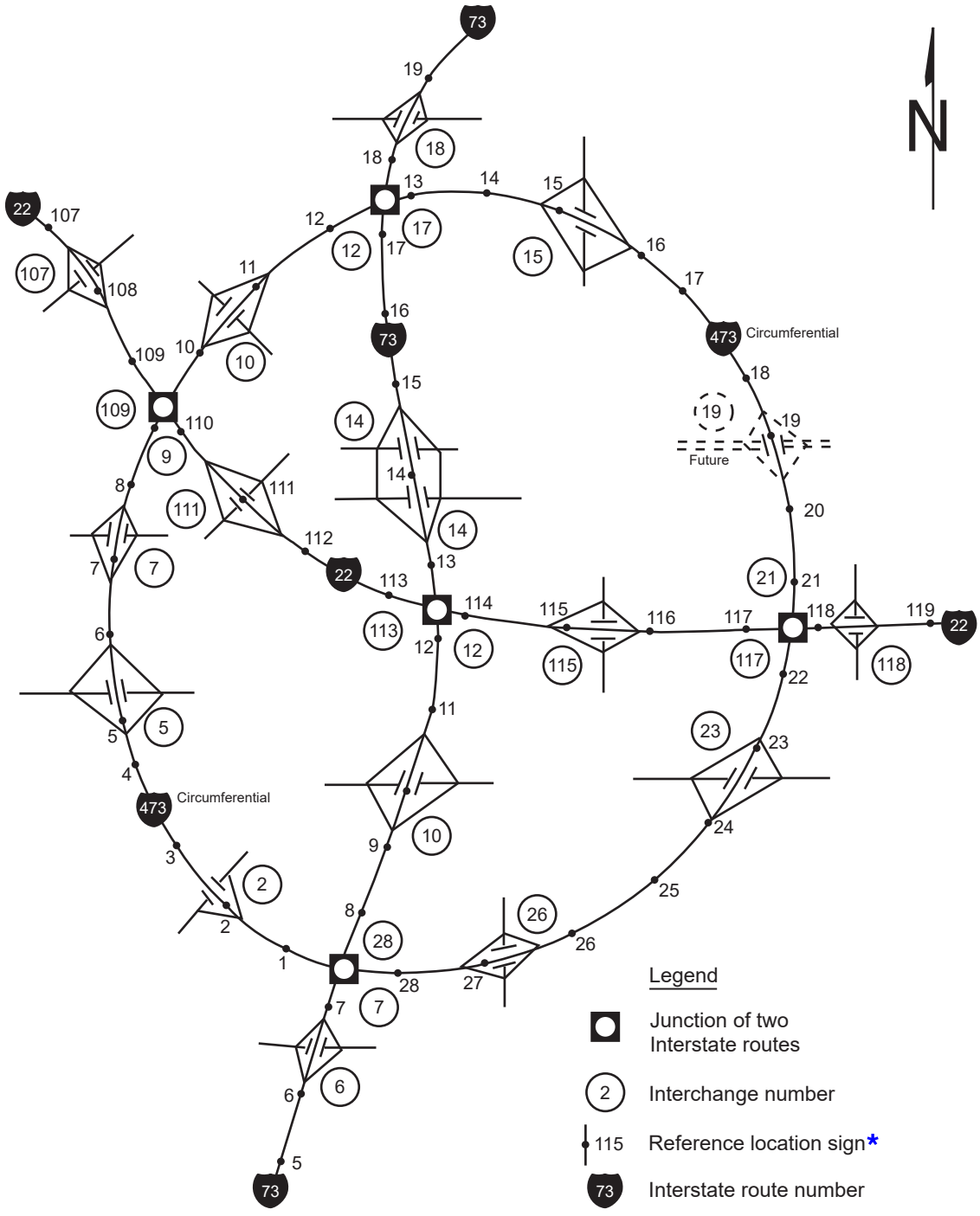


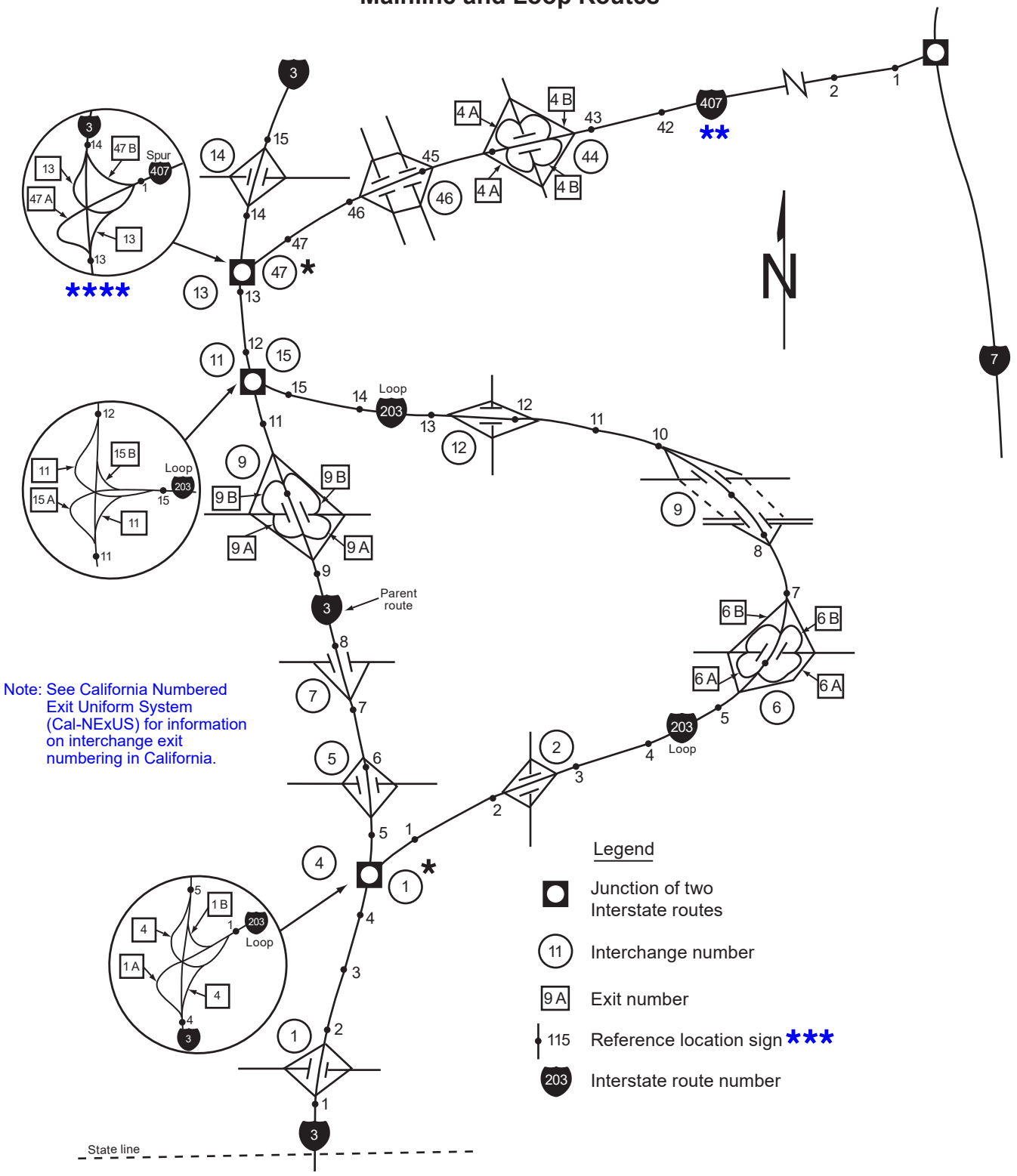
Figure 2E-5. Example of Interchange Numbering for Mainline and Circumferential Routes



Note: See California Numbered Exit Uniform System (Cal-NExUS) for information on interchange exit numbering in California.

* Refer to FHWA's List of Known Errors for error in Legend text. Refer to Section 1A.04 for more details.

Figure 2E-6. Example of Interchange Numbering for Mainline and Loop Routes



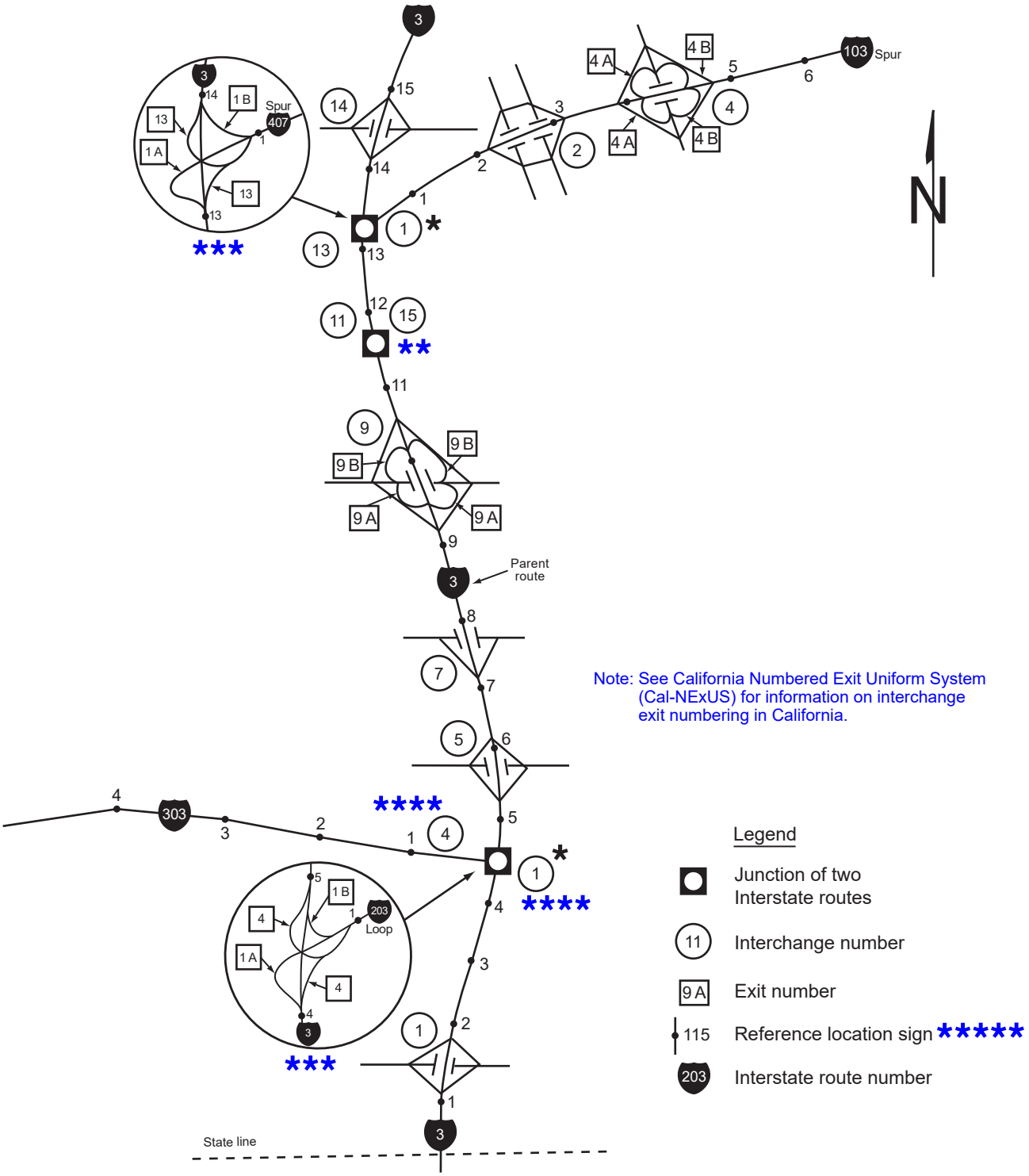
* The freeway/freeway interchange where the beginning of the loop or spur route intersects with the mainline route may be called either Exit 1 or Exit 0 on the loop or spur route.

** Refer to FHWA's List of Known Errors for error in reference location numbers and associated interchange and exit numbers. Refer to Section 1A.04 for more details.

*** Refer to FHWA's List of Known Errors for error in Legend text. Refer to Section 1A.04 for more details.

**** Refer to FHWA's List of Known Errors for error in inset. Refer to Section 1A.04 for more details.

Figure 2E-7. Example of Interchange Numbering for Mainline and Spur Routes



* The freeway/freeway interchange where the beginning of the loop or spur route intersects with the mainline route may be called either Exit 1 or Exit 0 on the loop or spur route.

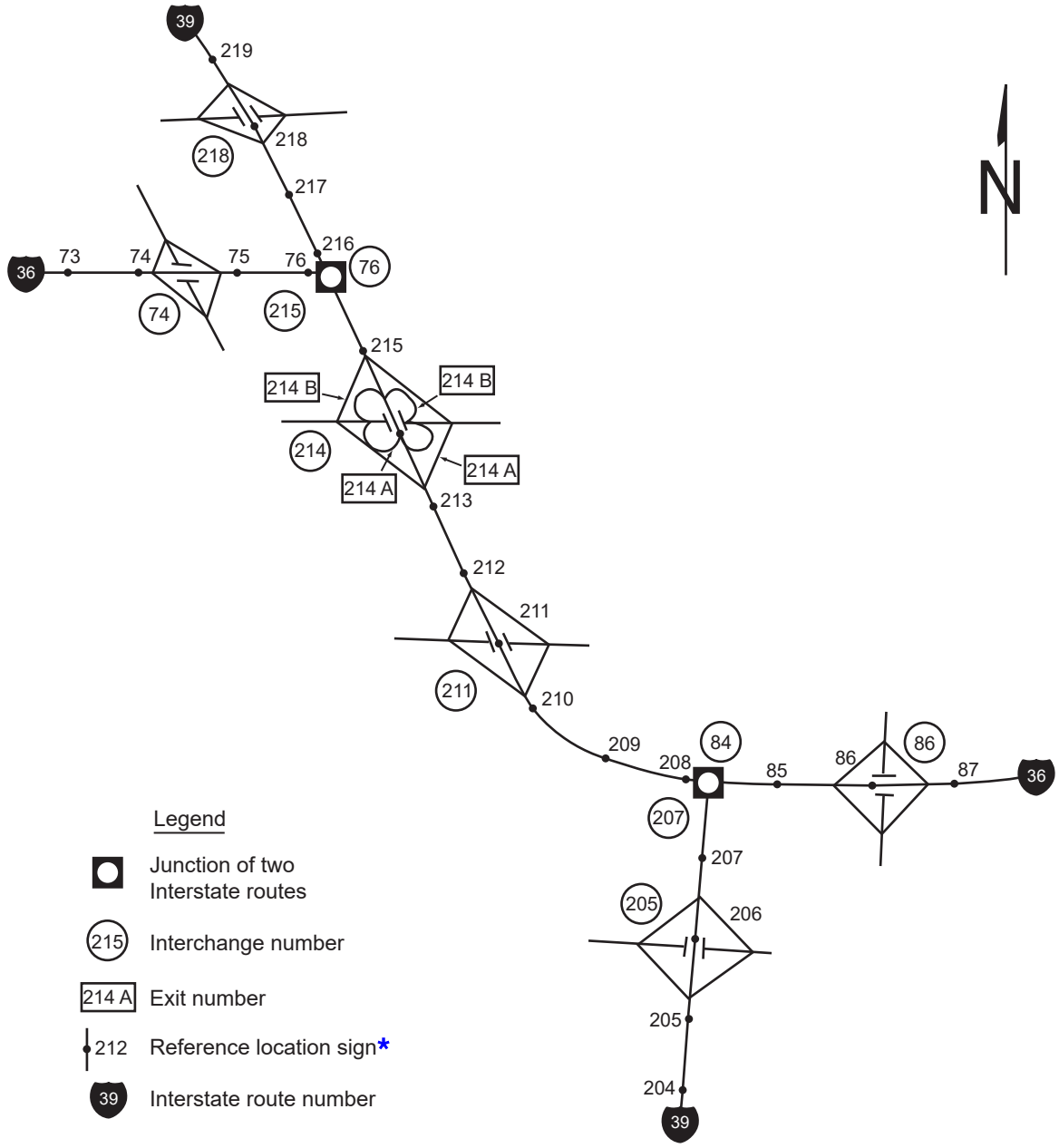
** Refer to FHWA's List of Known Errors for errors. Refer to Section 1A.04 for more details.

*** Refer to FHWA's List of Known Errors for errors in insets. Refer to Section 1A.04 for more details.

**** Refer to FHWA's List of Known Errors for errors in Interchange numbers. Refer to Section 1A.04 for more details.

***** Refer to FHWA's List of Known Errors for errors in Legend text. Refer to Section 1A.04 for more details.

Figure 2E-8. Example of Interchange Numbering for Overlapping Routes



Note: See California Numbered Exit Uniform System (Cal-NExUS) for information on interchange exit numbering in California.

* Refer to FHWA's List of Known Errors for error in Legend text. Refer to Section 1A.04 for more details.

Figure 2E-9. Examples of Interchange Advance Guide Signs, Exit Number Plaques, and LEFT Plaque





Notes:

1. Delete word EXIT(S) if exit number is used.
2. The cardinal direction should be placed adjacent to the route shield for exits or splits that serve a single direction of travel.







E1-5P



E1-5aP



E1-5bP



E1-5cP



E1-5dP



E1-5eP



E1-5fP



E1-5gP



E1-5hP



E1-5iP



E1-5jP

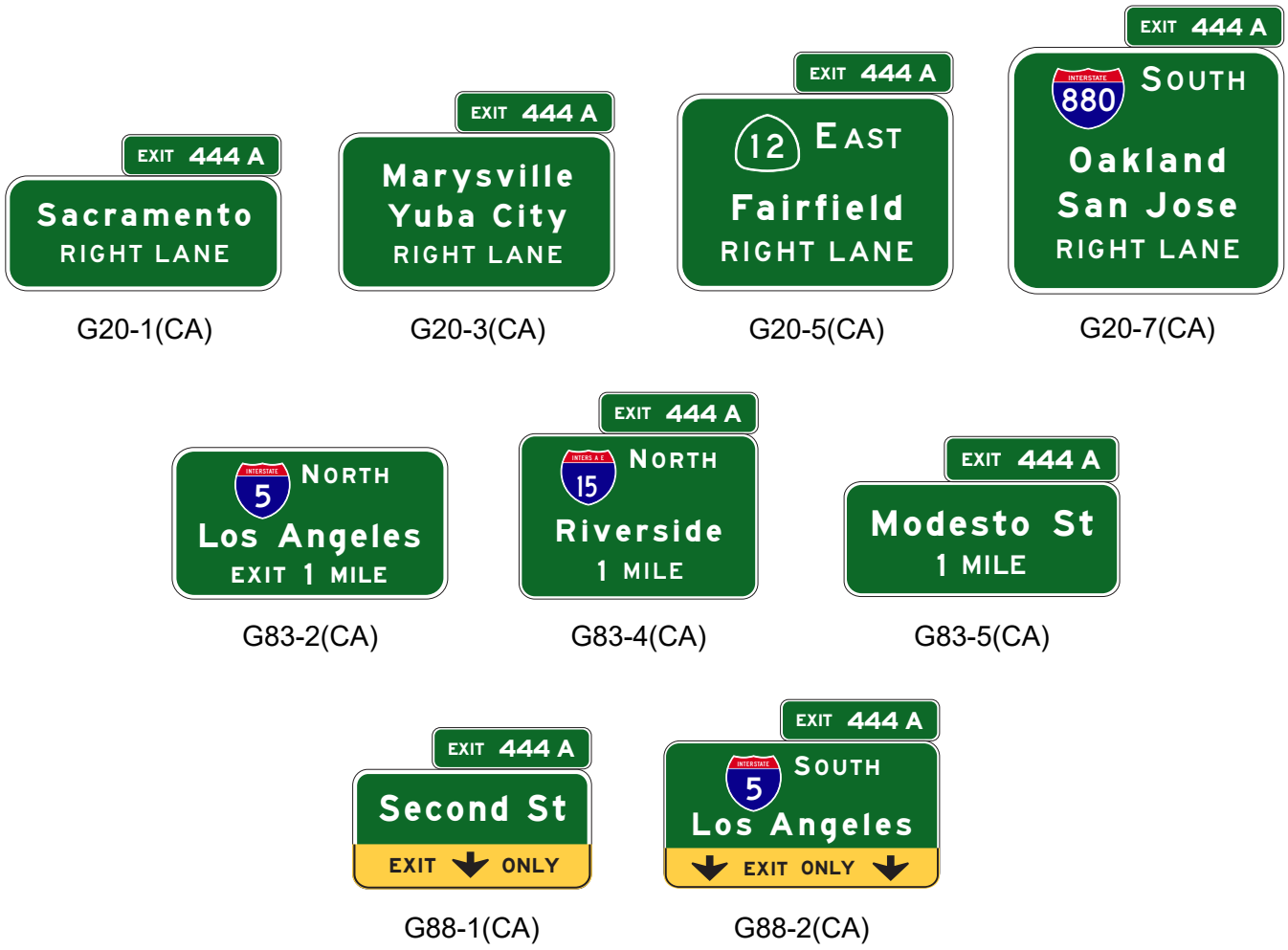


E1-5kP



E1-5mP

Figure 2E-9(CA). California Examples of Interchange Advance Guide Signs, Exit Number Plaques, and LEFT Plaque



Note: Where exit numbering is used, signs must include the appropriate Exit Number or LEFT Exit Number plaque (refer to Figure 2E-9).

Figure 2E-10. Example of an Interchange Sequence Sign



E9-2

Figure 2E-10(CA). California Example of an Interchange Sequence Sign



G23-6(CA)

Figure 2E-11. Example of Using a Series of Interchange Sequence Signs for Closely-Spaced Interchanges

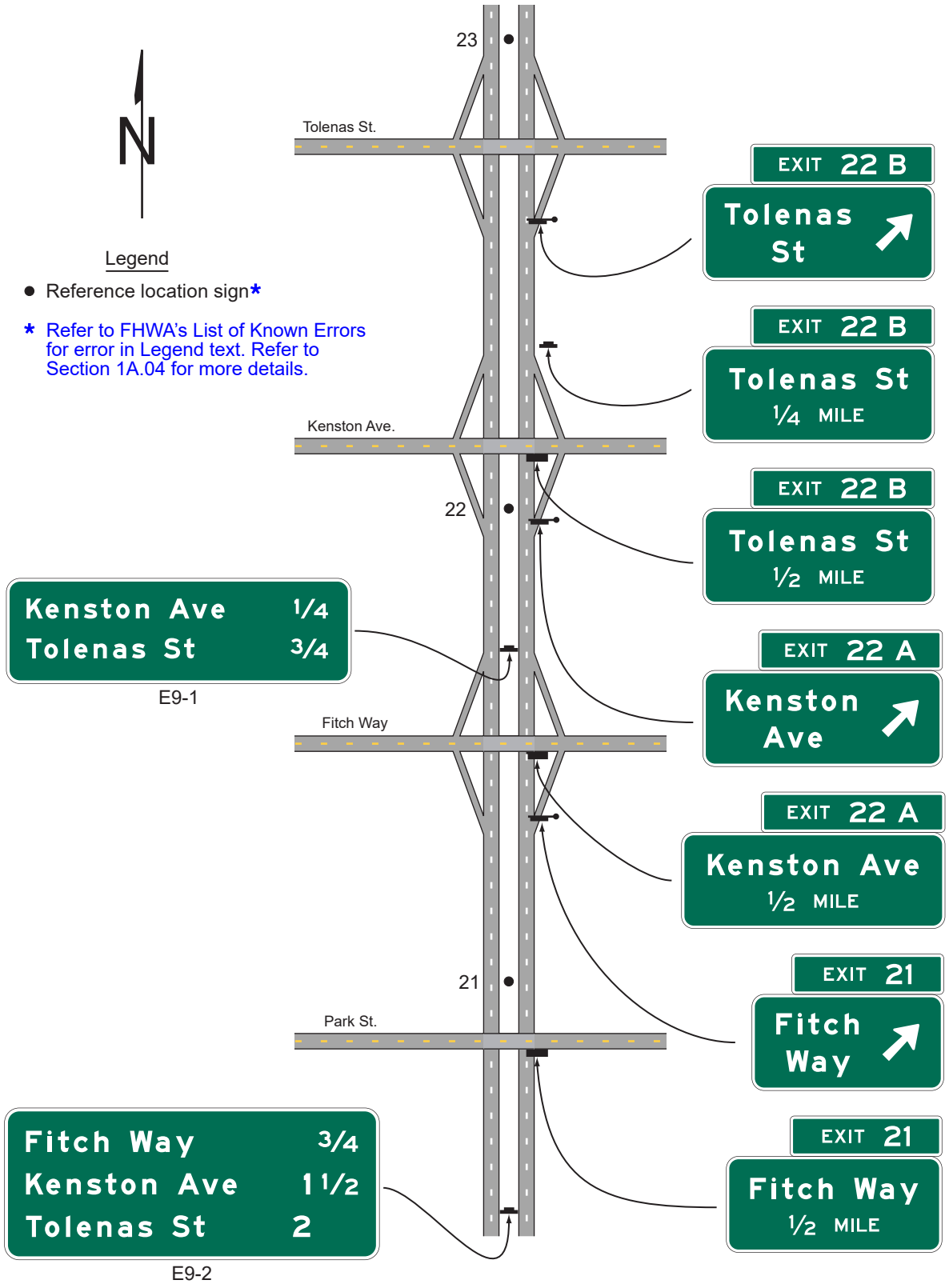
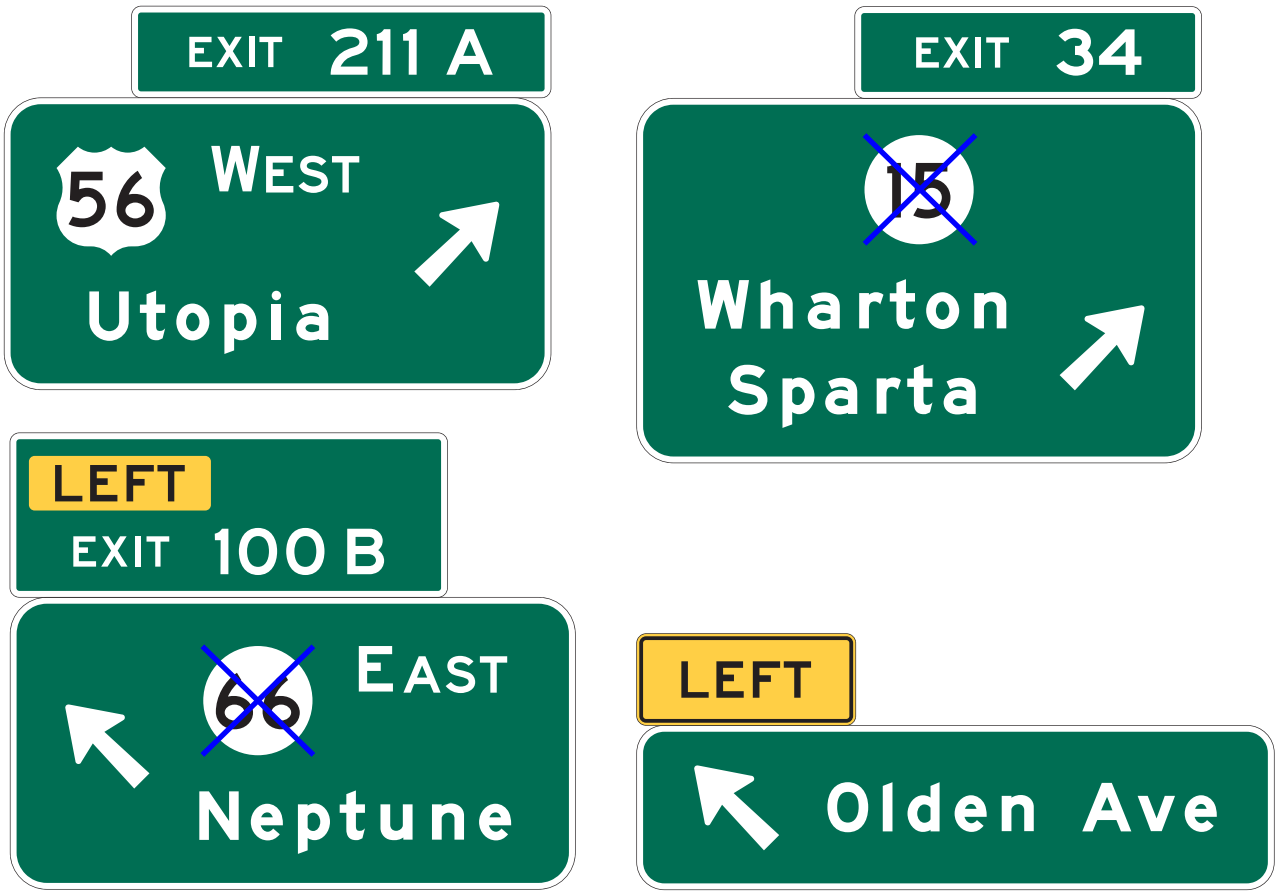


Figure 2E-12. Examples of Exit Direction Signs



Note: Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker

Figure 2E-12(CA). California Examples of Interchange Exit Direction Signs



G85-2(CA)



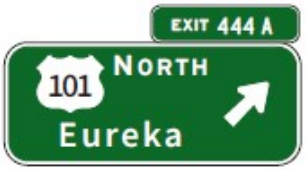
G85-3(CA)



G85-4(CA)



G85-5(CA)



G85-6(CA)



G85-11(CA)



G88-13(CA)



G88-14(CA)

Note: Where exit numbering is used, signs must include the appropriate Exit Number or LEFT Exit Number plaque (refer to Figure 2E-9).

Figure 2E-13. Exit Direction Sign Placement

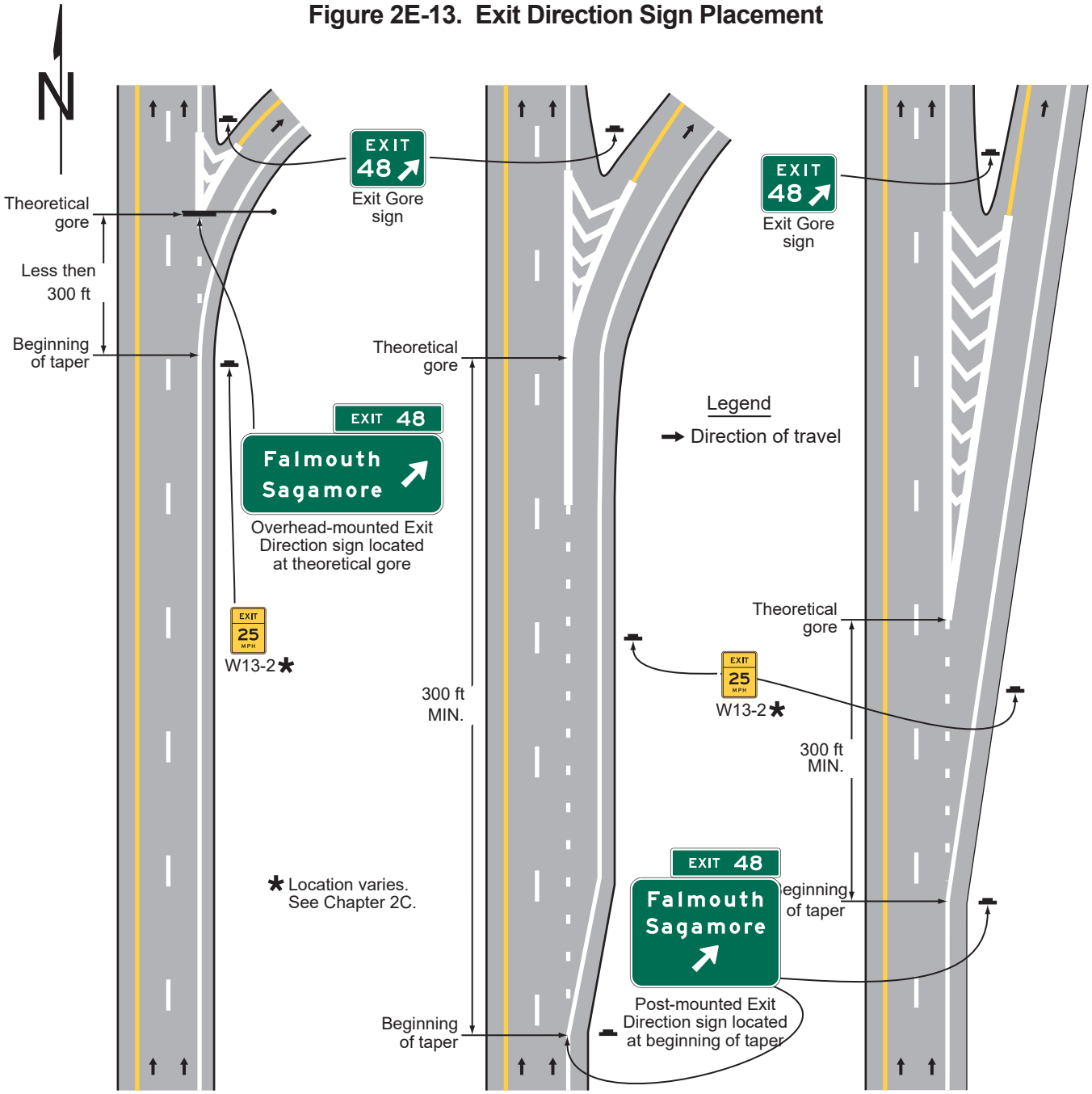
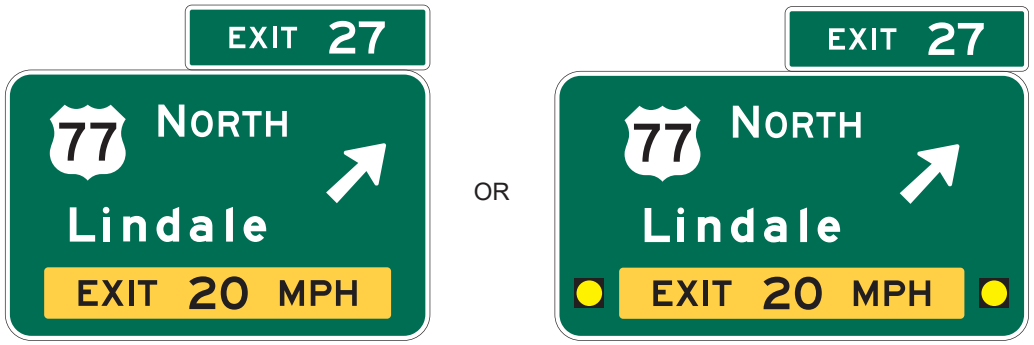


Figure 2E-14. Examples of Exit Direction Signs with Advisory Speed Panels and Flashing Yellow Beacons



Exit Direction sign with E13-2 sign panel

Exit Direction sign with E13-2 sign panel and flashing yellow beacons

Note: "RAMP" may be used in place of "EXIT" on the E13-2 sign panel, where applicable.

Figure 2E-15. Exit Gore Signs and Plaques

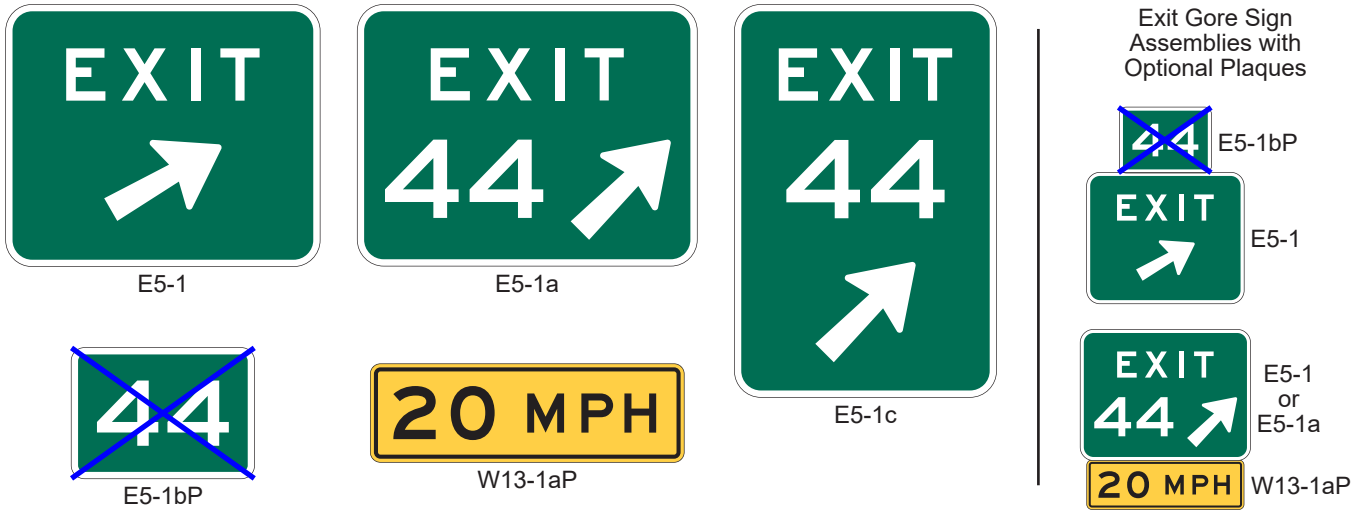


Figure 2E-16. Examples of Pull-Through Signs



E6-1



E6-1a

Note: The E6-2 and E6-2a sign designs correspond to the E6-1 and E6-1a sign designs, respectively, but with the addition of a down arrow on each.

Figure 2E-16(CA). California Examples of Pull-Through Signs



G24-1(CA)



G24-3(CA)



G24-4(CA)



G24-5(CA)



G24-6(CA)



G24-7(CA)

Figure 2E-17. EXIT ONLY and LEFT Sign Panels

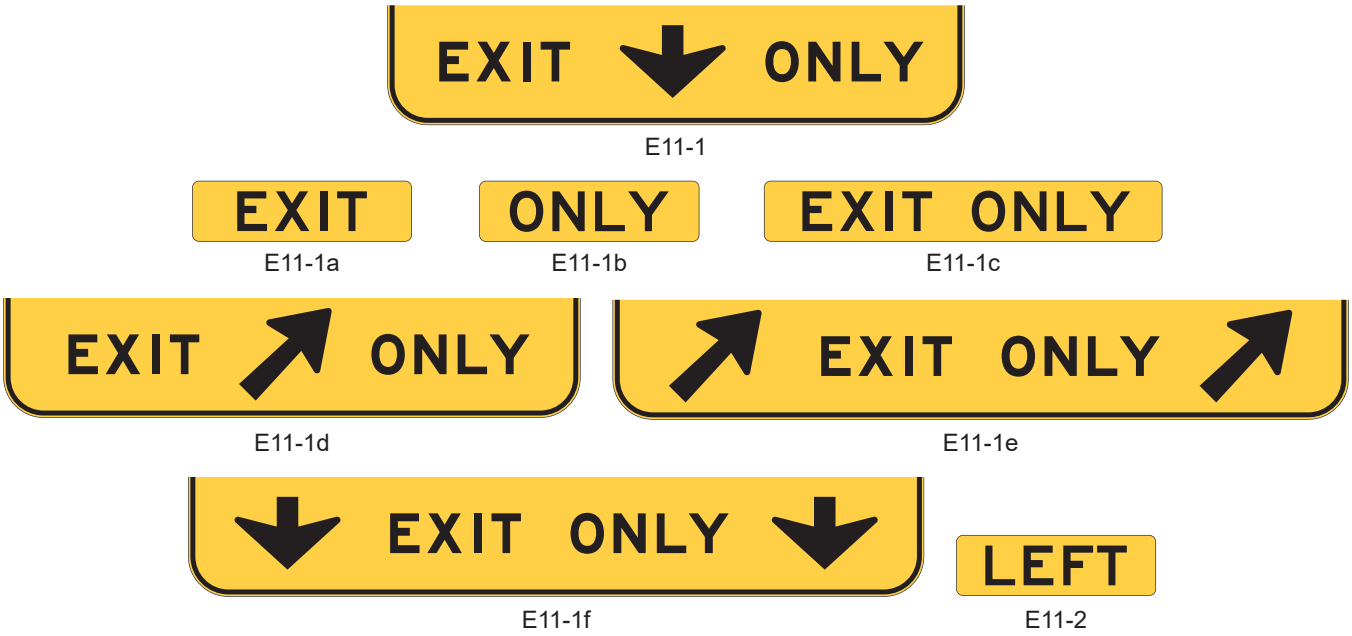


Figure 2E-18. Guide Signs for a Single-Lane Exit to the Left with a Dropped Lane

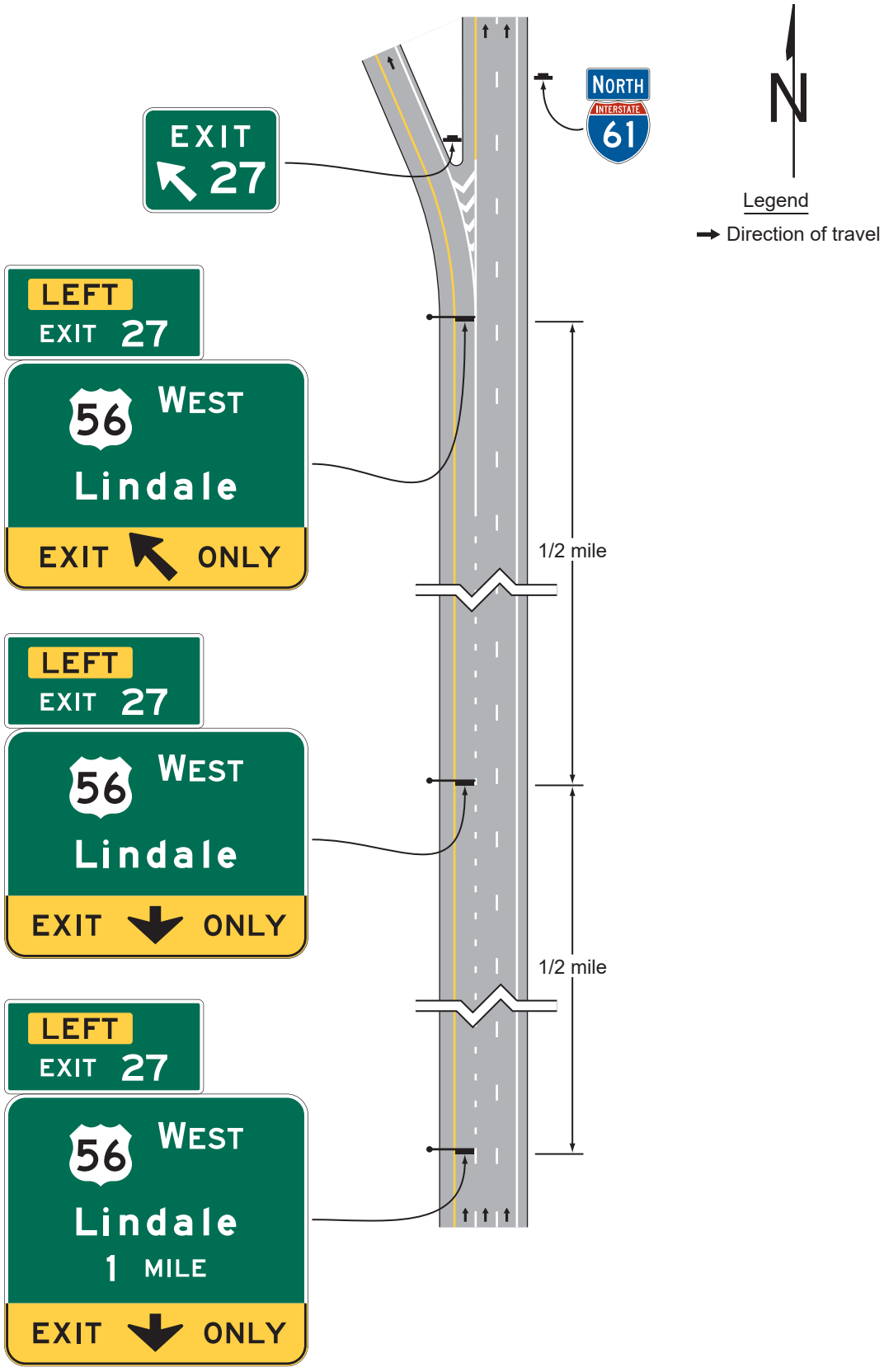
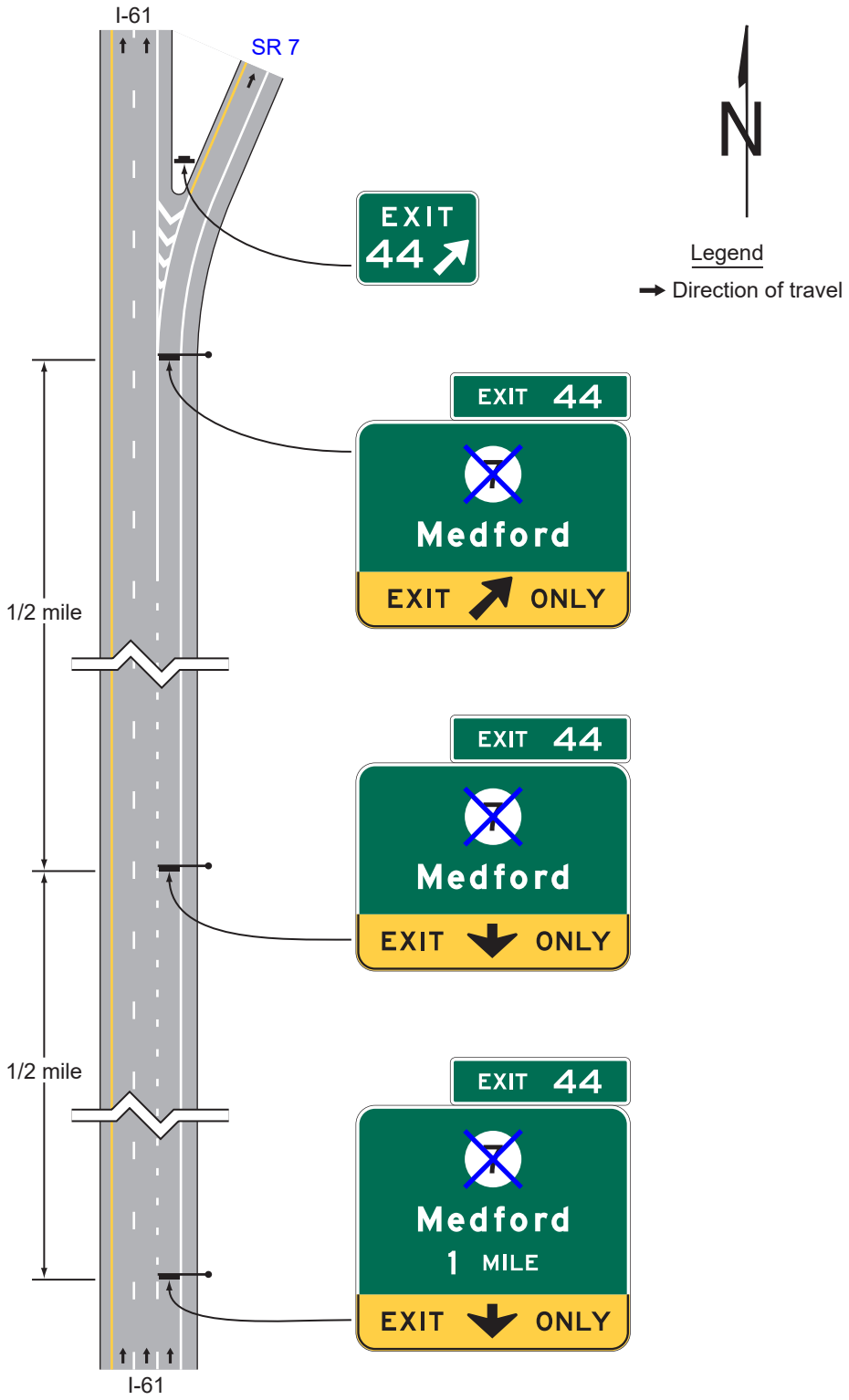


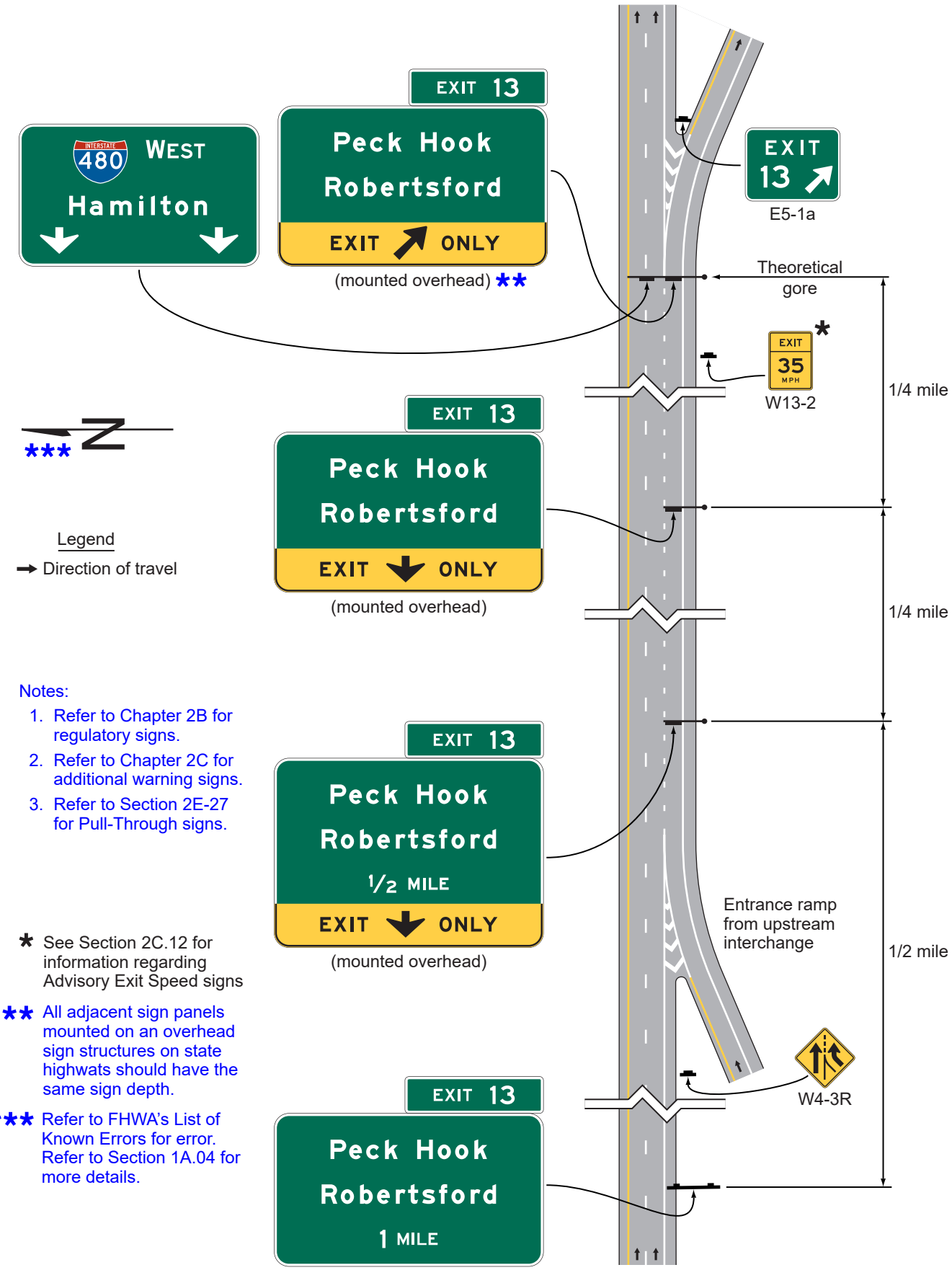
Figure 2E-19. Guide Signs for a Single-Lane Exit to the Right with a Dropped Lane



Notes:

1. Refer to Figures 2D-4 and 2D-4(CA) for applicable route shield option for use on guide signs.
2. The cardinal direction should be placed adjacent to the route shield for exits or splits that serve a single direction of travel.

Figure 2E-20. Example of Overhead Guide Signs for a Dropped Auxiliary Lane between Separate Interchange Ramps



Notes:

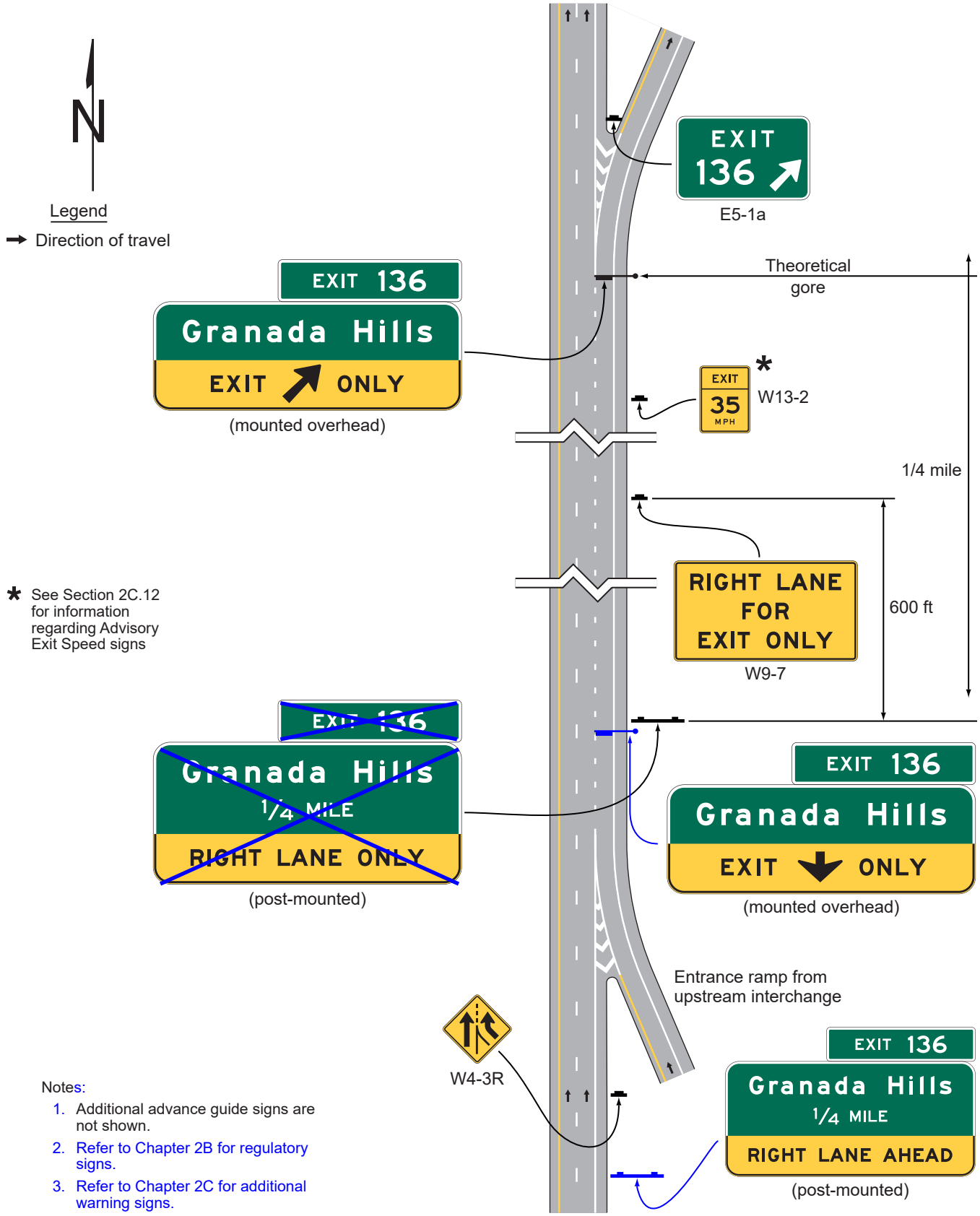
1. Refer to Chapter 2B for regulatory signs.
2. Refer to Chapter 2C for additional warning signs.
3. Refer to Section 2E-27 for Pull-Through signs.

* See Section 2C.12 for information regarding Advisory Exit Speed signs

** All adjacent sign panels mounted on an overhead sign structures on state highwats should have the same sign depth.

*** Refer to FHWA's List of Known Errors for error. Refer to Section 1A.04 for more details.

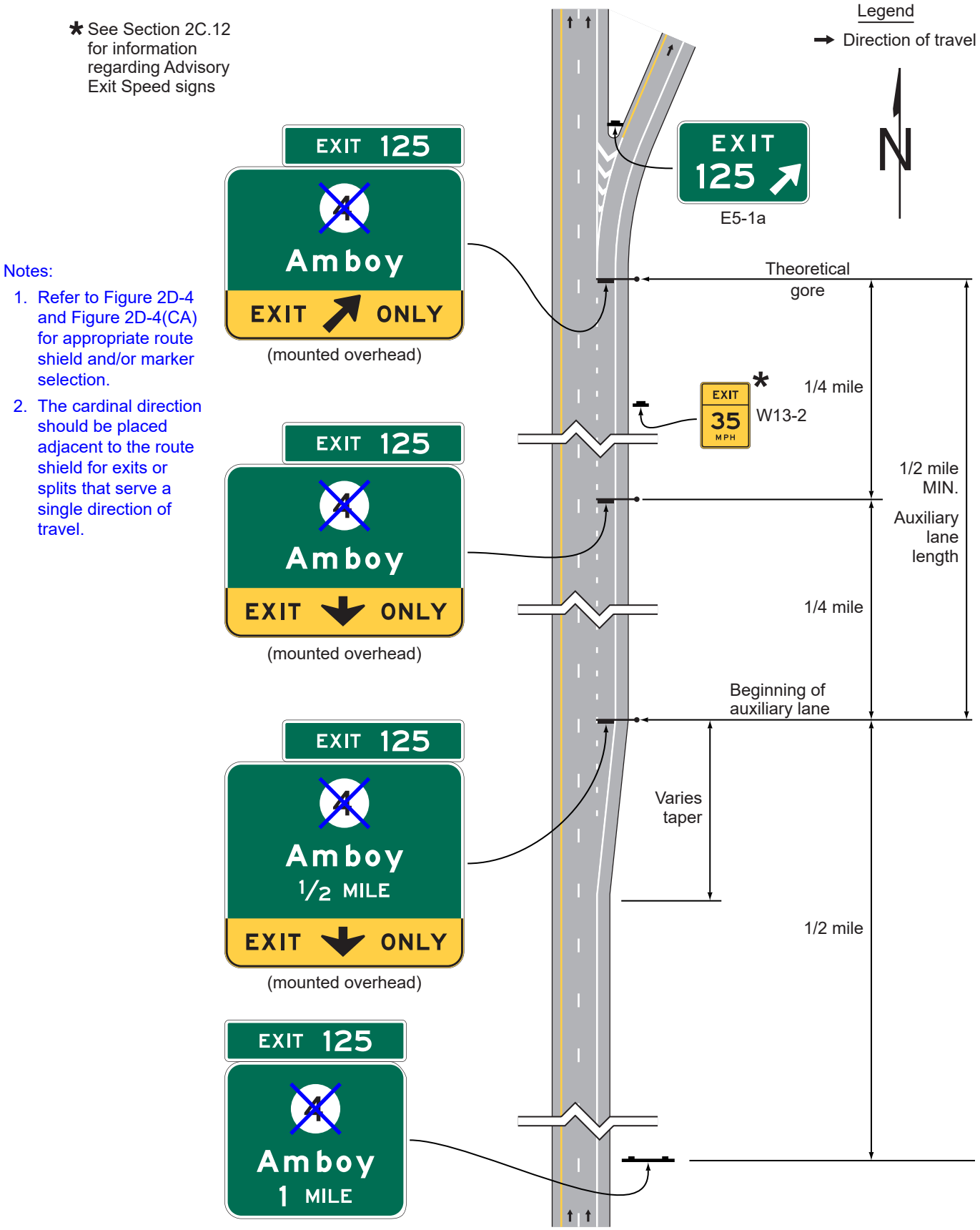
Figure 2E-21. Example of Post-Mounted Advance Guide and Supplemental Warning Signs for a Dropped Auxiliary Lane between Separate Interchange Ramps



Notes:

1. Additional advance guide signs are not shown.
2. Refer to Chapter 2B for regulatory signs.
3. Refer to Chapter 2C for additional warning signs.

Figure 2E-22. Example of Guide Signs for an Auxiliary Lane of at Least One-Half Mile in Length



Notes:

1. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.
2. The cardinal direction should be placed adjacent to the route shield for exits or splits that serve a single direction of travel.

Figure 2E-23. Examples of Signing for Mainline Terminations within an Interchange

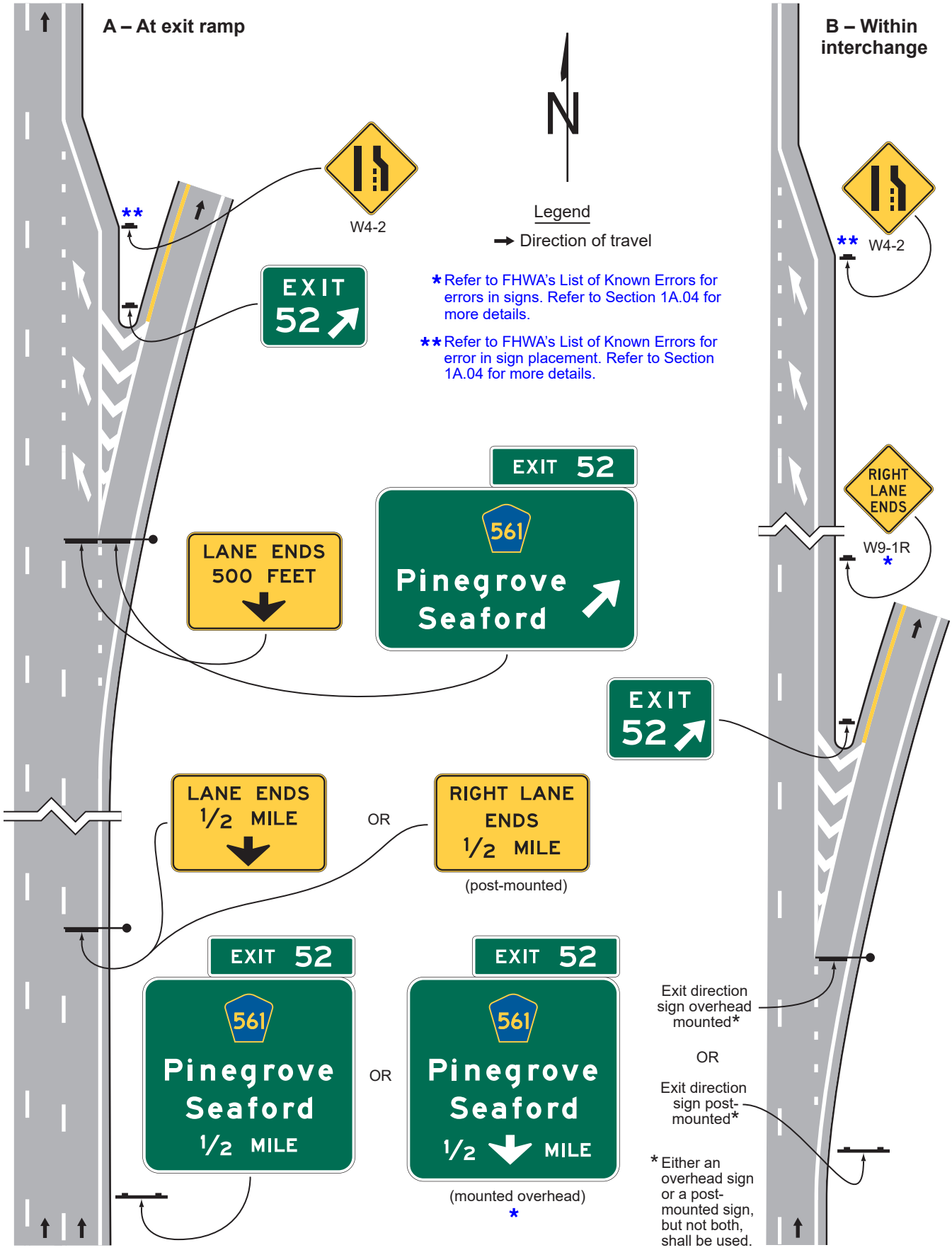


Figure 2E-24. Example of Signing for an Intermediate Interchange within a Major Interchange

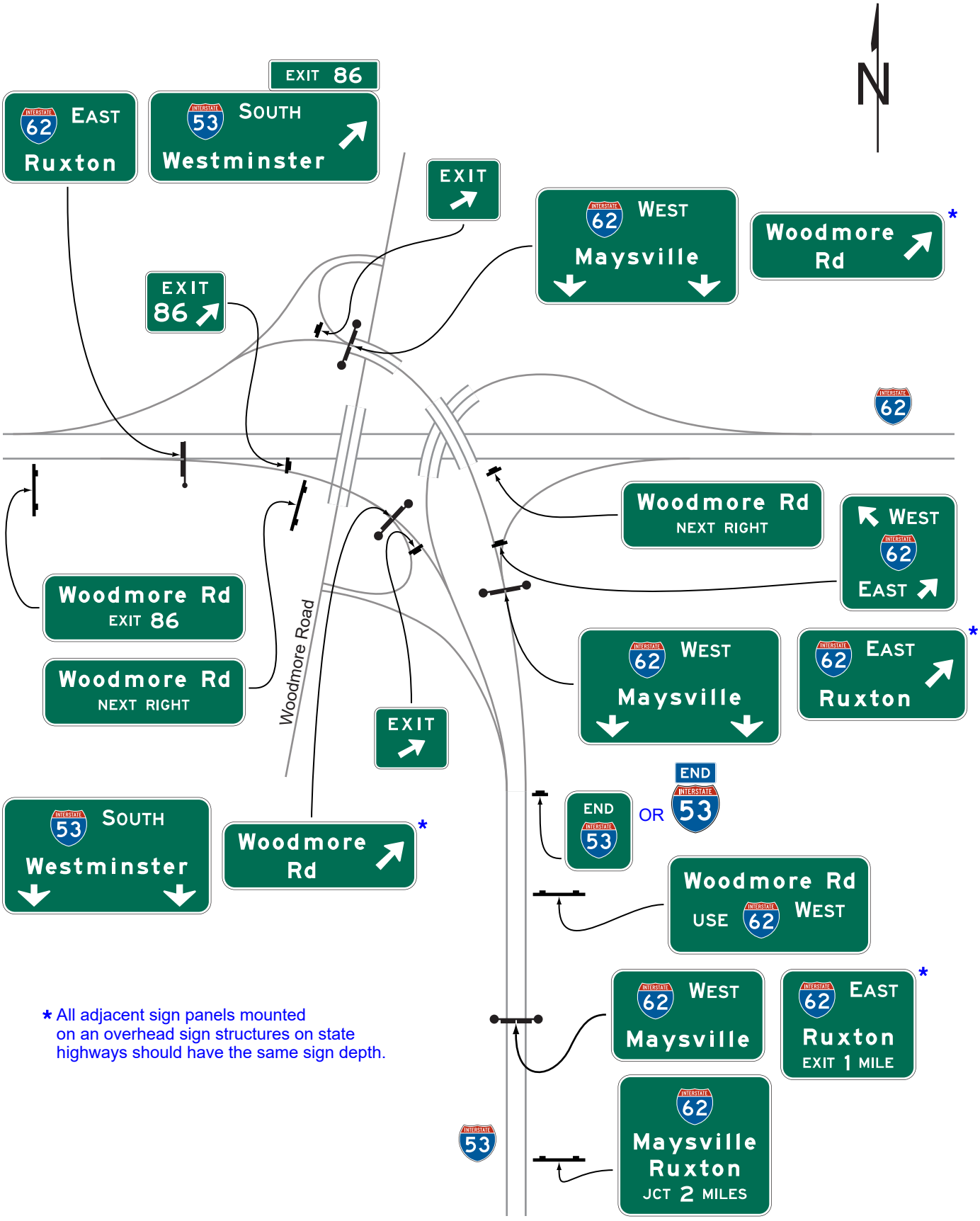
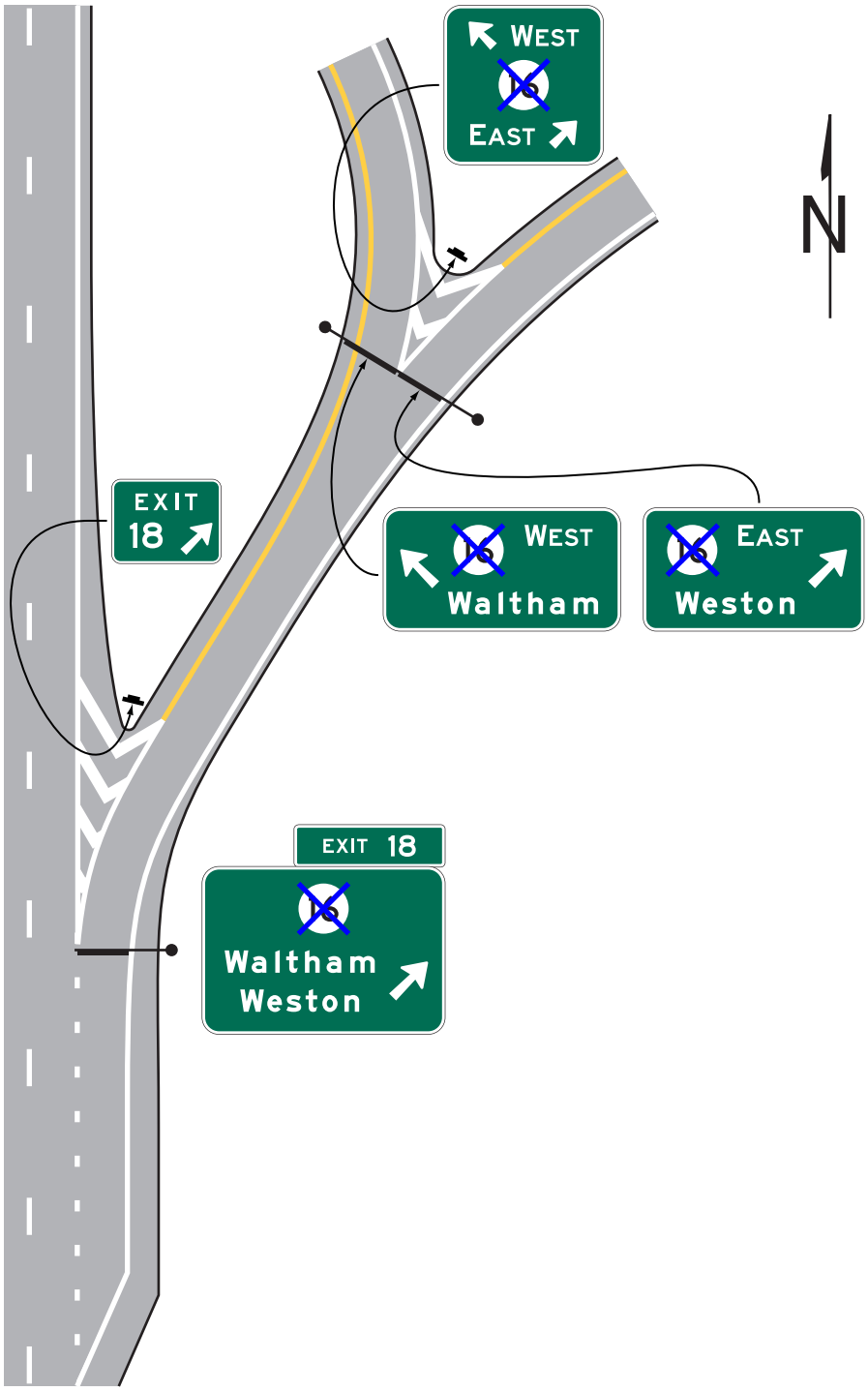
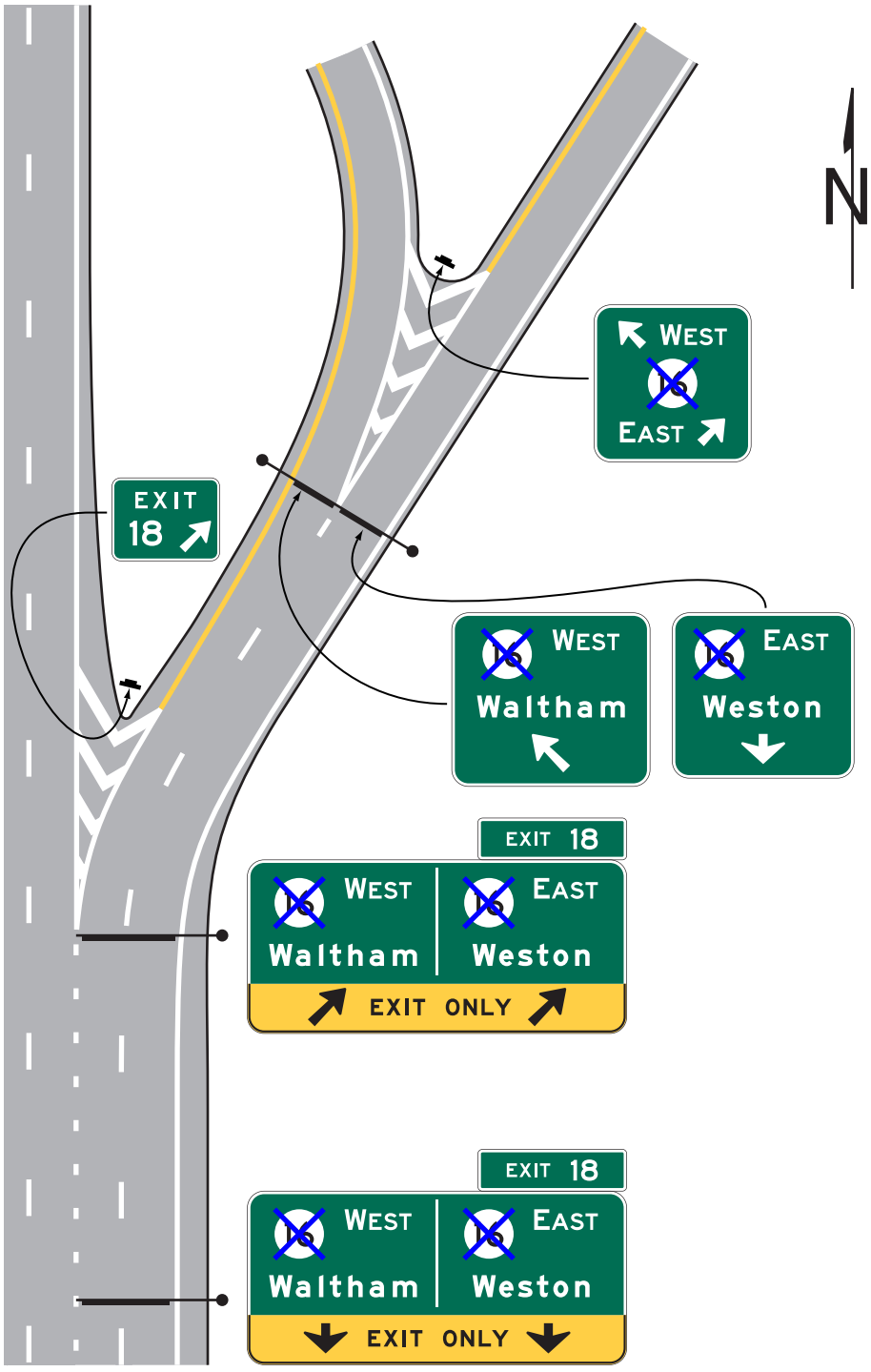


Figure 2E-25. Examples of Signing for an Interchange Exit Ramp with a Downstream Split (Sheet 1 of 2)



Note: Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker

Figure 2E-25. Examples of Signing for an Interchange Exit Ramp with a Downstream Split (Sheet 2 of 2)

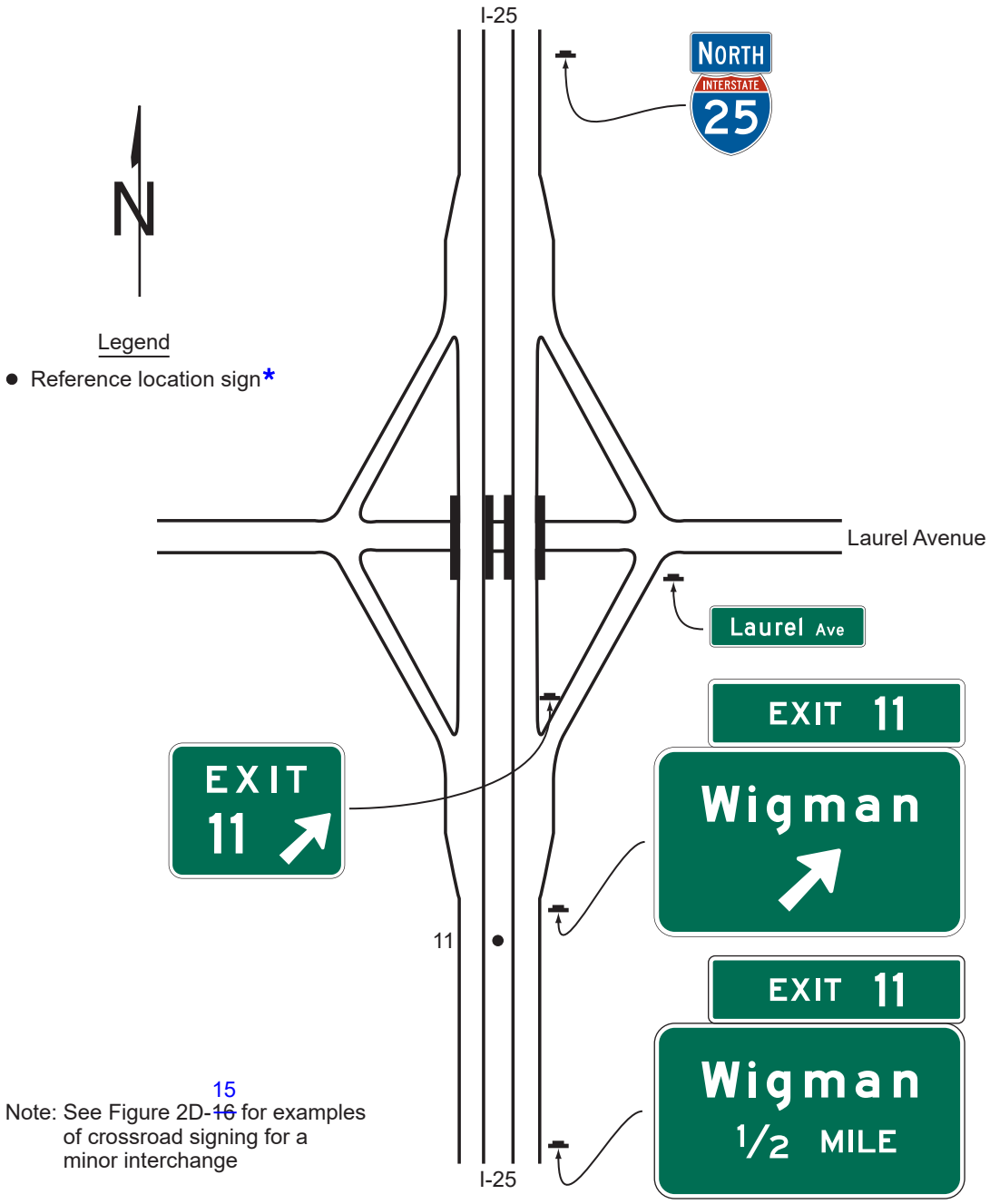


Notes:

1. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.

2. A vertical white line shall be used to separate the route shields and destinations associated with each of the two diverging movements.

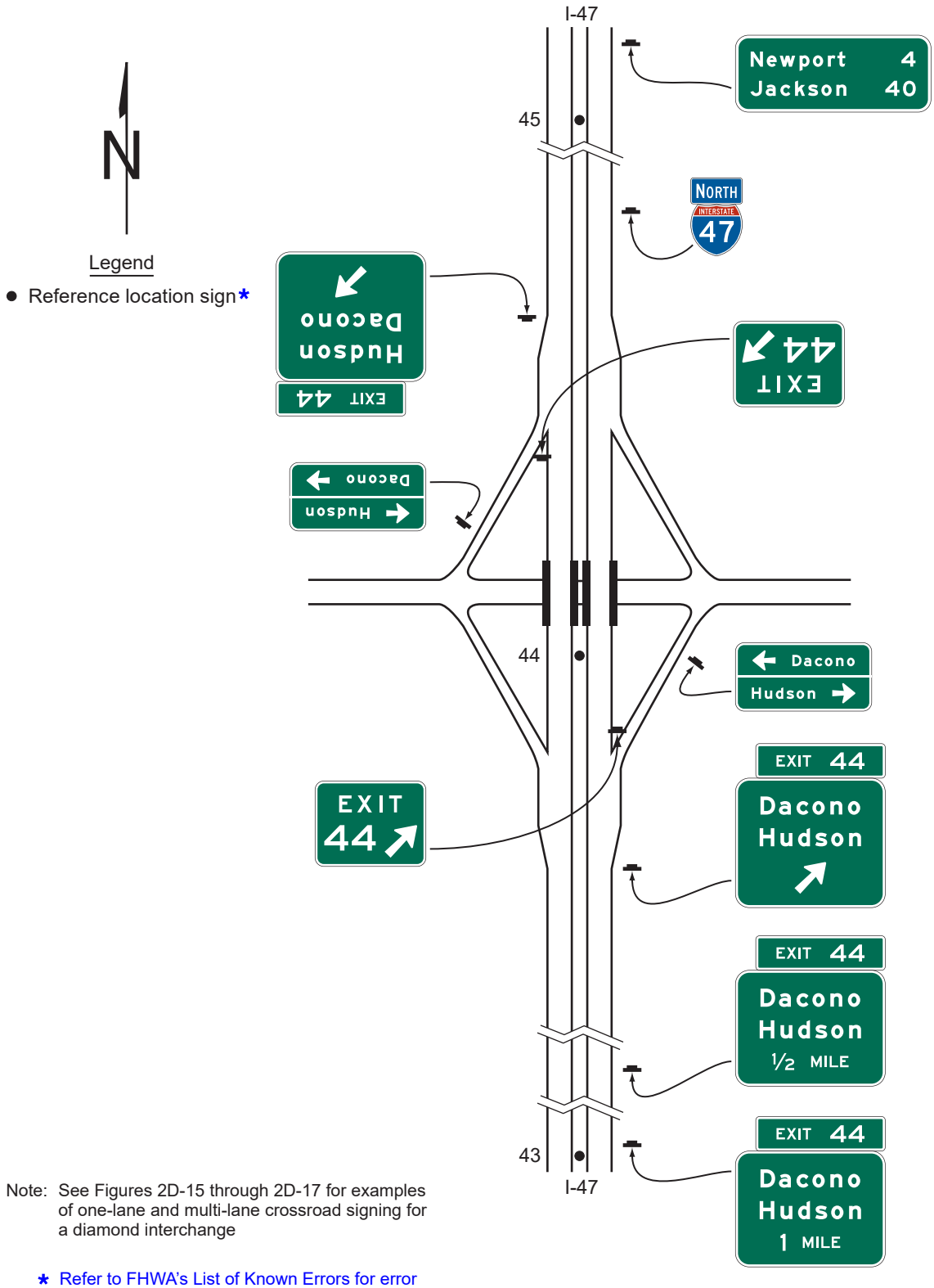
Figure 2E-26. Examples of Guide Signs for a Minor Interchange



Note: See Figure 2D-~~16~~ 15 for examples of crossroad signing for a minor interchange

* Refer to FHWA's List of Known Errors for error in Legend text. Refer to Section 1A.04 for more details.

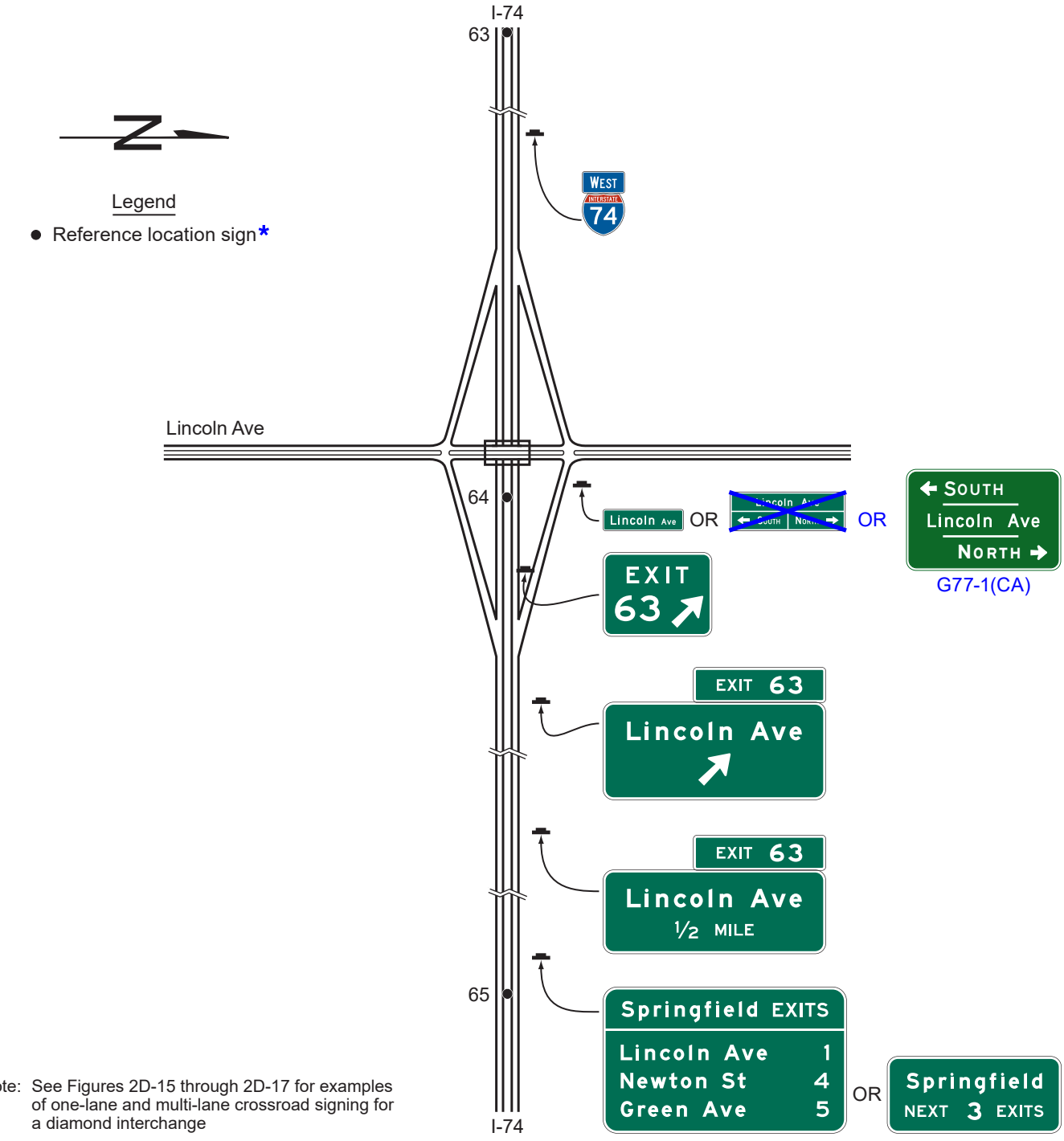
Figure 2E-27. Example of Guide Signs for a Diamond Interchange



Note: See Figures 2D-15 through 2D-17 for examples of one-lane and multi-lane crossroad signing for a diamond interchange

* Refer to FHWA's List of Known Errors for error in Legend text. Refer to Section 1A.04 for more details.

Figure 2E-28. Example of Guide Signs for a Diamond Interchange in an Urban Area



Note: See Figures 2D-15 through 2D-17 for examples of one-lane and multi-lane crossroad signing for a diamond interchange

* Refer to FHWA's List of Known Errors for error in Legend text. Refer to Section 1A.04 for more details.

Figure 2E-29. Example of Guide Signs for a Full Cloverleaf Interchange

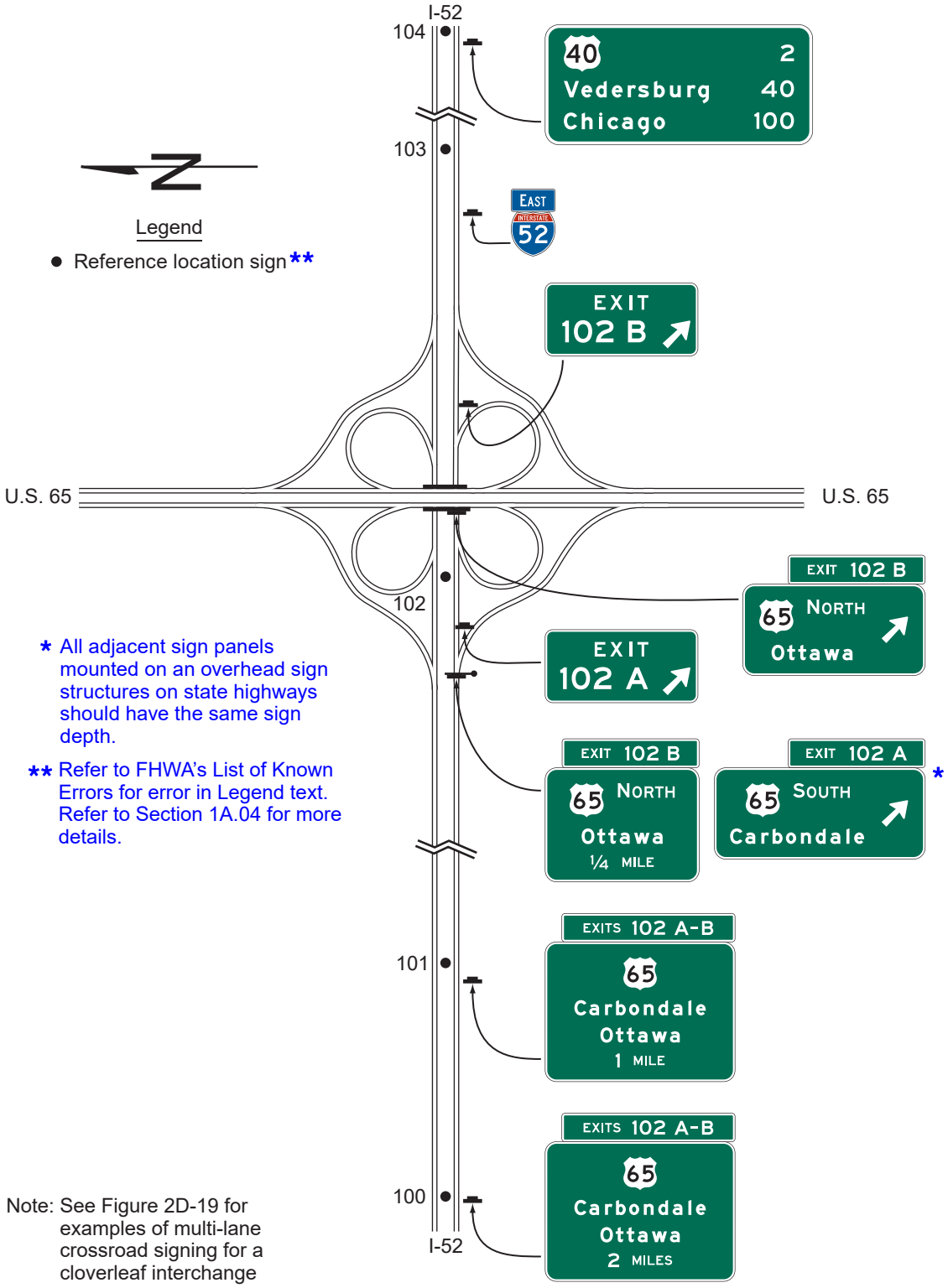


Figure 2E-30. Example of Guide Signs for a Full Cloverleaf Interchange with Collector-Distributor Roadways

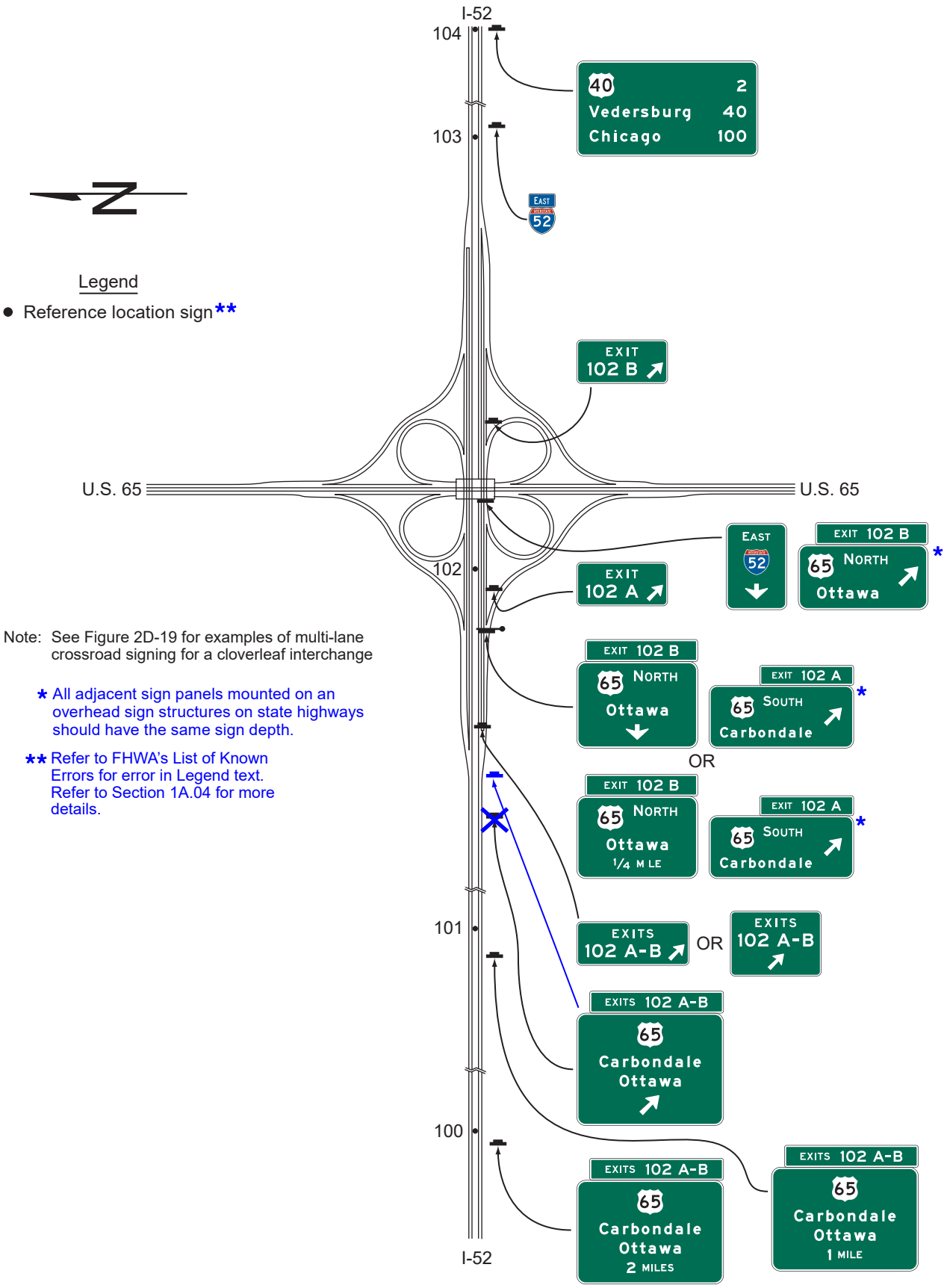
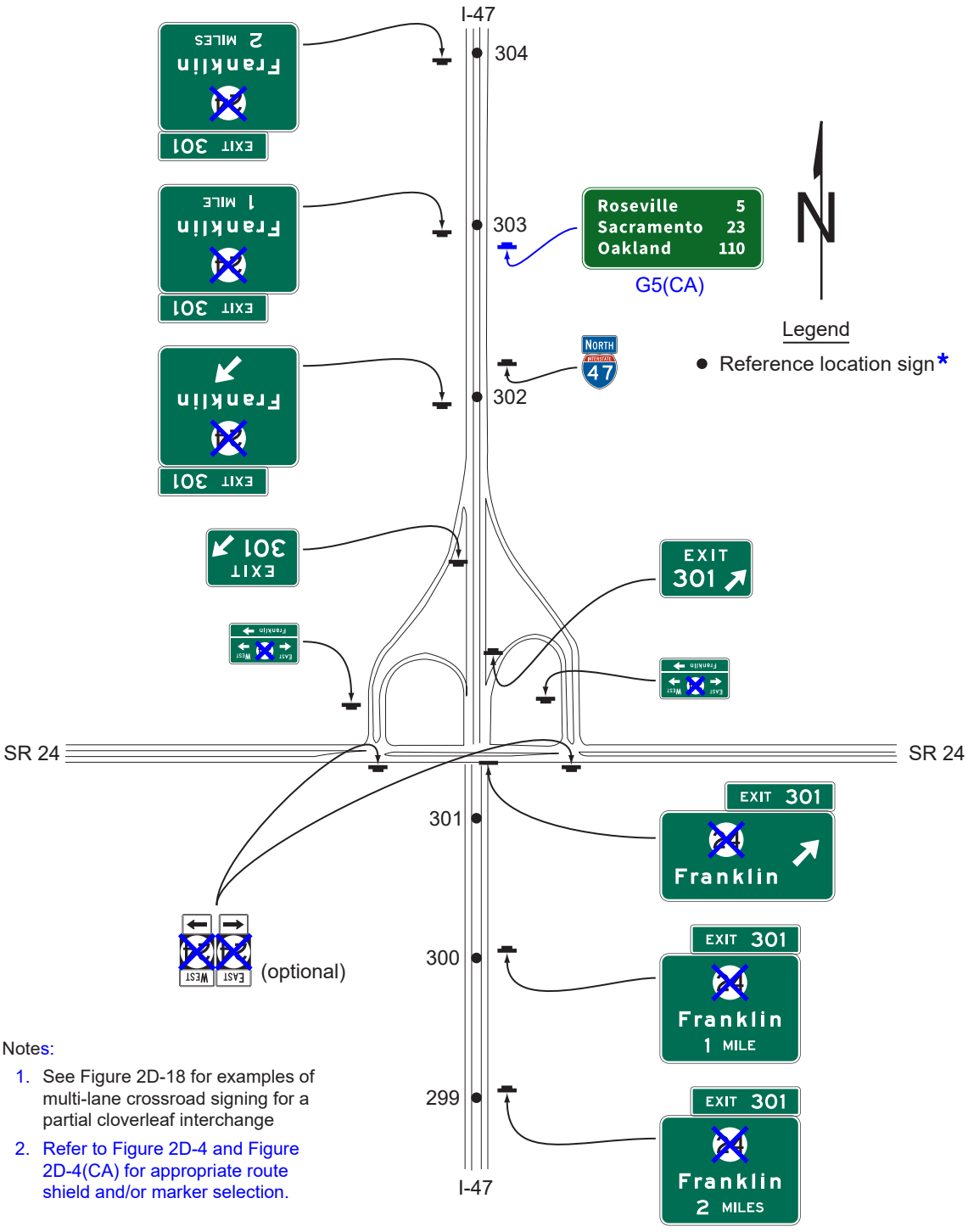


Figure 2E-31. Example of Guide Signs for a Partial Cloverleaf Interchange



Notes:

1. See Figure 2D-18 for examples of multi-lane crossroad signing for a partial cloverleaf interchange
2. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.

* Refer to FHWA's List of Known Errors for error in Legend text. Refer to Section 1A.04 for more details.

Figure 2E-32. Examples of Guide Signs for Successive Interchanges with Collector-Distributor Roadways (Sheet 1 of 2)

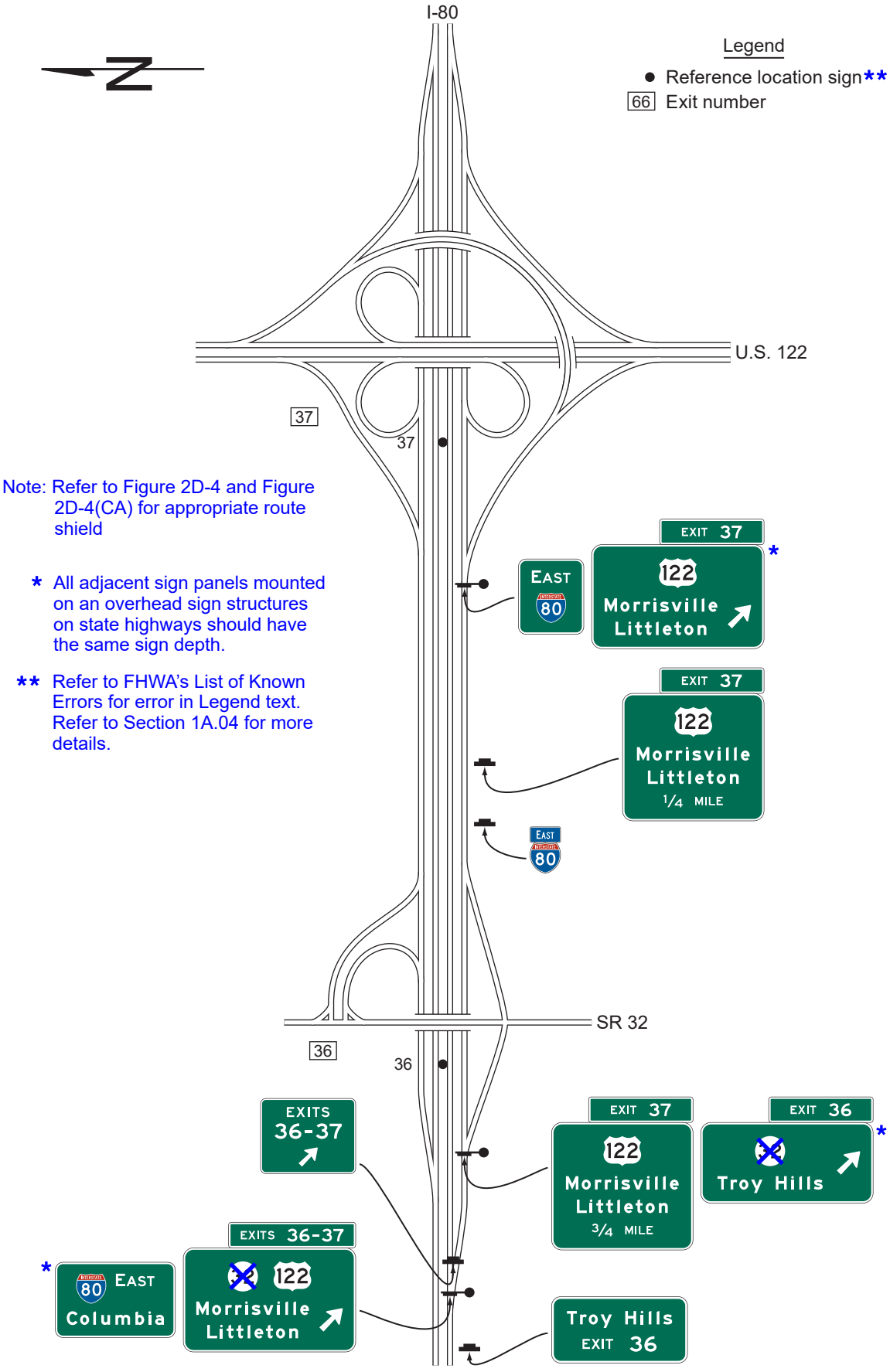
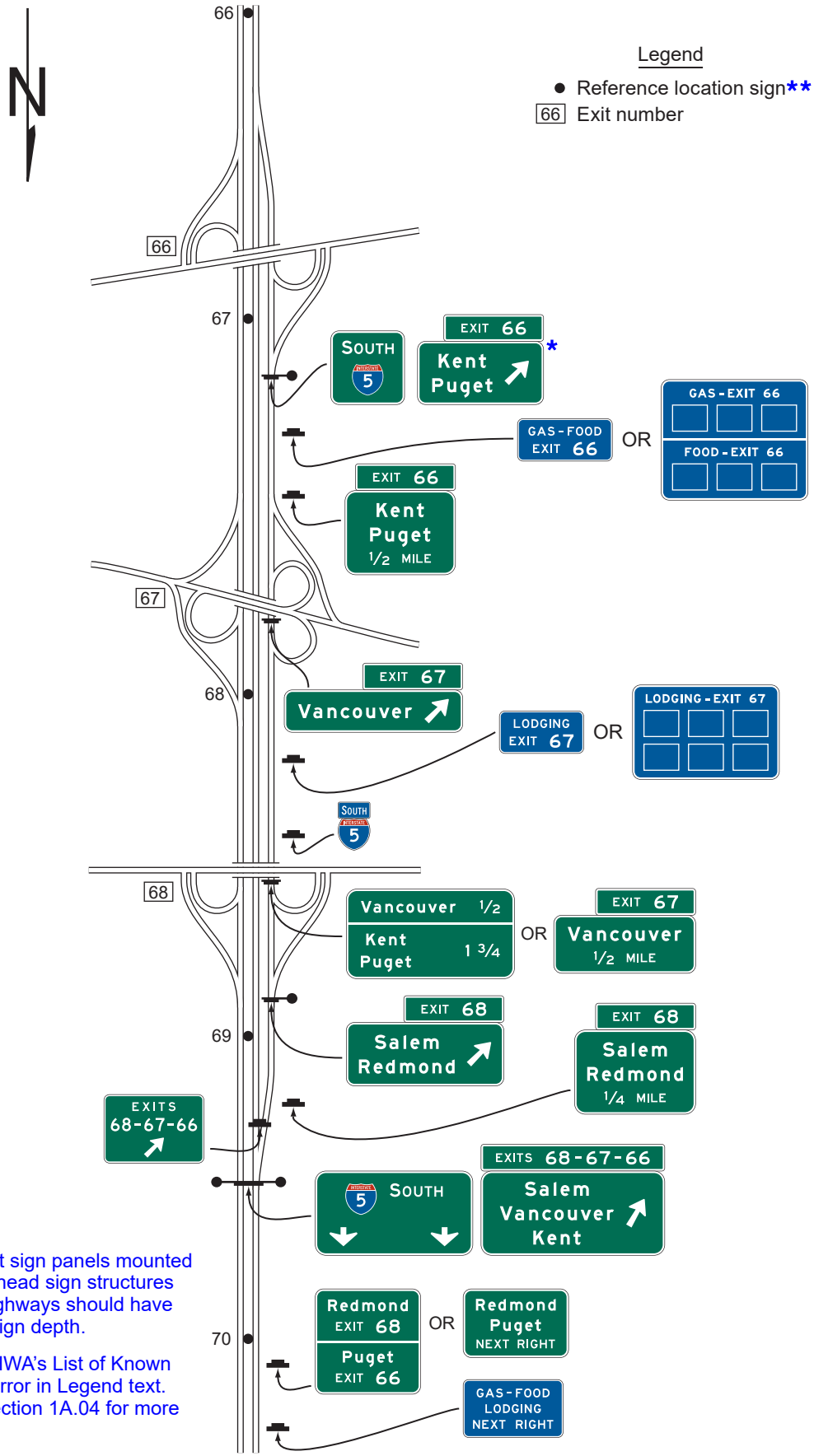


Figure 2E-32. Examples of Guide Signs for Successive Interchanges with Collector-Distributor Roadways (Sheet 2 of 2)



* All adjacent sign panels mounted on an overhead sign structures on state highways should have the same sign depth.

** Refer to FHWA's List of Known Errors for error in Legend text. Refer to Section 1A.04 for more details.

Figure 2E-33. Examples of Guide Signs for a Freeway-to-Freeway Interchange
(Sheet 1 of 2)

A – Example of signing for a two-lane exit ramp with two dropped lanes and a bifurcation beyond the mainline gore

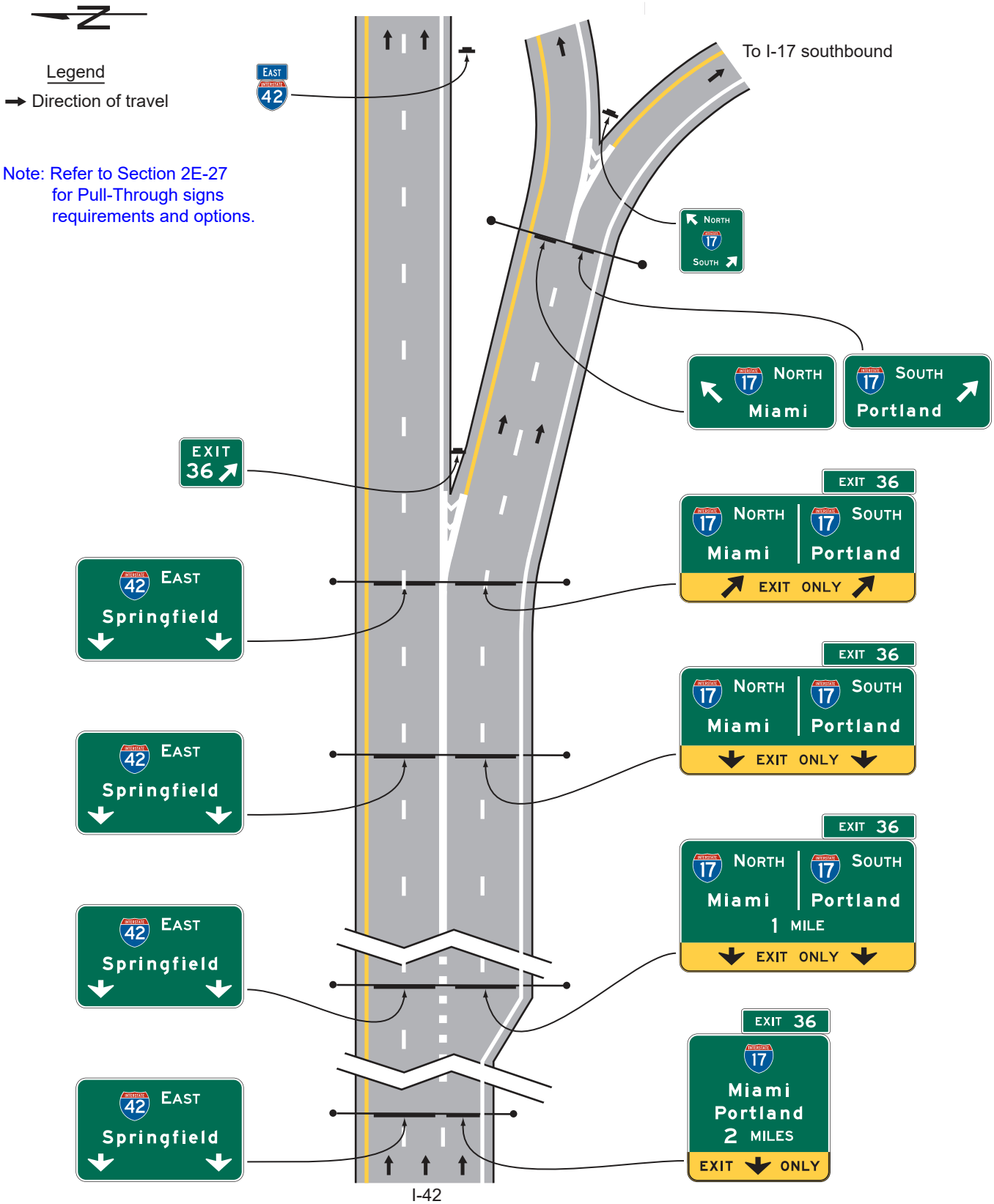


Figure 2E-33. Examples of Guide Signs for a Freeway-to-Freeway Interchange
(Sheet 2 of 2)

B – Example of signing for successive exit ramps with a dropped lane at the second exit

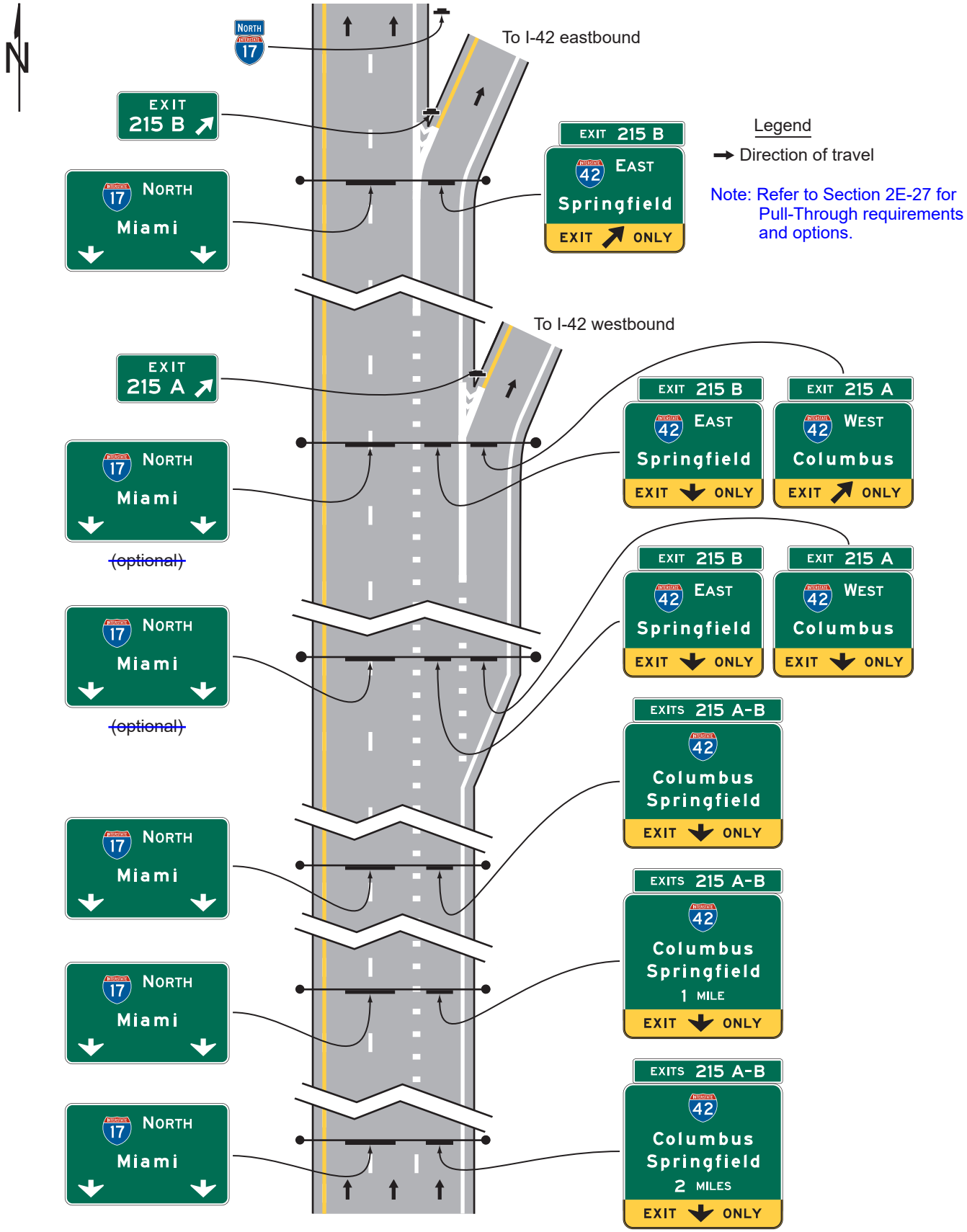


Figure 2E-34. Example of Guide Signs for a Split with Dedicated Lanes

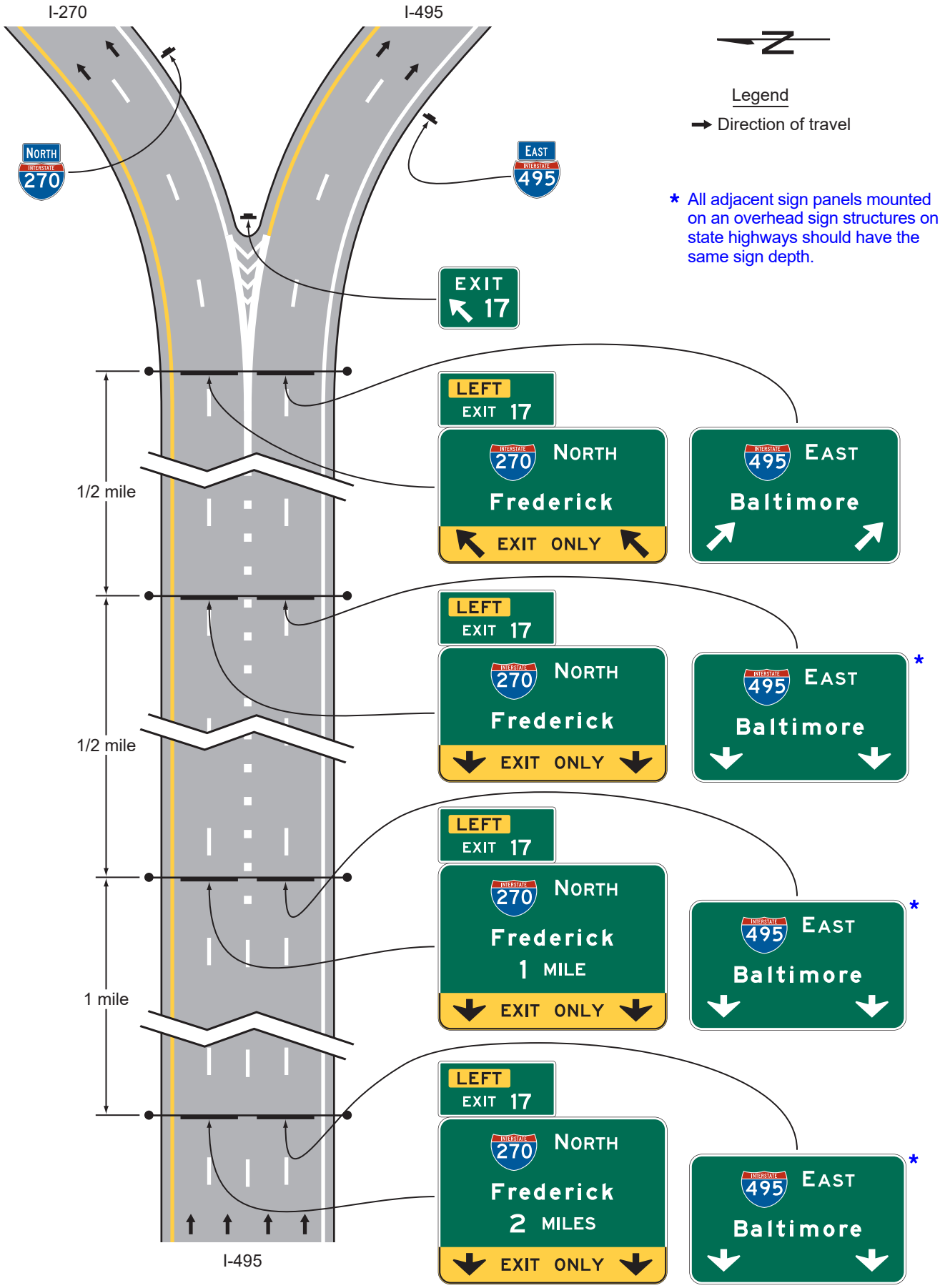
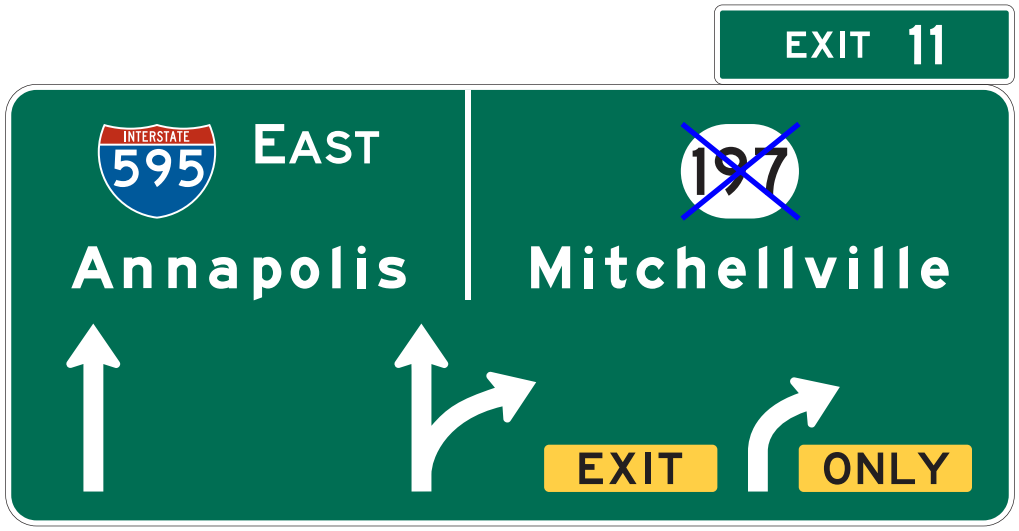


Figure 2E-35. Example of an Overhead Arrow-per-Lane Guide Sign for a Multi-Lane Exit with an Option Lane



Notes:

1. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.
2. The cardinal direction should be placed adjacent to the route shield for exits or splits that serve a single direction of travel.

Figure 2E-36. Example of Overhead Arrow-per-Lane Guide Signs for a Two-Lane Exit to the Right with an Option Lane

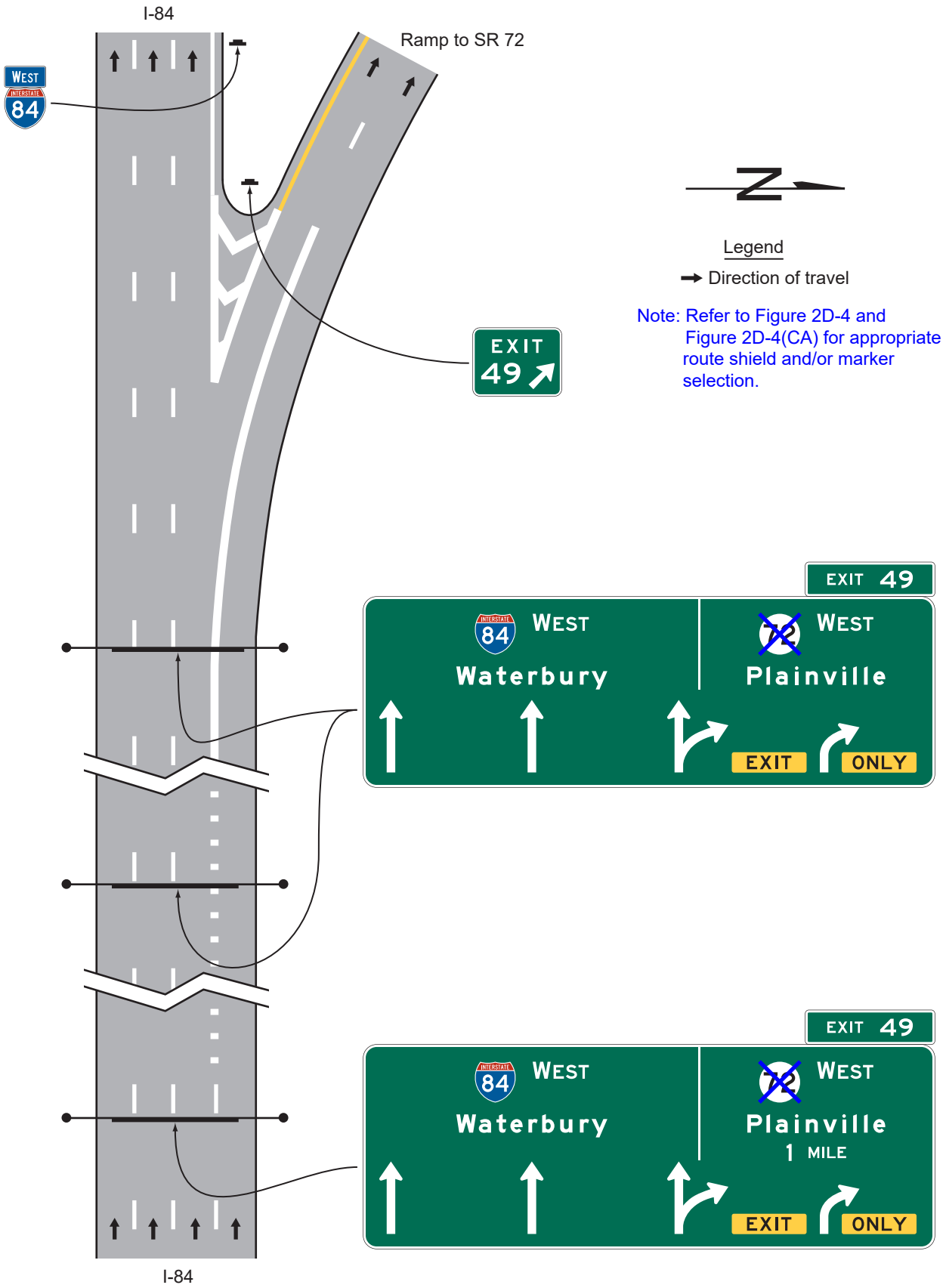


Figure 2E-36(CA). California Example of Overhead Arrow-per-Lane Guide Signs for a Two-Lane Exit to the Right with an Option Lane

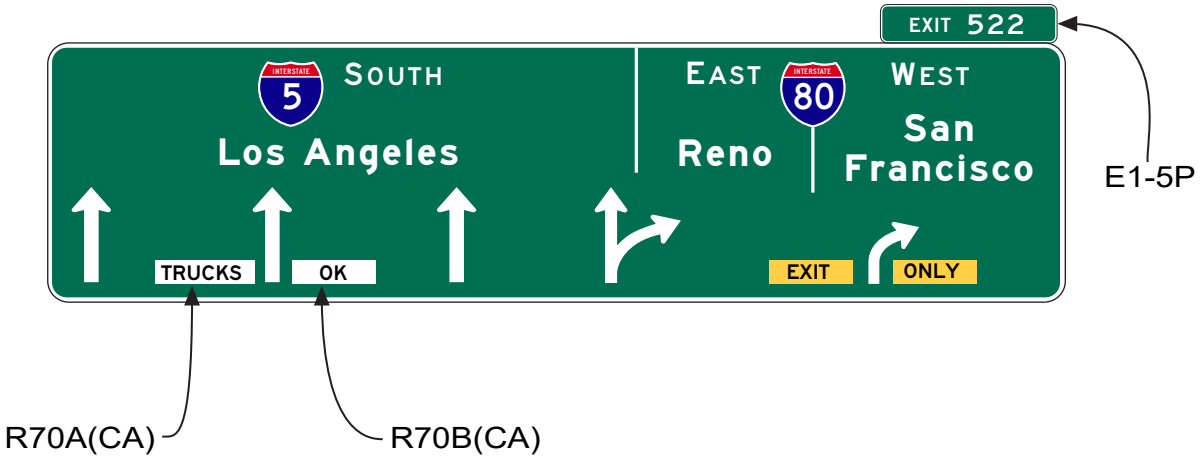


Figure 2E-37. Example of Overhead Arrow-per-Lane Guide Signs for a Two-Lane Exit to the Right with an Option Lane (Through Lanes Curve to the Left)

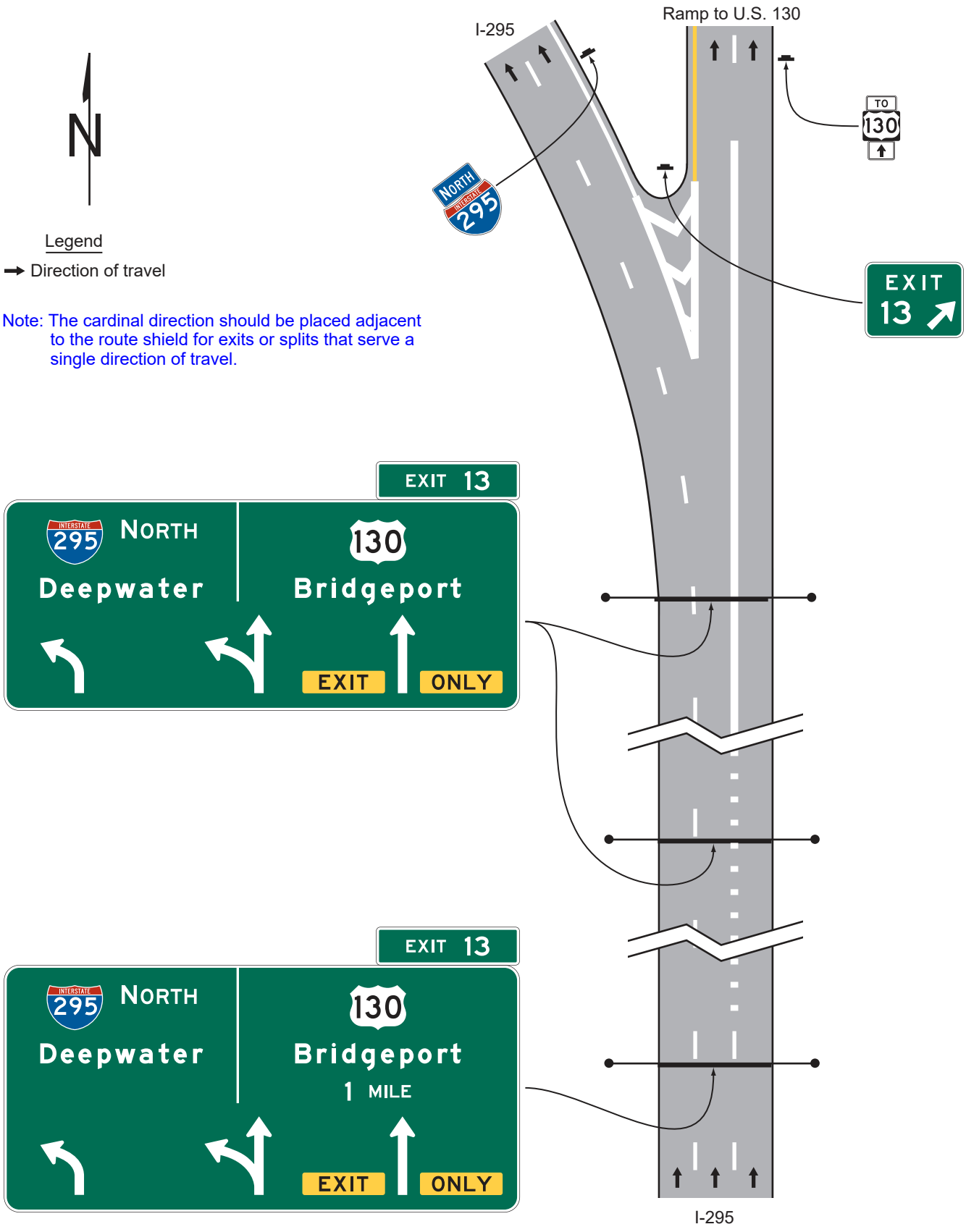


Figure 2E-38. Example of Overhead Arrow-per-Lane Guide Signs for a Split with an Option Lane

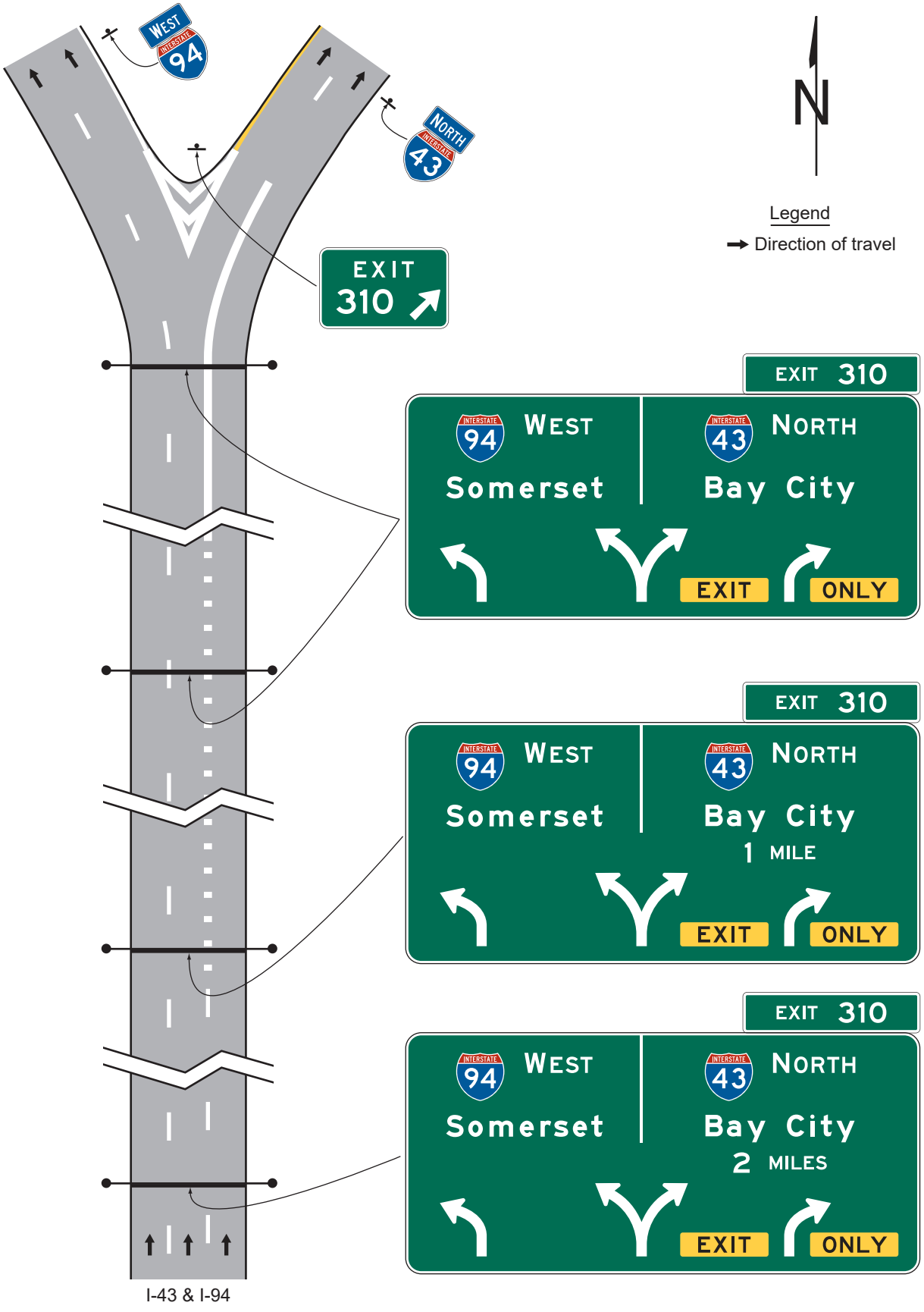
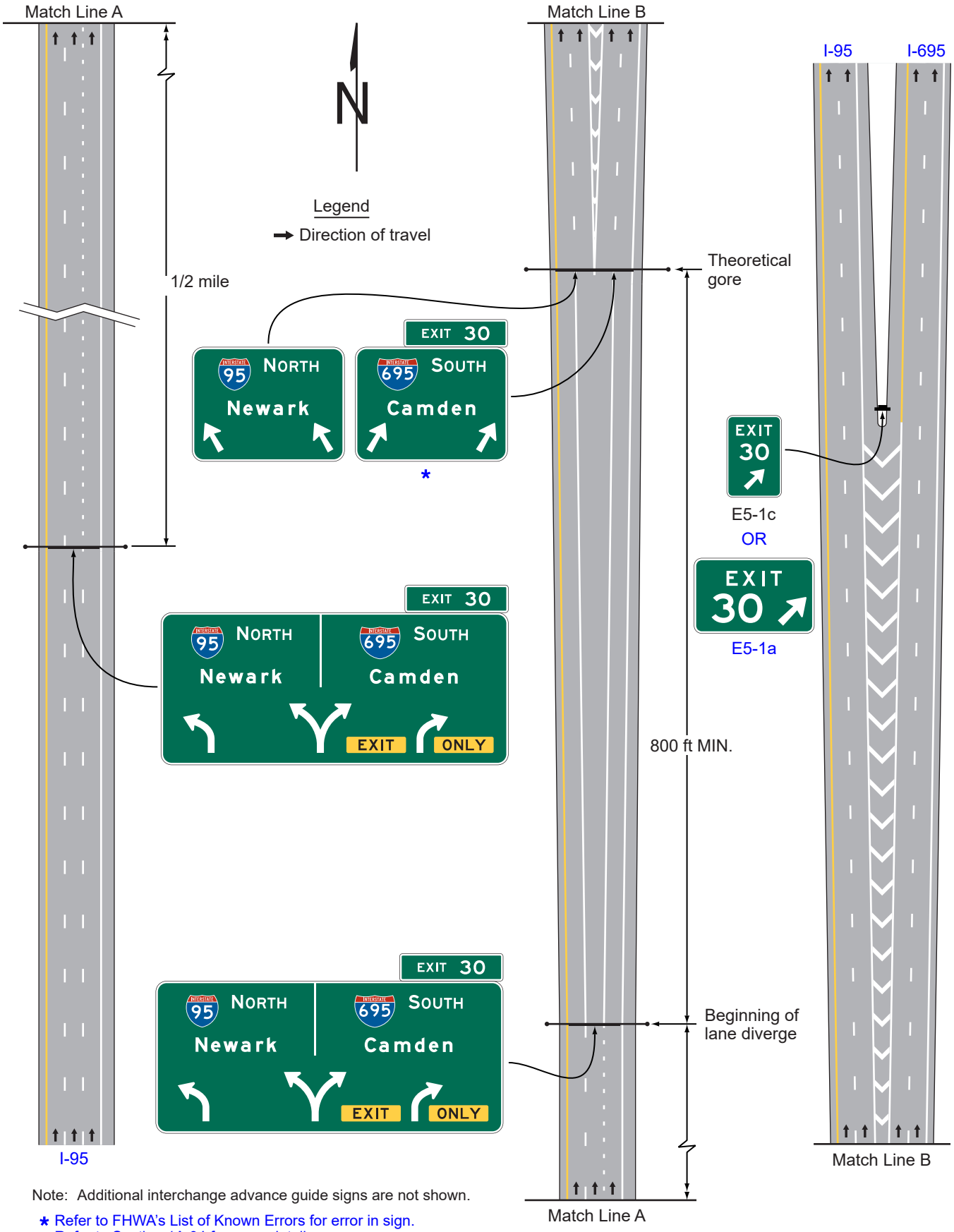


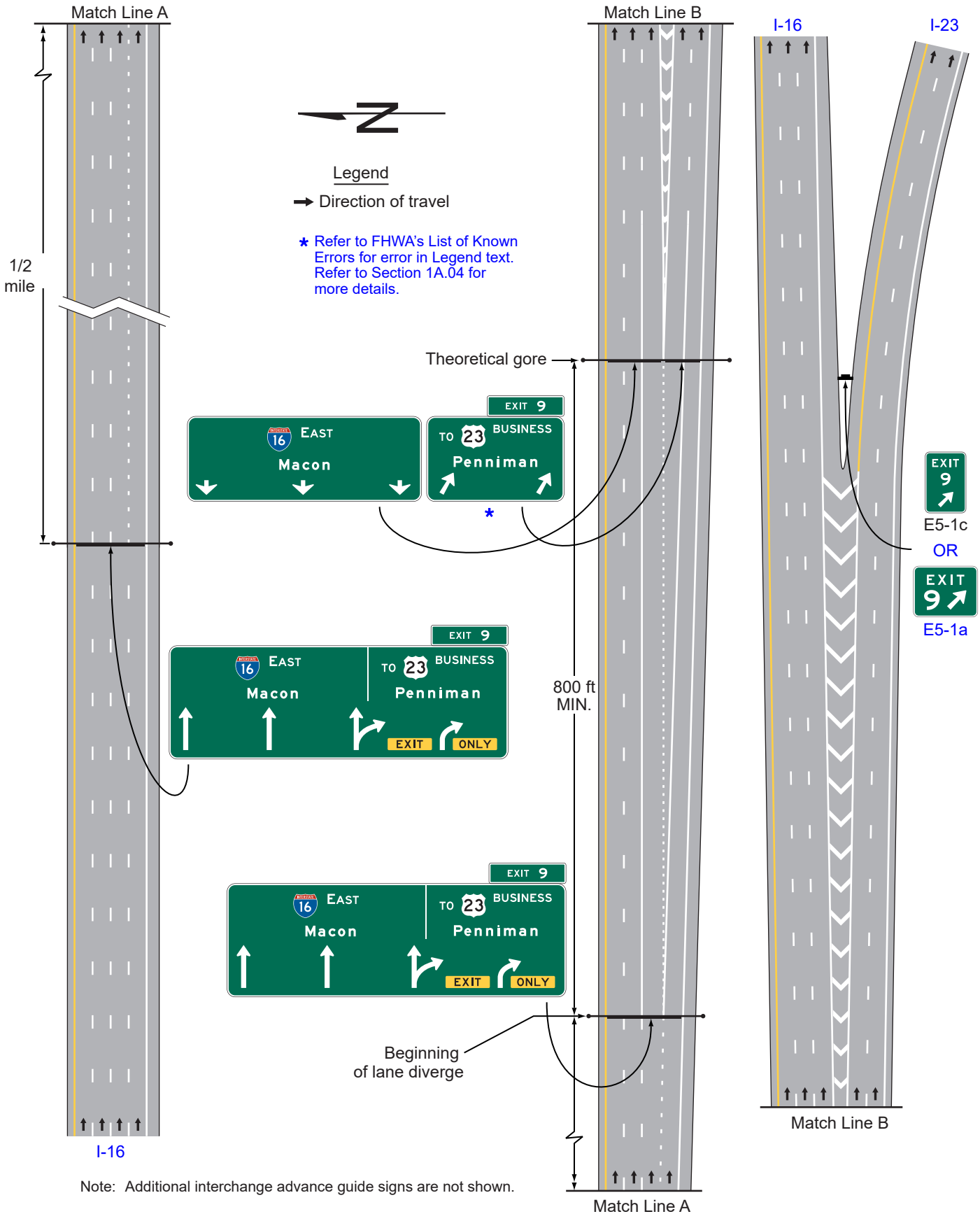
Figure 2E-39. Example of Guide Signing for a Narrow Gore at a Split with an Option Lane



Note: Additional interchange advance guide signs are not shown.

* Refer to FHWA's List of Known Errors for error in sign. Refer to Section 1A.04 for more details.

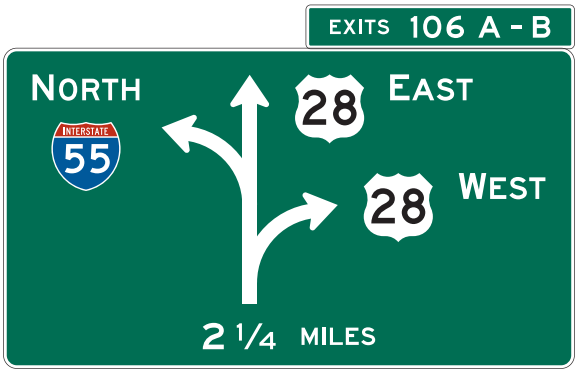
Figure 2E-40. Example of Guide Signing for a Narrow Gore at a Two-Lane Exit with an Option Lane



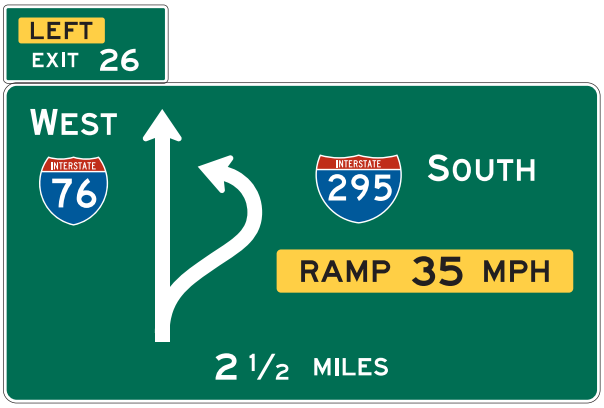
Note: Additional interchange advance guide signs are not shown.

Figure 2E-41. Examples of Diagrammatic Advance Guide Signs

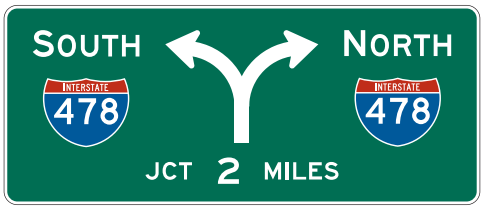
A – Through route on an off-movement



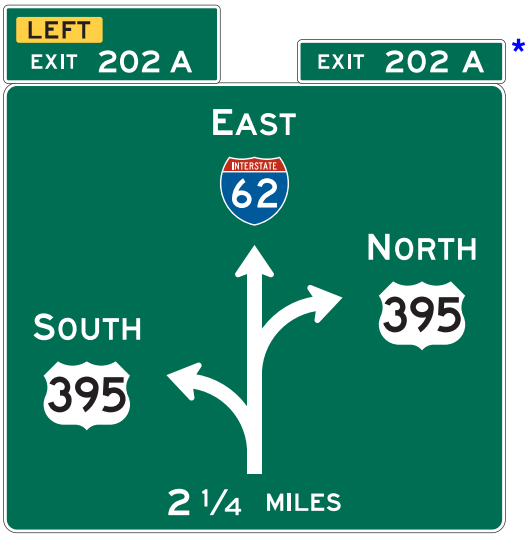
B – Through route with complex geometry and reduced speed on an off-movement



C – Split at terminus of an expressway route



D – Successive exit ramps from opposite sides of a roadway



* Refer to FHWA's List of Known Errors for error in Legend text. Refer to Section 1A.04 for more details.

Figure 2E-42. Example of Diagrammatic Advance Guide Sign Use

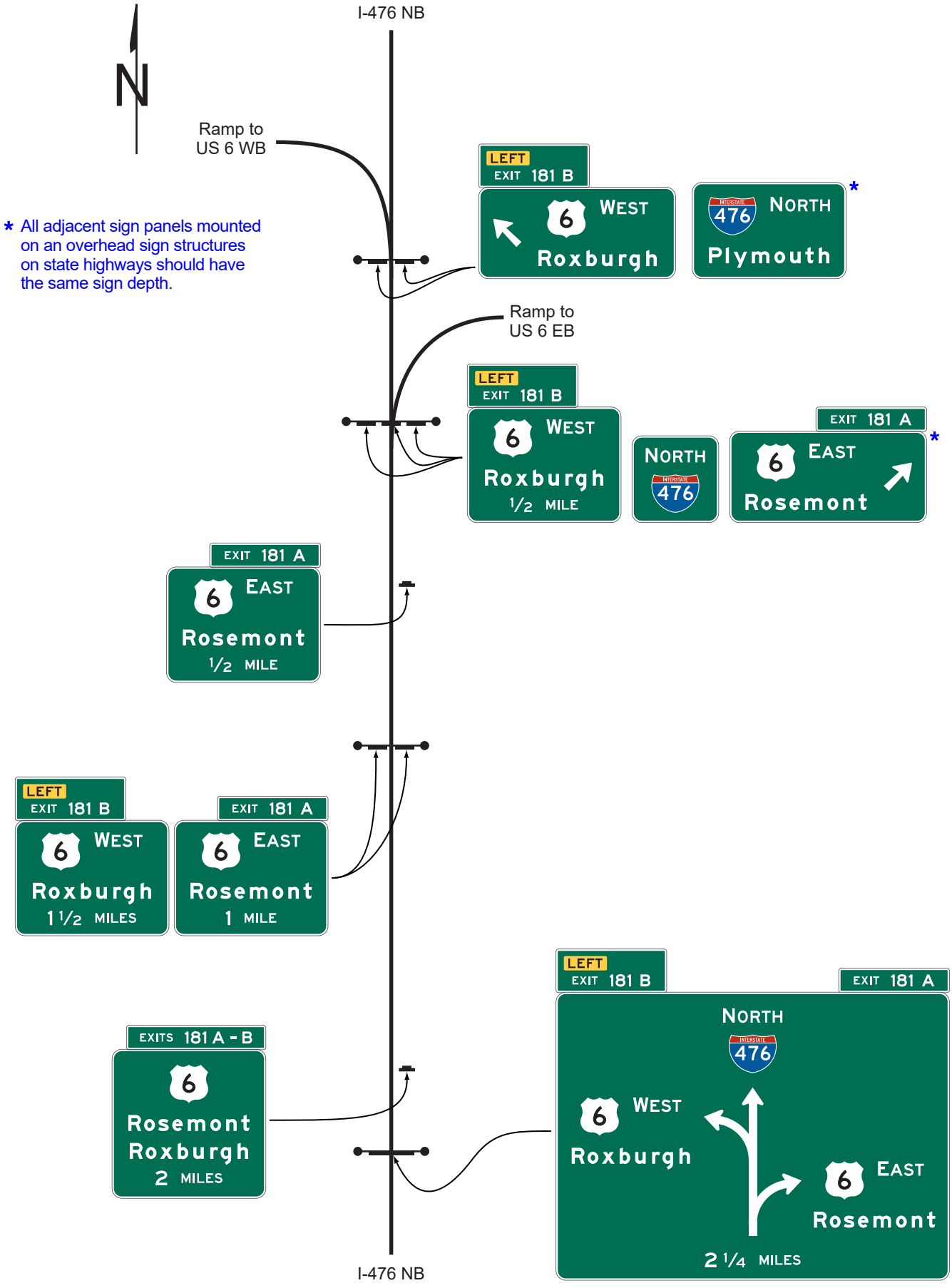
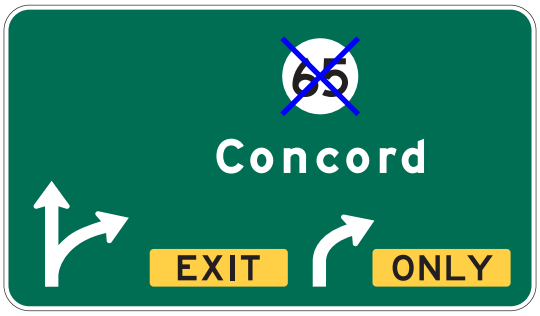


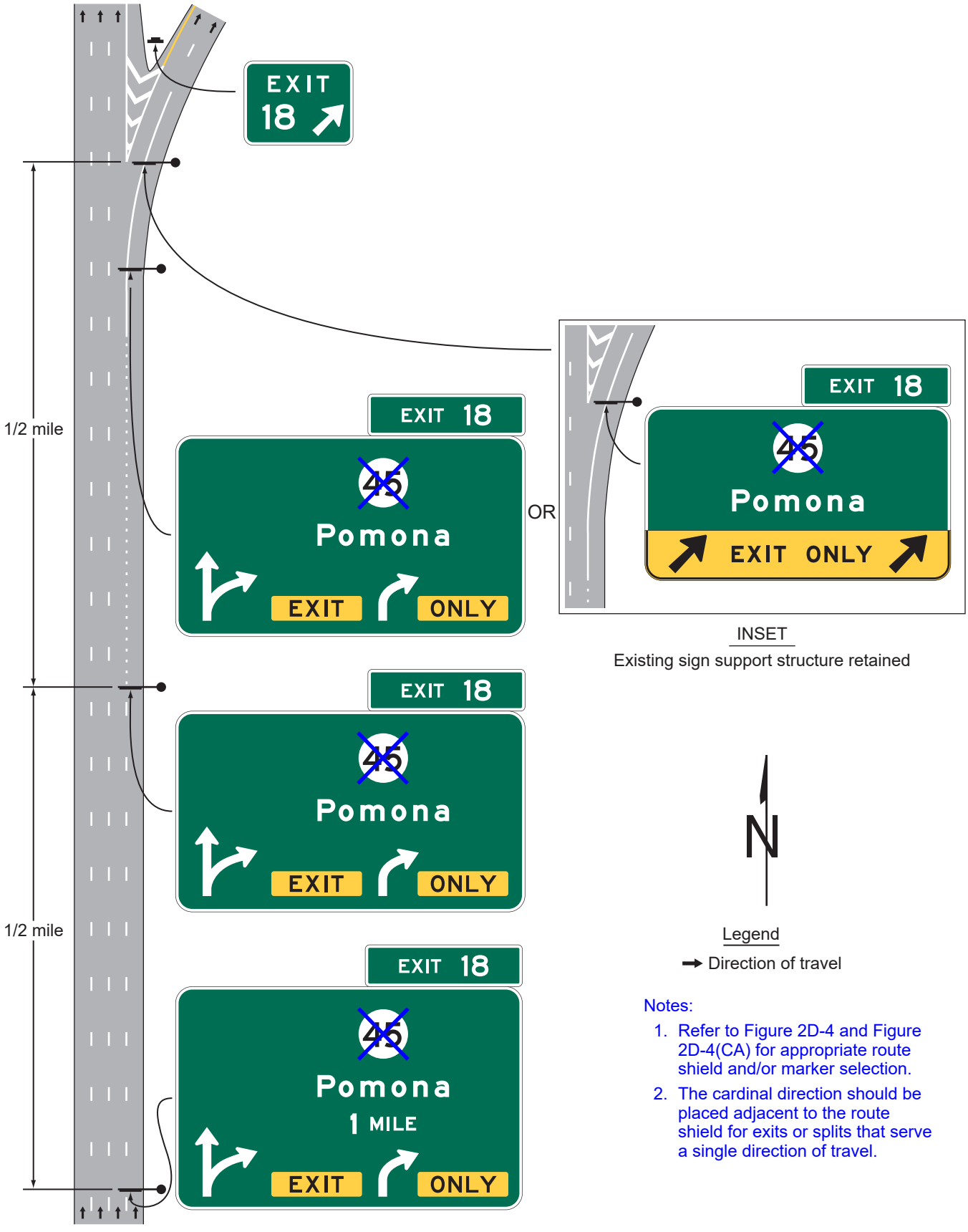
Figure 2E-43. Example of a Partial-Width Overhead Arrow-per-Lane Guide Sign for Intermediate or Minor Interchanges



Notes:

1. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.
2. The cardinal direction should be placed adjacent to the route shield for exits or splits that serve a single direction of travel.

Figure 2E-44. Example of Signing for a Two-Lane Intermediate or Minor Interchange Exit with an Option Lane and a Dropped Lane using Partial-Width Overhead Arrow-per-Lane Signs



Notes:

1. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.
2. The cardinal direction should be placed adjacent to the route shield for exits or splits that serve a single direction of travel.

Figure 2E-45. Example of Signing for a Two-Lane Intermediate or Minor Interchange Exit with Option and Auxiliary Lanes using Partial-Width Overhead Arrow-per-Lane Signs

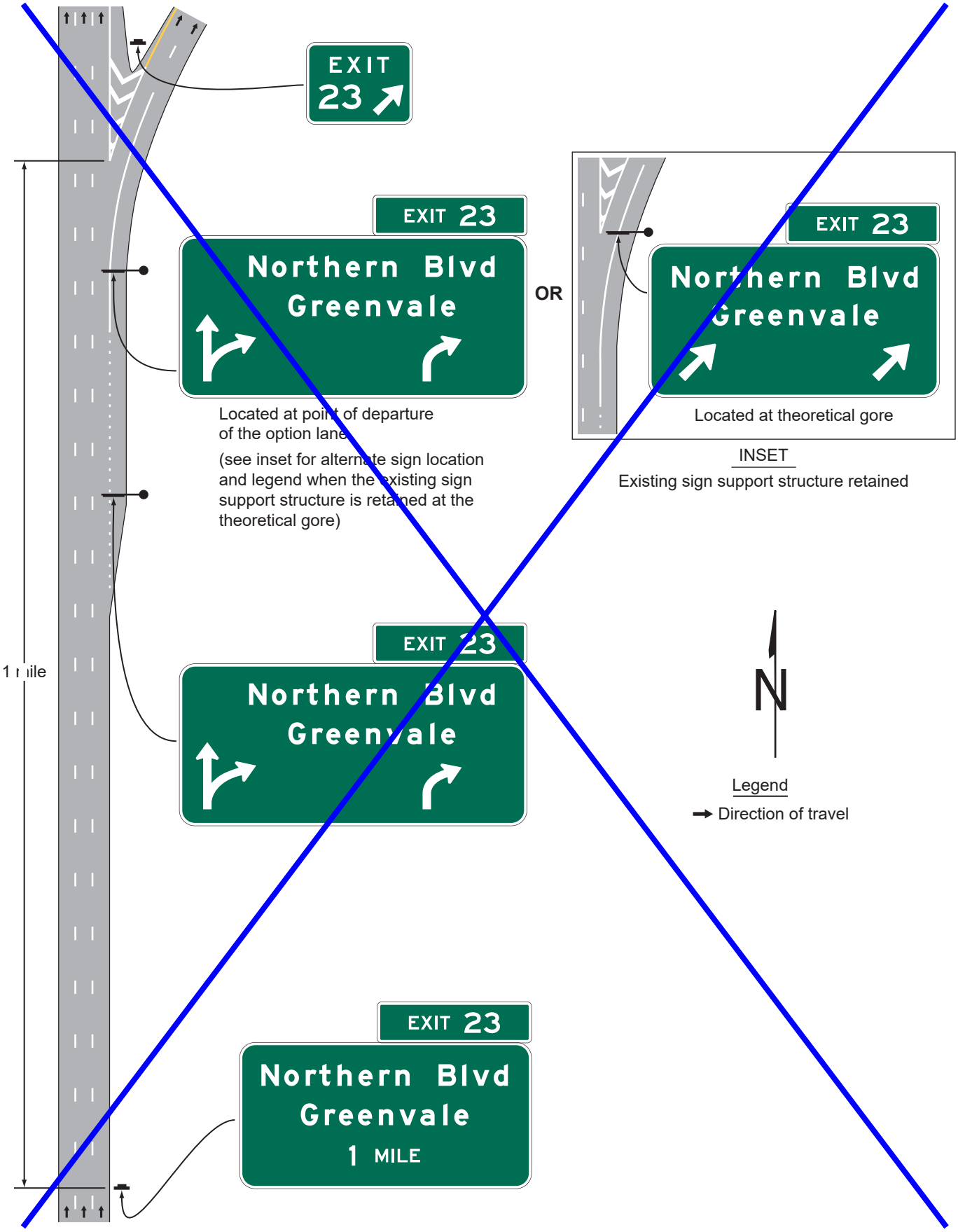


Figure 2E-45(CA). California Example of Signing for a Two-Lane Intermediate or Minor Interchange Exit with Option and Auxiliary Lanes using Partial-Width Overhead Arrow-per-Lane Signs

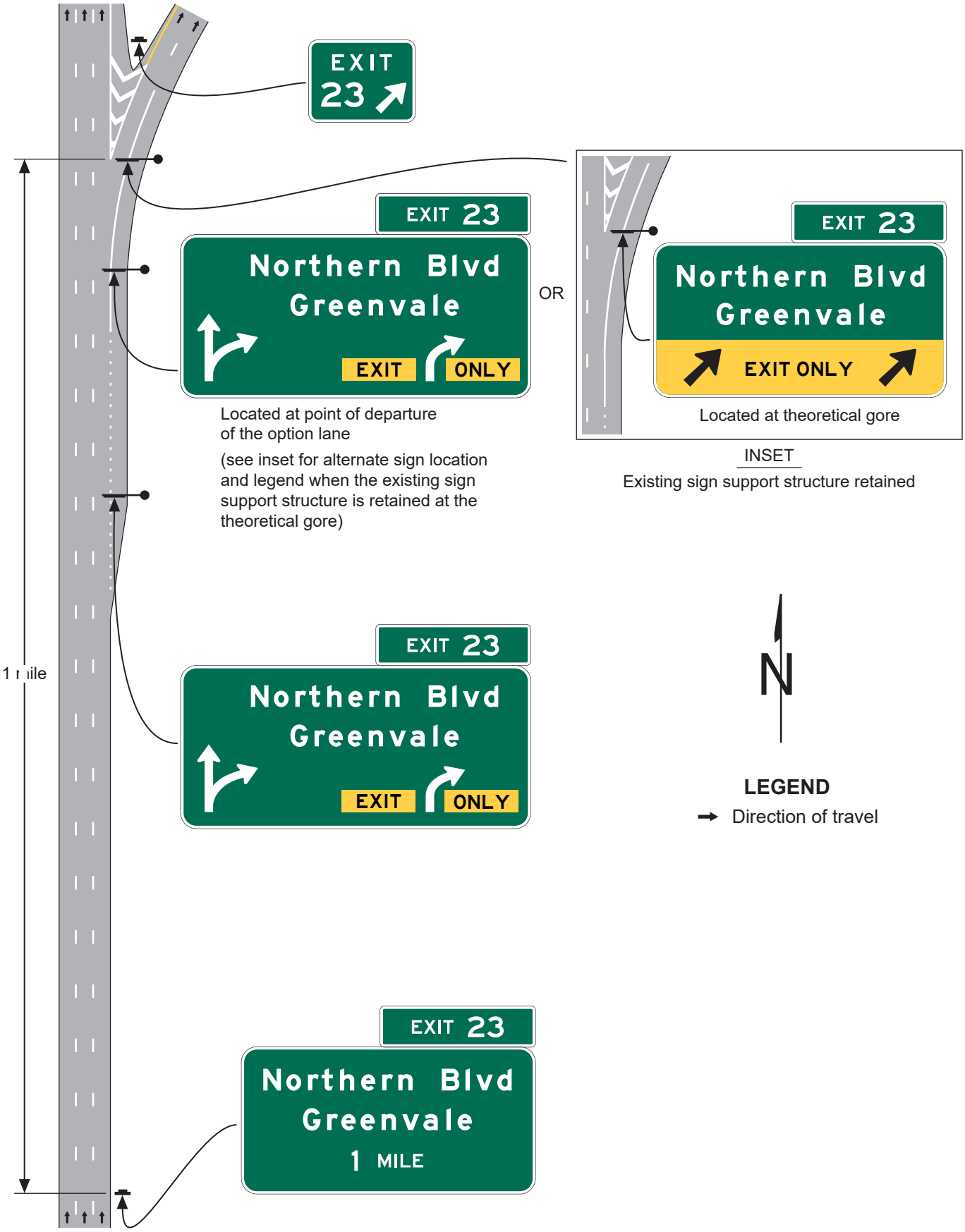


Figure 2E-46. Example of Signing for a Two-Lane Intermediate or Minor Interchange Exit with an Option Lane and a Dropped Lane

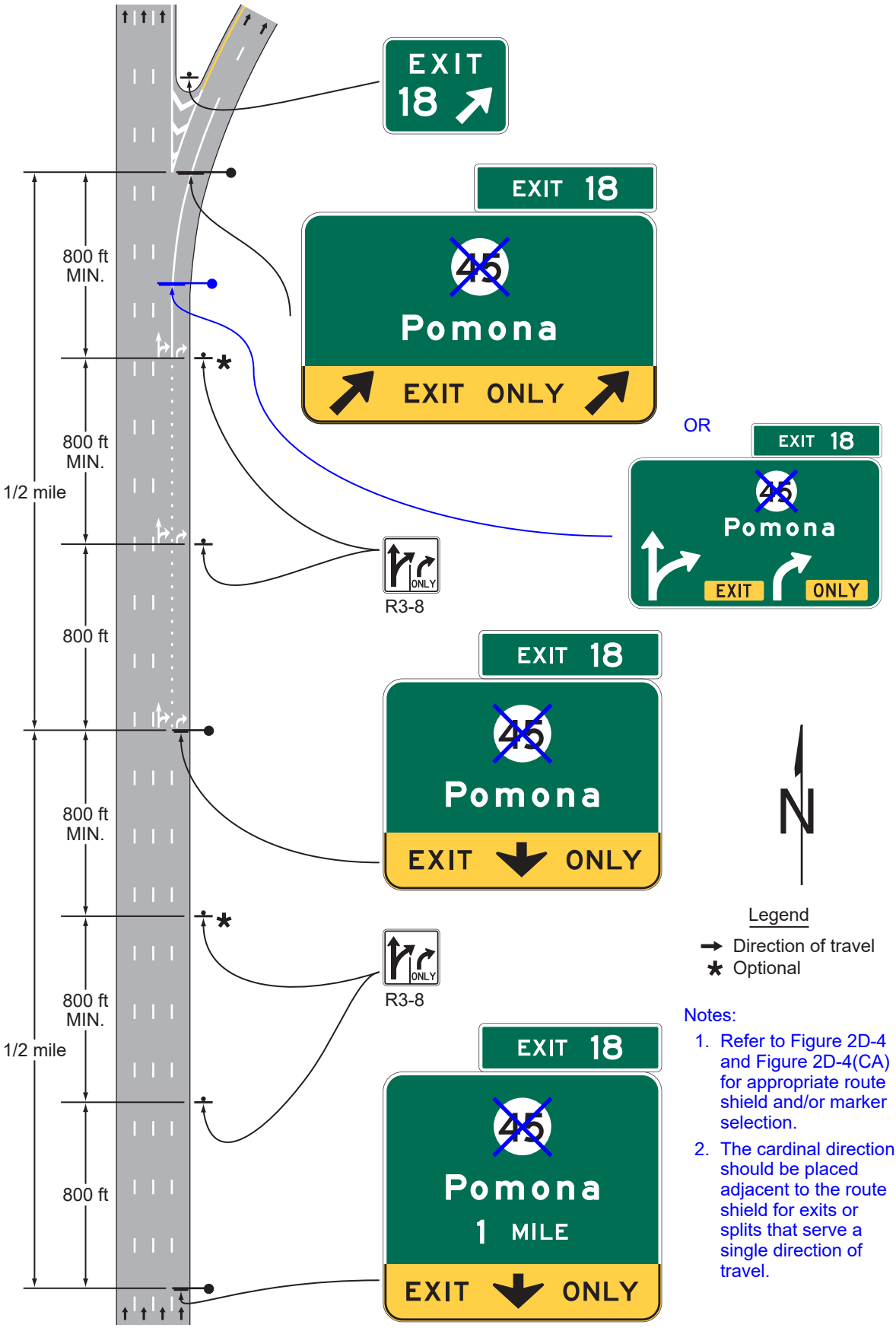


Figure 2E-47. Example of Signing for a Two-Lane Intermediate or Minor Interchange Exit with Option and Auxiliary Lanes

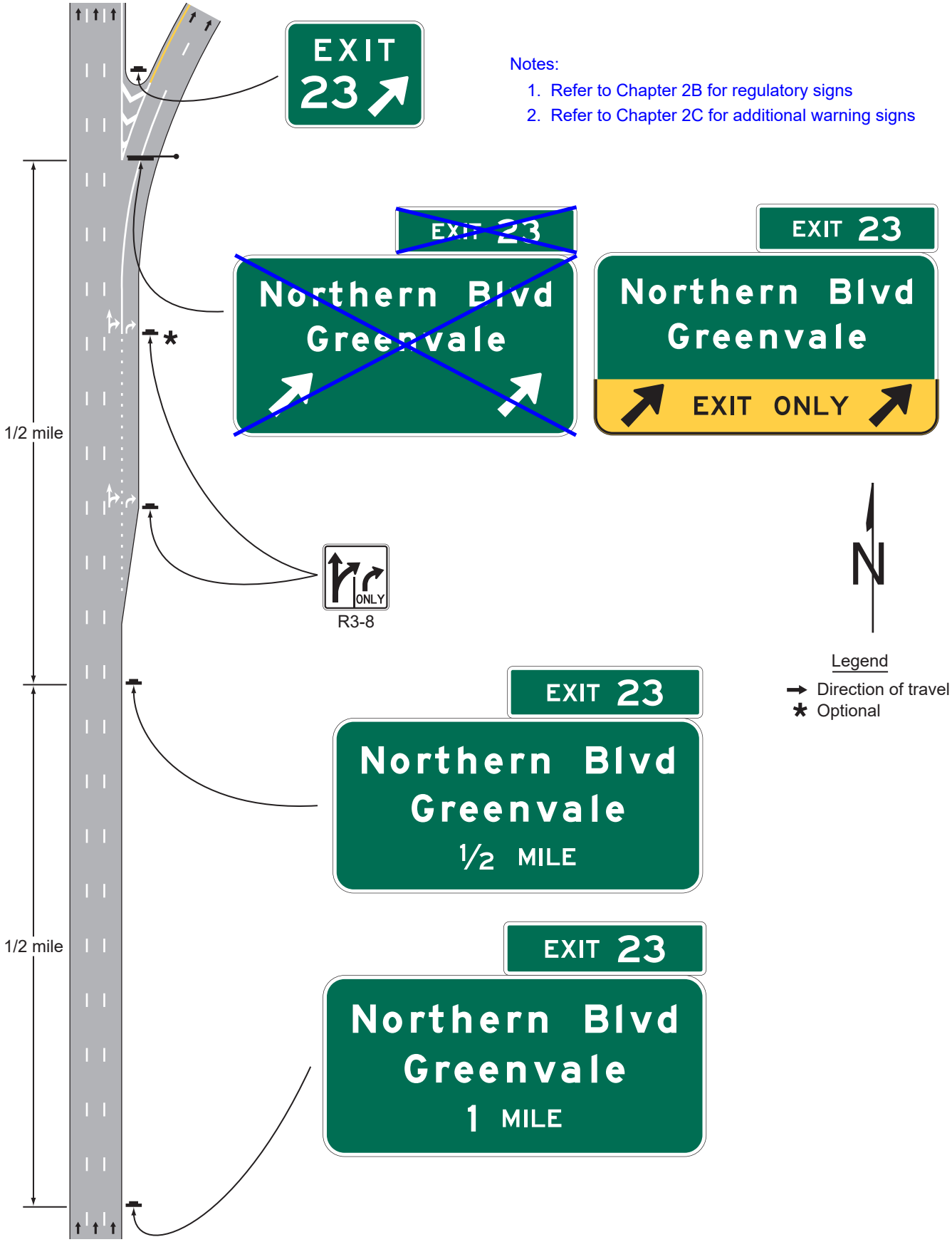
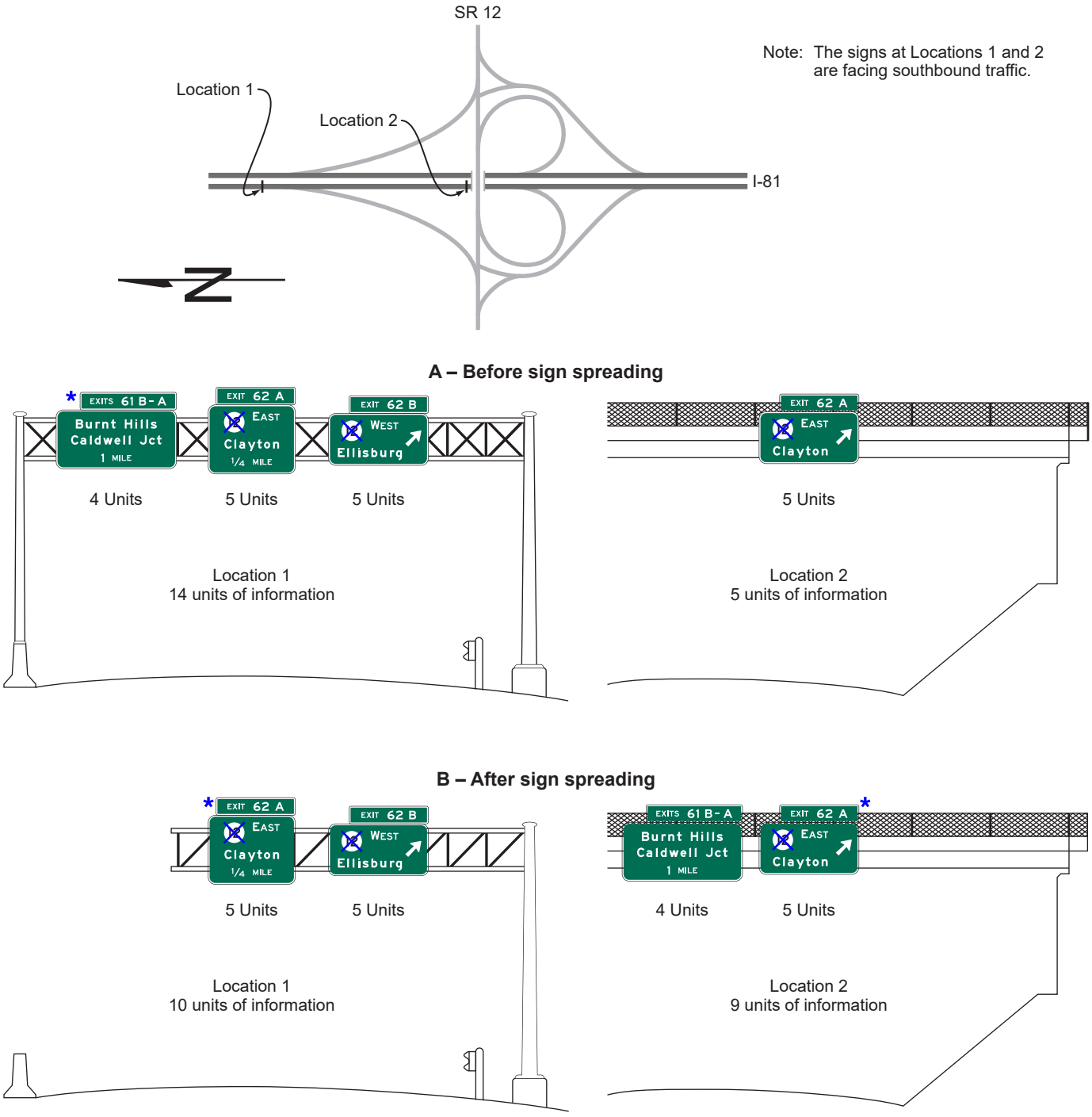


Figure 2E-48. Example of Sign Spreading



Note: Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.

* All adjacent sign panels mounted on an overhead sign structures on state highways should have the same sign depth.

Figure 2E-49. Next Exit Plaques



E2-1P



E2-1aP

Figure 2E-50. Example of a Post-Interchange Distance Sign



E7-3

Note: The one-line version (E7-1) and two-line version (E7-2) of the Post-Interchange Distance signs are not shown.

Figure 2E-51. Example of a Post-Interchange Travel Time Sign



E7-4

Note: The three-line version of the Post-Interchange Travel Time signs are not shown.

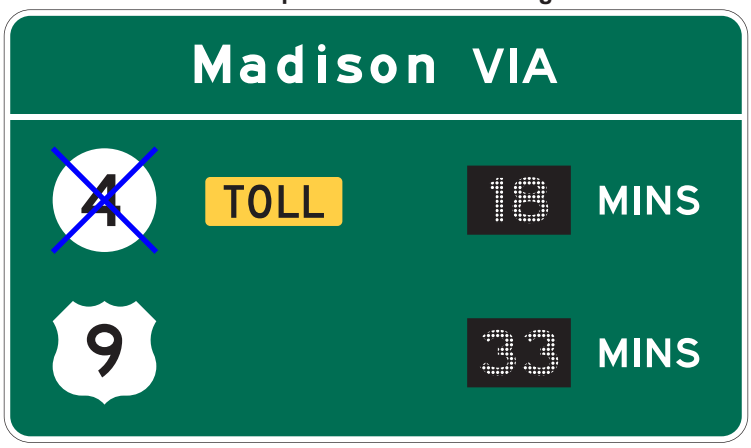
Figure 2E-52. Examples of Travel Time Signs

A – Distance and Travel Time signs



E7-5

B – Comparative Travel Time sign



E7-6

Notes:

1. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.
2. The acronym "JCT" should be added adjacent to route shields, where applicable. Refer to Figure 2E-50 for reference.

Figure 2E-53. Example of a Supplemental Guide Sign for a Multi-Exit Interchange



Figure 2E-54. Examples of Supplemental Guide Signs for a Park-and-Ride Facility

A – Route with exit numbering



B – Route without exit numbering



Figure 2E-54(CA). California Examples of Supplemental Guide Signs for a Park-and-Ride Facility



G95A-1(CA)



G95dP(CA)



G95eP(CA)

Figure 2E-55. Example of a Community Interchanges Identification Sign

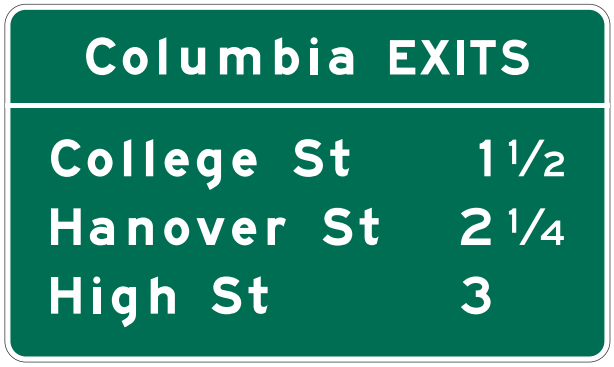


Figure 2E-56. Example of the Use of a Community Interchanges Identification Sign

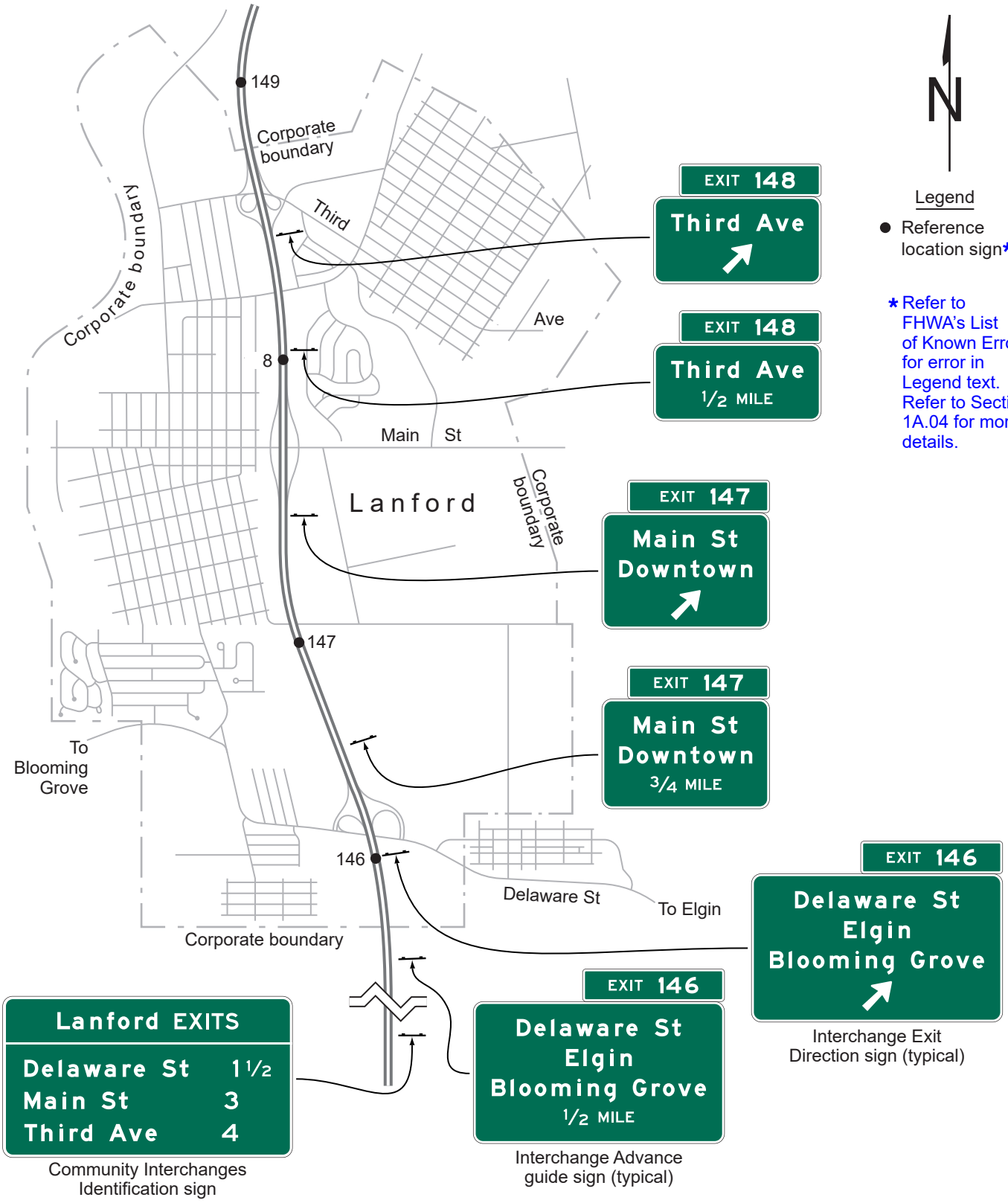


Figure 2E-57. Example of a Next Exits Sign



E9-3

Figure 2E-58. Example of the Use of a Next Exits Sign

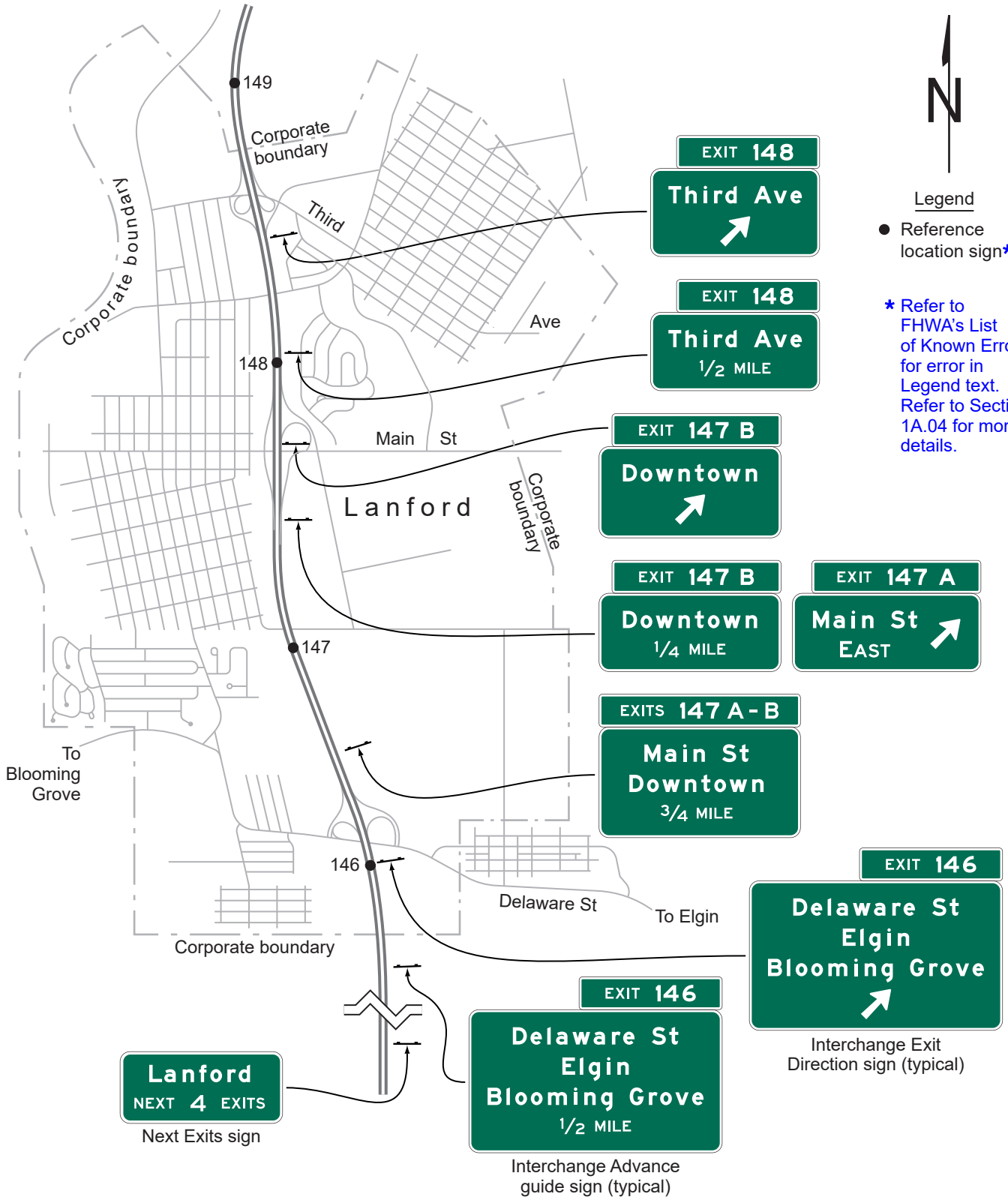


Figure 2E-59. Example of Weigh Station Signing on Freeways

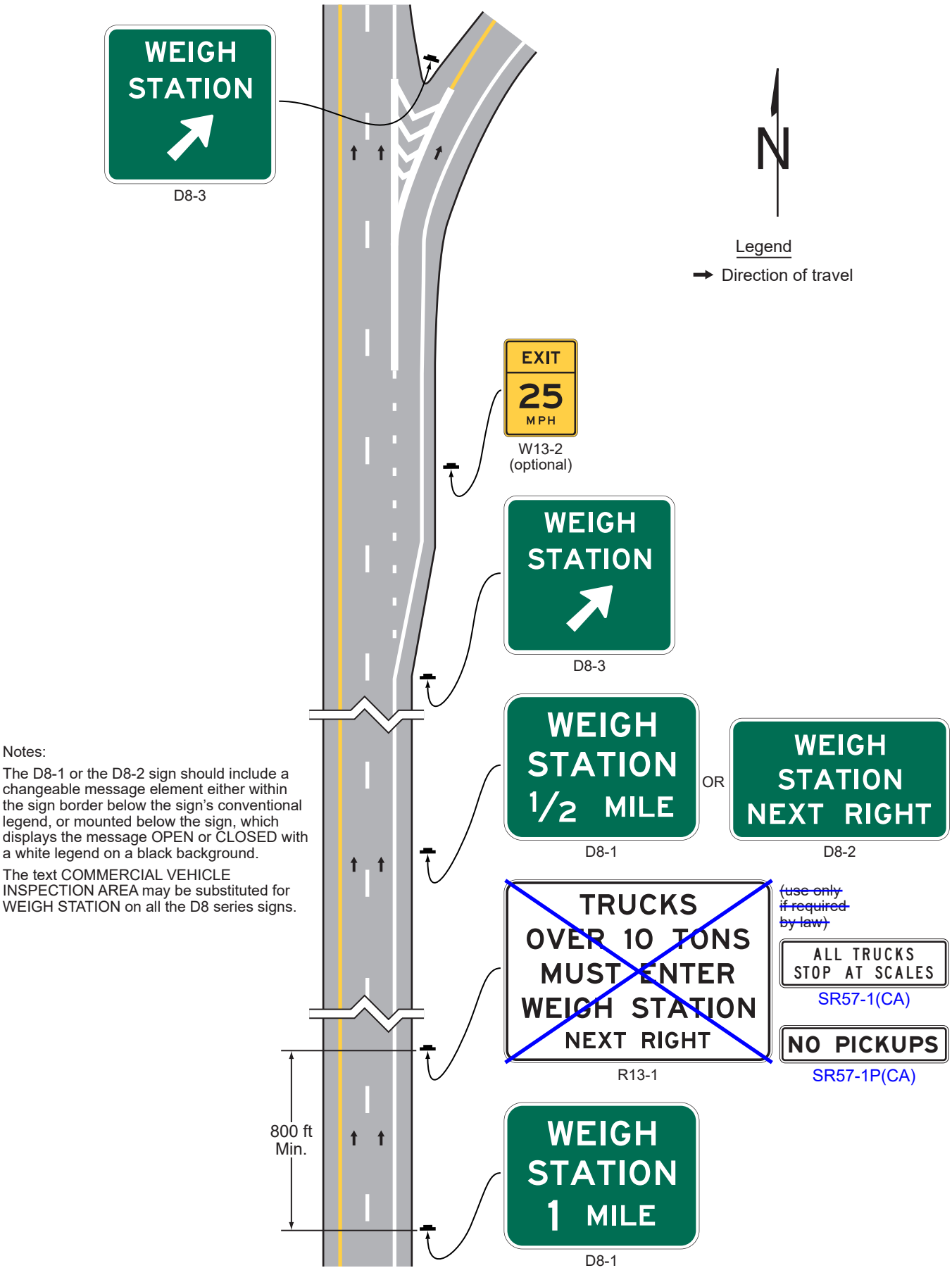
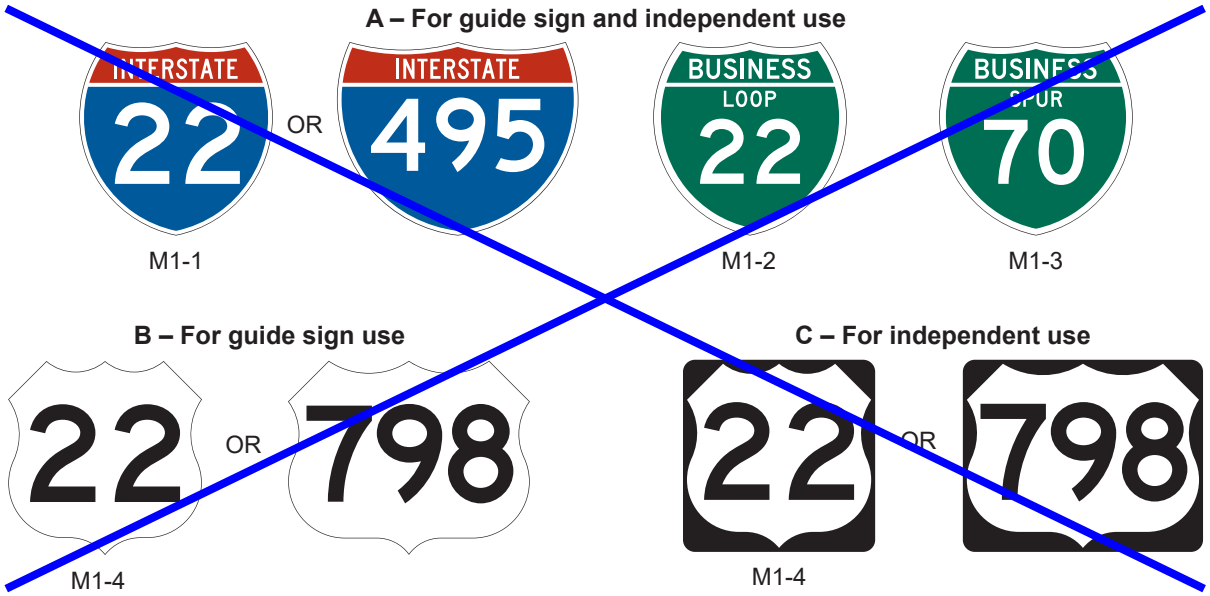
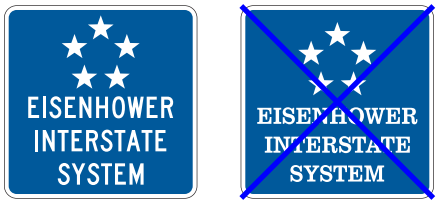


Figure 2E-60. Interstate, Off-Interstate, and U.S. Route Signs



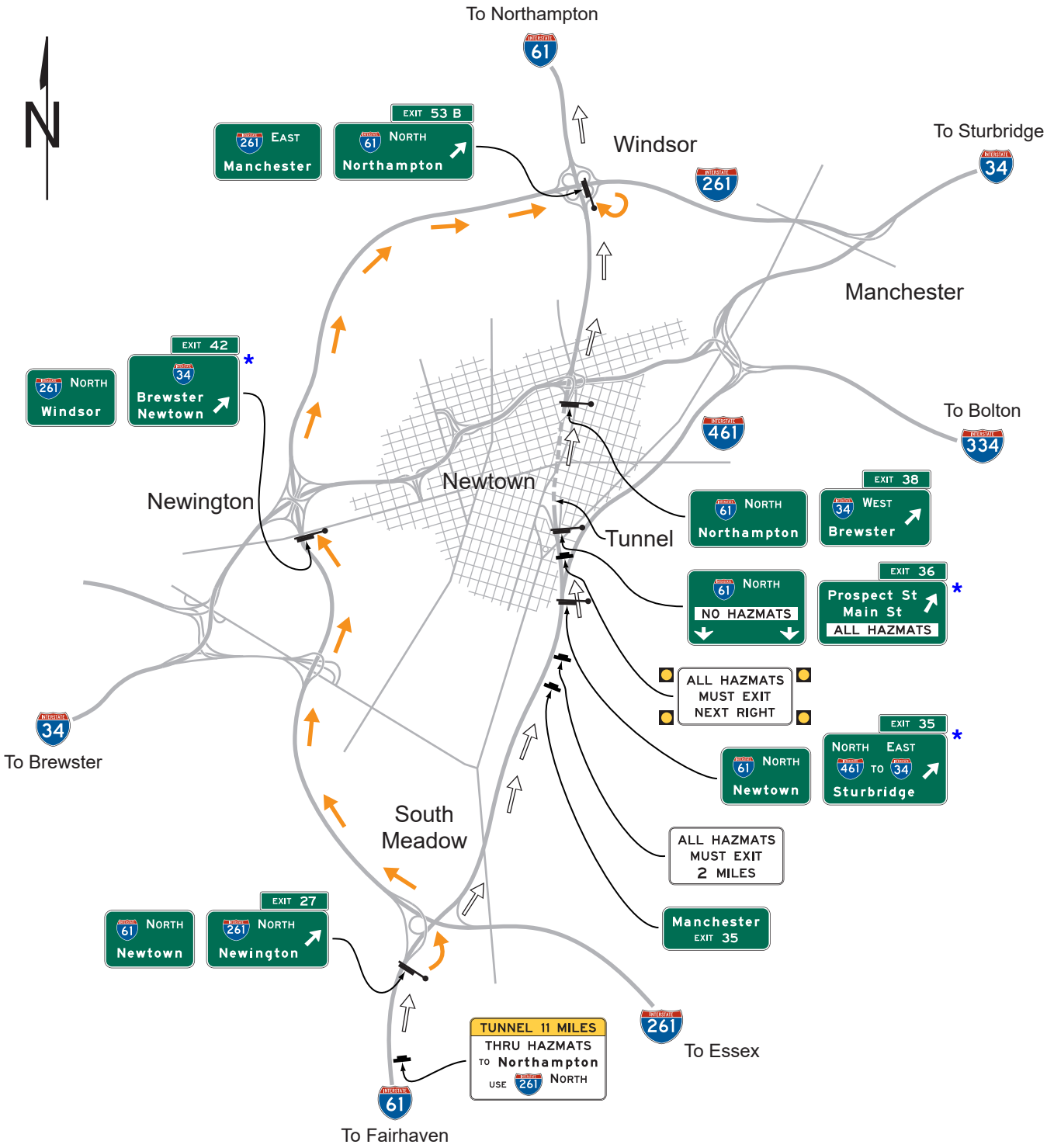
Note: Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.

Figure 2E-61. Eisenhower Interstate System Signs



M1-10 M1-10a

Figure 2E-62. Example of Signing for Route Diversion by Vehicle Class



Legend

⇨ Direct through route

→ Route for diverted vehicles

* All adjacent sign panels mounted on an overhead sign structures on state highways should have the same sign depth.

Note: Some interchange advance guide signs are not shown.

Table 2E-1. Freeway or Expressway Guide Sign and Plaque Sizes (Sheet 1 of 3)

Sign or Plaque	Sign Designation	Section	Minimum Size
Interchange Advance Guide (1 destination)	E1-1	2E.23	Varies
Interchange Advance Guide (2 destinations)	E1-2	2E.23	Varies
Interchange Advance Guide (3 destinations)	E1-3	2E.23	Varies
Exit Number (plaque)			
1-, 2-Digit Exit Number	E1-5P	2E.23	114 x 30
3-Digit Exit Number	E1-5aP	2E.23	132 x 30
1-, 2-Digit Exit Number (with single-letter suffix)	E1-5bP	2E.23	138 x 30
3-Digit Exit Number (with single-letter suffix)	E1-5cP	2E.23	156 x 30
1-, 2-Digit Exit Number (with dual-letter suffix)	E1-5dP	2E.23	168 x 30
3-Digit Exit Number (with dual-letter suffix)	E1-5eP	2E.23	186 x 30
Left Exit Number (plaque)			
1-, 2-Digit Exit Number	E1-5fP	2E.23	114 x 54
3-Digit Exit Number	E1-5gP	2E.23	132 x 54
1-, 2-Digit Exit Number (with single-letter suffix)	E1-5hP	2E.23	138 x 54
3-Digit Exit Number (with single-letter suffix)	E1-5iP	2E.23	156 x 54
1-, 2-Digit Exit Number (with dual-letter suffix)	E1-5jP	2E.23	168 x 54
3-Digit Exit Number (with dual-letter suffix)	E1-5kP	2E.23	186 x 54
Left (plaque)	E1-5mP	2E.23	72 x 30
Next Exit (1 line) (plaque)	E2-1P	2E.46	Varies x 24
Next Exit (2 lines) (plaque)	E2-1aP	2E.46	Varies x 36
Supplemental (1 destination)	E3-1	2E.51	Varies
Supplemental (2 destinations)	E3-2	2E.51	Varies
Exit Direction (1 destination)	E4-1	2E.25	Varies
Exit Direction (2 destinations)	E4-2	2E.25	Varies
Exit Direction (3 destinations)	E4-3	2E.25	Varies
Exit Gore	E5-1	2E.26	72 x 60
Exit Gore (with exit number)			
1-, 2-Digit Exit Number	E5-1a	2E.26	78 x 60
3-Digit Exit Number	E5-1a	2E.26	96 x 60
1-Digit Exit Number (with single-letter suffix)	E5-1a	2E.26	90 x 60
2-Digit Exit Number (with single-letter suffix)	E5-1a	2E.26	108 x 60
3-Digit Exit Number (with single-letter suffix)	E5-1a	2E.26	126 x 60
1-Digit Exit Number (with dual-letter suffix)	E5-1a	2E.26	120 x 60
2-Digit Exit Number (with dual-letter suffix)	E5-1a	2E.26	138 x 60
3-Digit Exit Number (with dual-letter suffix)	E5-1a	2E.26	156 x 60
Exit Number (plaque)			
~~1-, 2-Digit Exit Number~~	~~E5-1bP~~	~~2E.26~~	~~42 x 30~~
~~3-Digit Exit Number~~	~~E5-1bP~~	~~2E.26~~	~~60 x 30~~
~~1-Digit Exit Number (with single-letter suffix)~~	~~E5-1bP~~	~~2E.26~~	~~54 x 30~~
~~2-Digit Exit Number (with single-letter suffix)~~	~~E5-1bP~~	~~2E.26~~	~~72 x 30~~
~~3-Digit Exit Number (with single-letter suffix)~~	~~E5-1bP~~	~~2E.26~~	~~90 x 30~~
~~1-Digit Exit Number (with dual-letter suffix)~~	~~E5-1bP~~	~~2E.26~~	~~84 x 30~~
~~2-Digit Exit Number (with dual-letter suffix)~~	~~E5-1bP~~	~~2E.26~~	~~102 x 30~~
~~3-Digit Exit Number (with dual-letter suffix)~~	~~E5-1bP~~	~~2E.26~~	~~120 x 30~~
Narrow Exit Gore	E5-1c	2E.26	60 x 90*
Pull-Through	E6-1	2E.27	Varies
Pull-Through (Destination)	E6-1a	2E.27	Varies
Pull-Through (Down Arrows)	E6-2	2E.27	Varies

Table 2E-1. Freeway or Expressway Guide Sign and Plaque Sizes (Sheet 2 of 3)

Sign or Plaque	Sign Designation	Section	Minimum Size
Pull-Through (Destination, Down Arrows)	E6-2a	2E.27	Varies
Post-Interchange Distance	E7-1	2E.48	Varies
Post-Interchange Distance	E7-2	2E.48	Varies
Post-Interchange Distance	E7-3	2E.48	Varies
Post-Interchange Travel Time	E7-4	2E.49	Varies
Distance and Travel Time	E7-5	2E.50	Varies
Comparative Travel Time	E7-6	2E.50	Varies
Interchange Sequence (2 interchanges)	E9-1	2E.24	Varies
Interchange Sequence (3 interchanges)	E9-2	2E.24	Varies
Next Exits (1 destination)	E9-3	2E.53	Varies
Next Exits (2 destinations)	E9-3a	2E.53	Varies
Community Interchanges (2 interchanges)	E9-4	2E.52	Varies
Community Interchanges (3 interchanges)	E9-5	2E.52	Varies
Exit Only (with arrow)	E11-1,1d	2E.28	174** x 36
Exit	E11-1a	2E.28	66 x 18
Only	E11-1b	2E.28	66 x 18
Exit Only	E11-1c	2E.28	120 x 18
Exit Only (with two arrows)	E11-1e,1f	2E.28	222** x 36
Left (panel)	E11-2	2E.24	60 x 18
Exit Direction Advisory Speed (panel)	E13-2	2E.25	162 x 24
Interstate Route (1, 2 digits) (Shield)	M1-1	2E.55	36 x 36
Interstate Route (3 digits) (Shield)	M1-1	2E.55	45 x 36
Off-Interstate Route (1, 2 digits)	M1-2,3	2E.55	36 x 36
Off-Interstate Route (3 digits)	M1-2,3	2E.55	45 x 36
U.S. Route (1, 2 digits) (Shield or Marker)	M1-4	2E.55	36 x 36
U.S. Route (3 digits) (Shield or Marker)	M1-4	2E.55	45 x 36
~~State Route (1, 2 digits)~~	~~M1-5~~	~~2D.11~~	~~36 x 36~~
~~State Route (3 digits)~~	~~M1-5~~	~~2D.11~~	~~45 x 36~~
County Route	M1-6	2D.11	36 x 36
Forest Route	M1-7	2D.11	36 x 36
Eisenhower Interstate System	M1-10,~~10a~~	2E.56	36 x 36
Junction (plaque)	M2-1P	2D.13	30 x 21
Combination Junction (2 route signs)	M2-2	2D.14	60 x 48*
Cardinal Direction (plaque)	M3-1P,2P,3P,4P	2D.15	36 x 18
Alternate (plaque)	M4-1P,1aP	2D.17	36 x 18
By-Pass (plaque)	M4-2P	2D.18	36 x 18
Business (plaque)	M4-3P	2D.19	36 x 18
Truck (plaque)	M4-4P	2D.20	36 x 18
To (plaque)	M4-5P	2D.21	36 x 18
End (plaque)	M4-6P	2D.22	36 x 18
Temporary (plaque)	M4-7P,7aP	2D.24	36 x 18
Begin (plaque)	M4-14P	2D.23	36 x 18
Advance Turn Arrow (plaque)	M5-1P,2P,3P	2D.26	30 x 21
Lane Designation (plaque)	M5-4P,5P,6P	2D.27	36 x 24
Directional Arrow (plaque)	M6-1P,2P, 2aP,3P,4P,5P,6P,7P	2D.28	30 x 21
National Scenic Byway	M10-1	2D.57	24 x 24
National Scenic Byway (plaque)	M10-1aP	2D.57	24 x 12
Destination (1 line)	D1-1	2D.36	Varies x 24

Table 2E-1. Freeway or Expressway Guide Sign and Plaque Sizes (Sheet 3 of 3)

Sign or Plaque	Sign Designation	Section	Minimum Size
Destination and Distance (1 line)	D1-1a	2D.36	Varies x 24
Destination (2 lines)	D1-2	2D.36	Varies x 42
Destination and Distance (2 lines)	D1-2a	2D.36	Varies x 42
Destination (3 lines)	D1-3	2D.36	Varies x 60
Destination and Distance (3 lines)	D1-3a	2D.36	Varies x 60
Distance (1 line)	D2-1	2D.43	Varies x 24
Distance (2 lines)	D2-2	2D.43	Varies x 36
Distance (3 lines)	D2-3	2D.43	Varies x 48
Street Name (1 line)	D3-1,1a	2D.45	Varies x 18
Overhead Street Name (1 line)	D3-1,1a	2D.45	Varies x 24
Street Name (2 lines)	D3-1,1a	2D.45	Varies x 33
Overhead Street Name (2 lines)	D3-1,1a	2D.45	Varies x 48
Advance Street Name (2 lines)	D3-2	2D.46	Varies x 36
Advance Street Name (3 lines)	D3-2	2D.46	Varies x 48
Advance Street Name (4 lines)	D3-2	2D.46	Varies x 66
Park - Ride	D4-2	2D.48	36 x 48
Advance Weigh Station Distance	D8-1	2E.54	96 x 72 (F) 78 x 60 (E)
Weigh Station Advance Direction	D8-2	2E.54	108 x 90 (F) 84 x 72 (E)
Weigh Station Entrance Direction	D8-3	2E.54	84 x 78 (F) 66 x 60 (E)
Crossover	D13-1,2	2D.52	78 x 42
Freeway Entrance	D13-3	2D.50	48 x 30
Freeway Entrance (Directional)	D13-3a	2D.50	48 x 42
Combination Lane Use / Destination	D15-1	2D.38	Varies x 96
Next Truck Lane	D17-1	2D.53	60 x 66
Advance Truck Lane	D17-2	2D.53	60 x 54
Next Passing Lane	D17-3	2D.53	60 x 66
Advance Passing Lane	D17-4	2D.53	60 x 54
Advance Emergency Turn-Out	D17-5	2D.54	78 x 54
Emergency Turn-Out (Directional)	D17-6	2D.54	78 x 60
Advance Slow Vehicle Turn-Out	D17-7	2D.54	96 x 54

* The size shown is for a typical sign as illustrated in the figures in Chapters 2D and 2E. The size should be determined based on the amount of legend required for the sign.

** The width shown represents the minimum dimension. The width shall be increased as appropriate to match the width of the guide sign.

Notes: 1. Larger signs may be used when appropriate
2. Dimensions in inches are shown as width x height
3. Where two sizes are shown, the larger size is for freeways (F) and the smaller size is for expressways (E)

Table 2E-1(CA). California Freeway or Expressway Guide Sign and Plaque Sizes

Sign or Plaque	Sign Designation	Section	Minimum
Advance Lane Assignment	G20-1(CA)	2D.31	Varies x 30
Advance Lane Assignment	G20-3(CA)	2D.31	Varies x 42
Advance Lane Assignment	G20-5(CA)	2D.31	Varies x 54
Advance Lane Assignment	G20-7(CA)	2D.31	Varies x 60
Intersection Sequence	G23-7(CA)	2E.24	Varies x 90
Pull-Through	G24-1(CA)	2E.27	Varies x 80
Pull-Through	G24-3(CA)	2E.27	Varies x 110
Pull-Through	G24-4(CA)	2E.27	Varies x 120
Pull-Through	G24-5(CA)	2E.27	Varies x 110
Pull-Through	G24-6(CA)	2E.27	Varies x 110
Pull-Through	G24-7(CA)	2E.27	Varies x 110
Advance Guide	G83-2(CA)	2E.23	Varies x 110
Exit Numbered Advance Guide	G83-4(CA)	2E.22, 2E.23	Varies x 108
Exit Numbered Advance Guide	G83-5(CA)	2E.22, 2E.23	Varies x 78
Exit Numbered Exit Direction	G85-2(CA)	2E.25	Varies x 48
Exit Numbered Exit Direction	G85-3(CA)	2E.25	Varies x 108
Exit Numbered Exit Direction	G85-4(CA)	2E.25	Varies x 138
Exit Numbered Exit Direction	G85-5(CA)	2E.25	Varies x 80
Exit Numbered Exit Direction	G85-6(CA)	2E.25	Varies x 80
Exit Numbered Exit Direction	G85-11(CA)	2E.25	Varies x 78
Exit Numbered Exit Direction	G85-13(CA)	2E.25	Varies x 80
Exit Numbered Exit Direction	G85-14(CA)	2E.25	Varies x 110
Exit Numbered Advance Guide	G88-1(CA)	2E.22, 2E.23	Varies x 80
Exit Numbered Advance Guide	G88-2(CA)	2E.22, 2E.23	Varies x 110
PARK - RIDE Supplemental Guide	G95A-1(CA)	2E.51	96 x 60
BUS SERVICE (plaque)	G95dP(CA)	2E.51	96 x 24
PARK - RIDE (plaque)	G95eP(CA)	2E.51	120 x 24

Table 2E-2. Minimum Letter and Numeral Sizes for Expressway Guide Signs According to Interchange Classification

Type of Sign	Type of Interchange (see Section 2E.11)				Overhead*
	Major		Intermediate	Minor	
	Category a	Category b			
A. Advance Guide, Exit Direction, and Overhead Guide Signs					
Exit Number Plaques					
Words	10	10	10	8	10
Numerals & Letters	15	15	15	12	15
Interstate Route Signs					
Numerals	14**	—	—	—	14**
1- or 2-Digit Shields	36 x 36	—	—	—	36 x 36
3-Digit Shields	45 x 36	—	—	—	45 x 36
U.S. or State Route Signs					
Numerals	18	18	18	12	18
1- or 2-Digit Shields	36 x 36	36 x 36	36 x 36	24 x 24	36 x 36
3-Digit Shields	45 x 36	45 x 36	45 x 36	30 x 24	45 x 36
U.S. or State Route Text Identification (Example: US 56)					
Numerals & Letters	18	15	15	12	15
Cardinal Directions					
First Letters	18	15	12	10	15
Rest of Word	15	12	10	8	12
Auxiliary and Alternative Route Legends (Examples: JCT, TO, ALT, BUSINESS)					
Words	15	12	10	8	12
Names of Destinations					
Upper-Case Letters	20	16	13.33	10.67	16
Lower-Case Letters	15	12	10	8	12
Distance Numbers	18	15	12	10	15
Distance Fraction Numerals	12	10	10	8	10
Distance Words	12	10	10	8	10
Action Message Words	10	10	10	8	10
B. Gore Signs					
Words	10	10	10	8	—
Numerals & Letters	12	12	12	10	—

* Where a larger size is shown for the interchange classification of the interchange, that larger size is used for overhead-mounted guide signs for that interchange.

** Minimum size listed for 3-digit shields. Larger numeral sizes used for 1-digit, some 2-digit, and some 3-digit shields. See the Standard Highways Signs publication for more information on Route Sign numeral heights and Standard Alphabet series.

Note: Sizes are shown in inches and, where applicable, are shown as width x height

Table 2E-3. Minimum Letter and Numeral Sizes for Expressway Guide Signs According to Sign Type

Type of Sign	Minimum Size
A. Pull-Through Signs	
Destinations — Upper-Case Letters	13.33
Destinations — Lower-Case Letters	10
Route Signs	
Numerals	14*
1- or 2-Digit Shields	36 x 36
3-Digit Shields	45 x 36
Cardinal Directions — First Letters	12
Cardinal Directions — Rest of Word	10
B. Supplemental Guide Signs	
Exit Number — Words	8
Exit Number — Numerals and Letters	12
Place Names — Upper-Case Letters	10.67
Place Names — Lower-Case Letters	8
Action Messages	8
Route Signs	
Numerals	9*
1- or 2-Digit Shield	24 x 24
3-Digit Shield	30 x 24
C. Interchange Sequence or Community Interchanges Identification Signs	
Words — Upper-Case Letters	10.67
Words — Lower-Case Letters	8
Numerals	10.67
Fraction Numerals	8
Route Signs	
Numerals	9*
1- or 2-Digit Shield	24 x 24
3-Digit Shield	30 x 24
D. Next XX Exits Sign	
Place Names — Upper-Case Letters	10.67
Place Names — Lower-Case Letters	8
NEXT XX EXITS — Words	8
NEXT XX EXITS — Number	12

Type of Sign	Minimum Size
E. Distance Signs	
Words — Upper-Case Letters	8
Words — Lower-Case Letters	6
Numerals	8
Route Signs	
Numerals	6*
1- or 2-Digit Shield	18 x 18
3-Digit Shield	22.5 x 18
F. General Service Signs (see Chapter 2I)	
Exit Number — Words	8
Exit Number — Numerals and Letters	12
Services	8
G. Rest Area, Scenic Area, and Roadside Area Signs (see Chapter 2I)	
Words	10
Distance Numerals	12
Distance Fraction Numerals	8
Distance Words	8
Action Message Words	10
H. Reference Location Signs (see Chapter 2H)	
Words	4
Numbers	10
I. Boundary and Orientation Signs (see Chapter 2H)	
Words — Upper-Case Letters	8
Words — Lower-Case Letters	6
J. Next Exit and Next Services Signs	
Words and Numbers	8
K. Exit Only Signs	
Words	12
L. Overhead Arrow-per-Lane and Diagrammatic Signs	
See Table 2E-5	

* Minimum size listed for 3-digit shields. Larger numeral sizes used for 1-digit, some 2-digit, and some 3-digit shields. See the Standard Highways Signs publication for more information on Route Sign numeral heights and Standard Alphabet series.

Note: Sizes are shown in inches and where applicable are shown as width x height

Table 2E-4. Minimum Letter and Numeral Sizes for Freeway Guide Signs According to Interchange Classification

Type of Sign	Type of Interchange (see Section 2E.11)				Overhead **
	Major		Intermediate	Minor	
	Category a	Category b			
A. Advance Guide, Exit Direction, and Overhead Guide Signs					
Exit Number Plaques					
Words	10	10	10	10	10
Numerals & Letters	15	15	15	15	15
Interstate Route Signs					
Numerals	18/14*	—	—	—	14*
1- or 2-Digit Shields	48 x 48/ 36 x 36	—	—	—	36 x 36
3-Digit Shields	60 x 48/ 45 x 36	—	—	—	45 x 36
U.S. or State Route Signs					
Numerals	24/18	18	18	12	18
1- or 2-Digit Shields	48 x 48/ 36 x 36	36 x 36	36 x 36	24 x 24	36 x 36
3-Digit Shields	60 x 48/ 45 x 36	45 x 36	45 x 36	30 x 24	45 x 36
U.S. or State Route Text Identification (Example: US 56)					
Numerals & Letters	18	18/15	15	12	15
Cardinal Directions					
First Letters	18	15	15	10	15
Rest of Words	15	12	12	8	12
Auxiliary and Alternative Route Legends (Examples: JCT, TO, ALT, BUSINESS)					
Words	15	12	12	8	12
Names of Destinations					
Upper-Case Letters	20	20	16	13.33	16
Lower-Case Letters	15	15	12	10	12
Distance Numbers	18	18/15	15	12	15
Distance Fraction Numerals	12	12/10	10	8	10
Distance Words	12	12/10	10	8	10
Action Message Words	12	12/10	10	8	10
B. Gore Signs					
Words	12	12	12	8	—
Numeral & Letters	18	18	18	12	—

* Minimum size listed for 3-digit shields. Larger numeral sizes used for 1-digit, some 2-digit, and some 3-digit shields. See the Standard Highways Signs publication for more information on Route Sign numeral heights and Standard Alphabet series.

** Refer to FHWA's List of Known Errors for error in column. Refer to Section 1A.04 for more details.

Notes: 1. Sizes are shown in inches and, where applicable, are shown as width x height
2. Slanted line (/) signifies separation of desirable and minimum sizes

Table 2E-5. Minimum Letter and Numeral Sizes for Freeway Guide Signs According to Sign Type

Type of Sign	Minimum Size
A. Pull-Through Signs	
Destinations — Upper-Case Letters	16
Destinations — Lower-Case Letters	12
Route Signs	
Numerals	14*
1- or 2-Digit Shields	36 x 36
3-Digit Shields	45 x 36
Cardinal Directions — First Letter	15
Cardinal Directions — Rest of Word	12
B. Supplemental Guide Signs	
Exit Number Words	10
Exit Number Numerals and Letters	15
Place Names — Upper-Case Letters	13.33
Place Names — Lower-Case Letters	10
Action Messages	8
Route Signs	
Numerals	9*
1- or 2-Digit Shield	24 x 24
3-Digit Shield	30 x 24
C. Interchange Sequence or Community Interchanges Identification Signs	
Words — Upper-Case Letters	13.33
Words — Lower-Case Letters	10
Numerals	13.33
Fraction Numerals	10
Route Signs	
Numerals	9*
1- or 2-Digit Shield	24 x 24
3-Digit Shield	30 x 24
D. Next X Exits Sign	
Place Names — Upper-Case Letters	13.33
Place Names — Lower-Case Letters	10
NEXT X EXITS — Words	10
NEXT X EXITS — Number	15
E. Distance Signs	
Words — Upper-Case Letters	8
Words — Lower-Case Letters	6
Numerals	8
Route Signs	
Numerals	6*
1- or 2-Digit Shield	18 x 18
3-Digit Shield	22.5 x 18

Type of Sign	Minimum Size
F. General Service Signs (see Chapter 2I)	
Exit Number Words	10
Exit Number Numerals and Letters	15
Services	10
G. Rest Area, Scenic Area, and Roadside Area Signs (see Chapter 2I)	
Words	12
Distance Numerals	15
Distance Fraction Numerals	10
Distance Words	10
Action Message Words	12
H. Reference Location Signs (see Chapter 2H)	
Words	4
Numerals	10
I. Boundary and Orientation Signs (see Chapter 2H)	
Words — Upper-Case Letters	8
Words — Lower-Case Letters	6
J. Next Exit and Next Services Signs	
Words and Numerals	8
K. Exit Only Signs	
Words	12
L. Overhead Arrow-per-Lane Signs**	
Arrowhead (Type D Directional Arrow) ***	21
Arrow Shaft Width ***	7.75
Arrow Height	
Through ***	48/40
Left Only ***	36/30
Right Only ***	36/30
Optional-Diverge (Through with Left or Right) ***	48/40
Optional-Split (Left and Right) ***	22/33.33
Vertical Separator Width	2
Vertical Space between Vertical Separator and Top of Nearest Arrow	6.5/5.0
Horizontal Space between Vertical Separator and Top of Nearest Through Arrow	12/9
Horizontal Space between Arrow Shaft and EXIT and ONLY Panels	12
EXIT and ONLY Panels	54 x 18
M. Diagrammatic Signs	
Arrowhead (Type D Directional Arrow)	13.5
Stem Height to Upper Point of Departure	30
Horizontal Space between Arrowhead and Route Shield or Destination	12

* Minimum size listed for 3-digit shields. Larger numeral sizes used for 1-digit, some 2-digit, and some 3-digit shields. See the Standard Highways Signs publication for more information on Route Sign numeral heights and Standard Alphabet series.

** Overhead Arrow-per-Lane sign example layouts and design elements sizing are provided in the Standard Highway Sign publication. Sizes shown as XX/XX correspond to 20-inch/16-inch destination letter legend sizes respecitvely.

*** Refer to FHWA's List of Known Errors for error in row. Refer to Section 1A.04 for more details.

Note: Sizes are shown in inches and where applicable are shown as width x height.

Table 2E-6. Overhead Arrow-per-Lane Arrow Height Based on Principal Legend Letter Height

Principle Legend Letter Height *	Through Arrow	Turn Arrow	Through with Turn Arrow	Split Arrow
20 *	48	36	48	44
16 or less *	40	30	40	33.33

Note: Letter and arrow heights are shown in inches.

* Refer to FHWA's List of Known Errors for error in row. Refer to Section 1A.04 for more details.

CHAPTER 2F. TOLL ROAD SIGNS

Chapter 2F Subchapter and Section Organization

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GENERAL

Section 2F.01 Scope

Support:

01 Toll highways are typically limited-access freeway or expressway facilities. A portion of or an entire route might be a toll highway, or a bridge, tunnel, or other crossing point might be the only toll portion of a highway at which a toll is collected. A toll highway might be a conventional road. The general signing requirements for toll roads will depend on the type of facility and access (freeway, expressway, or conventional road). The provisions of Chapters 2D and 2E will generally apply for guide signs along the toll facility that direct road users within and off the facility where exit points and geometric configurations are not dependent specifically on the collection of tolls. The aspect of tolling and the presence of toll plazas or collection points necessitate additional considerations in the typical signing needs. The notification of the collection of tolls in advance of and at entry points to the toll highway also necessitates additional modifications to the typical signing.

02 The scope of this Section applies to a route or facility on which all lanes are tolled. Chapter 2G contains provisions for the signing of managed lanes within an otherwise non-toll facility that employ tolling or pricing as an operational strategy to manage congestion levels.

Standard:

03 **Except where specifically provided in this Chapter, the provisions of other Chapters in Part 2 shall apply to toll roads.**

Section 2F.02 Sizes of Toll Road Signs and Electronic Toll Collection (ETC) System Pictographs

Standard:

01 **Except as provided in Section 2A.07, the minimum sizes of toll road signs that have standardized designs shall be as shown in Table 2F-1.**

Support:

02 Section 2A.07 contains information regarding the applicability of the various columns in Table 2F-1. Option:

03 Signs larger than those shown in Table 2F-1 may be used (see Section 2A.07).

Standard:

04 **The ETC system pictograph (see Section 2A.04) shall be of a size that makes it a prominent feature of the sign legend as necessary for conspicuity for those road users with registered ETC accounts seeking such direction, as well as for those road users who do not have ETC accounts so that it is clear to them to avoid such direction when applicable.**

Guidance:

05 *Except as provided in Paragraph 6 of this Section, an ETC pictograph that is in the shape of a horizontally-oriented rectangle should have a minimum height of 1.5 times the upper-case letter height of the principal legend on the sign. The width of an ETC pictograph in the shape of a horizontal rectangle should be between approximately 2 and 3 times the height of the pictograph.*

06 *When the pictograph is the principal legend on the sign, such as for advance guide signs for open- road tolling lanes (see Section 2F.15), the minimum height of a horizontally-oriented rectangular ETC pictograph should be consistent with that of a route shield prescribed for the particular application and type of sign.*

07 *For ETC pictographs whose shape is square, circular, or otherwise similar in height and width, or is a vertically-oriented rectangle, the same basic principles for conspicuity and placement should be followed. ETC pictographs whose shape is not in that of a horizontally-oriented rectangle should be suitably sized to facilitate conspicuity as described in Paragraph 4 of this Section and should be of a similar approximate area as the horizontally-oriented rectangular pictographs designed in accordance with the height and width as provided in Paragraph 5 of this Section.*

Section 2F.03 Use of Color on Toll Signs

Standard:

01 **Use of the color purple on any sign shall comply with the provisions of Sections 1D.05 and 2A.06. Except as provided in Sections 2F.05 and 2F.16, purple as a background color shall be used only when the information associated with the appropriate ETC account is displayed on that portion of the sign. The background color of**

the remaining portion of such signs shall comply with the provisions of Sections 1D.05 and 2A.06 as appropriate for a regulatory, warning, or guide sign. Purple shall not be used as a background color to display a destination, action message, or other legend that is not a display of the requirement for all vehicles to have a registered ETC account.

02 **If only vehicles with registered ETC accounts are allowed to use a highway lane, a toll plaza lane, an open-road tolling lane, or all lanes of a toll highway or connection, the guide signs for such lanes or highways shall incorporate the pictograph (see Section 2A.04) adopted by the toll facility's ETC payment system and the regulatory message ONLY. Except for ETC pictographs whose predominant background color is purple, 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 underlay panel with a white border. For rectangular ETC pictographs whose predominant background color is purple, a white border shall be used at the outer edges of the purple rectangle to provide contrast between the pictograph and the sign background color.**

03 **If an ETC pictograph is used on a separate plaque in a route sign assembly (see Section 2F.05) or on a header panel within a guide sign, the plaque or the header panel shall have a purple background with a white border and the ETC pictograph shall have a white border to provide contrast between the pictograph and the background of the plaque or header panel.**

04 **Purple underlay panels for ETC pictographs or purple backgrounds for plaques and header panels shall only be used in the manner described in Paragraphs 1 through 3 of this Section to convey the requirement of a registered ETC account on signs for lanes reserved exclusively for vehicles with such an account and on directional signs to an ETC account-only facility from a non-toll facility or from a toll facility that accepts multiple payment forms.**

Support:

05 Figure 2F-1 shows examples of ETC account pictographs, their use with various background colors, and modifications involving underlay panels.

06 Section 2F.02 contains provisions regarding the size of pictographs for ETC accounts.

REGULATORY SIGNS

Section 2F.04 Regulatory Signs for Toll Plazas

Support:

01 Toll plaza operations often include lane-specific restrictions on vehicle type, forms of payment accepted, and speed limits or required stops. Vehicles are typically required to come to a stop to pay the toll or receive a toll ticket in the attended and exact change or automatic lanes. Electronic toll collection (ETC) lanes with favorable geometrics typically allow vehicles to move through the toll plaza without stopping, but usually within a set regulatory speed limit or advisory speed. In some ETC lanes and in most lanes that accommodate non-ETC vehicles, a stop might be required while the ETC payment is processed because of geometric or other conditions.

Guidance:

02 *Regulatory signs applicable only to a particular lane or lanes should be located in a position that makes their lane applicability clear to road users approaching the toll plaza.*

03 *Regulatory signs, or regulatory panels within guide signs, indicating restrictions on vehicle type and forms of toll payment accepted at a specific toll plaza lane should be installed over the applicable lane either on the toll plaza canopy or on a separate structure immediately in advance of the canopy located in a manner such that each sign is clearly related to an individual toll lane.*

Support:

04 Section 2F.12 contains information regarding the incorporation of regulatory messages into guide signs for toll plazas.

05 Section 2F.16 contains information regarding the design and use of toll plaza canopy signs.

Guidance:

06 *One or more Speed Limit (R2-1) signs (see Section 2B.21) should be installed in the locations provided in Paragraph 8 of this Section for an ETC-Only lane at a toll plaza in which an enforceable regulatory speed limit is established for a lane in which it is intended that vehicles move through the toll plaza without stopping while toll payments requiring stops occur in other lanes at the toll plaza. The speed limit displayed on the signs should be based on an engineering study taking into account the geometry of the toll plaza and the lanes, as well as other appropriate safety and operational factors.*

07 *A Speed Limit (R2-1) sign should not be installed for a toll plaza lane that is controlled by a STOP (R1-1) sign or where a stop is required.*

08 *Where speed limit signs are installed over a toll plaza lane on the toll plaza canopy, on the approach end of the toll booth island, on the toll booth itself, or on a vertical element of the canopy structure, then down arrows or diagonally downward-pointing directional arrows should be used to supplement the speed limit signs if there is a need to clarify the applicability of a sign to a specific lane or to improve compliance.*

Standard:

09 **A STOP (R1-1) sign shall not be installed for a toll plaza lane that is operated as an ETC-Only lane and that is designed for tolls to be collected while vehicles continue moving.**

Option:

10 A STOP (R1-1) sign may be installed to require all vehicles to come to a complete stop to pay a toll in an attended or exact change lane, even if that lane is also available for optional use by vehicles with registered ETC accounts. A PAY TOLL (R3-29P) or TAKE TICKET (R3-30P) plaque (see Figure 2F-2), as appropriate to the operation, may be installed directly under the STOP (R1-1) sign for a toll plaza lane, if needed.

11 The mounting height of the STOP sign and any supplemental plaque may be less than the normal mounting height requirements if constrained by the physical features of the toll island or toll plaza.

12 The lateral offset of a STOP or other regulatory sign located within a toll plaza island may be reduced to a minimum of 1 foot from the face of the toll island or raised barrier to the nearest edge of the sign.

Guidance:

13 *If used, a STOP (R1-1) sign for a toll plaza cash payment lane should be located in a longitudinal position as near as practical to the point where a vehicle is expected to stop to pay the toll or take a ticket.*

Option:

14 A Toll Rate (R3-28) sign (see Figure 2F-2) may be installed in advance of the toll plaza to indicate the toll

applicable to the various vehicle types.

Guidance:

15 *If used, the Toll Rate (R3-28) sign should be located between the toll plaza and the first advance sign informing road users of the toll plaza.*

16 *The R3-28 sign should not contain more than three lines of legend. Each line that shows a toll amount should display only a single toll amount.*

Option:

17 Additional toll rate information exceeding three lines of legend may be displayed on the toll booth adjacent to the payment window of an attended lane or the payment receptacle of an exact change or automatic lane where it is visible to a road user who has stopped to pay the toll, but is not visible to approaching road users who have not yet entered the toll lane.

Section 2F.05 Electronic Toll Collection (ETC) Account-Only Regulatory Sign and Plaque (R3-31 and R3-32P)

Standard:

01 **In any route sign assembly providing directions to a toll facility, or to a tolled segment of a highway, where electronic toll collection (ETC) is the only payment method accepted and all vehicles are required to have a registered ETC account, the ETC Account-Only (R3-31) sign (see Figure 2F-3) shall be mounted directly below the route sign of the numbered or named toll facility. The R3-31 sign shall have a white border and purple background and incorporate the pictograph adopted by the toll facility's ETC payment system and the word ONLY in black letters on a white panel set on the purple background of the sign.**

Option:

02 The NO CASH (R3-32P) plaque (see Figure 2F-3) with a black legend and border on a white background may be mounted directly below the R3-31 sign in a Directional or other sign assembly.

WARNING SIGNS

Section 2F.06 Pay Toll and Take Ticket Advance Warning Signs (W9-6 and W9-6e)

Standard:

01 **The Pay Toll (W9-6) and Take Ticket (W9-6e) Advance Warning signs shall display the distance to the toll plaza and, except for toll-ticket facilities, the toll for passenger or 2-axle vehicles (see Figure 2F-4). Where the toll for passenger or 2-axle vehicles is variable by time of day, a changeable message element shall be incorporated into the W9-6 sign to display the toll in effect.**

Guidance:

02 *The Pay Toll Advance Warning (W9-6) sign should be installed at approximately 1 mile and ½ mile in advance of mainline toll plazas at which some or all lanes are required to come to a stop to pay a toll (see Sections 2F.14 and 2F.15).*

03 *The Take Ticket Advance Warning (W9-6e) sign should be installed overhead at approximately 1 mile and ½ mile in advance of mainline toll plazas at which some or all lanes are required to come to a stop to take a toll ticket (see Sections 2F.14 and 2F.15).*

Support:

03a Refer to FHWA's List of Known Errors for error in Paragraph 3 text. Refer to Section 1A.04 for more details.

Guidance:

04 *The Pay Toll and Take Ticket Advance Warning signs should be mounted overhead.*

Option:

05 If there is insufficient space for the W9-6 or W9-6e sign at the 1-mile or ½-mile advance location, the Pay Toll or Take Ticket Advance Warning (W9-6bP or W9-6gP) plaque (see Section 2F.07) may be installed at those advance locations above the appropriate guide sign(s) that relate to toll payment types.

05a The W9-6bP and W9-6gP plaques may be formatted as a header panel within the guide sign.

06 An additional W9-6 or W9-6e sign may be installed approximately 2 miles in advance of a mainline toll plaza. This sign may be either mounted overhead or post-mounted.

07 If the visibility of a ramp toll plaza at which some or all lanes are required to come to a stop to pay a toll or take a ticket is limited, the W9-6 or W9-6e sign may also be installed in advance of the ramp toll plaza.

Section 2F.07 Pay Toll and Take Ticket Advance Warning Plaques (W9-6bP, W9-6dP, and W9-6gP)

Option:

01 The Pay Toll or Take Ticket Advance Warning (W9-6bP and W9-6gP) plaques (see Figure 2F-4) may be installed above the appropriate guide sign(s) relating to toll payment types at the 1-mile and/or ½-mile advance locations on the approach to a toll plaza if there is insufficient space for the W9-6 or W9-6e sign (see Section 2F.06) at those advance locations.

01a The W9-6bP and W9-6gP plaques may be formatted as a header panel within the guide sign.

Standard:

02 **The W9-6bP and W9-6gP plaques shall display the distance to the toll plaza and, except for toll-ticket facilities, the toll for passenger or 2-axle vehicles. Where the toll for passenger or 2-axle vehicles is variable by time of day, a changeable message element shall be incorporated into the W9-6bP plaque to display the toll in effect.**

Option:

03 The distance to the toll plaza may be omitted from the W9-6bP and W9-6gP plaques if the distance is displayed on the guide sign that the plaque accompanies.

04 The Pay Toll (W9-6dP) plaque may be used if the toll information is displayed on the guide sign that the plaque accompanies.

05 The toll for passenger or 2-axle vehicles may be omitted from the W9-6bP plaque if the toll information is displayed on the guide sign that the plaque accompanies.

Section 2F.08 Stop Ahead Pay Toll and Stop Ahead Take Ticket Warning Signs (W9-6a and W9-6f)

Support:

00 Refer to FHWA's List of Known Errors for error in the Section Title. Refer to Section 1A.04 for more details.

Standard:

01 **The Stop Ahead Pay Toll (W9-6a) warning sign (see Figure 2F-4) shall display the toll for passenger or 2-axle vehicles. Where the toll for passenger or 2-axle vehicles is variable by time of day, a changeable message element shall be incorporated into the W9-6a sign to display the toll in effect.**

Guidance:

02 *The Stop Ahead Pay Toll (W9-6a) sign should be installed downstream from the W9-6 sign that is ½ mile in advance of a mainline toll plaza where some or all of the lanes are required to come to a stop to pay a toll (see Sections 2F.14 and 2F.15).*

03 *The Stop Ahead Take Ticket (W9-6f) warning sign (see Figure 2F-4) should be installed downstream from the W9-6e sign that is ½ mile in advance of a mainline toll plaza where some or all of the lanes are required to come to a stop to take a toll ticket (see Sections 2F.14 and 2F.15).*

Support:

03a Refer to FHWA's List of Known Errors for error in Paragraph 3 text. Refer to Section 1A.04 for more details.

Guidance:

04 *The W9-6a and W9-6f signs should be mounted overhead. The location of the overhead sign should coincide with the approximate location where the mainline lanes begin to widen on the approach to the toll plaza lanes.*

05 *Where open-road tolling is used in addition to a toll plaza at a particular location, the W9-6a or W9- 6f sign should be located such that the message is clearly related to the lanes that access the toll plaza and not to the open-road tolling lanes.*

Option:

06 If there is insufficient space for the W9-6a or W9-6f sign at the recommended location, the Stop Ahead Pay Toll (W9-6cP) or the Stop Ahead Take Ticket (W9-6hP) plaque (see Section 2F.09) may be installed at that location above the appropriate guide sign that relates to toll payment types.

06a The W9-6cP and W9-6hP plaques may be formatted as a header panel within the guide sign.

07 If the visibility of a ramp toll plaza at which some or all lanes are required to come to a stop to pay a toll or take a ticket is limited, the W9-6a or W9-6f sign may also be installed in advance of the ramp toll plaza.

Section 2F.09 Stop Ahead Pay Toll and Stop Ahead Take Ticket Warning Plaques (W9- 6cP and W9-6hP)

Support:

00 Refer to FHWA's List of Known Errors for error in the Section Title. Refer to Section 1A.04 for more details.

Option:

01 The Stop Ahead Pay Toll (W9-6cP) warning plaque (see Figure 2F-4) may be installed above the appropriate guide sign at the location specified for the Stop Ahead Pay Toll (W9-6a) sign (see Section 2F.08) if there is insufficient space for the W9-6a sign at that location and the toll information is displayed on the guide sign that the plaque accompanies.

02 The Stop Ahead Take Ticket (W9-6hP) warning plaque (see Figure 2F-4) may be installed above the appropriate guide sign at the location specified for the Stop Ahead Take Ticket (W9-6f) sign (see Section 2F.08) if there is insufficient space for the W9-6f sign at that location.

Support:

02a Refer to FHWA's List of Known Errors for error in Paragraph 2. Refer to Section 1A.04 for more details.

Option:

03 The W9-6cP and W9-6hP plaques may be formatted as a header panel within the guide sign.

Section 2F.10 LAST EXIT BEFORE TOLL Warning Plaques (W16-16P and W16-16aP)

Guidance:

01 *The LAST EXIT BEFORE TOLL (W16-16P or W16-16aP) warning plaque (see Figure 2F-4) should be used to notify road users of the last exit from a highway before it becomes a facility on which toll payments are required. The plaque should be installed above the appropriate guide signs for the exit (see Sections 2E.23 and 2E.25), but below the*

Exit Number or LEFT plaque if used.

Option:

02 The W16-16P plaque may be formatted as a header panel within the guide sign.

Section 2F.11 TOLL Warning Plaque (W16-17P)

Standard:

01 **The TOLL (W16-17P) warning plaque (see Figure 2F-3) shall have a black legend and border on a yellow background and shall be mounted directly above the route sign of a numbered toll highway or, if used, above the cardinal direction and alternative route auxiliary signs, in any route sign assembly providing direction to a toll highway or to a segment of a highway on which the payment of a toll is required.**

GUIDE SIGNS

Section 2F.12 Toll Facility and Toll Plaza Guide Signs – General

Support:

01 Toll plazas are used on many toll highways, bridges, and tunnels for collection of tolls from road users. Electronic toll collection and/or open-road tolling might also be used on such facilities, either in addition to or in place of collecting toll payments at toll plazas.

02 Chapter 2G contains information regarding signs for preferential and managed lanes that are applicable to toll roads.

03 Chapter 3E contains information regarding pavement markings for certain toll plaza applications.

Standard:

04 **Directional assemblies for entrances to a toll highway, or to a road leading directly to a toll highway with no opportunity to exit before paying or being charged a toll, shall clearly indicate that the facility is a toll facility. Except where the State Toll Route sign (see Paragraph 8 of this Section) is used, the TOLL (W16-17P) warning plaque (see Section 2F.11) shall be used above the route sign of a numbered toll facility in any route sign assembly that provides directions to the toll route from another highway (see Figure ~~2F-5~~ 2F-6 and Figure 2F-101(CA)).**

05 **Except where the State Toll Route sign (see Paragraph 8 of this Section) is used and on Exit Gore signs or destination guide (D1 series) signs, a rectangular panel with the black legend TOLL on a yellow background shall be incorporated into the guide signs leading road users to a tolled highway (see Figures 2F-6 through 2F-8).**

06 **Guide signs for toll highways, toll plazas, and tolled or priced managed lanes (see Chapter 2G) shall have white legends and borders on green backgrounds, except as specifically provided by Sections 2F.12 through 2F.16.**

Option:

07 A State Toll Route sign (see Paragraph 8 of this Section) may be used in lieu of the State Route (M1- 5) sign in combination with the TOLL (W16-17P) warning plaque or the TOLL panel (see Paragraphs 10 and 11 of this Section).

Standard:

08 **A State Toll Route sign shall incorporate into its design the word TOLL using the same letter height, legend, background colors, and overall plaque dimensions specified for the W16-17P warning plaque.**

09 **The Interstate, Off-Interstate, and U.S. Route signs shall not be modified for tolled facilities.**

Option:

10 Where conditions do not accommodate 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:

11 **When regulatory messages are incorporated within a guide sign, they shall be on a rectangular panel with a black legend on a white background. When warning messages are incorporated within a guide sign, they shall be on a rectangular panel with a black legend on a yellow background.**

Guidance:

12 *Guide signs for toll plazas should be designed in accordance with the general principles of guide signs and the specific provisions of Chapter 2E.*

13 *Signs for toll plazas should systematically provide road users with advance and toll plaza lane- specific information regarding:*

- *A. The amount of the toll, the types of payment accepted, and the type(s) of registered ETC accounts 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:

14 **Signs for attended lanes at toll plazas shall incorporate the Toll Collector (M4-17) symbol panel (see Figure 2F-9).**

Option:

15 Signs for attended lanes at toll plazas may also display word legends, such as FULL SERVICE, CASH, CHANGE, or RECEIPTS (see Figure 2F-9), to supplement the required symbol panel when lanes have different services available through them.

Standard:

16 **Signs for Exact Change lanes at toll plazas shall incorporate the Exact Change (M4-18) symbol panel and, except for ticketed systems, display the amount of the toll for passenger vehicles (see Figure 2F-9).**

Option:

17 Signs for Exact Change lanes at toll plazas may include an appropriate word legend, such as EXACT CHANGE (see Figure 2F-9), to supplement the required symbol panel.

Standard:

18 **When used, the M4-17 and M4-18 symbol panels shall be used only as panels within guide signs. The M4-17 and M4-18 symbols or panels shall not be used as an independent sign or within a sign assembly.**

19 **If only vehicles with registered ETC accounts are allowed to use a toll plaza lane, the signs for such lanes shall incorporate the pictograph adopted by the toll facility's ETC payment system and the regulatory message ONLY (see Figures 2F-1 and 2F-8 through 2F-11). The use, size, and placement of the ETC pictograph shall comply with the provisions of Sections 2F.02 and 2F.03.**

20 **An Overhead Arrow-per-Lane guide sign (see Figure 2F-10) shall be used in advance of a location where the mainline lanes split to separate traffic entering Open-Road ETC lanes from lanes entering a toll plaza where other methods of payment are accepted and an option lane is provided at the split (see Figure 2F-11). An Overhead Arrow-per-Lane guide sign shall not be used if there is no option lane at the split.**

Option:

21 The ETC payment system's pictograph, without a purple underlay or purple header panel, may be used on signs for Exact Change or attended lanes at toll plazas to indicate that vehicles with registered ETC accounts may also use those lanes.

Section 2F.13 Electronic Toll Collection (ETC) Signs – General

Support:

01 Figure 2F-8 shows examples of guide signs for entrances to various types of toll highways and for ETC account-only entrances to non-toll highways.

Standard:

02 **Signing for entrances to toll highways where ETC is employed only through license plate character recognition such that road users are not required to establish a toll account or register their vehicle equipment shall comply with the provisions of Paragraphs 4 and 5 of Section 2F.12.**

Support:

03 Figure 2F-12 shows examples of guide signs for the entrance to a toll highway on which tolls are collected electronically only and registration in a toll-account program is not required.

Standard:

04 **If only vehicles with registered ETC accounts are allowed to use a toll highway, the guide signs for entrances to such facilities shall incorporate the pictograph adopted by the toll facility's ETC payment system and the regulatory message ONLY (see Figures 2F-1 and 2F-8 through 2F-12). The use, size, and placement of the ETC pictograph and the use and color of the background and underlay panel shall comply with the provisions of Sections 2F.02 and 2F.03.**

Support:

05 Sections 2F.05, 2F.11, and 2F.17 contain additional provisions regarding signs for toll highways that only accept ETC payments.

06 Sections 2G.16 through 2G.19 contain additional provisions regarding signs for priced managed lanes that only accept ETC payments.

07 Figure 2F-13 shows an example of guide signs for alternative toll and non-toll ramp connections to a non-toll highway (see Section 2F.18).

08 Many different ETC payment systems are used by the various toll facility operators. Some of these systems accept

payment from other systems' accounts.

Option:

09 Where a facility will accept payments from other systems' accounts in addition to its primary ETC- account payment system, such information may be displayed on a separate information sign near the entrances to such a facility or in advance of a toll plaza or open-road tolling lanes, as space allows between primary signs.

Section 2F.14 Advance Signs for Conventional Toll Plazas

Guidance:

01 *For conventional toll plazas (those without a divergence onto a separate alignment from mainline- aligned open-road tolling or ETC-only lanes), one or more sets of overhead advance guide signs complying with the provisions of this Section 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 action messages or lane-use information such as LEFT LANE(S), CENTER LANE(S), RIGHT LANE(S), or down 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 ½ mile in advance of the toll plaza, and farther if practical.*

02 *Additional guide signs with lane information for the toll payment types should be provided between approximately ¼ mile and 800 feet in advance of the toll plaza at a location that avoids or minimizes obstruction of toll plaza canopy signs (see Section 2F.16) and lane-use control signals.*

03 *The number, mounting, 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:

04 Figure 2F-14 shows examples of advance signs for a conventional toll plaza.

Section 2F.15 Advance Signs for Toll Plazas on Diverging Alignments from Open-Road ETC Account-Only Lanes

Support:

01 Open-Road ETC 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 2F-15). 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:

02 *For toll plazas located on a separate alignment that diverges from mainline-aligned Open-Road ETC lanes where vehicles are required to have a registered ETC account to use the Open-Road Tolling lanes, overhead advance signs should be provided at approximately 1 mile and ½ mile in advance of the divergence point. Both the 1-mile and ½-mile advance signs should include:*

- *A. The ETC (pictograph) Account-Only guide sign (see Figures 2F-9 and 2F-15) with a down arrow over the approximate center of each lane that will become an Open-Road ETC lane;*
- *B. For the lane or lanes which will diverge to a toll plaza, guide signs conforming to the provisions of Section 2F.12, 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.*

03 *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) Account-Only guide sign (see Figures 2F-9 and 2F-15) with a down arrow over the approximate center of each Open-Road ETC lane;*
- *B. Guide signs conforming to the provisions of Section 2F.12 and 2F.13, with diagonally upward- pointing directional arrow(s) over the approximate center of each lane indicating the direction of the divergence, and providing lane information for all types of payment methods accepted at the toll plaza; 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.

04 *Approximately 800 feet in advance of the toll plaza at a location that avoids or minimizes any obstruction of the toll plaza canopy signs (see Section 2F.16) and lane-use control signals, an additional set of overhead advance signs with lane information for the toll payment types should be provided.*

Standard:

05 **The use of down and directional arrows on the signs at the locations described in Paragraphs 2 through 4 of this Section shall comply with the provisions of Section 2D.08.**

Support:

06 Figure 2F-15 shows an example of advance signs for toll plazas on a diverging alignment from Open- Road ETC Account-Only Lanes.

07 Section 4R.02 contains information regarding the use of lane-use control signals for Open-Road ETC lanes for temporary lane closure purposes.

Section 2F.16 Toll Plaza Canopy Signs

Standard:

01 **A sign complying with the provisions of Section 2F.12 shall be provided above the approximate center of each lane that is not an Open-Road ETC lane, mounted on or suspended from the toll plaza canopy, or on a separate structure immediately in advance of the plaza located such that each sign is clearly related to an individual toll lane, indicating the payment type(s) accepted in the lane and any restrictions or prohibitions of certain types of vehicles that apply to the lane. Except for toll-ticket systems, the toll for passenger or 2-axle vehicles shall be included on the canopy sign or on a separate sign mounted on the upstream side of the tollbooth.**

02 **The background color of a canopy sign for an ETC Account-Only toll plaza lane shall be purple (see Figure 2F-16).**

Option:

03 Where vehicles are required to have a registered ETC account to use the lane, one or two flashing yellow beacons (see Section 4R.03) may supplement a canopy sign over an ETC Account-Only lane to call special attention to the location of the ETC Account-Only lane within the plaza.

04 The canopy sign for an ETC Account-Only toll plaza lane in which a regulatory speed limit is not posted and in which vehicles are not required to stop may display an advisory speed within a horizontal rectangular panel with a black legend and yellow background within the bottom portion of the canopy sign.

Standard:

05 **Flashing beacons supplementing a canopy sign over an ETC Account-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 2F-16).**

06 **For multi-lane toll plazas, lane-use control signals (see Section 4R.02) shall be provided above the approximate center of each toll plaza lane that is not an Open-Road ETC 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 Account-Only lanes.**

Support:

07 Part 6 contains information regarding the closing of a lane for temporary traffic control purposes.

08 Figure 2F-16 shows examples of toll plaza canopy signs.

Section 2F.17 Guide Signs for Entrances to Electronic Toll Collection (ETC) Only Facilities

Support:

01 Some toll highways, bridges, and tunnels are restricted to use only by vehicles with a specific registered ETC account, referred to as ETC Account-Only facilities. Other facilities collect tolls electronically using license plate character recognition in which the registered vehicle owner is then billed by postal mail and registration in an ETC account program is not required but could be an optional payment method. These facilities are commonly referred to as All-Electronic Tolling (AET) or Cashless Tolling.

Standard:

02 **Guide signs for facilities that only collect tolls electronically shall comply with the applicable provisions of**

Chapter 2E and Section 2F.13.

03 **Guide signs for the entrance ramps to ETC Account-Only facilities shall incorporate the pictograph of the toll facility's primary ETC payment system and the word ONLY in a header panel or plaque designed in accordance with the provisions of Section 2F.13 (see Figure 2F-8).**

Option:

04 A separate information sign displaying the route number, the TOLL warning panel (see Section 2F.11), and the legend NO CASH may be located within the sequence of the Advance guide signs on the approach to the entrance to an ETC Account-Only facility.

Support:

04a Refer to FHWA's List of Known Errors for error in Paragraph 4. Refer to Section 1A.04 for more details.

Option:

05 Exit Gore signs for entrance ramps to such ETC Account-Only facilities may incorporate the pictograph of the toll facility's ETC payment system and the word ONLY in a header panel or plaque designed in accordance with the provisions of Section 2F.13 (see Figure 2F-13 and Drawing B in Figure 2F- 12).

06 If more than one ETC account program is accepted for toll payments on an ETC Account-Only facility, the additional accepted ETC account program pictographs may be displayed on a separate informational guide sign with the legend, ALSO ACCEPTED, within the sequence of advance guide signs for the entrance to the facility.

Support:

07 Section 2F.05 contains information regarding ETC Account-Only signs and plaques for use with route signs in route sign assemblies.

Standard:

08 **Where vehicles are not required to have a registered ETC account to use an ETC-Only facility, guide signs for the facility shall comply with the applicable provisions of Chapter 2E and specifically with the applicable provisions of Section 2F.13.**

09 **Advance and Exit Direction guide signs for the entrances to facilities that do not require registration in an ETC toll account program shall not display a pictograph of an accepted ETC payment system or use purple as a background color on any portion of the signs.**

10 **Information on accepted toll payment methods for a facility that does not require registration in an ETC toll account program shall only be provided on a separate informational guide sign, if used, that displays one of the following legends (see Drawing C in Figure 2F-12):**

A. TOLL BILLED BY MAIL ONLY, if there is no alternative payment method; or

B. TOLL BILLED BY MAIL OR [ETC Account Pictograph], if the facility also accepts payments from registered users of an ETC account program.

Option:

11 If there is more than one ETC toll account program accepted, all ETC account program pictographs of the accepted ETC accounts may be displayed on the separate informational guide sign below the TOLL BILLED BY MAIL OR legend. A plaque with the legend NO CASH may be added below the signs described in Paragraph 10 of this Section.

Guidance:

12 *The signs described in Paragraph 10 of this Section should be located within the sequence of Advance Guide signs for the entrance to the facility and/or at a location along the facility itself (see Drawing C in Figure 2F-12).*

Option:

13 If the ETC-Only facility also accepts payments from multiple ETC account programs, but does not require registration in the primary ETC account program associated with the facility in order to use the facility, then the pictographs of the other accepted ETC account programs may be displayed on the separate information sign beneath the legend TOLL BILLED BY MAIL and the word OR.

14 If, in addition to a toll, a nominal surcharge (not a fine, penalty, or violation) is assessed road users not registered in the toll account program, or registered toll account users are assessed a discounted toll, such information may be displayed on a separate information sign on the approach to the entrance to the facility.

Section 2F.18 Guide Signs for ETC-Only Entrance Ramps to Non-Toll Highways

Support:

01 In some cases, access to or from a non-toll route might be provided by a ramp on which a toll is charged in order to

manage congestion, limit access, or for other reasons. The toll ramp might be provided as an alternative to or in lieu of a ramp providing similar access without charging a toll. Figures 2F-8 and 2F-13 show examples of guide signs for a ramp on which a toll is charged to enter a non-toll route.

Standard:

02 **Guide signs for ETC-Only Entrance Ramps to non-toll highways shall comply with the provisions of Section 2F.17.**

Option:

03 A NO TOLL panel with a black legend and a yellow background may be included on the top section of the Exit Gore sign for an exit that provides access to the facility without charging a toll.

Support:

04 Refer to FHWA's List of Known Errors for error in Paragraph 3. Refer to Section 1A.04 for more details.

Section 2F.19 ETC Account Program Information Signs

Standard:

01 **Except as provided in Paragraph 2 of this Section, signs that inform road users of telephone numbers, Internet addresses, including domain names and uniform resource locators (URLs), or e-mail addresses for enrolling in an ETC account program of a toll facility or managed lane, obtaining an ETC transponder, and/or obtaining ETC account program information shall only be installed in rest areas, parking areas, or similar roadside facilities where the signs are viewed only by pedestrians or occupants of parked vehicles.**

Option:

02 ETC account program information signs displaying telephone numbers that have no more than four characters may be installed on roadways in locations where they will not obscure the road user's view of higher priority traffic control devices and that are removed from key decision points where the road user's view is more appropriately focused on other traffic control devices, roadway geometry, or traffic conditions, including exit and entrance ramps, intersections, toll plazas, temporary traffic control zones, and areas of limited sight distance.

Section 2F.101(CA) TOLL BRIDGE Advance Warning Sign (SW95(CA))

Standard:

01 **The TOLL BRIDGE (SW95(CA)) Advance Warning sign (see Figure 2F-102(CA)) shall have a black legend and border on a yellow background and shall be installed in advance of a toll bridge in both directions of travel, regardless of whether only one direction is tolled. SW95(CA) sign shall display the distance to the start of the toll bridge.**

Guidance:

02 *The SW95(CA) sign should be installed as an overhead sign approximately 1 mile in advance of the mainline approach to the toll bridge.*

Option:

03 An alternate one-line message, such as "AHEAD", may be used in place of the distance on line 3 of the SW95(CA) sign.

04 An additional SW95(CA) sign may be installed approximately 2 miles in advance of a mainline approach to the toll bridge. This sign may be mounted either overhead or post-mounted.

Support:

05 The TOLL BRIDGE Advance Warning sign is used to notify road users that they are approaching or crossing a toll bridge. Refer to CVC § 23300.

Standard:

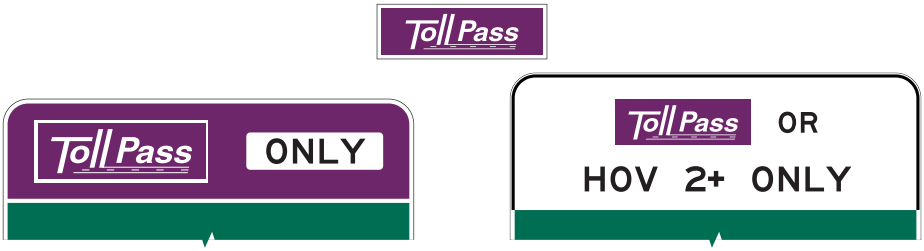
06 **If no toll is charged in a particular direction of travel, a NO TOLL (SW95aP(CA) plaque (see Figure 2F-102(CA)) shall be mounted directly below the SW95(CA) sign in that direction to indicate access to the facility without a toll charge. The SW95aP(CA) plaque shall have a black legend and border on a yellow background.**

Option:

07 The SW95aP(CA) plaque may be formatted as a footer panel at bottom portion of the SW95(CA) sign.

Figure 2F-1. Examples of ETC Account Pictographs and Use of Purple Backgrounds and Underlay Panels

A – Pictograph design with a purple background and a white contrasting border



1. Pictograph on a purple or other non-contrasting background

2. Pictograph on a white or other contrasting background

B – Pictograph design with a background color other than purple, shown in a purple underlay panel with a white contrasting border



1. Pictograph on a purple background

2. Pictograph with a purple underlay on a non-contrasting background

3. Pictograph with a purple underlay panel on a white or other contrasting background

Figure 2F-2. Toll Plaza Regulatory Signs and Plaques



R3-28 R3-29P R3-30P

Figure 2F-3. ETC Account-Only Auxiliary Signs for Use in Route Sign Assemblies



R3-31

R3-32P

Note: The ETC pictograph shown is an example only. The pictograph for the toll facility's adopted ETC system shall be used.



W16-17P

M3-2P

M1-4

R3-31

M5-1P

Example route sign assembly

Figure 2F-4. Toll Plaza Warning Signs and Plaques

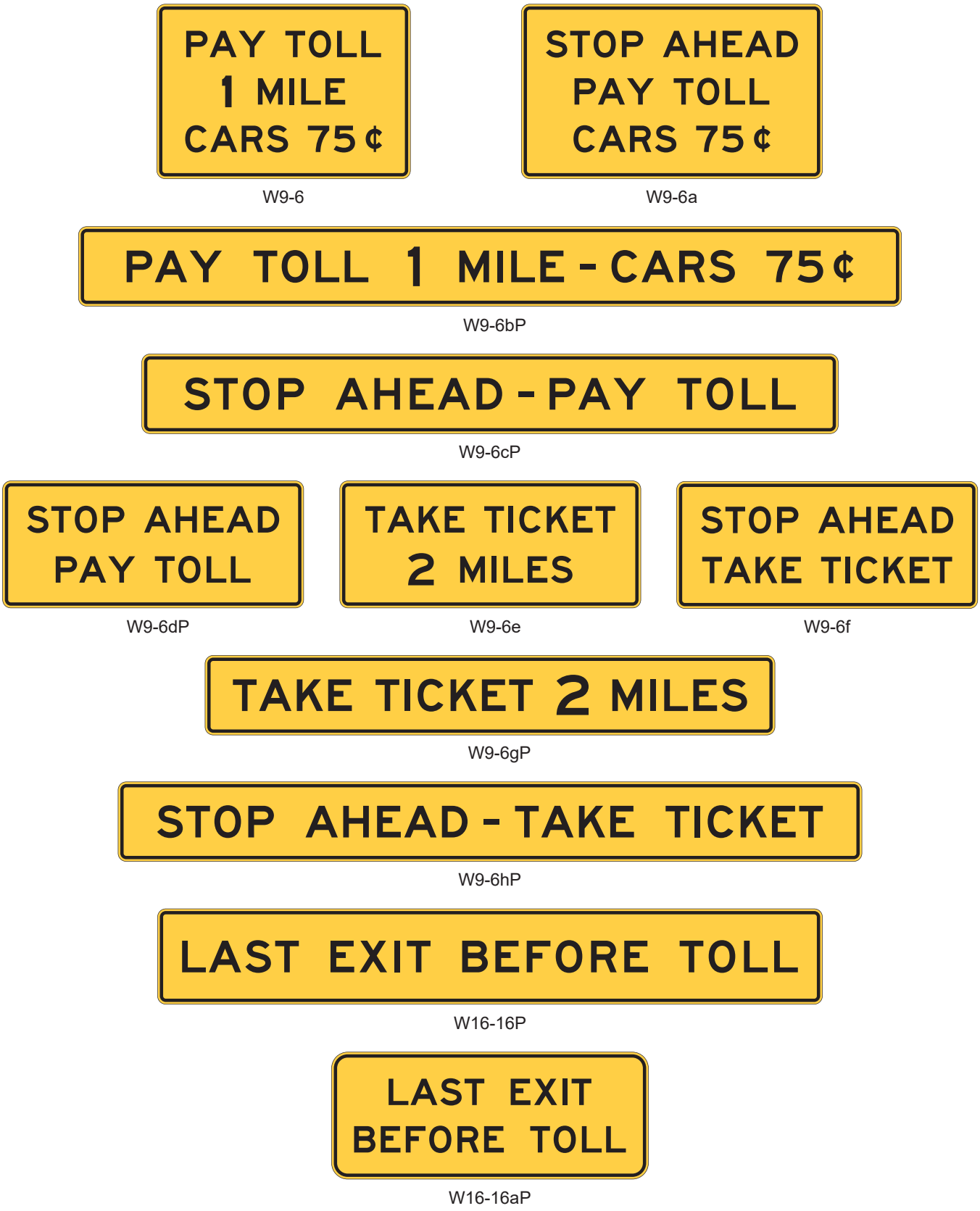
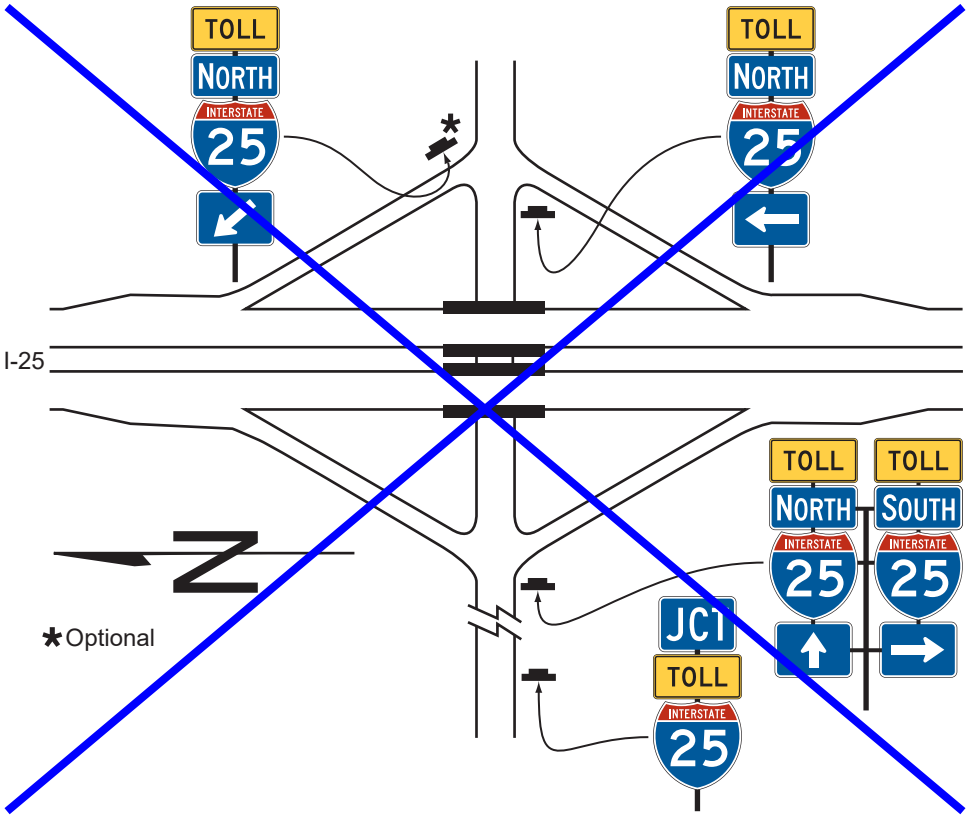


Figure 2F-5. Example of Minor Interchange Crossroad Signing for an Approach to a Toll Highway



Note: Refer to Figure 2F-6 for typical sign layouts and placement guidance.

Figure 2F-6. Example of Interchange Crossroad Signing for a One-Lane Approach to a Toll Highway

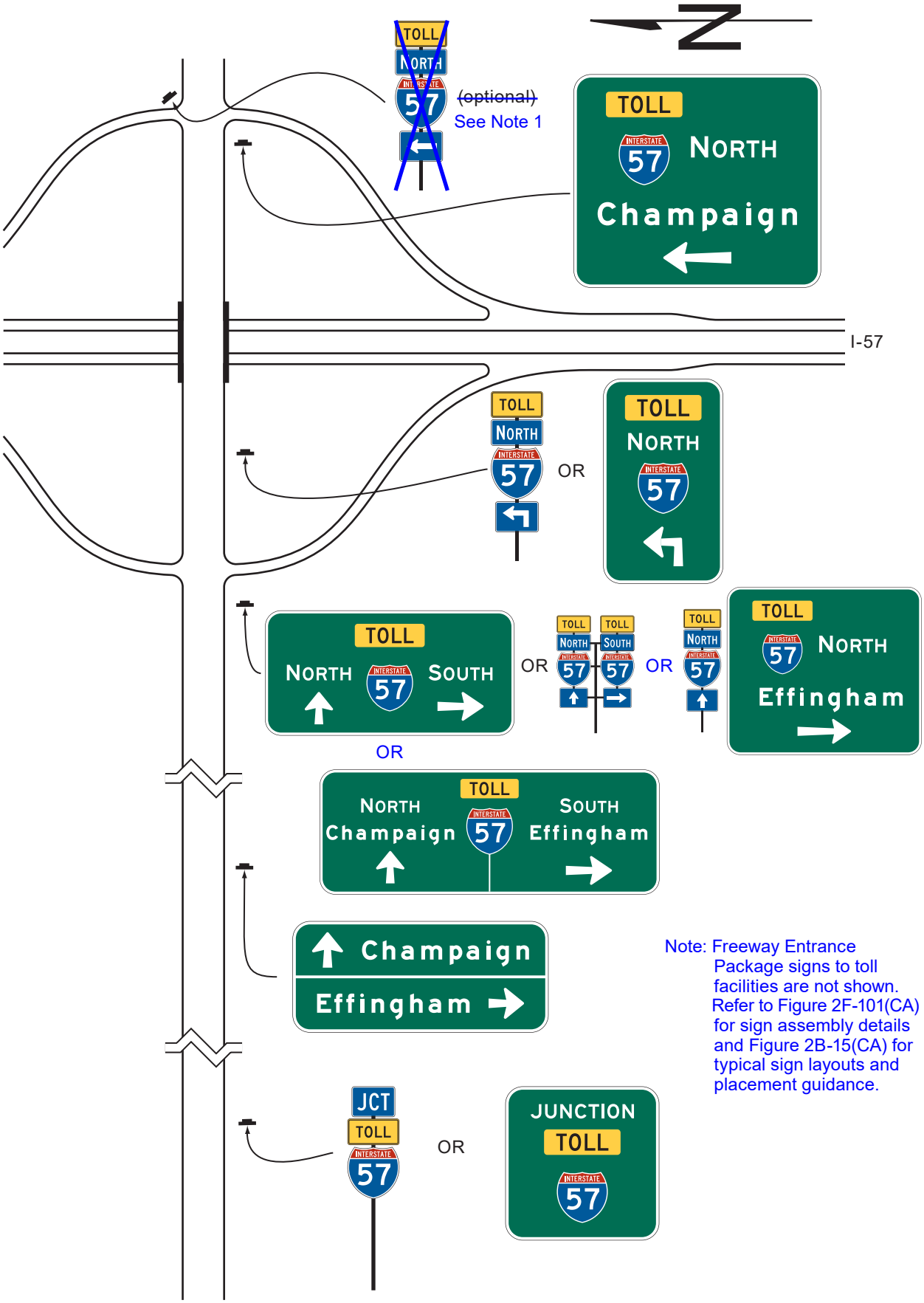
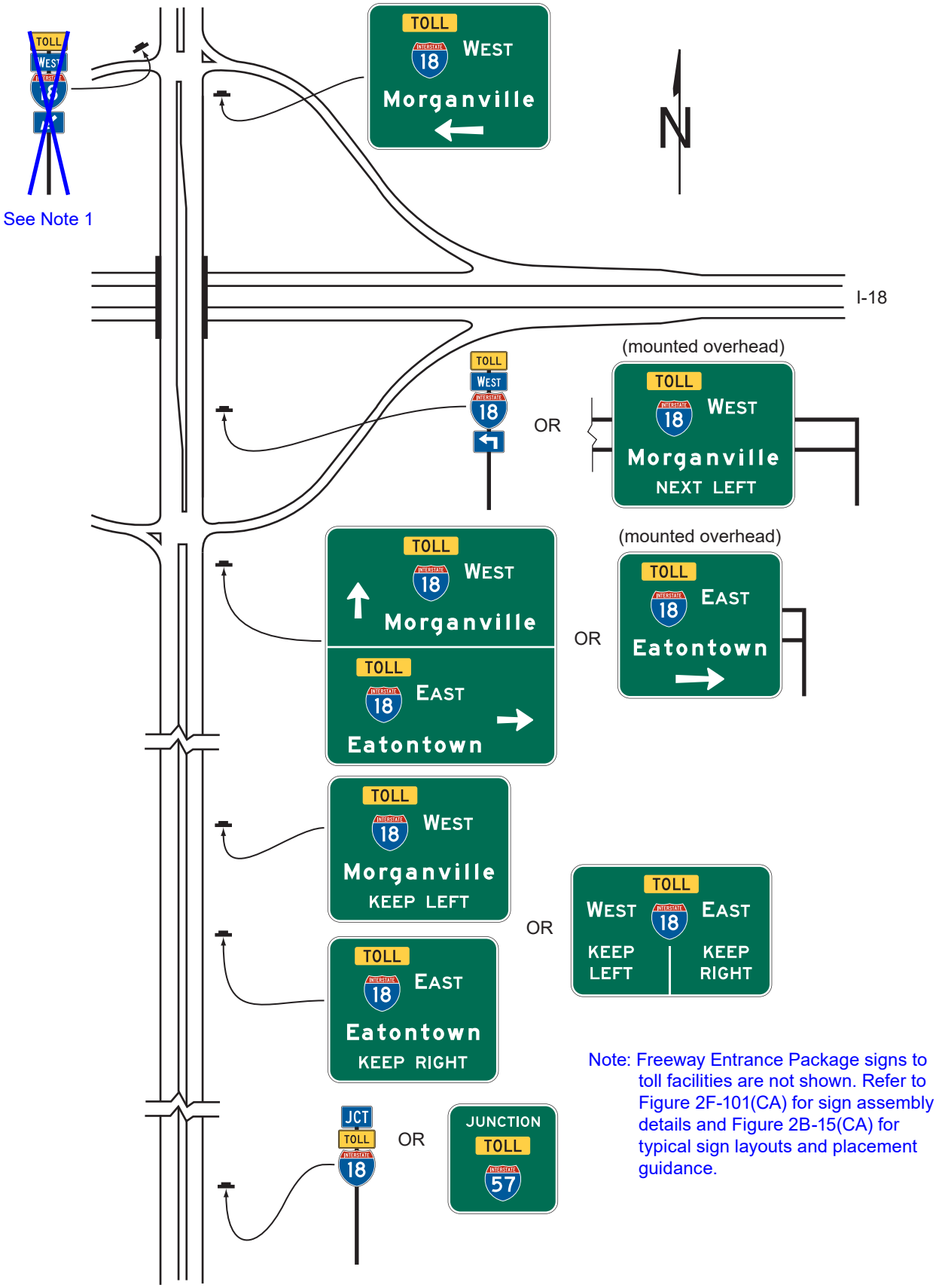


Figure 2F-7. Examples of Multi-Lane Crossroad Signing for a Diamond Interchange



Note: Freeway Entrance Package signs to toll facilities are not shown. Refer to Figure 2F-101(CA) for sign assembly details and Figure 2B-15(CA) for typical sign layouts and placement guidance.

Figure 2F-8. Examples of Guide Signs for Entrances to Toll Highways or Ramps

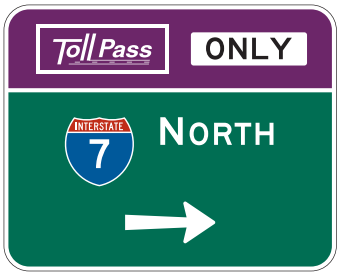
A – Entrance to a toll highway on which registration in a toll account program is not required



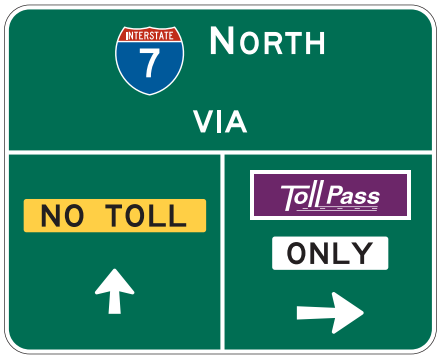
B – Entrance to an ETC Account-Only toll highway or entrance to a toll highway via an ETC Account-Only ramp



C – Entrance to a non-toll highway via an ETC Account-Only toll entrance ramp



(the toll entrance is the only connection provided in the vicinity)



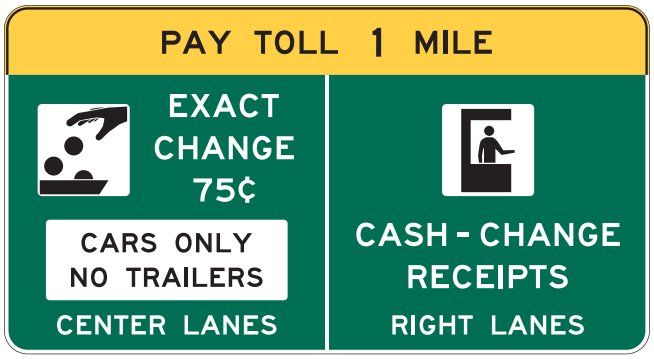
(an alternate non-toll entrance is provided in the vicinity)

Notes:

1. The ETC pictographs shown are examples only. The pictograph for the toll facility's adopted ETC system shall be used.
2. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.

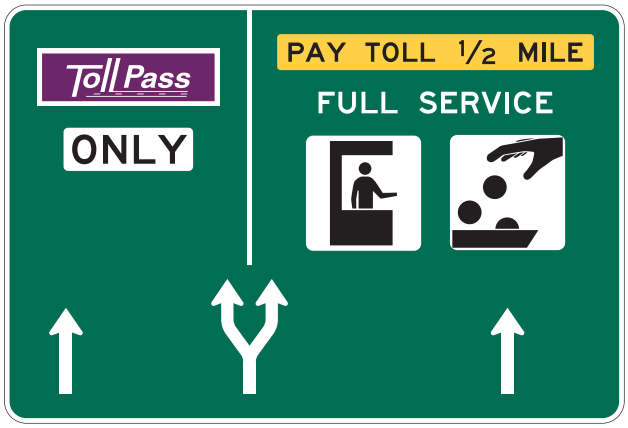
Figure 2F-9. Examples of Conventional Toll Plaza Advance Signs



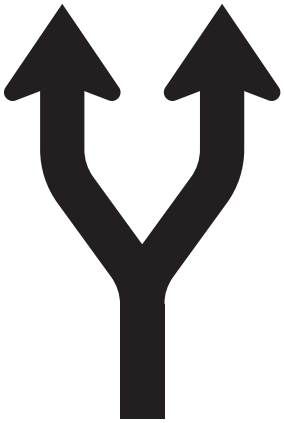


Note: The ETC pictograph that is shown is only an example. The pictograph for the toll facility's adopted ETC system shall be used.

Figure 2F-10. Example of an Overhead Arrow-per-Lane Guide Sign and Arrow for a Split with an Option Lane



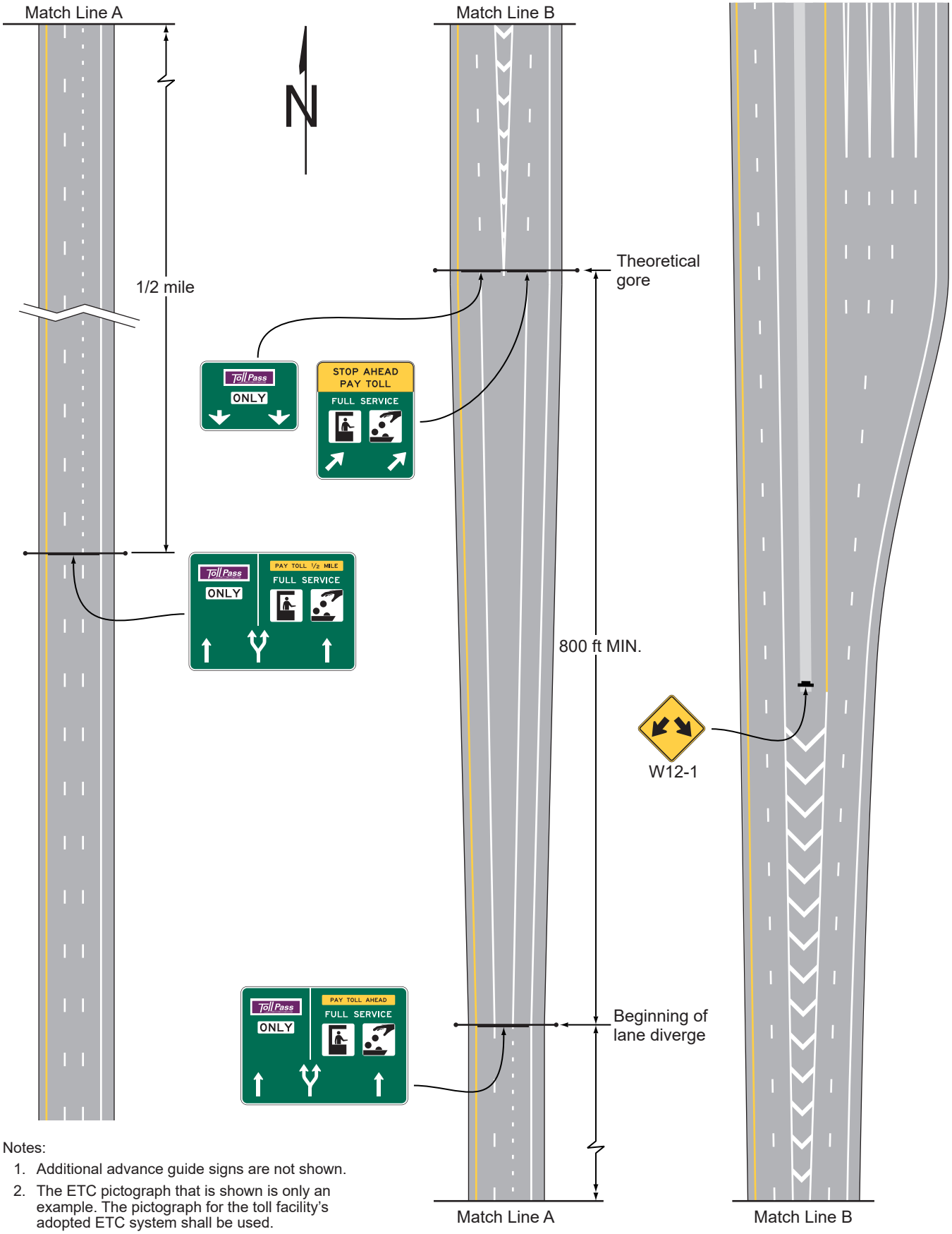
Example of an Overhead Arrow-per-Lane guide sign for a split with an option lane



Arrow for the option lane (see the "Standard Highway Signs" publication for details)

Note: The ETC pictograph that is shown is only an example. The pictograph for the toll facility's adopted ETC system shall be used.

Figure 2F-11. Examples of Guide Signs for a Split with an Option Lane for a Mainline Toll Plaza on a Diverging Alignment from Open-Road ETC Lanes

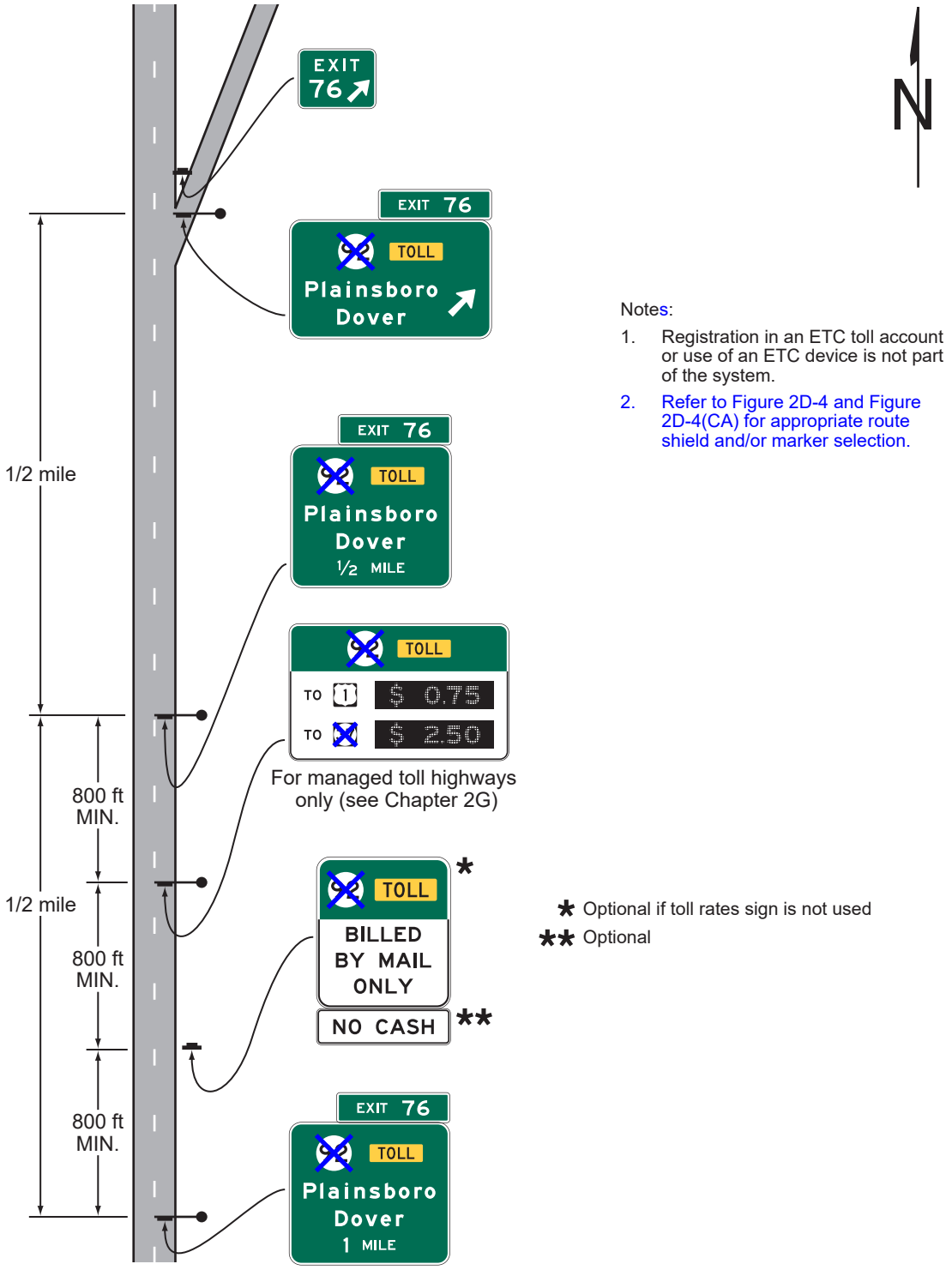


Notes:

1. Additional advance guide signs are not shown.
2. The ETC pictograph that is shown is only an example. The pictograph for the toll facility's adopted ETC system shall be used.

Figure 2F-12. Examples of Guide Signs for the Entrance to a Toll Highway on which Tolls are Collected Electronically Only (Sheet 1 of 3)

A – All tolls are billed through a license plate character recognition system



Notes:

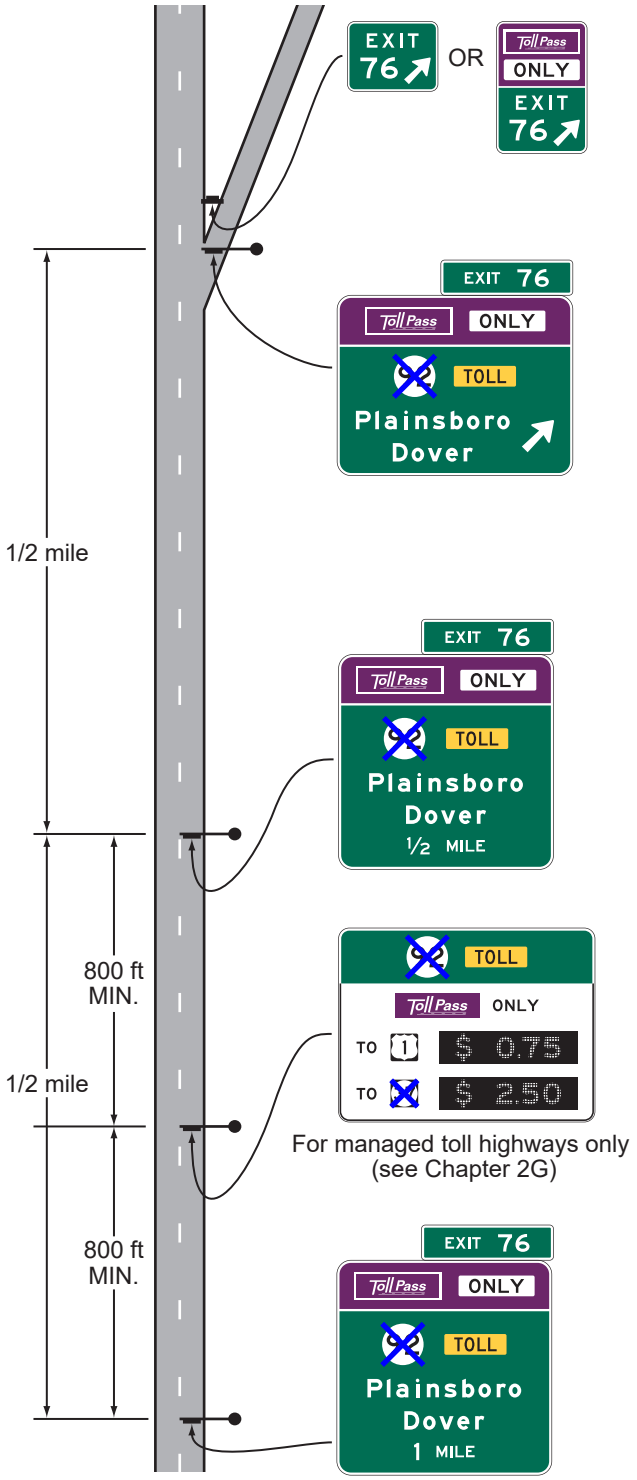
1. Registration in an ETC toll account or use of an ETC device is not part of the system.
2. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.

* Optional if toll rates sign is not used

** Optional

Figure 2F-12. Examples of Guide Signs for the Entrance to a Toll Highway on which Tolls are Collected Electronically Only (Sheet 2 of 3)

B – Registration in an ETC account program is required for using the tollway

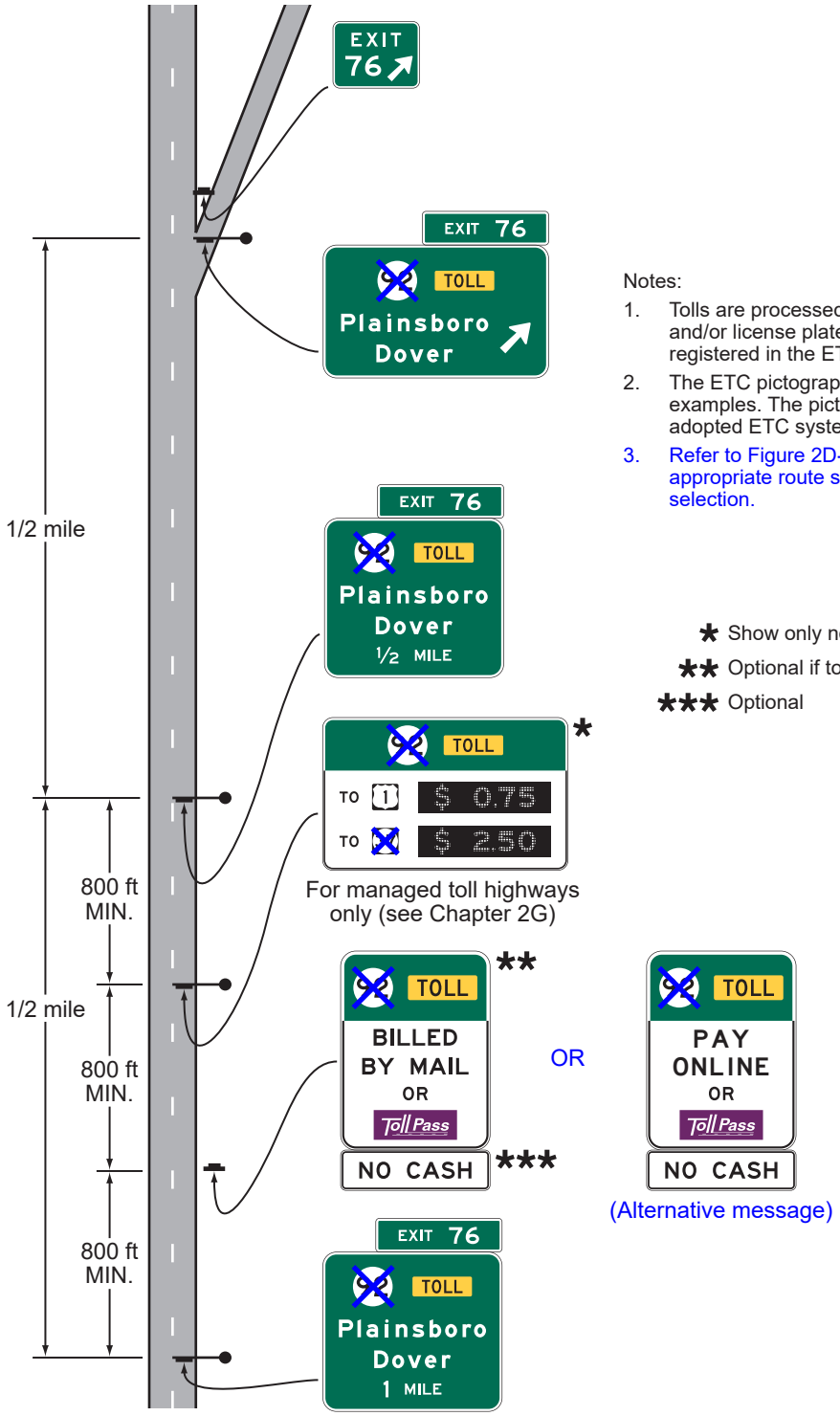


Notes:

1. Tolls are processed though an ETC device and/or license plate recognition for vehicles registered in the ETC program.
2. The ETC pictographs shown are only examples. The pictograph for the toll facility's adopted ETC system shall be used.
3. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.

Figure 2F-12. Examples of Guide Signs for the Entrance to a Toll Highway on which Tolls are Collected Electronically Only (Sheet 3 of 3)

C – Tolls are billed through either a license plate character recognition system or an ETC account device

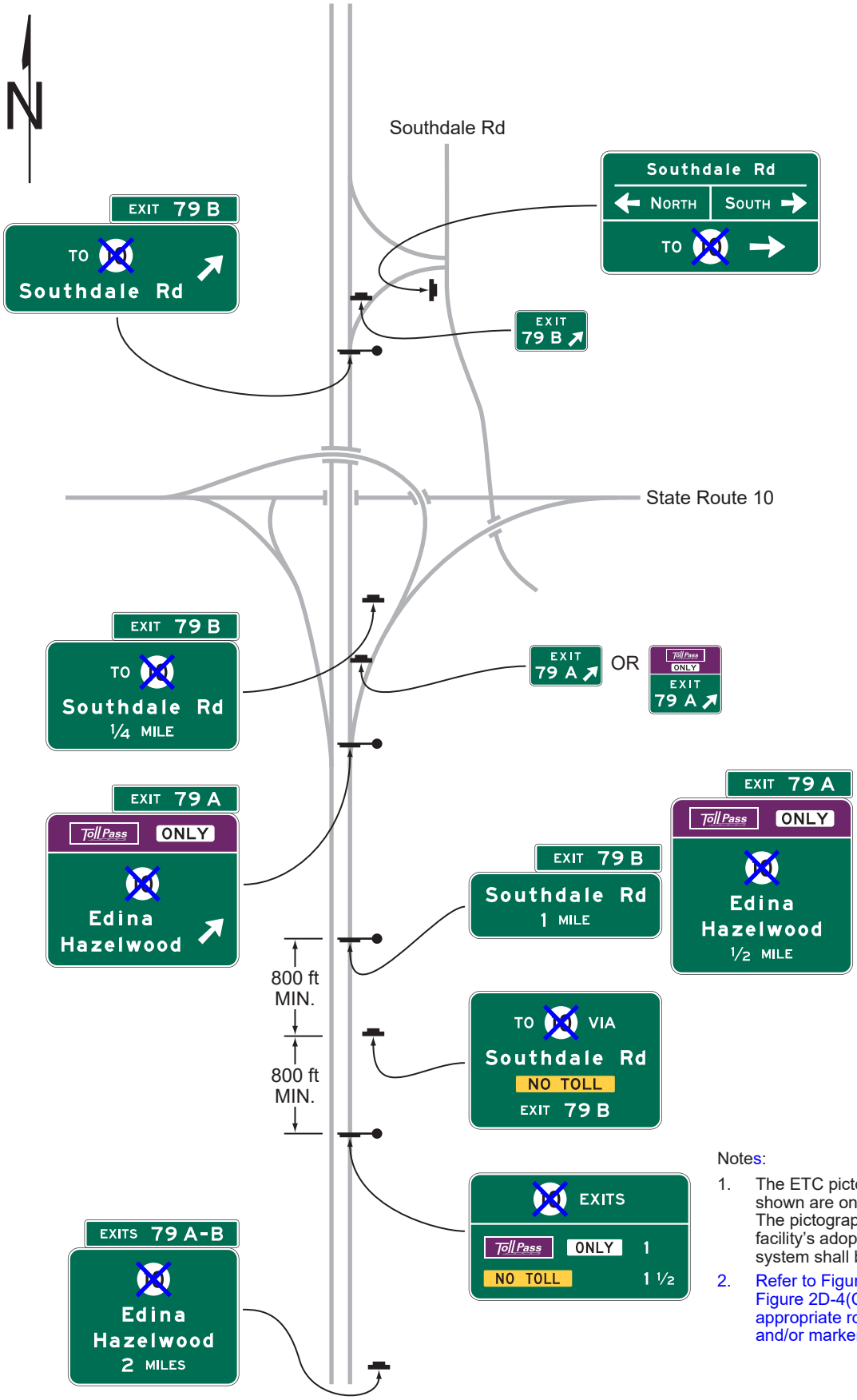


Notes:

1. Tolls are processed though an ETC device and/or license plate recognition for vehicles registered in the ETC program.
2. The ETC pictographs shown are only examples. The pictograph for the toll facility's adopted ETC system shall be used.
3. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.

* Show only non-discounted rates
** Optional if toll rates sign is not used
*** Optional

Figure 2F-13. Examples of Guide Signs for Alternative Toll and Non-Toll Ramp Connections to a Non-Toll Highway



Notes:

1. The ETC pictographs shown are only examples. The pictograph for the toll facility's adopted ETC system shall be used.
2. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.

Figure 2F-14. Examples of Mainline Toll Plaza Approach and Canopy Signing

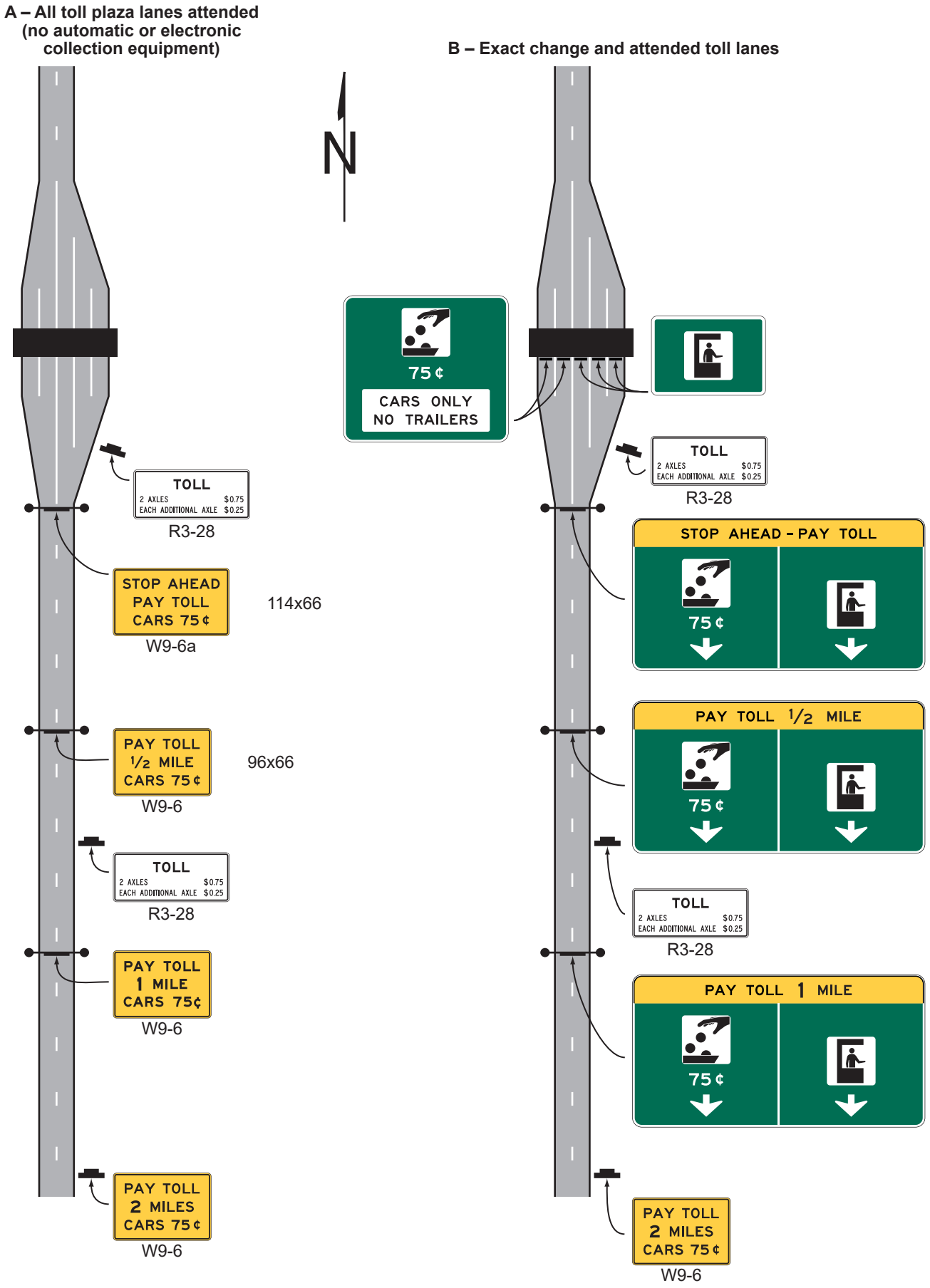
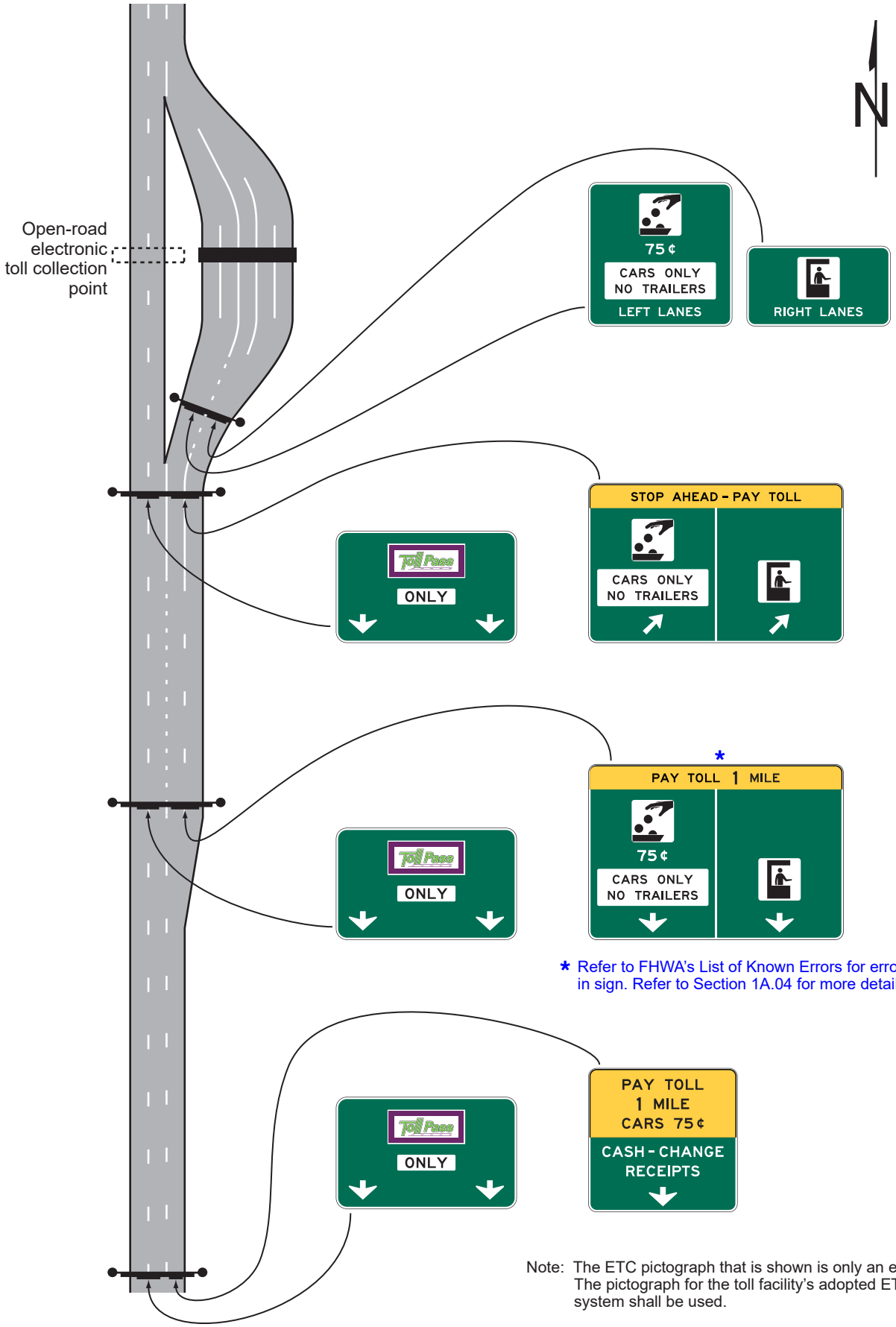


Figure 2F-15. Examples of Guide Signs for a Mainline Toll Plaza on a Diverging Alignment from Open-Road ETC Lanes



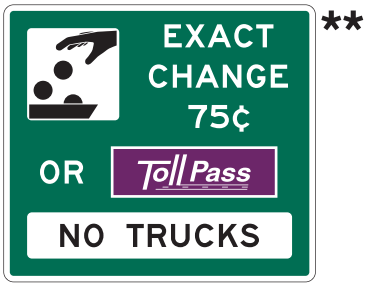
* Refer to FHWA's List of Known Errors for error in sign. Refer to Section 1A.04 for more details.

Note: The ETC pictograph that is shown is only an example. The pictograph for the toll facility's adopted ETC system shall be used.

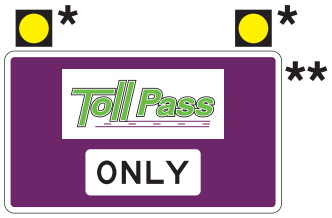
Figure 2F-16. Examples of Toll Plaza Canopy Signs



Attended lane with an
M4-17 Toll Collector symbol



Exact Change or ETC Account lane with an
M4-18 Exact Change symbol

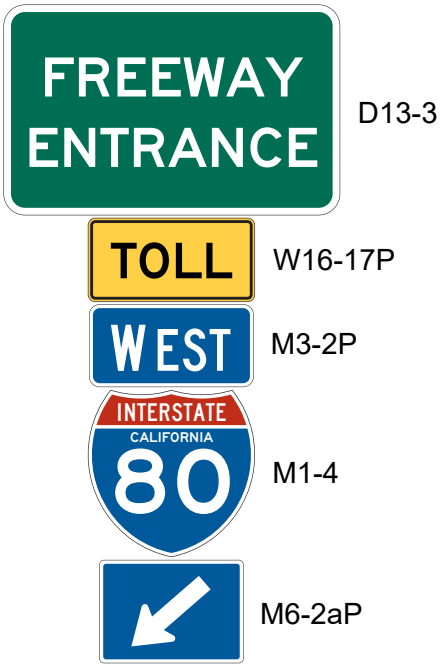


ETC Account-Only lane

* Optional flashing yellow beacons that are separated from any lane-use control signals for the lane (see Section 2F.16)

** The ETC pictographs that are shown are only examples. The pictograph for the toll facility's adopted ETC system shall be used.

Figure 2F-101(CA). California Freeway Entrance Package to Toll Facilities



Example Route Sign Assembly

Note: Toll freeway entrance signage package should be installed at each on-ramp within a toll facility and at the final upstream on-ramp that provides direct access to the toll facility.

Figure 2F-102(CA). California Example of Warning Sign and Plaque for Toll Crossings



SW95(CA)



SW95aP(CA)

Table 2F-1. Toll Road Sign and Plaque Minimum Sizes

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Toll Rate	R3-28	2F.04	—	—	114 x 48	114 x 48	—	—
Pay Toll (plaque)	R3-29P	2F.04	—	—	24 x 18	24 x 18	—	—
Take Ticket (plaque)	R3-30P	2F.04	—	—	24 x 18	24 x 18	—	—
ETC Account-Only	R3-31	2F.05	24 x 24	24 x 24	36 x 36	36 x 36	24 x 24	36 x 36
No Cash (plaque)	R3-32P	2F.05	24 x 12	24 x 12	36 x 18	36 x 18	24 x 12	36 x 18
Pay Toll XX Miles Cars (price)	W9-6	2F.06	96 x 66	96 x 66	96 x 66	96 x 66	—	—
Stop Ahead Pay Toll Cars (price)	W9-6a	2F.08	114 x 66	114 x 66	114 x 66	114 x 66	—	—
Pay Toll XX Miles Cars (price) (plaque)	W9-6bP	2F.07	312* x 30	312* x 30	312* x 30	312* x 30	—	—
Stop Ahead Pay Toll (plaque)	W9-6cP	2F.09	264* x 30	264* x 30	264* x 30	264* x 30	—	—
Stop Ahead Pay Toll (plaque)	W9-6dP	2F.09	114 x 48	114 x 48	114 x 48	114 x 48	—	—
Take Ticket XX Miles	W9-6e	2F.06	114 x 48	114 x 48	114 x 48	114 x 48	—	—
Stop Ahead Take Ticket	W9-6f	2F.08	114 x 48	114 x 48	114 x 48	114 x 48	—	—
Take Ticket XX Miles (plaque)	W9-6gP	2F.07	216 x 30	216 x 30	216 x 30	216 x 30	—	—
Stop Ahead Take Ticket (plaque)	W9-6hP	2F.09	282 x 30	282 x 30	282 x 30	282 x 30	—	—
Last Exit Before Toll (1-line plaque)	W16-16P	2F.10	—	—	252* x 36	252* x 36	—	—
Last Exit Before Toll (2-line plaque)	W16-16aP	2F.10	—	—	144 x 54	144 x 54	—	—
Toll (plaque)	W16-17P	2F.11	24 x 12	24 x 12	36 x 18	36 x 18	24 x 12	36 x 18
Toll Collector Symbol Panel	M4-17	2F.12	—	—	48 x 48	48 x 48	—	—
Exact Change Symbol Panel	M4-18	2F.12	—	—	48 x 48	48 x 48	—	—

* The width shown represents the minimum dimension. The width shall be increased as appropriate to match the width of the guide sign.

Notes: 1. Larger signs may be used when appropriate
2. Dimensions are shown as width x height, in inches

Table 2F-1(CA). California Toll Road Sign and Plaque Minimum Sizes

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
NO TOLL (plaque)	SW95aP(CA)	2F.101(CA)	54 x 18	54 x 18	72 x 24	72 x 24	—	—
TOLL BRIDGE XX MILES	SW95(CA)	2F.101(CA)	54 x 48	54 x 48	72 x 66	72 x 66	—	—

Note: If mounted on an Overhead Sign Structure, the signs listed in Table 2F-1(CA) should have the same sign depth as adjacent sign panels if applicable.

CHAPTER 2G. PREFERENTIAL AND MANAGED LANE SIGNS

Chapter 2G Subchapter and Section Organization

GENERAL
2G.01 Scope
2G.02 Sizes of Preferential and Managed Lane Signs

REGULATORY SIGNS
2G.03 Regulatory Signs for Preferential Lanes – General
2G.04 Vehicle Occupancy Definition Signs (R3-10 Series and R3-13 Series)
2G.05 Preferential Lane Operation Signs (R3-11 Series and R3-14 Series)
2G.06 Preferential Lane Advance Signs (R3-12, R3-12e, R3-12f, R3-15, R3-15a, and R3-15d)
2G.07 Preferential Lane Ends Signs (R3-12a, R3-12b, R3-12c, R3-12d, R3-12g, R3-12h, R3-15b, R3-15c, and R3-15e)

WARNING SIGNS AND PLAQUE
2G.08 Warning Signs on Median Barriers for Preferential Lanes
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MANAGED LANE SIGNS, PLAQUES, AND LANE-USE CONTROL SIGNALS
2G.16 Signs for Managed Lanes – General
2G.17 Signs for Priced Managed Lanes – General
2G.18 Regulatory Signs for Priced Managed Lanes
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2G.20 Signs for Part-Time Travel on a Shoulder – General
2G.21 Regulatory Signs and Plaques for Part-Time Travel on a Shoulder
2G.22 Warning Signs for Part-Time Travel on a Shoulder
2G.23 Guide Signs for Part-Time Travel on a Shoulder
2G.24 Lane-Use Control Signals for Part-Time Travel on a Shoulder
2G.25 Lane-Use Control Signals for Active Lane Management on Freeways and Expressways
2G.26 Variable Speed Limits for Active Traffic Management on Freeways and Expressways

GENERAL

Section 2G.01 Scope

Support:

01 Preferential lanes are lanes designated for special traffic uses such as high-occupancy vehicles (HOVs), light rail, buses, or taxis. Preferential lane treatments might be as simple as restricting a turning lane to a certain class of vehicles during peak periods, or as sophisticated as providing a separate roadway system within a highway corridor for certain vehicles.

02 Preferential lanes might be barrier-separated (on a separate alignment or physically separated from the other travel lanes by a barrier or median), buffer-separated (separated from the adjacent general-purpose lanes only by a narrow buffer area created with longitudinal pavement markings), or contiguous (separated from the adjacent general-purpose lanes only by a lane line). Preferential lanes might allow continuous access with the adjacent general-purpose lanes or restrict access only to designated locations. Preferential lanes might be operated in a constant direction or operated as reversible lanes. Some reversible preferential lanes on a divided highway might be operated counter-flow to the direction of traffic on the immediately adjacent general- purpose lanes.

03 Preferential lanes might be operated on a 24-hour basis, for extended periods of the day, during peak travel periods only, during special events, or during other activities.

04 Open-road tolling lanes and toll plaza lanes that segregate traffic based on payment method are not considered preferential lanes. Chapter 2F contains information regarding signing of open-road tolling lanes and toll plaza lanes.

05 Managed lanes typically restrict access with the adjacent general-purpose lanes to designated locations only.

06 Under certain operational strategies, such as the occupancy requirement of an HOV lane changing in response to actual congestion levels, a managed lane is a special type of preferential lane (see Sections 2G.03 through 2G.07).

07 A managed lane operated on a real-time basis in response to changing conditions might be operated as an HOV lane for a period of time as needed to manage congestion levels.

08 Sections 2G.17 through 2G.19 contain additional information regarding signs for managed lanes that use tolling or pricing as a management strategy.

09 Section 9B.04 contains information regarding Preferential Lane signs for bicycle lanes.

Standard:

10 **Unless otherwise provided, the provisions of this Chapter shall not apply to bicycle lanes.**

Section 2G.02 Sizes of Preferential and Managed Lane Signs

Standard:

01 **Except as provided in Section 2A.07, the minimum sizes of preferential and managed lane signs that have standardized designs shall be as shown in Table 2G-1.**

Support:

02 Section 2A.07 contains information regarding the applicability of the various columns in Table 2G-1.

Option:

03 Signs larger than those shown in Table 2G-1 may be used (see Section 2A.07).

04 Signs listed in Table 2G-1 that are post-mounted on a median barrier may use the smaller size specified in the table, where applicable.

REGULATORY SIGNS

Section 2G.03 Regulatory Signs for Preferential Lanes – General

Standard:

01 **When a preferential lane is established, the Preferential Lane regulatory signs (see Figure 2G-1 and Figure 2G-1(CA)) and pavement markings (see Chapter 3E) for these lanes shall be used to advise road users.**

Support:

02 Preferential Lane (R3-10, R3-11 series through R3-15 series, R33(CA) series, R82(CA) series, R88(CA), R90-1(CA), R91(CA) series, R94(CA), SR50(CA) series, and the SR60(CA) series) regulatory signs (see Figure 2G-1 and Figure 2G-1(CA)) consist of several different general types of regulatory signs as follows:

A. Vehicle Occupancy Definition signs define the vehicle occupancy requirements applicable to an HOV lane (such as "2 OR MORE PERSONS PER VEHICLE") or types of vehicles not meeting the minimum occupancy requirement (such as motorcycles or Inherently Low Emission Vehicles (ILEVs)) that are allowed to use an HOV lane (see Section 2G.04).
B. Preferential Lane Operation signs notify road users of the days and hours during which the preferential restrictions are in effect (see Section 2G.05).
C. Preferential Lane Advance signs notify road users that a preferential lane restriction begins ahead (see Section 2G.06).
D. Preferential Lane Ends signs notify users of the termination point of the preferential lane restrictions (see Section 2G.07).

Standard:

03 **Regulatory signs applicable only to a preferential lane shall be distinguished from regulatory signs applicable to general-purpose lanes by the inclusion of the applicable symbol(s) and/or word(s) (see Figure 2G-1 and Figure 2G-1(CA)).**

Support:

04 The symbol and word message displayed on a particular Preferential Lane regulatory sign 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.

Option:

05 Changeable message signs may supplement, substitute for, or be incorporated into static Preferential Lane regulatory signs where travel conditions change or where multiple types of operational strategies (such as variable occupancy requirements or vehicle types) are used and varied throughout the day or week, or on a real-time basis, to manage the use of, control of, or access to preferential lanes.

Support:

06 Figure 2G-1 illustrates examples of changeable messages incorporated into static Preferential Lane regulatory signs displaying open and closed status using lane-use control signal indications (see Chapter 4T).

Standard:

07 **When changeable message signs (see Chapter 2L) are used as regulatory signs for preferential 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.**

Guidance:

08 *When Preferential Lane regulatory signs are used on conventional roads, the decision regarding whether to use a post-mounted or overhead version of a particular type of sign should be based on an engineering study that considers the available space, the existing signs for the adjacent general-purpose traffic lanes, roadway and traffic characteristics, the proximity to existing overhead signs, the ability to install overhead signs, and any other unique local factors.*

09 *If overhead regulatory 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 practicable to minimize conflicting information, while maintaining their visual relationship to the lanes below necessitated by specific legend or arrows indicating lane assignment.*

Standard:

10 **If used, overhead Preferential Lane (R3-13 series, R3-14 series, ~~and~~ R3-15 series) regulatory signs shall be installed on the side of the roadway where the entrance to the preferential lane is located and any appropriate adjustments shall be made to the sign message.**

Option:

11 Where a median of sufficient width is available, the R3-13 series and R3-15 series signs may be post- mounted.

Support:

12 The sizes for Preferential Lane regulatory signs will differ to reflect the design speeds for each type of roadway facility. Table 2G-1 provides sizes for each type of roadway facility.

Guidance:

13 *The edges of Preferential Lane regulatory signs that are post-mounted on a median barrier should not project beyond the outer edges of the barrier, including in areas where lateral clearance is limited.*

Option:

14 Where lateral clearance is limited, Preferential Lane regulatory signs that are post-mounted on a median barrier and that are 72 inches or less in width may be skewed up to 45 degrees in order to fit within the barrier width or may be mounted higher, such that the vertical clearance to the bottom of the sign, light fixture, or structural support, whichever is lowest, is not less than 17 feet above any portion of the pavement and shoulders. For mounting heights on State highways, refer to Section 2A.15.

Standard:

15 **Where lateral clearance is limited, Preferential Lane regulatory signs that are post-mounted on a median barrier and that are wider than 72 inches shall be mounted with a vertical clearance that complies with the provisions of Section ~~2A.14~~ 2A.15 for overhead mounting if any portion of the sign extends over the roadway or shoulder.**

Support:

15a Refer to FHWA's List of Known Errors for errors in Paragraph 15 text. Refer to Section 1A.04 for more details.

Guidance:

16 *On conventional roadways, Preferential Lane regulatory sign spacing should be determined by engineering judgment based on speed, block length, distances from adjacent intersections, and other site- specific considerations.*

Support:

17 Sections 2G.04 and 2G.05 contain provisions regarding the placement of Preferential Lane regulatory signs on freeways and expressways.

Standard:

18 **The signs illustrated in Figure 2G-1 and Figure 2G-1(CA) that incorporate the diamond symbol shall be used exclusively with preferential lanes for high-occupancy vehicles to indicate the particular occupancy requirement and time restrictions applying to that lane. The signs illustrated in Figure 2G-1 that do not have a diamond symbol shall be used with preferential lanes that are not HOV lanes, but are designated for use by other types of vehicles (such as bus and/or taxi use).**

19 **The diamond symbol shall not be used on the bus, taxi, or bicycle Preferential Lane signs.**

20 **Vehicle Occupancy Definition, Preferential Lane Operation, and Preferential Lane Advance regulatory signs for HOV lanes shall display the minimum allowable vehicle occupancy requirement established for each HOV lane, displayed immediately after the word message HOV.**

Support:

21 The agencies that own and operate HOV lanes have the authority and responsibility to determine how they are operated and the minimum occupancy requirements. Information about federal requirements for certain types of vehicles not meeting the minimum occupancy requirement to be eligible to use HOV lane that receive Federal-aid program funding and about requirements associated with proposed significant changes to the operation of an existing HOV lane and certain vehicles are contained in the "Federal-Aid Highway Program Guidance on High Occupancy Vehicle (HOV) Lanes."

22 Figures 2G-2 and 2G-3 illustrate the use of regulatory signs for the beginning, along the length, and at the end of contiguous or buffer-separated preferential lanes that provide continuous access with the adjacent general-purpose lanes.

23 For State highways, refer to Caltrans' Managed Lanes Guidelines. Refer to Section 1A.05 for more information about this publication.

24 Refer to CVC § 21655.5 regarding Exclusive- or Preferential-Use Lanes for High Occupancy Vehicles.

Section 2G.04 Vehicle Occupancy Definition Signs (R3-10 Series and R3-13 Series)

Standard:

01 **The R3-10, R3-13, and R3-13a Vehicle Occupancy Definition signs (see Figure 2G-1) shall be used where agencies determine that it is appropriate to provide a sign that defines the minimum occupancy of vehicles that are allowed to use an HOV lane.**

Guidance:

02 ~~*The Inherently Low Emission Vehicle (ILEV) (R3-10a) sign (see Figure 2G-1) should be used when it is permissible for a properly labeled and certified ILEV, regardless of the number of occupants, to use an HOV lane. When used, the ILEV signs should be post-mounted in advance of and at intervals along the HOV lane based upon engineering judgment and the placement of other Preferential Lane regulatory signs. The R3-10a sign is only applicable to HOV lanes and should not be used with other preferential lane applications.*~~

Support:

02a Refer to FHWA's List of Known Errors for error in Paragraph 2 text. Refer to Section 1A.04 for more details.

03 ~~ILEVs are defined by the Environmental Protection Agency (EPA) as vehicles having no fuel vapor (hydrocarbon) emissions and are certified by the EPA as meeting the emissions standards and requirements specified in 40 CFR §88.311-93 and 40 CFR §88.312-93(c).~~

Option:

03a The AUTOS/PICKUPS 2 SEATERS WITH 2 PERSONS OK (R91bP(CA)) plaque may be installed below the R3-10 sign for preferential lane facilities at toll plazas that require three or more persons per vehicle, but can also be utilized by vehicles designed by the manufacturer to be occupied by no more than two persons. Refer to Streets & Highways Code, § 30101.8.

Support:

04 Section 2G.18 contains information regarding the legends of Vehicle Occupancy Definition signs for a priced managed lane that has an occupancy requirement for non-toll travel.

Standard:

05 **For barrier-separated, buffer-separated, or contiguous preferential lanes where access between the preferential and general-purpose lanes is restricted to designated locations on freeways and expressways, an overhead Vehicle Occupancy Definition (R3-13 or R3-13a) sign shall be installed at least ½ mile in advance of the beginning of or initial entry point to an HOV lane. These signs shall only be displayed in advance of the beginning of or initial or intermediate entry point to HOV lanes.**

Guidance:

05a *The R3-13 or R3-13a sign should be installed at least 1/4 mile in advance of any intermediate access points or gaps in the barrier where vehicles legally permitted to enter the access-restricted preferential lanes.*

Standard:

06 **For buffer-separated or contiguous HOV lanes where access is restricted to designated locations on freeways and expressways, the sequence of a post-mounted Preferential Lane Operation (R3-11a) sign (see Section 2G.05) followed by a post-mounted Vehicle Occupancy Definition (R3-10) sign shall be located at intervals not greater than ½ mile along the length of designated gaps where vehicles are allowed to legally access the HOV lane, and within designated enforcement areas as defined by the operating agency.**

Option:

07 For buffer-separated or contiguous HOV lanes where access is restricted to designated locations on freeways and expressways, the sequence of a post-mounted Preferential Lane Operation (R3-11a) sign (see Section 2G.05) followed by a post-mounted Vehicle Occupancy Definition (R3-10) sign may be located at intervals of approximately ½ mile along the length of the HOV lane.

08 For barrier-separated HOV lanes on freeways and expressways, the sequence of a post-mounted Preferential Lane Operation (R3-11a) sign (see Section 2G.05) followed by a post-mounted Vehicle Occupancy Definition (R3-10) sign may be located at intervals of approximately ½ mile along the length of the HOV lane, at intermediate entry points, and at designated enforcement areas as defined by the operating agency.

Support:

08a Refer to Figure 2G-1 for other post-mounted Preferential Lane Operation signs used in lieu of the R3-11a sign.

Standard:

09 **For buffer-separated or contiguous HOV lanes where continuous access with the adjacent general-purpose lanes is provided on freeways and expressways, the sequence of a post-mounted Preferential Lane Operation (R3-11a) sign (see Section 2G.05) followed by a post-mounted Vehicle Occupancy Definition (R3-10) sign, ~~and ILEV (R3-10a) signs, if appropriate,~~ shall be located at intervals not greater than ½ mile along the length of the HOV lane.**

Guidance:

10 *On freeways and expressways, the signs within each Preferential Lane regulatory sign sequence should be separated by a minimum distance of 800 feet and a maximum distance of 1,000 feet.*

11 *On conventional roads, the distance between Preferential Lane regulatory signs within each sequence should be determined by engineering judgment based on speed, block length, distances from adjacent intersections, and other site-specific considerations.*

Support:

011a Buffer-separated preferential lanes that have continuous access with adjacent general-purpose lanes are not used on State Highways in California.

011b Refer to Figure 2G-1 for other post-mounted Preferential Lane Operation signs used in lieu of the R3-11a sign.

Standard:

12 **For all types of direct access ramps that provide access to or lead to HOV lanes, ~~a post-mounted~~ an overhead Vehicle Occupancy Definition (~~R3-10~~ R3-13a) sign, ~~and an ILEV (R3-10a) sign, if appropriate,~~ shall be used at the beginning or initial entry point for the direct access ramp. Refer to Figure 2G-16(CA).**

Option:

13 The (HOV) NO TRUCKS 3 AXLES OR MORE – NO VEHICLES WITH TRAILERS (R91-4(CA)) sign may be placed adjacent to the HOV lane, as needed, in locations where trucks or vehicles with trailers are frequently observed using the HOV lanes. It may also be used on surface streets approaching direct access ramps that lead to HOV lanes.

Section 2G.05 Preferential Lane Operation Signs (R3-11 Series and R3-14 Series)

Support:

01 The standardized sizes of post-mounted Preferential Lane Operation (R3-11 series) signs are consistent to accommodate any future addition or removal of a single line of legend for each sign. Each size accommodates two lines of legend for the times of day and days of week that the regulation is in effect. Consistent sign sizes are beneficial for agencies when ordering sign materials, as well as when making legend changes to existing signs if changes occur to operating times or occupancy restrictions in the future.

Guidance:

02 *Where the regulation is in effect during more than one time period of the day, such as during the morning and afternoon peak periods, the height of the R3-11 and R3-14 series signs should be suitably increased to accommodate the additional line(s) of legend.*

Standard:

03 **When used, the post-mounted Preferential Lane Operation (R3-11 series, SR60-4(CA), and SR60-6(CA)) signs shall be located adjacent to the preferential lane, and the overhead Preferential Lane Operation (R3-14 series and SR60-8(CA)) signs shall be mounted directly over the lane.**

04 **The legend format of the post-mounted Preferential Lane Operation (R3-11 series, SR60-4(CA), and SR60-6(CA)) signs shall have the following sequence:**

- **A. Top Lines: Lanes applicable, such as "RIGHT LANE" or "2 RIGHT LANES"**
- **B. Middle Lines: Eligible uses, such as "HOV 2+ ONLY" (or 3+ or 4+, if appropriate), ~~or~~ "BUSES ONLY", "BUSES-TAXIS ONLY", "TRAINS ONLY" or other applicable uses or eligible turning movements**
- **C. Bottom Lines: Applicable times and days, such as "7 AM – 9 AM" or "6:30 AM – 9:30 AM, MON-FRI" or "24 HOURS"**

05 **The legend format of the overhead Preferential Lane Operation (R3-14 series and SR60-8(CA)) signs shall have the following sequence:**

- **A. Top Lines: Eligible uses, such as "HOV 2+ ONLY" (or 3+ or 4+, if appropriate), ~~or~~ "BUSES ONLY", "BUSES-TAXIS ONLY", "TRAINS ONLY" or other applicable uses or eligible turning movements**
- **B. Bottom Lines: Applicable times and days, with the time and day placed above the down arrow, such as "7**

AM – 9 AM" or "6:30 AM – 9:30 AM, MON-FRI." When the operating periods exceed the available line width, the hours and days of the week shall be stacked as shown for the R3-14a sign in Figure 2G-1.

06 **For preferential lane restrictions that are in effect on a full-time (24 hours per day, seven days per week) basis, the Preferential Lane Operation (R3-11b, R3-11c, R3-11e, ~~R3-11g,~~ R3-14b, ~~R3-14e, and R3-14g~~ SR60-4(CA), and SR60-6(CA)) signs that include a period of operation legend shall be modified to display no legend relative to the period of operation except as provided in Paragraph 7 of this Section.**

Support:

06a Refer to FHWA's List of Known Errors for errors in Paragraph 6 text. Refer to Section 1A.04 for more details.

Option:

07 In lieu of removing the period of operation text from the Preferential Lane Operation signs for full-time operation, the legend 24 HOURS may be substituted for the times and days of the week on the Preferential Lane Operation (R3-11, R3-11a, R3-11d, R3-11f, R3-11g, R3-14, R3-14a, R3-14c, ~~R3-14d,~~ and ~~R3-14f~~ SR60-8(CA)) signs for preferential lane restrictions that are in effect on a full-time basis.

Support:

07a Refer to FHWA's List of Known Errors for errors in Paragraph 7 text. Refer to Section 1A.04 for more details.

08 The 24 HOURS legend displayed on the ~~R3-11c sign~~ Preferential Lane Operation (R3-11 and R3-14 series) signs reinforces the full-time operation where several facilities in the same area have different hours of operation—some part time, others full time, or where the same lane changes from part-time to full-time operation somewhere along its length.

08a Refer to FHWA's List of Known Errors for error in Paragraph 8 text. Refer to Section 1A.04 for more details.

Standard:

09 **The full-time Preferential Lane Operation (R3-11b, R3-11c, R3-11e, ~~R3-11g,~~ and R3-14b~~, R3-14e, and R3-14g~~) signs that do not display a period of operation legend, as described in Paragraph 6 of this Section, shall not be used where the preferential lane restriction is in effect only on a part-time basis.**

Support:

09a Refer to FHWA's List of Known Errors for errors in Paragraph 9 text. Refer to Section 1A.04 for more details.

Option:

10 Where additional movements are allowed from a preferential lane on an approach to an intersection by vehicles not meeting the preferential lane regulation, the format and words used in the legend in the middle lines on the post-mounted Preferential Lane Operation (R3-11 series) signs and on the top line of the overhead Preferential Lane Operation (R3-14 series) signs may be modified to accommodate the allowable movements (such as "HOV 2+ AND RIGHT TURNS ONLY").

10a The Mandatory/Optional HOV Movement Lane Control (R94(CA)) sign may be installed on local streets when one of the mandatory turn lanes (left or right) is designated as a HOV-only lane.

11 The MOTORCYCLES ALLOWED (R3-11hP) plaque (see Figure 2G-1) may be used where motorcycles, regardless of the number of occupants, are allowed to use an HOV lane.

Standard:

12 **If used, the MOTORCYCLES ALLOWED plaque shall be mounted below a post-mounted Preferential Lane Operation (R3-11, R3-11a, or R3-11b) sign.**

13 **For all barrier-separated or buffer-separated or contiguous preferential lanes where access is restricted to designated locations, an overhead Preferential Lane Operation (R3-14 series or SR60-8(CA)) sign shall be used at the beginning or initial entry point on freeways, expressways, and at locations on conventional roadways where the preferential lane is not the outermost (far right or far left) lane of the roadway, and at any intermediate entry points or gaps in the barrier or buffer where vehicles are allowed to legally enter the access-restricted preferential lanes. For all barrier-separated and buffer-separated preferential lanes, post-mounted Preferential Lane Operation (R3-11 series, SR60-4(CA), and SR60-6(CA)) signs shall be used only as a supplement to the overhead signs on freeways, expressways, and at locations on conventional roadways where the preferential lane is not the outermost lane of the roadway at the beginning or initial entry point, or at any intermediate entry points or gaps in the barrier or buffer.**

14 **For buffer-separated or contiguous preferential lanes where continuous access with the adjacent general-purpose lanes is provided, including those where a preferential lane is added to the roadway (see Figure 2G-2 for HOV lanes) and those where a general-purpose lane transitions into a preferential lane (see Figure 2G-3 for HOV lanes), an overhead Preferential Lane Operation (R3-14 series) sign shall be used at the beginning or initial**

entry point of the preferential lane on freeways and expressways.

Option:

15 On conventional roads where preferential lane operations exist, R3-11 series post-mounted signs may be used in lieu of or in addition to overhead R3-14 series signs, except where overhead signs are required as provided in Paragraph ~~14~~13 of this Section.

Support:

15a Refer to FHWA's List of Known Errors for error in Paragraph 15 text. Refer to Section 1A.04 for more details.

Option:

16 Additional overhead (R3-14 series and SR60-8(CA)) or post-mounted (R3-11 series) Preferential Lane Operation signs may be provided along the length of any type of preferential lane.

Support:

016a Buffer-separated preferential lanes that have continuous access with adjacent general-purpose lanes are not used on State Highways in California.

Standard:

17 **For all types of direct access ramps that provide access to or lead to preferential lanes, a post-mounted Preferential Lane Operation (R3-11 series) sign shall be used at the beginning or initial entry point of the direct access ramp.**

Option:

18 For direct access ramps to preferential lanes, an overhead Preferential Lane Operation (R3-14 series) sign may be used at the beginning or initial entry point to supplement the required post-mounted signs.

19 Lane-use control signals (see Chapter 4T) may be used at access points to preferential lanes to indicate that a ramp or access roadway leading to the preferential lane or facility, or one or more specific lanes of the facility, are open or closed (see Figure 2G-1).

Section 2G.06 Preferential Lane Advance Signs (R3-12, R3-12e, R3-12f, R3-15, R3-15a, and R3-15d)

~~*Guidance:*~~

Standard:

01 **The Preferential Lane Advance (R3-12, R3-12f, R3-15, ~~and~~ R3-15d, SR60-1(CA), and SR60-2(CA)) signs (see Figure 2G-1 and Figure 2G-1(CA)) ~~should~~ shall be used for advance notification of a barrier-separated, buffer-separated, or contiguous preferential lane that is added to the general-purpose lanes (see Figure 2G-2).**

02 **The Preferential Lane Advance (R3-12e and R3-15a) signs (see Figure 2G-1) ~~should~~ shall be used for advance notification of a general-purpose lane that becomes a preferential lane (see Figure 2G-3).**

Option:

03 The legends on the R3-12f and R3-15d signs may be modified to suit the type of preferential lane.

Guidance:

04 *On conventional roads, for general-purpose lanes that become preferential lanes, a post-mounted (R3-12e) or overhead (R3-15a) Preferential Lane Advance sign should be installed in advance of the beginning of or initial entry point to the preferential lane at a distance determined by engineering judgment based on speed, traffic characteristics, and other site-specific considerations. The distance selected should provide adequate opportunity for ineligible vehicles to vacate the lane prior to the beginning of the restriction.*

05 *On freeways and expressways, for general-purpose lanes that become preferential lanes, an overhead Preferential Lane Advance (R3-15a) sign should be installed at least 1 mile in advance of the beginning of the preferential lane restriction.*

Option:

06 Additional post-mounted or overhead Preferential Lane Advance signs may be placed farther in advance of or closer to the beginning or initial entry points to a preferential lane.

Standard:

07 **A Specific Hours/Days (R82aP(CA) or R82bP(CA)) plaque shall be used to designate the periods of operation for preferential lanes that operate on a part-time basis.**

Guidance:

08 *When used, the Specific Hours/Days plaque should be placed below the R3-12, R3-12e, R3-12f, SR60-1(CA), and SR60-2(CA) signs.*

Section 2G.07 Preferential Lane Ends Signs (R3-12a, R3-12b, R3-12c, R3-12d, R3-12g, R3- 12h, R3-15b, R3-15c, and R3-15e)

Standard:

01 **A post-mounted Preferential Lane Ends (R3-12b or R3-12h) sign (see Figure 2G-1) shall be installed at least ½ mile in advance of the termination of a preferential lane on freeways and expressways.**

02 **Except as provided in Paragraph 7 of this Section, a post-mounted Preferential Lane Ends (R3- 12a or R3-12g) sign shall be installed at the point where a preferential lane and restriction end and traffic must merge into the general-purpose lanes.**

03 **A post-mounted Preferential Lane Ends (R3-12d) sign (see Figure 2G-1) shall be installed at least ½ mile in advance of the point where a preferential lane restriction ends and the lane becomes a general-purpose lane on freeways and expressways.**

04 **Except as provided in Paragraph 8 of this Section, a post-mounted Preferential Lane Ends (R3- 12c) sign shall be installed at the point where a preferential lane restriction ends and the lane becomes a general-purpose lane.**

Guidance:

05 *On conventional roads, the distance at which Preferential Lane Ends signs are installed in advance of the termination of a preferential lane and/or restriction should be determined by engineering judgment.*

Option:

06 The legends on the R3-12g and R3-15e signs may be modified to suit the type of preferential lane.

07 An overhead Preferential Lane Ends (R3-15b or R3-15e) sign may be installed instead of or in addition to a post-mounted R3-12a or R3-12g sign at the point where a preferential lane and restriction ends and traffic must merge into the general-purpose lanes.

08 An overhead Preferential Lane Ends (R3-15c) sign may be installed instead of or in addition to a post- mounted R3-12c sign at the point where the preferential lane restriction ends and the lane becomes a general- purpose lane.

WARNING SIGNS AND PLAQUE

Section 2G.08 Warning Signs on Median Barriers for Preferential Lanes

Option:

01 When a warning sign applicable only to a preferential lane is installed on a median barrier with limited lateral clearance to the adjacent travel lanes or shoulders, the warning sign may have a vertically- oriented rectangular shape. For a high-occupancy vehicle lane, such signs may be used instead of using the HOV (W16-11P) plaque (see Section 2G.09) with a standard diamond-shaped warning sign.

Standard:

02 **When a vertically-oriented rectangular-shaped warning sign applicable only to a preferential lane is installed on a median barrier, the top portion of the sign shall be comprised of a white symbol or legend denoting the type of preferential lane (such as the diamond symbol for HOV or the legend BUS LANE) on a black background with a white border, and the bottom portion of the sign shall be comprised of the standard word message or symbol of the standard warning sign as a black legend on a yellow background with a black border (see Figure 2G-4).**

Guidance:

03 *Where lateral clearance is limited, such as when a post-mounted warning sign applicable only to a preferential lane is installed on a median barrier, the edges of the sign should not project beyond the outer edges of the barrier.*

Option:

04 Where lateral clearance is limited, warning signs applicable only to a preferential lane that are post- mounted on a median barrier and that are 72 inches or less in width may be skewed up to 45 degrees in order to fit within the barrier width or may be mounted higher, such that the vertical clearance to bottom of the sign, light fixture, or its structural support, whichever is lowest, is not less than 17 feet above any portion of the pavement and shoulders. For mounting heights on State highways, refer to Section 2A.15.

Standard:

05 **Where lateral clearance is limited, Preferential Lane warning signs that are post-mounted on a median barrier and that are wider than 72 inches shall be mounted with a vertical clearance that complies with the provisions of Section 2A.15 for overhead mounting.**

Guidance:

06 *The HOV Lane Reduction (W11-1(CA)) sign (refer to Figure 2G-4) should be used to warn motorists of a reduction in the number of HOV lanes.*

07 *The HOV Merge (W59-1(CA)) sign (refer to Figure 2G-4) should be used in advance of locations where HOV lanes converge. This includes HOV direct access ramps where high speeds and volumes prevail, and merging or weaving must be accomplished in a relatively short distance.*

08 *When used, the HOV Advisory Exit (Ramp) Speed (W72B(CA)) sign (refer to Figure 2G-4) should be placed on the left of an HOV drop ramp or freeway-to-freeway connector to advise motorists of the speed at which the roadway can be comfortably negotiated.*

09 *The HOV THRU TRAFFIC MERGE LEFT (RIGHT) (W74-1(CA)) sign (refer to Figure 2G-4) should be used to inform motorists that the inside or outside lane of an HOV facility with two or more directional HOV lanes is being dropped at the next exit, and through HOV traffic must merge into the adjacent HOV lane. This sign should not be used to indicate a general lane reduction.*

Section 2G.09 High-Occupancy Vehicle (HOV) Plaque (W16-11P)

Option:

01 In situations where there is a need to warn drivers in an HOV lane of a specific condition, the HOV (W16-11P) plaque (see Figure 2G-4) may be used above a warning sign. The HOV plaque may be used to differentiate a warning sign applicable to the HOV lanes when the sign is also visible to traffic on the adjacent general-purpose roadway. Among the warning signs that may be possible applications of the HOV plaque are the Advisory Exit Speed, Added Lane, and Merge signs.

02 The diamond symbol may be used instead of the word message HOV on the W16-11P plaque. When appropriate, the words LANE or ONLY may be used on this plaque.

Support:

03 Section 2G.08 contains information regarding warning signs that can be mounted on barriers for HOV or other types of preferential lanes.

GUIDE SIGNS

Section 2G.10 Preferential Lane Guide Signs – General

Support:

01 Preferential lanes are used on freeways, expressways, and conventional roads. Except as otherwise provided, Sections 2G.10 through 2G.15 apply only to guide signs for preferential lanes on freeways and expressways.

Guidance:

02 *On conventional roads, guide signs applicable only to preferential lanes are ordinarily not needed, but if used, they should comply with the provisions for guide signs in Chapter 2D and any principles for Preferential Lane guide signs in Sections 2G.10 through 2G.15 that engineering judgment finds to be appropriate for the conditions.*

Support:

03 Additional guidance and standards related to the designation, operational considerations, signs, pavement markings, and other considerations for preferential lanes are provided in Sections 2G.03 through 2G.07, 2G.09, and Chapter 3E.

Guidance:

04 *The appropriate combinations of pavement markings and standard overhead and post-mounted regulatory, warning, and guide signs for a specific preferential lane application should be selected based on an engineering study.*

05 *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 practicable to minimize conflicting information.*

06 *The Preferential Lane signs should be designed and located to avoid overloading the road user. The order of priority of guide signs should be Advance Guide, Preferential Lane Entrance Direction, and finally Preferential Lane Exit Destination Supplemental guide signs.*

Standard:

07 **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:

08 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 traffic allowed 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.

Standard:

09 **For HOV lanes, the diamond symbol shall appear on each Advance Guide (E8-3) sign (see Figure 2G-5), Preferential Lane Entrance Direction (E8-2 or E8-2a) sign (see Figure 2G-6), and Preferential Lane Entrance Gore (E8-1 or E8-1a) sign (see Figure 2G-7) for the designated entry and exit points for barrier-separated 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.**

10 **Signing for an HOV lane that is managed by means of varying the occupancy requirement in response to changing conditions shall also comply with these provisions.**

11 **The diamond symbol shall be displayed in the legend of each Preferential Lane guide sign at the designated entry and exit points for all types of HOV lanes (including barrier-separated, buffer- separated, 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. Guide signs shall not display the occupancy requirement or the period of operation for the preferential lane.**

12 **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 contiguous, barrier- separated, and buffer-separated preferential lanes where access between the preferential and general- purpose lanes is restricted to designated locations. The regulatory signs shall comply with the provisions of Sections 2G.03 through 2G.07.**

13 **Regulatory signs alone shall be used in advance of, at the beginning of, and at periodic intervals along contiguous or buffer-separated preferential lanes that provide continuous access between the adjacent general-purpose lanes and the preferential lane (see Figures 2G-2 and 2G-3). The design and placement of the regulatory signs shall comply with the provisions of Sections 2G.03 through 2G.07.**

14 **Except as otherwise provided in Sections 2G.10 through 2G.13, 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:

15 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 vertically- oriented rectangular shape.

Support:

015a Buffer-separated preferential lanes that have continuous access with adjacent general-purpose lanes are not used on State Highways in California.

Standard:

16 **When vertically-oriented 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 2G-7 through 2G-9).**

Guidance:

17 *Where lateral clearance is limited, such as when a post-mounted Preferential 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:

18 Where lateral clearance is limited, Preferential Lane guide signs that are 72 inches or less in width may be skewed up to 45 degrees in order to fit within the barrier width or may be mounted higher, such that the vertical clearance to the bottom of the sign, light fixture, or its structural support, whichever is lowest, is not less than 17 feet above any portion of the pavement and shoulders. For mounting heights on State highways, refer to Section 2A.15.

Standard:

19 **Where lateral clearance is limited, Preferential Lane guide signs that are post-mounted on a median barrier and that are wider than 72 inches shall be mounted with a vertical clearance that complies with the provisions of Section 2A.15 for overhead mounting.**

Option:

20 Lane-use control signals (see Chapter 4T) 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.

21 Changeable message signs may supplement, substitute for, or be incorporated into static guide signs (see Figure 2G-6) 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 lanes.

Standard:

22 **When changeable message signs (see Chapter 2L) are used as guide signs for preferential lanes, they shall be the required sign size and shall display the required letter height and legend format that correspond to the type of roadway facility and design speed.**

23 **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 on the same designated route shall not identify the entry point as an exit by using the word "EXIT" on the sign or on a plaque.**

Guidance:

24 *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 2G-5 and 2G-6), to convey the fact that vehicles are not leaving the designated route.*

25 *Preferential Lane Entrance Gore signs (see Figure 2G-7) at the initial entry point to a preferential lane should use the word "ENTRANCE." 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."*

Standard:

26 **When the entry point is on the left-hand side of the general-purpose lanes, a LEFT (E1-5aP) plaque (see Figure 2E-9) shall be added to the top left edge (above and abutting) of the Advance Guide and Preferential Lane Entrance Direction signs. The LEFT plaque shall not be used on a preferential lane regulatory sign.**

Section 2G.11 Signing for Initial Entry Points to Preferential Lanes

Standard:

01 **Except where a buffer-separated or contiguous preferential lane is added or where a general- purpose lane becomes a buffer-separated or contiguous preferential lane, and provides continuous access with the adjacent general-purpose lanes as illustrated in Figures 2G-2 and 2G-3, an Advance Guide sign shall be provided at least ½ mile prior to the initial entry point to all types of preferential lanes in any type of geometric configuration on freeways and expressways. A Preferential Lane Entrance Direction sign shall also be provided at the initial entry point. Advance Guide and Preferential Lane Entrance Direction signs for such entry points shall not include the word "EXIT" (see Section 2G.10).**

02 **Where a general-purpose lane becomes a preferential lane that does not provide continuous access with the adjacent general-purpose lanes, an Advance Guide sign shall also be provided at approximately 1 mile in advance of the initial entry point. The Advance Guide and Entrance Direction signs in this sequence shall include a panel at the bottom of the sign with a black legend and border on a yellow background displaying a down arrow and the word ONLY as illustrated in Figure 2G-8.**

Guidance:

03 *Unless an Advanced Guide Sign is already required in Paragraph 2 of this Section, an Advance Guide sign should also be installed and located approximately 1 mile in advance of the initial entry point to a preferential lane on freeways and expressways that restricts access to the adjacent general-purpose lanes.*

Option:

04 An Advance Guide sign may also be installed and located approximately 2 miles in advance of the initial entry point to a preferential lane that restricts access with the adjacent general-purpose lanes to designated locations.

Support:

04a Buffer-separated preferential lanes that have continuous access with adjacent general-purpose lanes are not used on State Highways in California.

Standard:

05 **For barrier-separated, buffer-separated, or contiguous preferential lanes where entry is restricted to only designated points on freeways and expressways, the Advance Guide and Preferential Lane Entrance Direction signs shall be mounted overhead.**

Guidance:

06 *Preferential Lane Exit Destination guide signs, identifying final destination and downstream exit locations accessible from the preferential lane (see Figures 2G-8, 2G-9, 2G-14, 2G-16, and 2G-17), should be installed in advance of the initial entry points to access-restricted preferential lanes (such as barrier-separated and buffer-separated).*

06a *These (Preferential Lane Exit Destination guide) signs should be located based on the priority of the message, the available space, the existing signs on adjacent 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:

07 **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-hand edge of this upper section (see Figure 2G-9). Advance destination guide signs for preferential lanes shall list only direct exits from the preferential lane to a street, another highway, or a destination such as a park-and-ride facility.**

Support:

08 Figure 2G-8 shows an example of signing for a general-purpose lane that becomes a preferential lane that does not provide continuous access with the adjacent general-purpose lanes.

09 Figure 2G-9 shows an example of signs for the initial entry point to a preferential lane.

Section 2G.12 Signing for Intermediate Entry Points to Preferential Lanes

Standard:

01 **For barrier-separated, buffer-separated, and contiguous 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:

02 *For barrier-separated and buffer-separated preferential lanes where intermediate entry from the general-purpose lanes is provided via a separate lane or ramp (see Figure 2G-10), at least one Advance Guide sign should be provided in addition to the Preferential Lane Entrance Direction sign.*

03 *For access-restricted preferential lanes where intermediate entrance and egress are at the same designated access location, the Preferential Lane Entrance Direction sign should be located between ½ and ¼ of the length of the designated entry area, as measured from the downstream end of the entry area (see Figure 2G-11).*

Standard:

04 **The Advance Guide signs, if used for intermediate entry points to a preferential lane from the general-purpose lanes, shall be overhead.**

Option:

05 Advance Guide signs may be provided at approximately ½ mile, 1 mile, and 2 miles in advance of intermediate entry points from the general-purpose lanes to a preferential lane.

Standard:

06 **Advance Guide and Preferential Lane Entrance Direction signs for intermediate entry points shall not include the word "EXIT" (see Section 2G.10).**

Guidance:

07 *Exit 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 access-restricted preferential lanes.*

Support:

08 Section 2G.11 contains information on the design and placement of Preferential Lane Exit Destination guide signs.

09 Figures 2G-10 and 2G-11 show examples of signs for various geometric configurations of intermediate entry to a barrier-separated or buffer-separated preferential lane where access is restricted to designated locations.

Section 2G.13 Signing for Egress from Preferential Lanes to General-Purpose Lanes

Standard:

01 **Except as provided in Paragraphs 4 and 5 of this Section, for barrier-separated, buffer- separated, and contiguous preferential lanes where egress is restricted only to designated points, post- mounted Advance Guide (E8-6) and post-mounted Intermediate Egress Direction (E8-5) signs (see Figure 2G-12) shall be installed 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 Figure 2G-11).**

02 **The legends of these signs shall refer to the next exit or exits from the general-purpose lanes by displaying the appropriate destination information, exit number(s), or both. The Intermediate Egress Direction signs for egress from the preferential lanes to the general-purpose lanes shall not refer to the egress as an exit.**

Support:

03 Section 2G.10 contains information on the design of post-mounted guide signs applicable to a preferential lane when installed on a median barrier. Figures 2G-11 and 2G-13 show examples of signs for various geometric configurations of intermediate egress from a barrier-separated or buffer-separated preferential lane where access is restricted to designated locations.

Guidance:

04 *Where two or more adjacent preferential lanes are present in a single direction, consideration should be given to the use of overhead guide signs to display the information related to egress from the preferential lanes.*

05 *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 Intermediate Egress Direction signs for the egress should be mounted overhead and a Pull- Through sign should be mounted with the Intermediate Egress Direction sign (see Figure 2G-13).*

Standard:

06 **For preferential lanes that incorporate a vehicle occupancy requirement, the design of the overhead Advance Guide and Egress 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.**

07 **The design of Pull-Through signs when used in conjunction with an Egress 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.**

Section 2G.14 Signing for Direct Entrances to Preferential Lanes from Another Highway

Standard:

01 **For direct access ramps to preferential lanes from a transit facility (such as a park-and-ride lot or a transit station or terminal) that is accessible from surface streets, advance guide signs shall be provided along the adjoining surface streets to direct traffic into and through the transit facility to the preferential lane (see Figure 2G-14).**

01a **The HOV Direct Entrance Guide (G20-10(CA)) sign (refer to Figure 2G-6(CA) and Figure 2G-16(CA)) shall be used on a multilane cross street in advance of a direct-access ramp to an HOV lane.**

01b **The HOV LANE ENTRANCE (G92-1(CA)) sign (refer to Figure 2G-6(CA) and Figure 2G-16(CA)) shall be used at the entrance of a direct access ramp from park-and-ride lot or a transit station or terminal leading to an HOV lane. The G92-1(CA) sign is similar in design and application to the FREEWAY ENTRANCE (D13-3)) sign and shall be used in the same manner. Refer to Sections 2A.15 and 2B.48 for additional details.**

Support:

02 Figure 2G-14 provides examples of recommended uses and layouts of signs for HOV lanes for direct access ramps, park-and-ride lots, and access from surface streets.

Section 2G.15 Signing for Direct Exits from Preferential Lanes to Another Highway

Standard:

01 **For contiguous preferential lanes on the left-hand side of the roadway, Advance Guide signs, Exit Direction signs, and Exit Gore (E8-4) signs (see Figure 2G-15 and Figure 2G-15(CA)) specifically applicable to the preferential lanes shall be used for exits to direct access ramps, such as HOV lane ramps (see Figure 2G-16) or ramps to park-and-ride facilities.**

02 **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 2G-16 and 2G-17).**

Standard:

02a **The HOV Exit with Arrow (E8-4) sign shall be used as an exit gore sign for direct-access ramp exits from an HOV lane.**

Guidance:

02b *The arrow on the E8-4 sign should be oriented to match the approximate angle of departure and positioned to avoid confusion that the exit serves mainline traffic.*

03 *Advance Guide ~~and Exit Direction signs~~ for exits to direct access ramps from a preferential lane should be mounted overhead. A Pull-Through sign over the preferential lane should be used with the Exit Direction sign at exits to direct access ramps.*

Standard:

03a **The HOV Advance Guide (G86-15(CA) and G83-6(CA)) and Exit Direction (G85-12(CA)) signs for exits to direct-access ramps from a preferential lane shall be mounted overhead.**

04 **Post-mounted guide signs in a vertically-oriented 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.**

05 **Because direct access ramps for preferential lanes at interchanges connecting two freeways are typically left-**

hand side exits and typically have design speeds similar to the preferential lane, overhead Advance Guide signs and overhead Exit Direction signs shall be provided in advance of and at the entry point to each freeway-to-freeway preferential lane ramp (see Figure 2G-17).

Guidance:

06 *The use of guide signs for preferential lanes at freeway interchanges should comply with the provisions for guide signs established in Chapter 2E of this Manual.*

Support:

07 Guide signs for direct access ramps for preferential lanes at interchanges connecting two freeways are similar to those for a connecting ramp between two freeway facilities.

MANAGED LANE SIGNS, PLAQUES, AND LANE-USE CONTROL SIGNALS

Section 2G.16 Signs for Managed Lanes – General

Standard:

01 **The provisions of Sections 2G.03 through 2G.07 regarding regulatory signs for preferential lanes shall apply to managed lanes operated at all times or at certain times by varying vehicle occupancy requirements (HOV) or by using vehicle type restrictions as a congestion management strategy. Such managed lanes shall use changeable message signs or changeable message elements within static signs to display the appropriate regulatory sign messages only when they are in effect.**

02 **When certain types of vehicles (such as trucks) are prohibited from using a managed lane or when a managed lane is restricted to use by only certain types of vehicles during certain operational strategies, regulatory signs or regulatory panels within the appropriate guide signs that include changeable message elements shall be used to display the open/closed status of the managed lane for such vehicle types.**

03 **When the vehicle occupancy required for use of an HOV lane is varied as a part of a managed lane operational strategy, regulatory signs that include changeable message elements shall be used to display the required minimum vehicle occupancy in effect.**

Support:

04 Section 2G.18 contains information about regulatory signs for managed lanes that use tolling or pricing as a congestion management strategy, either exclusively or with other management strategies.

Section 2G.17 Signs for Priced Managed Lanes – General

Support:

01 A priced managed lane is a managed lane that employs tolling or pricing, typically through electronic toll collection, to manage congestion levels and maintain a certain level of service for users of the facility. A priced managed facility typically provides a less-congested alternative to adjacent lanes along the same designated route, or to a nearby facility, that experience recurring congestion during peak periods. A priced managed lane might allow non-toll travel by certain vehicles based on occupancy or other criteria. A variety of operational management strategies might be used in conjunction with tolling or pricing.

02 The number and combination of operational strategies that are applied to a managed lane to manage congestion or improve efficiency might be practically limited by the amount of information that can be legibly displayed on signs or in signing sequences and still be readily comprehended by road users. Such factors to consider when evaluating alternatives for managed lanes are locations of signs for general-purpose interchanges and for other roadway conditions, the number of intermediate access points between the managed and general-purpose lanes and the need to repeat the operational information, and the distance over which a signing sequence that displays all of the eligibility requirements can be displayed.

03 Because managed lanes have the capability to employ a variety of operational strategies on a changing basis, it is not practical to assign a naming convention to such lanes for the purpose of signing based on the specific operational management strategies, as is more readily accomplished with other types of preferential lanes, such as HOV, bus, or bicycle lanes. Instead, the various requirements, restrictions, and eligibility criteria are more appropriately conveyed through a sequence of regulatory and guide signs with a more encompassing designation for the purpose of providing directional information.

04 As priced managed lanes have become prevalent as an operational strategy, it is important to maintain a uniform naming convention to distinguish those lanes that are an alternative to travel on adjacent general- purpose lanes on the same designated route to effectively communicate to motorists the range of basic requirements for similar facilities in different regions.

Standard:

05 **Priced managed lanes that are adjacent to general-purpose lanes along the same designated route shall be signed using the legend EXPRESS or EXPRESS LANE(S) as provided in this Chapter. This provision shall apply when any of the following operational strategies is used for a managed lane:**

- **A. All users of the managed lane are charged a fixed or variable toll;**
- **B. General-purpose traffic using the managed lane is charged a fixed or variable toll, but HOV traffic is allowed to travel without being charged a toll on either a full-time or part-time basis;**

C. General-purpose traffic using the managed lane is charged a fixed or variable toll, but HOV traffic is offered a discounted toll on either a full-time or part-time basis; or

D. General-purpose traffic using the managed lane is charged a fixed or variable toll, but HOV traffic registered with a local program travels at a discounted toll or without being charged a toll on either a full-time or part-time basis (a transponder or other identifier is typically required of HOVs to indicate registration in conjunction with electronic or visual enforcement and verification of vehicle occupancy).

Support:

05a Refer to FHWA's List of Known Errors for error in Paragraph 5 text. Refer to Section 1A.04 for more details.

Standard:

06 **The legends EXPRESS and EXPRESS LANE(S) shall not be used on signs for entrances to highways on which all lanes are managed and there are no adjacent general-purpose lanes on the same designated route. The legends EXPRESS and EXPRESS LANE(S) shall not be used on signs for a managed ramp connection that provides an alternative to a general-purpose ramp connection (see Figure 2F-13), except where the ramp leads directly to a managed lane as described in Section 2G.14. The legends EXPRESS and EXPRESS LANE(S) shall not be used on signs for open-road tolling lanes that bypass a conventional toll plaza (see Chapter 2F).**

Section 2G.18 Regulatory Signs for Priced Managed Lanes

Standard:

01 **Except as otherwise provided in this Section, the provisions of Sections 2G.03 through 2G.07 regarding regulatory signs for Preferential lanes shall apply to priced managed lanes operated at all times or at certain times with a toll payment requirement of some or all vehicles to use the lane(s). Such managed lanes shall use changeable message signs or changeable message elements within static signs to display the appropriate regulatory sign messages only when they are in effect.**

02 **Regulatory signs for preferential lanes shall be appropriately modified for adaptation to a priced managed lane, where applicable, as shown in Figure 2G-18.**

03 **Regulatory signs shall be used to indicate the toll charged. If the toll varies the R3-48 and R3- 48a signs that are shown in Figure 2G-18 shall be used to display the actual toll amount in effect at any given time.**

Guidance:

03a *When two destinations are included on the R3-28 or R3-48a signs, one must be the farthest destination along the route. The other destination should be an intermediate interchange, selected based on local factors such as the relative importance of nearby interchanges. The choice of intermediate destination should be made on a case-by-case basis using engineering judgment.*

Standard:

04 **When only vehicles with a registered ETC account are allowed to use a managed lane where some or all vehicles are charged a toll, regulatory signs to indicate such a restriction shall be provided and shall incorporate the pictograph adopted by the toll facility's ETC payment system and the word ONLY (see Section 2G.19 for the incorporation of such regulatory legends into the guide signs for the entrances to such facilities). The display of the ETC system pictograph shall comply with the provisions of Sections 2F.02 and 2F.03 as shown in Figures 2G-18 and 2G-19.**

05 **When HOV traffic is allowed to use a priced managed lane without paying a toll and registration in a local program is not required to receive the toll exemption, the Vehicle Occupancy Definition (R3-10 or R3-13) signs (see Section 2G.04) shall be modified to delete the diamond symbol to create priced managed lane Vehicle Occupancy Definition (R3-40 and R3-43) signs to indicate the minimum occupancy related to the management strategy (see Figure ~~2G-19~~ 2G-18).**

Support:

05a Refer to FHWA's List of Known Errors for error in Paragraph 5 text. Refer to Section 1A.04 for more details.

Standard:

06 **A ~~p~~Priced ~~m~~Managed ~~lane HOV~~ Lane Operation (R3-44 ~~or~~, R3-44a, or R3-44b) sign (see Figure 2G-18) shall be installed at the beginning or initial entry point, and at any intermediate entry points where vehicles are allowed to legally enter an access-restricted priced managed lane.**

Support:

06a Refer to FHWA's List of Known Errors for error in Paragraph 6 text. Refer to Section 1A.04 for more details.

Standard:

07 **When the vehicle occupancy required for non-toll use of a managed lane is varied as a part of a priced managed lane operational strategy, regulatory signs that include changeable message elements shall be used to display the required vehicle occupancy in effect for non-toll travel.**

Option:

08 Where registration in a local program or ETC account is required for HOV traffic to travel in a priced managed lane without being charged a toll or by being charged a discounted toll, such information may be displayed on a separate sign within the sequence of the required regulatory and guide signs.

Standard:

09 **R3-42 series and R3-45 series signs (see Figure 2G-18) shall be installed in accordance with the provisions of Section 2G.07 to indicate the termination of a priced managed lane or restriction. The R3- 42, R3-42a, and R3-45 signs shall be used only where the managed lane and restriction end and traffic must merge into the general-purpose lanes. The R3-42b, R3-42c, and R3-45a signs shall be used only where the managed lane restriction ends and the lane becomes a general-purpose lane.**

Section 2G.19 Guide Signs for Priced Managed Lanes

Standard:

01 **Except as otherwise provided 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 2G.10 through 2G.15. Except as otherwise provided 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. Guide signs for highways on which all lanes are managed and tolling or pricing is used as a management strategy shall follow the applicable provisions for toll road guide signs as contained in Chapter 2F, in addition to the general provisions of Chapter 2E.**

02 **If fixed or variable tolls are used as an operational strategy for a managed lane, the guide signs shall comply with the provisions of Sections 2F.02, 2F.03, and 2F.17 regarding the use, size, and placement of ETC-account pictographs.**

03 **Guide signs at the initial and intermediate entry points to a priced managed lane in which all general-purpose passenger vehicles are allowed shall include the legend EXPRESS LANE(S). Except as provided in Paragraph 5 of this Section, the guide signs shall incorporate the pictograph of the ETC account system into a header panel within the guide sign in accordance with Sections 2F.02, 2F.03, and 2F.17. For a priced managed lane that allows non-toll travel by HOV traffic without registration in a local program, the header panel shall be modified to a regulatory format to display both the pictograph of the ETC account system and the minimum occupancy requirement for non-toll travel with a black legend on a white background (see Figure 2G-19).**

04 **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 2G.10 through 2G.12 and 2G.14.**

05 **If registration in a toll-account program is not required for travel in a managed lane in which tolls are charged, then the ETC-account pictographs shall not be displayed on primary guide signs directing traffic to the managed lane. In such cases, the purple header panel shall be replaced with a warning header panel with a black legend and border on a yellow background displaying the word TOLL as illustrated in Figure 2G-20.**

Option:

06 If the managed lane does not accept toll payments from an ETC account system and collects tolls only by post-travel billing of registered vehicle owners, then the legend TOLL BILLED BY MAIL ONLY may be displayed on a separate information sign within the sequence of primary guide signs in advance of the entrance to the managed lane.

07 If the managed lane accepts payments from registered ETC accounts, but does not require registration to use the lane, then the pictographs of the accepted ETC account programs may be displayed on a separate information sign within the sequence of primary guide signs in advance of the entrance to the managed lane. The information sign may also display the legend TOLL BILLED BY MAIL OR in addition to the pictograph of the accepted ETC account program.

Support:

08 Figure 2G-19 shows examples of Guide signs for entrances to priced managed lanes and other ETC account-only

toll facilities that incorporate header panels with ETC account pictographs and regulatory legends.

09 Figures 2G-21 through 2G-24 show examples of guide signs for various configurations of initial and intermediate entrances to a priced managed lane.

Guidance:

10 *Exit Destination supplemental guide signs, identifying final destination and downstream exit locations accessible from the managed lane (see Figure 2G-25), should be installed in advance of the initial entry points to priced managed lanes. These signs should be located in accordance with the provisions of Paragraph 6 of Section 2G.11.*

11 *For managed lanes that are available as an alternative to travel on adjacent general-purpose lanes on the same designated route, changeable message signs indicating the comparative travel times or congestion levels using the managed lanes versus the general-purpose lanes (see Figure 2G-26) should be installed in advance of the initial and intermediate entry points to the managed lanes.*

Option:

12 Changeable message signs may also be used on non-managed highways to display comparative travel times or congestion levels for a nearby managed highway.

Standard:

13 **The use and locations of guide signs for intermediate egress locations and direct exits from a priced managed lane (see Figures 2G-24 and 2G-27 through 2G-29) shall comply with the provisions of Sections 2G.13 and 2G.15. The signs shall be suitably modified to display header messages of white legend on a green background that relate the guide sign legends to the managed lane(s) as appropriate in accordance with the following:**

- **A. Post-mounted or overhead-mounted Advance Guide signs for intermediate egress to the general-purpose lanes shall include the legend LOCAL EXITS in a header panel within the guide signs, destination information or the exit number(s) for the next exit(s) accessible from the general-purpose lanes, and the appropriate distance information to the location of the egress (see Figure 2G-27).**
- **B. Post-mounted or overhead-mounted Intermediate Egress Direction signs shall include the legend LOCAL EXITS in a header panel within the signs, the destination information or the exit number(s) of the next exit(s) accessible from the general-purpose lanes, and a diagonally upward-pointing directional arrow (see Figure 2G-27).**
- **C. For direct exits to another roadway, the legend EXPRESS EXIT shall be used on the Advance Guide and Exit Direction signs (see Figure 2G-28).**
- **D. For Pull-Through signs, the legend EXPRESS LANE(S) shall be used, either as a header panel within the Pull-Through sign or as the principal legend of the sign without a header panel (see Figures 2G-27 through 2G-29).**

Support:

14 Section 2G.13 contains information on the use of overhead-mounted guide signs for intermediate egress to the general-purpose lanes.

15 Figures 2G-30 and 2G-31 show examples of guide signing for direct entrances to a priced managed lane from a crossroad or surface street.

Standard:

16 **The G92-1(CA) sign shall be used for direct entrances to a priced managed lane from a crossroad or surface street. When used for this purpose, the sign shall be modified in accordance with the provisions of this section.**

Section 2G.20 Signs for Part-Time Travel on a Shoulder – General

Support:

01 In some cases, paved shoulders are allowed to be used for driving use during peak periods to manage congestion. Configurations might be on freeways and expressways, as well as on conventional roads. Travel on the shoulder during these periods might be restricted to certain classes of vehicles, such as buses or HOV, or might be open to general traffic. When the part-time travel on a shoulder is limited to certain classes of vehicles, the signing is similar to that for preferential lanes. ~~Additional signing is typically used to advise road users that the shoulder is not available for emergency use during these periods.~~ Part-time travel on a shoulder might also employ lane-use control signals and/or blank-out signs to inform traffic of the allowable use of the shoulder. Depending on the design of exit ramp terminals and auxiliary lanes, guide signs must account for exit maneuvers during both shoulder use conditions and might necessitate changeable legend elements. However, additional guide signs are not normally necessary specifically for the

condition when the shoulder is used for travel. The pavement markings might also be modified where travel allowed on the shoulder begins and ends.

02 Figure 2G-32 shows an example of signing for part-time travel on a shoulder.

Standard:

03 **A shoulder that has been opened to travel on a permanent, full-time basis shall be considered a travel lane and shall be signed and marked in accordance with other provisions of this Manual.**

Support:

04 Section 3E.04 contains provisions regarding the placement of markings on paved shoulders that are open for part-time travel.

Section 2G.21 Regulatory Signs and Plaques for Part-Time Travel on a Shoulder

Standard:

01 **Regulatory signs shall be used to notify road users of the periods of operation that travel is allowed on a paved shoulder. The Part-Time Travel on Shoulder Operation (R3-51) sign (see Figure 2G-32) shall be used where traffic is allowed to travel on the shoulder during certain fixed periods of operation. The Part-Time Travel on Shoulder Variable Operation (R3-51d) sign (see Figure 2G-32) with two flashing beacons (see Chapter 4S) mounted above it shall be used when the period of operation is variable.**

01a **The AUTHORIZED BUSES ONLY SPECIFIC HOURS/DAYS (R130(CA)) sign (refer to Figure 2G-101(CA)) shall be used where travel on the shoulder is restricted to certain classes of vehicles. The R130(CA) sign shall be placed at intervals not exceeding ½ mile along the length of the shoulder where travel is permitted. The EMERGENCY STOPPING ALLOWED Plaque R130P(CA) plaque shall be installed below the R130(CA) sign.**

02 **If certain classes of vehicles are not allowed to use the shoulder during these periods, then a Selective Exclusion (R3-51aP or R3-51bP) plaque shall be mounted below the R3-51 or R3-51d sign. If the travel on the shoulder is restricted to certain classes of vehicles, then the regulatory signs shall display that information.**

Option:

03 The EMERGENCY STOPPING ONLY OTHER TIMES (R3-51cP) plaque may be mounted below the R3-51 and R3-51d ~~sign~~ signs if the R3-51aP or R3-51bP plaque is not used.

Guidance:

04 *The ~~TRAVEL ON SHOULDER BEGINS ½ MILE~~ Part-Time Travel on Shoulder Begins Advance (R3-52c) sign should be used in advance of the location where part-time travel on shoulder first begins and followed by the DO NOT DRIVE ON SHOULDER (R4-17) sign appropriately spaced downstream.*

Support:

04a Refer to FHWA's List of Known Errors for error in Paragraph 4 text. Refer to Section 1A.04 for more details.

Guidance:

04b *The BUSES TRAVEL ON SHOULDER BEGINS ½ MILE (R131(CA)) sign (refer to Figure 2G-101(CA)) should be installed in advance of the location where part-time bus travel on shoulder begins.*

Standard:

05 **Approximately ½ mile from where part-time travel on shoulder ends, the ~~TRAVEL ON SHOULDER ENDS~~ Part-Time Travel on Shoulder Ends Advance (R3-52a) sign shall be used. At the location provided for traffic to transition from shoulder travel back to permanent highway lane travel, an ~~END TRAVEL ON SHOULDER~~ Part-Time Travel on Shoulder Ends (R3-52) sign shall be used. After this transition location a DO NOT DRIVE ON SHOULDER (R4-17) sign shall be used.**

Support:

05a Refer to FHWA's List of Known Errors for errors in Paragraph 5 text. Refer to Section 1A.04 for more details.

Standard:

05a **Approximately ½ mile before the end of part-time bus travel on the shoulder lane, the BUSES ON SHOULDER ENDS ½ MILE (R132(CA)) sign (refer to Figure 2G-101(CA)) shall be installed. At the location where buses transition from shoulder travel back to general-purpose lane, the END BUSES ON SHOULDER (R133(CA)) sign shall be installed.**

Guidance:

06 *Where a shoulder that allows part-time travel is interrupted by a deceleration lane for an exit, the BEGIN EXIT LANE (R3-56) sign should be used at the beginning of the deceleration lane where traffic is allowed to enter during the periods that travel is prohibited on the shoulder.*

07 *On a conventional road where a shoulder that is open to part-time travel becomes a mandatory turn lane, the BEGIN RIGHT TURN LANE (R3-20R) sign should be post-mounted on the right-hand side of the roadway at the upstream end of the turn lane taper of a mandatory right-turn lane. Where the shoulder is on the left-hand side of the roadway, the BEGIN LEFT TURN LANE (R3-20L) sign may be post-mounted on a median (or on the left-hand side of the roadway for a one-way street) at the upstream end of the turn lane taper of a mandatory left-turn lane.*

08 *Where turn-outs are provided for emergency stopping during periods when travel is allowed on the shoulder, the EMERGENCY STOPPING ONLY (R8-7) sign (see Section 2B.52) should be used adjacent to the turn-out (see Drawing D in Figure 2G-32).*

09 *Where traffic on an entrance ramp is required to yield to traffic using the shoulder of the freeway or expressway mainline during the periods when travel is allowed on the shoulder, the TO TRAFFIC ON SHOULDER (R3-57P) plaque should be mounted below the YIELD (R1-2) sign (see Section 2B.05 and Drawing C in Figure 2G-32).*

Section 2G.22 Warning Signs for Part-Time Travel on a Shoulder

Guidance:

01 *The Traffic Using Shoulder (W3-9) or BUSES USING SHOULDER (W130(CA)) sign should be used on a ramp that enters a freeway or expressway on which part-time travel is allowed on the shoulder. When used, the W3-9 or W130(CA) sign should be located on the right-hand side of the ramp from which the shoulder traffic approaches (see Drawing C in Figure 2G- 32).*

Option:

02 A second W3-9 or W130(CA) sign may be used on the left-hand side of the ramp opposite the W3-9 or W130(CA) sign on the right-hand side of the ramp to provide greater visibility to oncoming traffic.

03 The W3-9 or W130(CA) sign may be used on a conventional road that is required to stop for or yield to the through street or highway on which part-time travel is allowed on the shoulder.

Section 2G.23 Guide Signs for Part-Time Travel on a Shoulder

Support:

01 Guide signs for part-time travel on a freeway or expressway shoulder generally consist of the typical interchange guide sign sequence (see Chapter 2E). While specialized guide signs are not normally necessary, modifications to the typical guide signs might be necessary, especially where an interchange lane drop is created only during the periods when the shoulder is open to travel.

Standard:

02 **Where an interchange lane drop is created only during the periods when a shoulder is open to travel, the Advance and Exit Direction guide signs (see Sections 2E.23 and 2E.25) shall be overhead- mounted and shall be modified to include a blank-out or changeable EXIT ONLY message that complies with the provisions of Section 2E.28 and is displayed only during the periods that the shoulder is open to travel (see Drawing E in Figure 2G-32).**

03 **Guide signs located in conjunction with part-time travel on a shoulder shall otherwise comply with the provisions of Chapters 2D and 2E.**

Guidance:

04 *Where turn-outs are provided for emergency stopping during periods when travel is allowed on the shoulder, the Advance Emergency Turn-Out (D17-5) sign and Emergency Turn-Out Directional (D17-6) sign (see Drawing D in Figure 2G-32) should be used as provided in Section 2D.54.*

Support:

05 Refer to FHWA's List of Known Errors for error in Paragraph 4 text. Refer to Section 1A.04 for more details.

Section 2G.24 Lane-Use Control Signals for Part-Time Travel on a Shoulder

Support:

01 Lane-use control signals (see Chapter 4T) are sometimes used for part-time travel on a paved shoulder (see Drawing A in Figure 2G-32), in addition to signs, to indicate the allowable use of the shoulder.

Option:

02 Overhead lane-use control signals may be used above a shoulder on which part-time travel is allowed.

Standard:

03 **Except as otherwise provided in this Section, lane-use control signals that are used for part-time travel on a shoulder shall comply with the provisions of Chapter 4T. When used for part-time travel on a shoulder, lane-use control signals shall not be required above the lanes adjacent to the shoulder. When used for part-time travel on a shoulder, a steady RED X signal indication shall be displayed when the shoulder is available for emergency stopping only and travel on the shoulder is otherwise prohibited.**

04 **When part-time travel on shoulder is allowed for variable periods of operation, lane-use control signals (see Chapter 4T) shall be used and evenly spaced approximately every ½ mile or less and centered over the shoulder to indicate when the shoulder is open or closed to vehicle travel. The lane- use control signals shall display a steady DOWNWARD GREEN ARROW signal indication during times when travel is allowed on the shoulder, followed by a steady YELLOW X signal indication just before the shoulder is to be closed to travel, and a steady RED X signal indication when shoulder travel is discontinued. Additionally, during the period when travel is allowed on the shoulder, a lane-use control signal that continuously displays a steady YELLOW X signal indication shall be used approximately ½ mile in advance of the location where part-time travel on the shoulder ends, and then displays a steady RED X signal indication when the travel on shoulder ends. A lane-use control signal with a steady RED X signal indication shall be displayed at all times at the location where part-time travel on the shoulder ends.**

Option:

05 For part-time travel on shoulder with variable periods of operation, post-mounted ~~TRAVEL ON SHOULDER ALLOWED WHEN FLASHING~~ Part-Time Travel on Shoulder Variable Operation (R3-51d) signs (see Drawing A in Figure 2G-32) with flashing beacons may be used in lieu of the lane-use control signals at the same intervals.

Support:

05a Refer to FHWA's List of Known Errors for error in Paragraph 5 text. Refer to Section 1A.04 for more details.

Option:

06 The ~~TRAVEL ON SHOULDER ON GREEN ARROW ONLY~~ Part-Time Travel on Shoulder on Green Arrow (R3-51e) sign (see Drawing A in Figure 2G-32) may be used with a lane-use control signal and may be mounted adjacent to the signal head, elsewhere on the signal support, or post-mounted next to, or in advance of, the signal.

Support:

07 Refer to FHWA's List of Known Errors for error in Paragraph 6 text. Refer to Section 1A.04 for more details.

Section 2G.25 Lane-Use Control Signals for Active Lane Management on Freeways and Expressways

Support:

01 Active lane management is a component of active traffic management in which the use of travel lanes and speed limits might be varied in real time in response to traffic conditions to manage congestion. Active lane management might employ lane-use control signals (see Chapter 4T) and/or changeable message signs (see Chapter 2L). Figure 2G-33 shows an example of lane-use control signals and variable Speed Limit signs for active lane management during an incident

Standard:

02 **Except as otherwise provided in this Section, lane-use control signals that are used for active lane management shall comply with the provisions of Chapter 4T. When used for active lane management on a freeway or expressway, a steady YELLOW X signal indication shall be displayed to warn road users to vacate the lane when the next downstream lane-use control signal over the same lane is displaying a steady RED X signal indication.**

Option:

03 A steady YELLOW X signal indication may be displayed on one or more lane-use control signals in advance of the steady YELLOW X signal indication required by Paragraph 2 of this Section as conditions warrant to warn road users to vacate the lane.

Support:

04 Using too many steady YELLOW X signal indications could diminish the effectiveness of the steady YELLOW X signal indication in conveying the lane is closed a short distance ahead and the road user needs to vacate the lane soon.

Standard:

05 **When operated in conjunction with a temporary planned lane closure, lane-use control signals shall only**

supplement the temporary traffic control devices as provided in Part 6 of this Manual.

Guidance:

06 *Spacing of lane-use control signals for active lane management on freeways and expressways should be at ½-mile intervals. Closer spacing should be used where the viewing distance is limited by the roadway geometry, overcrossings or other sight obstructions, or where traffic entering from intervening interchange ramps is not adequately served by the ½-mile spacing.*

07 *Combining lane-use control signals with overhead sign support structures should be minimized to avoid overloading road users with too much information or conflicting or incorrect messages, such as exclusive lane use or lane drop implied by the display of a steady DOWNWARD GREEN ARROW signal indication below a guide sign.*

Section 2G.26 Variable Speed Limits for Active Traffic Management on Freeways and Expressways

Support:

01 ~~Active traffic management on freeways and expressways might employ variable speed limits as an element of an overall congestion management plan using variable Speed Limit (R2-1) sign (see Section 2B.21).~~

02 Careful consideration is needed in locating variable Speed Limit signs along the roadway and potential positioning adjacent to guide signs or lane-use control signals so that the speed displayed is clearly associated with the lane or lanes intended to be regulated and not other adjacent lanes, ramps, or roadways. This might result in the need to place variable Speed Limit signs on separate supports away from guide and other signs or lane-use control signals.

Standard:

03 **The regulatory speed displayed on a variable Speed Limit sign shall comply with Paragraph 13 of Section 2B.21 and the "Standard Highway Signs" publication (see Section ~~1C.05~~ 1A.05).**

Support:

03a Refer to FHWA's List of Known Errors for error in Paragraph 3 text. Refer to Section 1A.04 for more details.

Guidance:

04 *The location and positioning of variable Speed Limit signs should clearly associate the speed displayed to the lane or lanes intended to be regulated such that it would not present a conflict or confusion with other posted speed limits or advisory speeds for adjacent lanes, ramps, or roadways. Variable Speed Limit signs should not be located on overhead guide sign installations (see Section 2E.43).*

05 *In addition to the post-interchange Speed Limit sign (see Paragraph 17 of Section 2E.47), the spacing of variable Speed Limit signs on freeways and expressways should be based on an engineering study that considers such factors as recurring congestion, high-volume interchanges, weaving sections, and other location-specific factors that are known to affect travel speeds. The variable Speed Limit signs should be placed far enough in advance of known congestion points to adequately adjust the operating speed to minimize the extent of vehicle queuing.*

Section 2G.101(CA) Preferential Lane Enforcement Signing (SR50(CA) Series)

Guidance:

01 *The HOV VIOLATION $__ MINIMUM FINE (SR50-2(CA)) sign should be placed near the beginning of all HOV facilities and may also be placed at intermediate entry points or gaps in the barrier or buffer for all barrier- or buffer-separated HOV lanes.*

02 *The SR50-2(CA) sign should also be used on managed lane facilities that charge HOV users no toll or a discounted toll.*

Option:

03 The SR50-2(CA) sign may be repeated at 2-mile intervals or as needed at locations experiencing high violation rates.

04 The HOV VIOLATION $__ MINIMUM FINE (SR50-1(CA)) sign may be used to supplement the SR50-2(CA) sign on HOV facilities or priced managed lane facilities where violation rates are particularly high.

Support:

05 The SR50-1(CA) is normally placed onto an existing overhead sign structure if it can adequately support the additional sign.

Standard:

06 **These signs shall be modified to delete the diamond symbol when utilized on priced managed lanes.**

Section 2G.102(CA) Regulatory Signs for Preferential Lanes at Metered On-Ramps

Support:

01 For State highways, refer to Caltrans' Ramp Metering Design Manual. Refer to Section 1A.05 for information regarding this publication.

02 Refer to CVC § 21655.5 for Exclusive- or Preferential-Use Lanes for High Occupancy Vehicles.

03 Refer to Section 2B.61 for additional regulatory signs to be used at metered on-ramps.

Guidance:

04 *The No Left Turn Specific Hours EXCEPT BUSES AND HOV __+ (R33B(CA)) sign should be installed on local streets (with concurrence of local agency) whenever left turns are restricted to buses and high-occupancy vehicles only during peak hours. The No Left Turn WHEN METERED EXCEPT BUSES AND HOV __+ (R33C(CA)) sign should be installed on local streets (with concurrence of local agency) whenever left turns are restricted to buses and high-occupancy vehicles only during periods of ramp metering.*

Standard:

05 **The LEFT (RIGHT OR CENTER) LANE DO NOT STOP (BUSES ONLY) (R88(CA)) sign shall be used for preferential lanes at metered on-ramps to indicate that the preferential lane is not required to stop.**

06 **The diamond symbol shall not be utilized on the R88(CA) if the preferential lane is not designated for HOV usage.**

Guidance:

07 *The R88(CA) sign should be placed on the same side as the preferential lane, upstream of the meter.*

08 *The ALL VEHICLES STOP ON RED (R90-1(CA)) sign should be placed when converting a non-metered preferential lane to a metered operation.*

Option:

09 The R90-1(CA) sign may also be used on new installations where potential for confusion exists.

Standard:

10 **The LEFT (RIGHT OR CENTER) HOV ___+ ___ OR MORE ONLY WHEN METERED (R91-1(CA)) sign shall be used for preferential lanes at metered on-ramps to clearly indicate the lane and minimum number of persons per vehicle required to use the lane.**

11 **The message "24 HOURS" shall be used instead of "WHEN METERED" if the preferential lane is in effect on a full-time basis.**

Option:

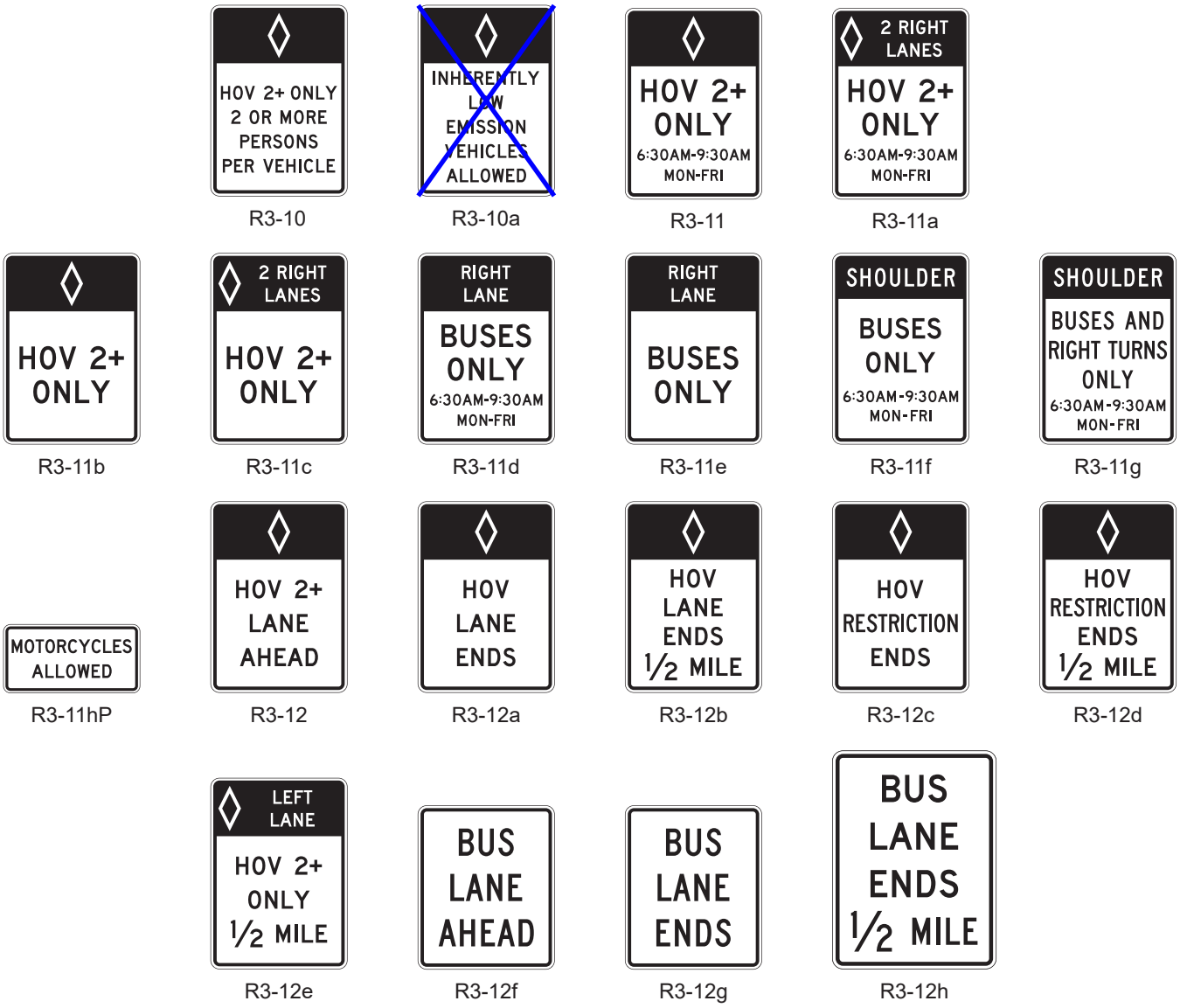
12 An alternate one-line message, such as "BUSES OK", may be used in place of "WHEN METERED" on line 6 of the R91-1(CA) sign.

Guidance:

13 *When used, the R91-1(CA) sign should be placed near a diamond symbol pavement marking.*

Figure 2G-1. Preferential Lane Regulatory Signs and Plaque (Sheet 1 of 2)

A – Post-mounted Preferential Lane regulatory signs and plaque



Notes:

1. The minimum vehicle occupancy requirement may vary for each facility (such as 2+, 3+, 4+).
2. The occupancy requirement may be added to the first line of the R3-12a, R3-12b, R3-12c, and R3-12d signs.
3. Some of the legends shown on these signs are for example purposes only. The specific legend for a particular application should be based upon local conditions, ordinances, and State statutes.

Figure 2G-1. Preferential Lane Regulatory Signs and Plaque (Sheet 2 of 2)

B – Overhead Preferential Lane regulatory signs



R3-13



R3-13a



R3-14



R3-14a



R3-14b



R3-14c



R3-15



R3-15a



R3-15b



R3-15c

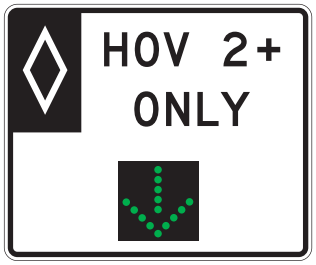


R3-15d

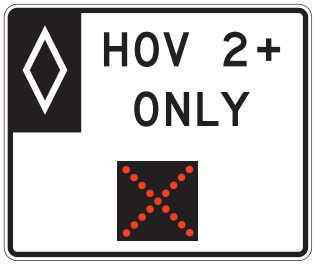


R3-15e

A lane-use control signal may be incorporated into an overhead preferential lane regulatory sign to indicate the status of a reversible operation as shown in the following example:



Lane open



Lane closed

Notes:

1. The minimum vehicle occupancy requirement may vary for each facility (such as 2+, 3+, 4+).
2. The occupancy requirement may be added to the first line of the R3-15b and R3-15c signs.
3. Some of the legends shown on these signs are for example purposes only. The specific legend for a particular application should be based upon local conditions, ordinances, and State statutes.
4. Where sufficient median width is available, the R3-13 series and R3-15 series signs may be post-mounted.

Figure 2G-1(CA). California Preferential Lane Regulatory Signs and Plaques



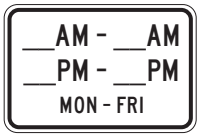
R33B(CA)



R33C(CA)



R82aP(CA)



R82bP(CA)



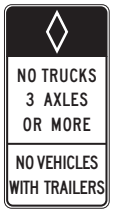
R88(CA)



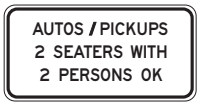
R90-1(CA)



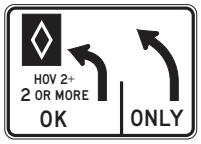
R91-1(CA)



R91-4(CA)



R91bP(CA)



R94(CA)



SR50-1(CA)



SR50-2(CA)



SR60-1(CA)



SR60-2(CA)



SR60-4(CA)

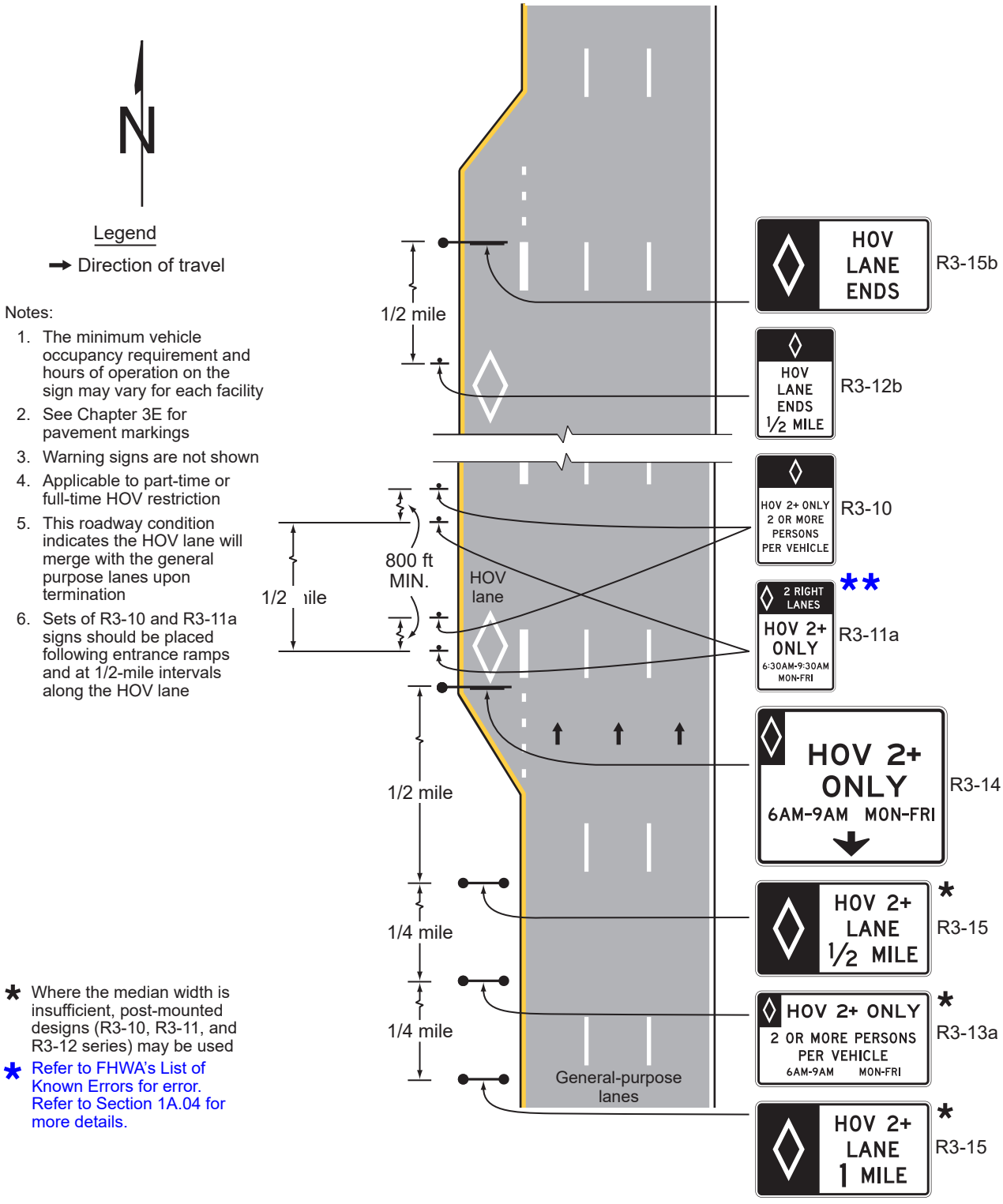


SR60-6(CA)



SR60-8(CA)

Figure 2G-2. Example of Signing for an Added Continuous-Access Contiguous or Buffer-Separated HOV Lane



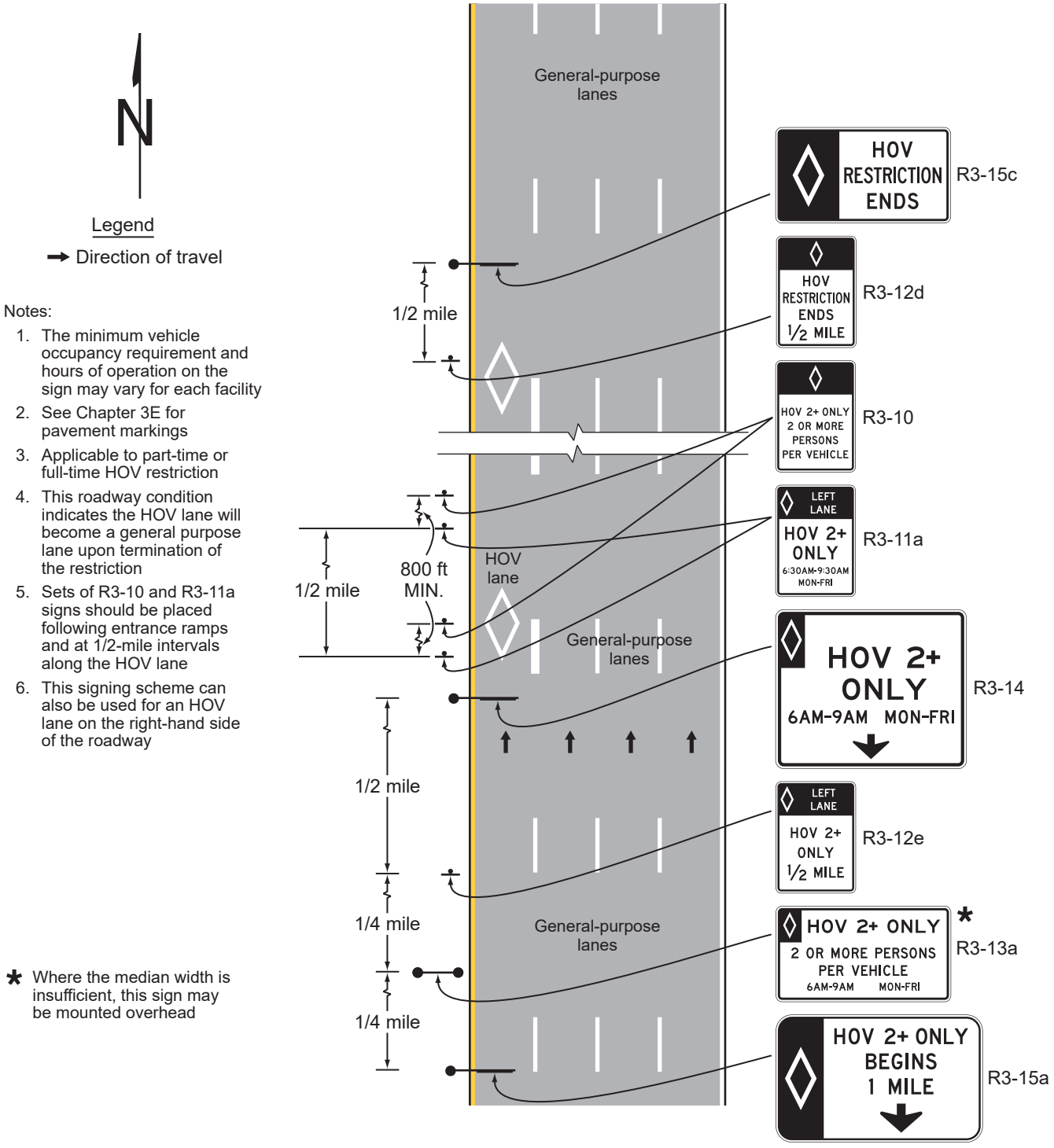
Notes:

1. The minimum vehicle occupancy requirement and hours of operation on the sign may vary for each facility
2. See Chapter 3E for pavement markings
3. Warning signs are not shown
4. Applicable to part-time or full-time HOV restriction
5. This roadway condition indicates the HOV lane will merge with the general purpose lanes upon termination
6. Sets of R3-10 and R3-11a signs should be placed following entrance ramps and at 1/2-mile intervals along the HOV lane

* Where the median width is insufficient, post-mounted designs (R3-10, R3-11, and R3-12 series) may be used

** Refer to FHWA's List of Known Errors for error. Refer to Section 1A.04 for more details.

Figure 2G-3. Example of Signing for a General-Purpose Lane that Becomes a Continuous-Access Contiguous or Buffer-Separated HOV Lane



Notes:

1. The minimum vehicle occupancy requirement and hours of operation on the sign may vary for each facility
2. See Chapter 3E for pavement markings
3. Applicable to part-time or full-time HOV restriction
4. This roadway condition indicates the HOV lane will become a general purpose lane upon termination of the restriction
5. Sets of R3-10 and R3-11a signs should be placed following entrance ramps and at 1/2-mile intervals along the HOV lane
6. This signing scheme can also be used for an HOV lane on the right-hand side of the roadway

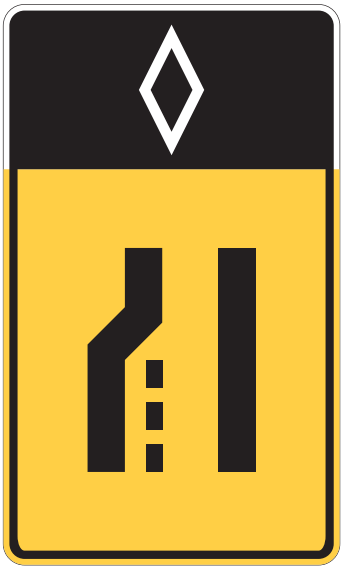
* Where the median width is insufficient, this sign may be mounted overhead

Figure 2G-4. Examples of Warning Signs and Plaques Applicable Only to Preferential Lanes

A – Barrier-mounted rectangular warning signs



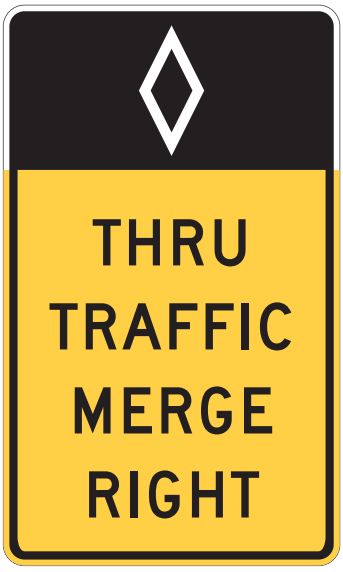
~~W4-1L (modified)~~
W59-1(CA)



~~W4-2L (modified)~~
W11-1(CA)



~~W13-2 (modified)~~
W72B(CA)



W74-1(CA)

B – Warning plaque for use above standard diamond-shaped warning signs



W16-11P

Note: An HOV lane example (diamond symbol) is illustrated. For other types of preferential lanes, the appropriate symbol or word message (see Section 2G.03) shall be displayed in white on the black background of the top portion of these signs.

Figure 2G-5. Example of an Overhead Advance Guide Sign for a Preferential Lane Entrance



E8-3

Note: An example of an HOV lane (diamond symbol) sign is illustrated. For other types of preferential lanes, the appropriate symbol or word message (see Section 2G.03) is displayed in white on the black background of the left-hand portion of this sign.

Figure 2G-6. Examples of Overhead or Post-Mounted Preferential Lane Entrance Direction Signs



E8-2
(overhead only)



E8-2a
(post-mounted only)

A changeable message sign may be incorporated into an overhead Preferential Lane guide sign to indicate the status of a reversible operation as shown in the following example:



Lane open



Lane closed

Note: Examples of HOV lane (diamond symbol) signs are illustrated. For other types of preferential lanes, the appropriate symbol or word message (see Section 2G.03) is displayed in white on the black background of the top left-hand portion of these signs.

Figure 2G-6(CA). California Examples of Overhead or Post-Mounted Preferential Lane Entrance Direction Signs



G92-1(CA)



G20-10(CA)

Figure 2G-7. Entrance Gore Signs for Barrier-Separated Preferential Lanes



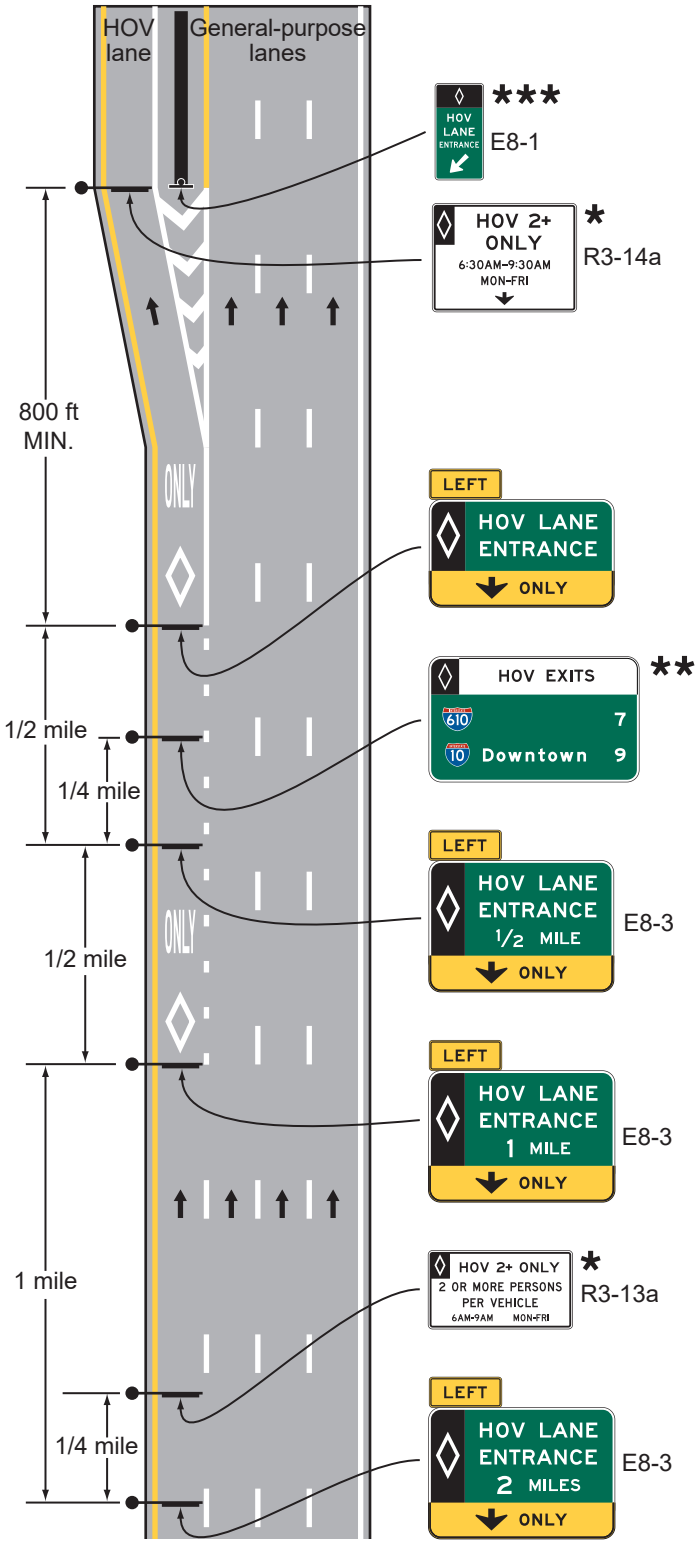
E8-1



E8-1a

Note: Examples of HOV lane (diamond symbol) signs are illustrated. For other types of preferential lanes, the appropriate symbol or word message (see Section 2G.03) is displayed in white on the black background of the top portion of these signs.

Figure 2G-8. Example of Advance Guide and Entrance Direction Signs for a General-Purpose Lane that Becomes a Preferential Lane





Legend

→ Direction of travel

* Potential location of a Changeable Message Sign (CMS) for reversible or counter-flow operations

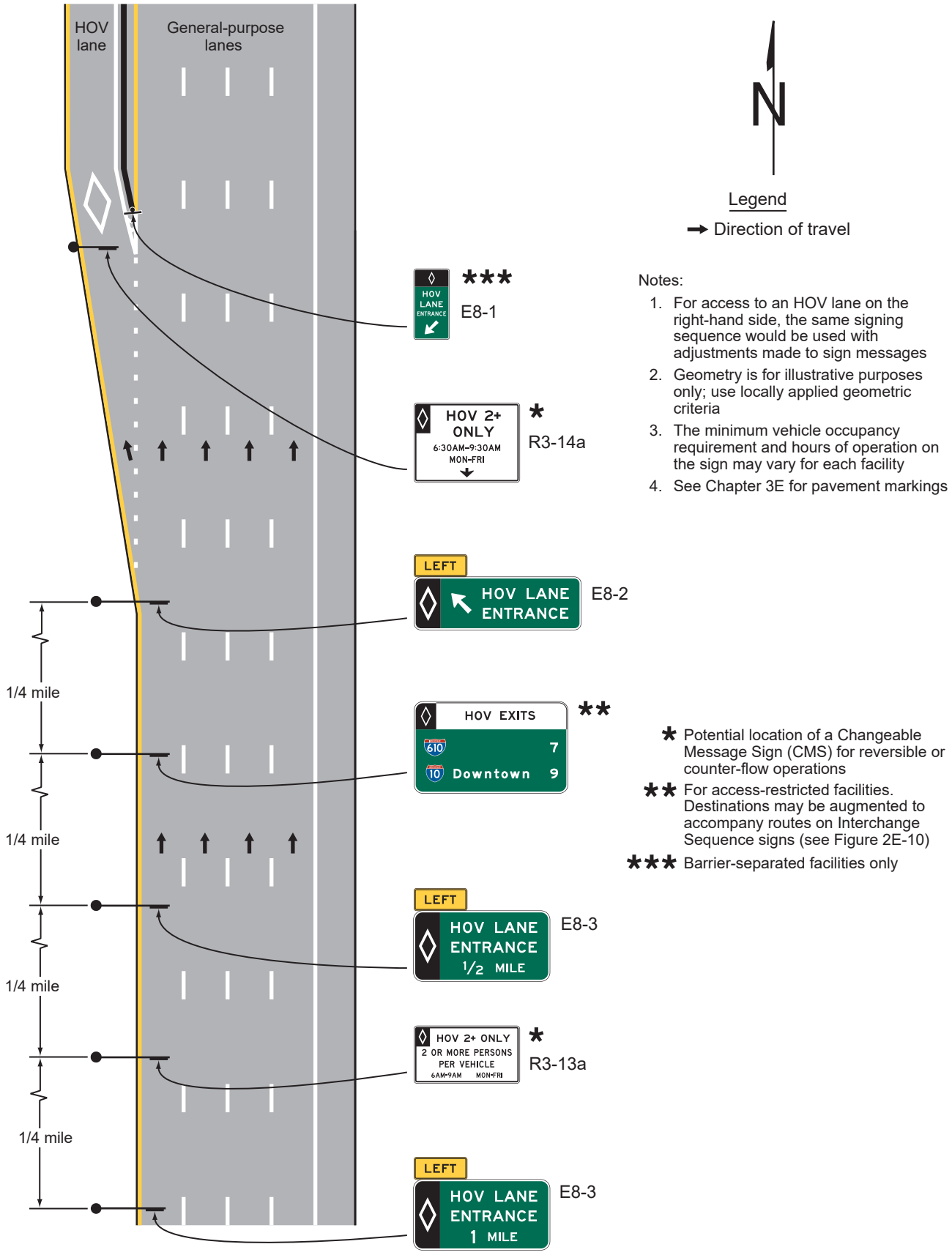
** For access-restriced facilities. Destinations may be augmented to accompany routes on Interchange Sequence signs (see Figure 2E-10)

*** Barrier-separated facilities only

Notes:

1. For access to a managed lane on the right-hand side, the same signing sequence would be used with adjustments made to sign messages
2. Geometry is for illustrative purposes only; use locally applied geometric criteria
3. The minimum vehicle occupancy requirement and hours of operation on the sign may vary for each facility
4. See Chapter 3E for pavement markings

Figure 2G-9. Example of Signing for an Entrance to Access-Restricted HOV Lanes



Notes:

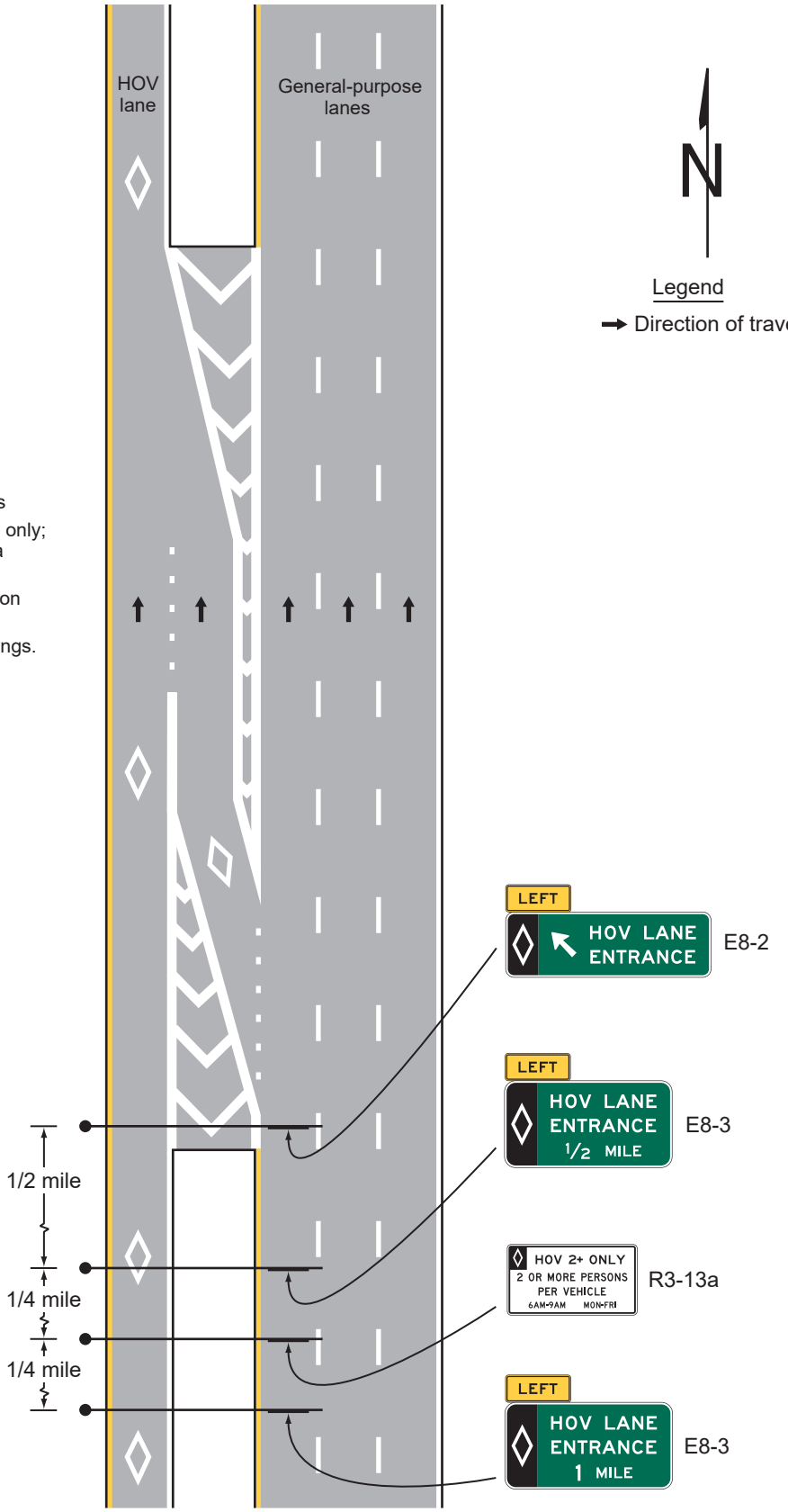
1. For access to an HOV lane on the right-hand side, the same signing sequence would be used with adjustments made to sign messages
2. Geometry is for illustrative purposes only; use locally applied geometric criteria
3. The minimum vehicle occupancy requirement and hours of operation on the sign may vary for each facility
4. See Chapter 3E for pavement markings

* Potential location of a Changeable Message Sign (CMS) for reversible or counter-flow operations

** For access-restricted facilities. Destinations may be augmented to accompany routes on Interchange Sequence signs (see Figure 2E-10)

*** Barrier-separated facilities only

Figure 2G-10. Example of Signing for an Intermediate Entry to a Barrier-Separated or Buffer-Separated HOV Lane



Notes:

1. For access to an HOV lane on the right-hand side, the same signing sequence would be used with adjustments made to sign messages
2. Geometry is for illustrative purposes only; use locally applied geometric criteria
3. The minimum vehicle occupancy requirement and hours of operation on the sign may vary for each facility
4. See Chapter 3E for pavement markings.
5. Warning signs are not shown

Figure 2G-11. Example of Signing for the Intermediate Entry to, Egress from, and End of Access-Restricted HOV Lanes

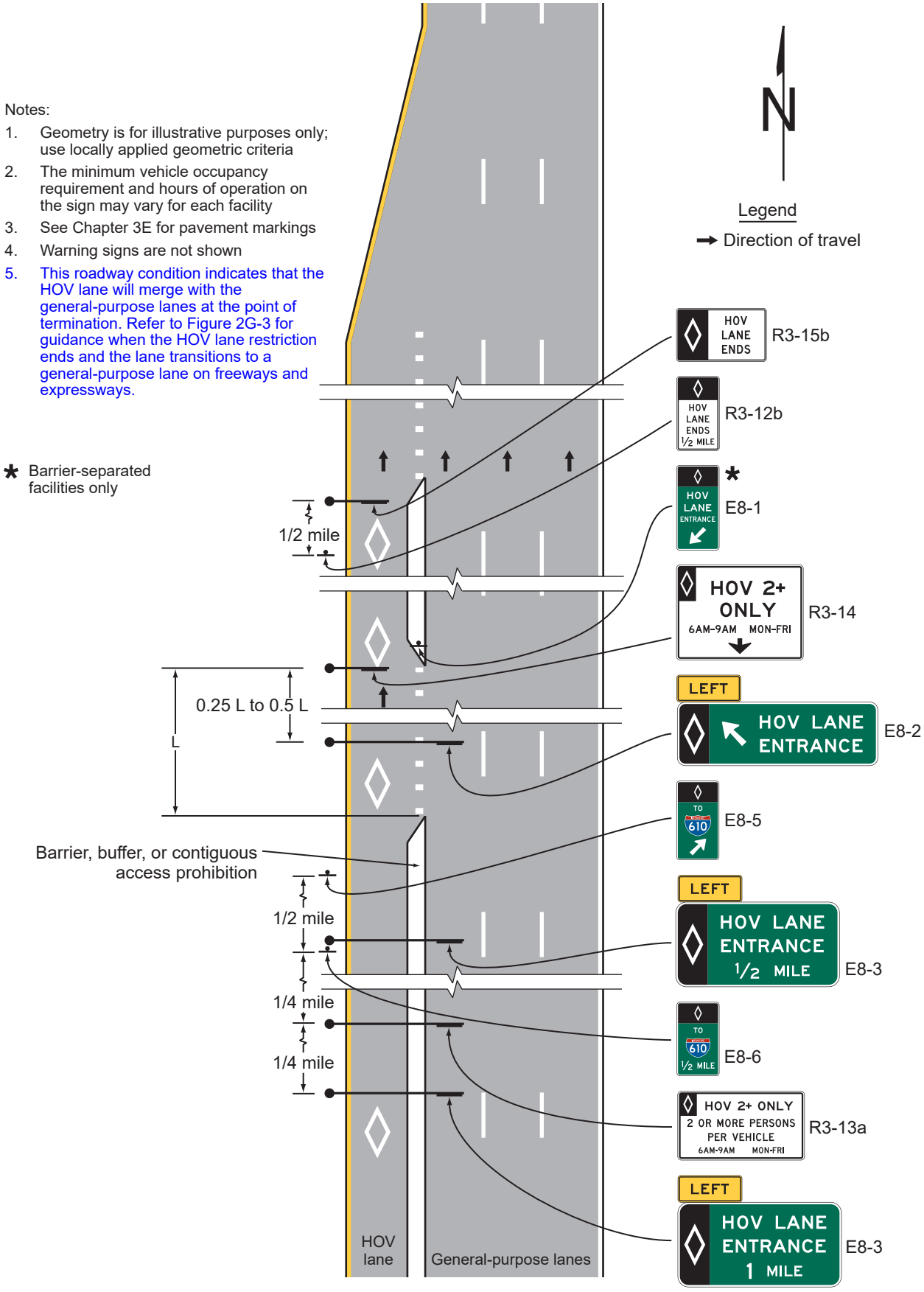
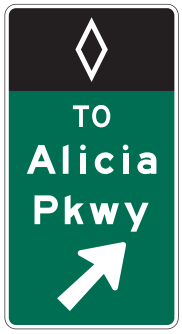
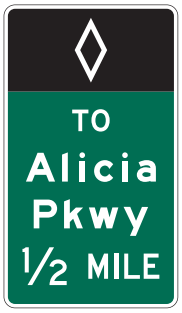


Figure 2G-12. Examples of Barrier-Mounted Guide Signs for an Intermediate Egress from Preferential Lanes



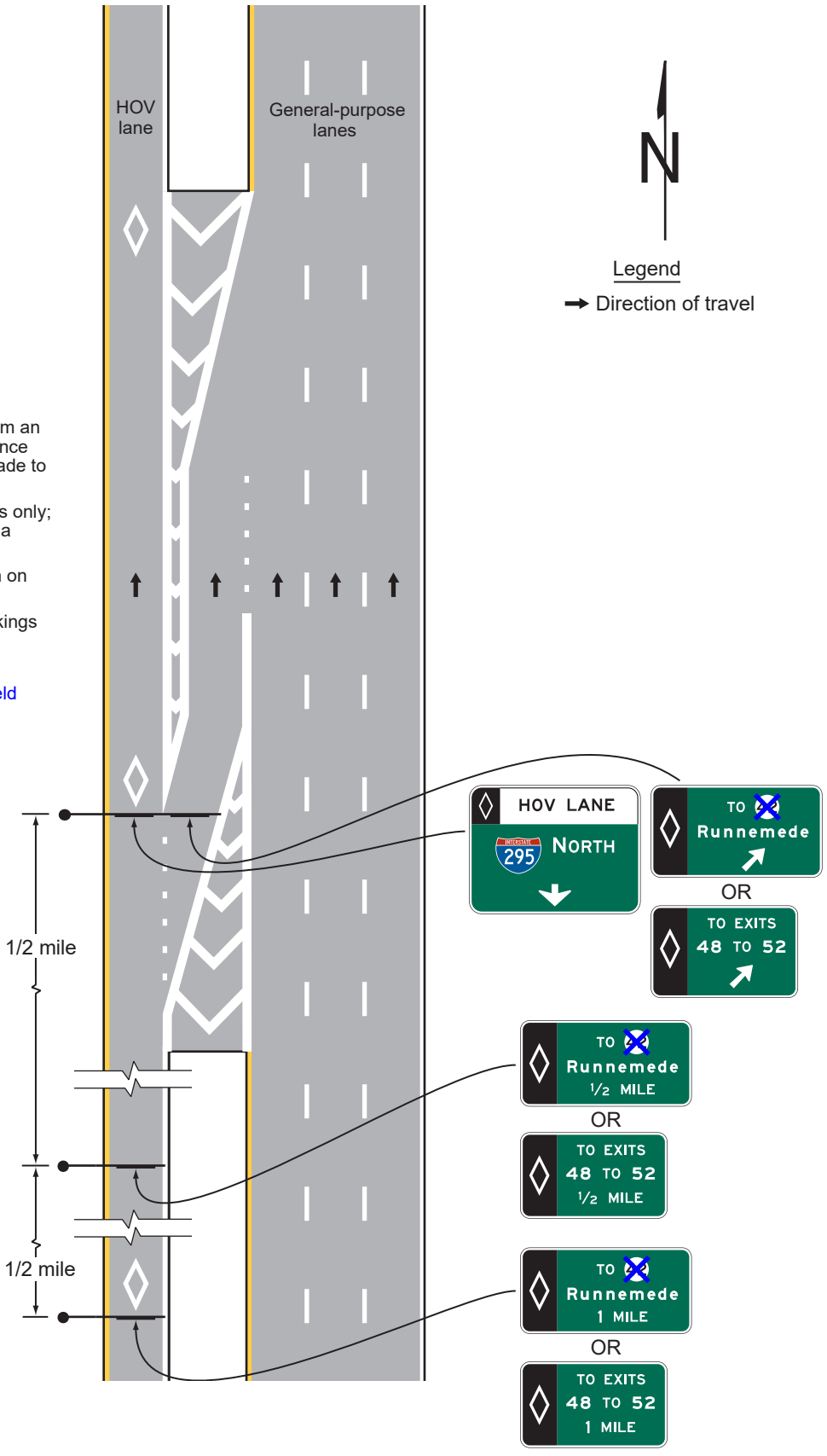
E8-5



E8-6

Note: Examples of HOV lane (diamond symbol) signs are illustrated. For other types of preferential lanes, the appropriate symbol or word message (see Section 2G.03) is displayed in white on the black background of the top portion of these signs.

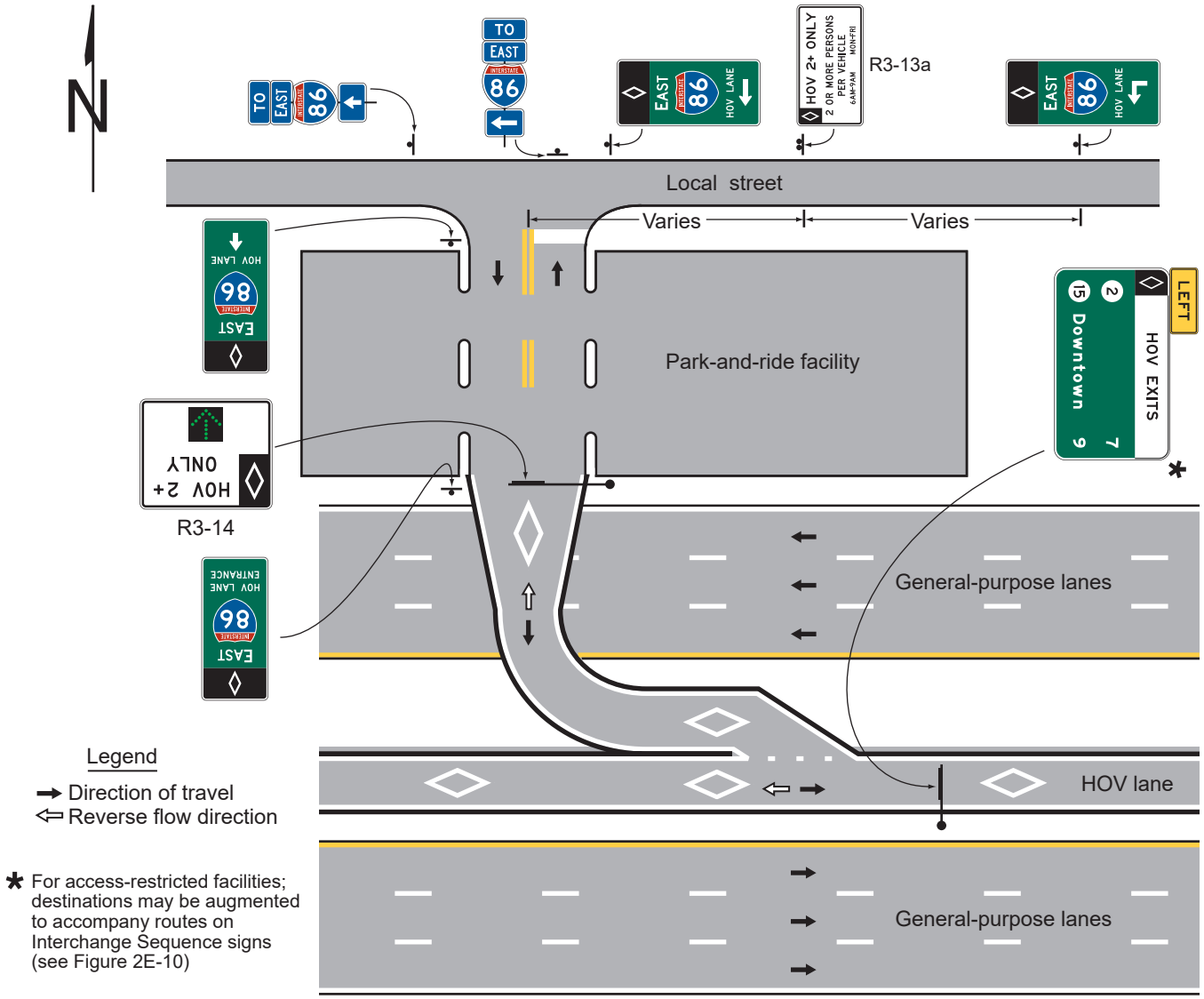
Figure 2G-13. Examples of Signs for an Intermediate Egress from a Barrier-Separated or Buffer-Separated HOV Lane



Notes:

1. For an exit on the left-hand side from an HOV lane, the same signing sequence would be used with adjustments made to sign messages
2. Geometry is for illustrative purposes only; use locally applied geometric criteria
3. The minimum vehicle occupancy requirement and hours of operation on the sign may vary for each facility
4. See Chapter 3E for pavement markings
5. Warning signs are not shown
6. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.

Figure 2G-14. Example of Signing for a Direct Entrance Ramp to an HOV Lane from a Park-and-Ride Facility and a Local Street



Notes:

1. The minimum vehicle occupancy requirement on the sign may vary for each facility
2. See Chapter 3E for pavement markings
3. Warning signs are not shown
4. Sign locations are approximate
5. Additional signs may be required to direct drivers from the surrounding streets into the park-and-ride lot and the HOV lane
6. Additional signs are required on the adjoining surface streets to inform non-HOVs that they should not enter the HOV facility
7. This figure illustrates a reversible HOV lane with a direct access ramp
8. The guide signs directing local street traffic to the HOV lane should include the word ENTRANCE when the direct access ramp does not traverse a park-and-ride facility

Figure 2G-15. Exit Gore Sign for a Direct Exit from a Preferential Lane



E8-4

Note: An example of an HOV lane (diamond symbol) sign is illustrated. For other types of preferential lanes, the appropriate symbol or word message (see Section 2G.03) is displayed in white on the black background of the top portion of this sign.

Figure 2G-15(CA). California Exit Gore Sign for a Direct Exit from a Preferential Lane



G83-6(CA)



G85-12(CA)



G86-15(CA)

Figure 2G-16. Examples of Guide Signs for Direct HOV Lane Entrance and Exit Ramps

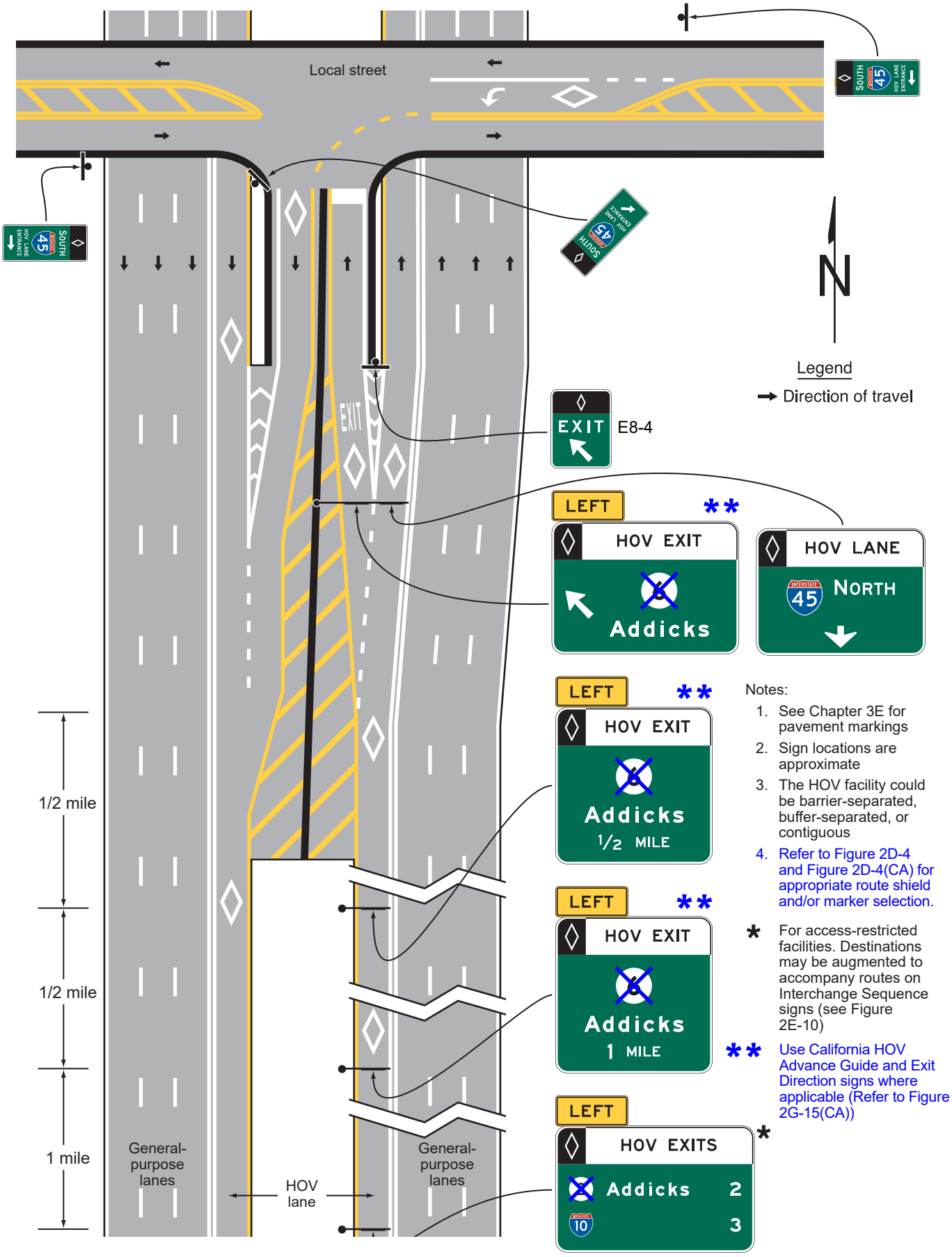
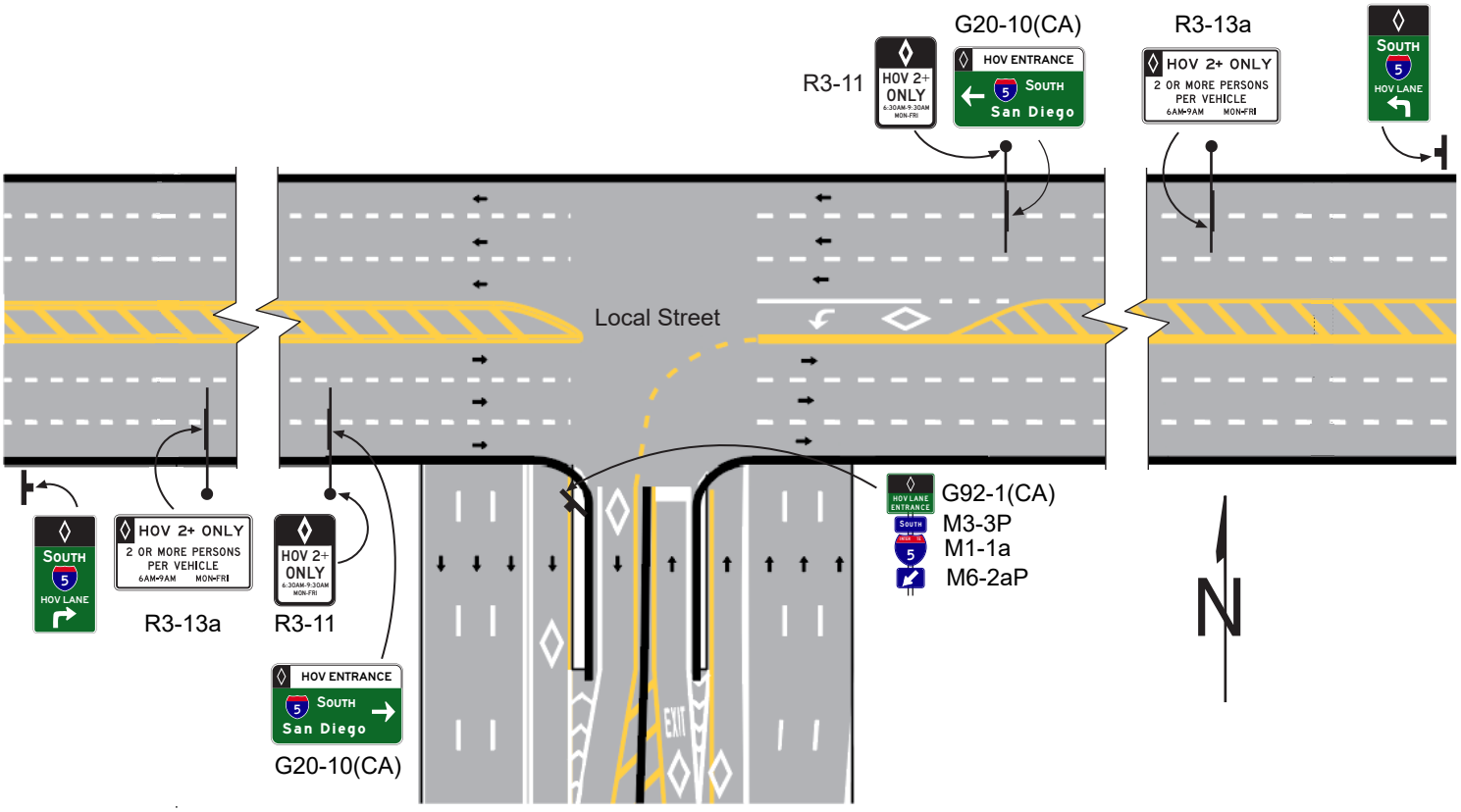


Figure 2G-16(CA). California Example of Guide Signs for Direct HOV Lane Entrance Ramp

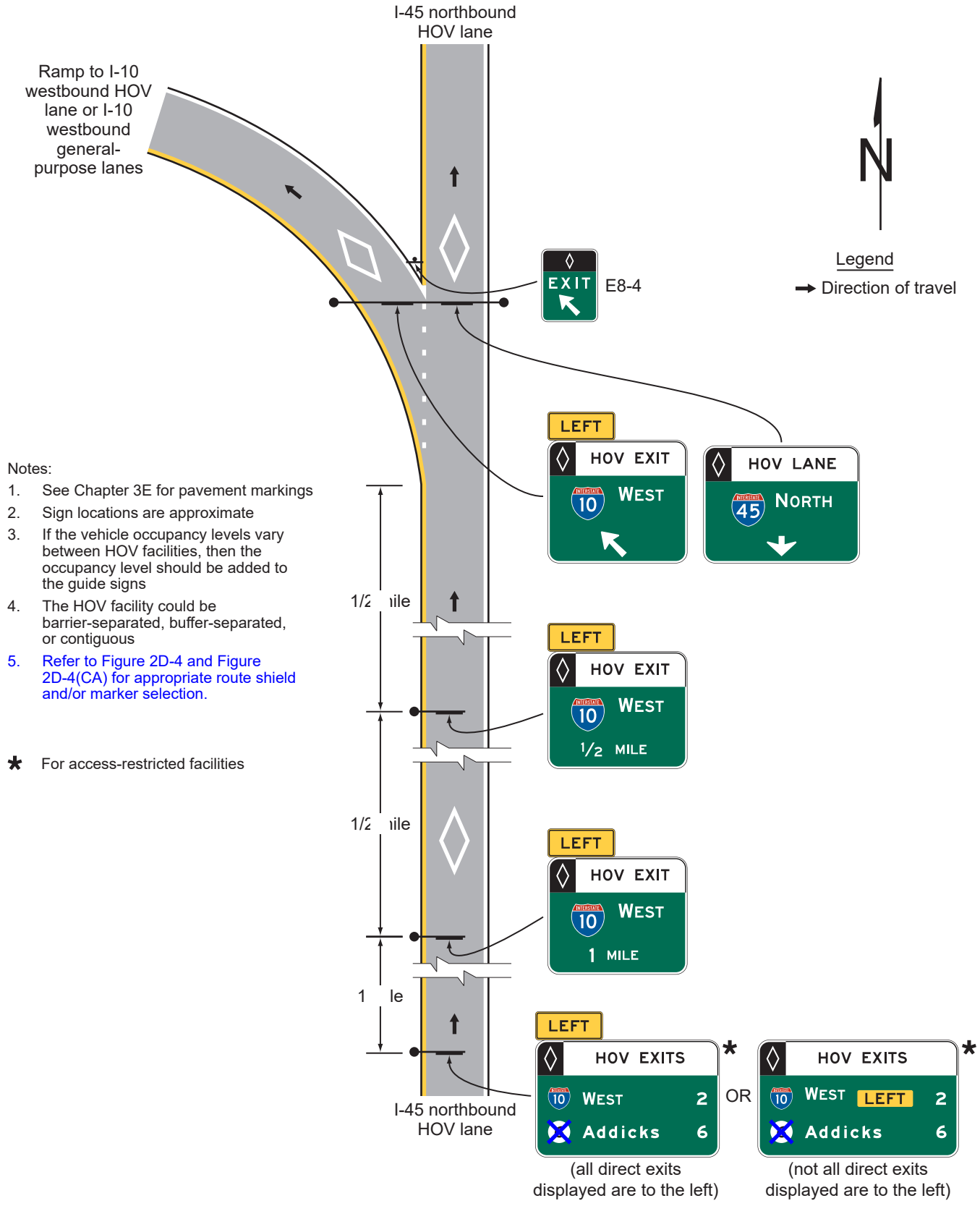


Notes:
1. Refer to Chapter 3D for pavement markings
2. Sign locations are approximate

LEGEND

→ Direction of Travel

Figure 2G-17. Examples of Guide Signs for a Direct Access Ramp between HOV Lanes on Separate Freeways



Notes:

1. See Chapter 3E for pavement markings
2. Sign locations are approximate
3. If the vehicle occupancy levels vary between HOV facilities, then the occupancy level should be added to the guide signs
4. The HOV facility could be barrier-separated, buffer-separated, or contiguous
5. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.

★ For access-restricted facilities

Figure 2G-18. Regulatory Signs for Managed Lanes



R3-40



R3-42



R3-42a



R3-42b



R3-42c



R3-43



R3-44



R3-44a

Notes:

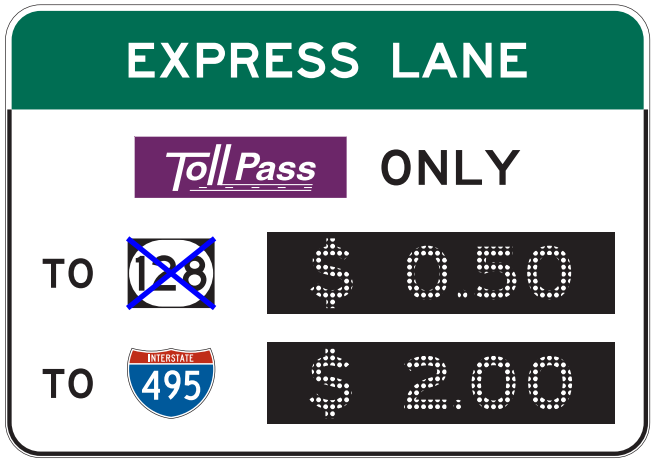
1. The ETC pictograph shown is an example only. The pictograph for the toll facility's adopted ETC system shall be used.
2. Changeable message sign elements shall be used for the numerals displayed for the variable tolls.
3. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.



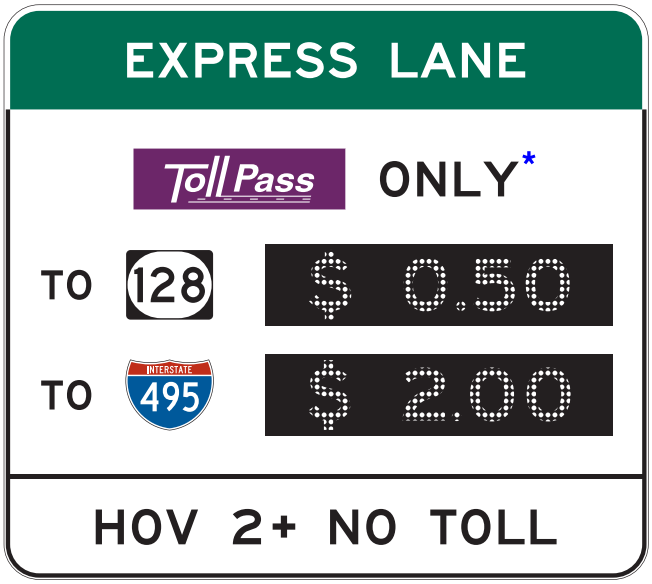
R3-45



R3-45a

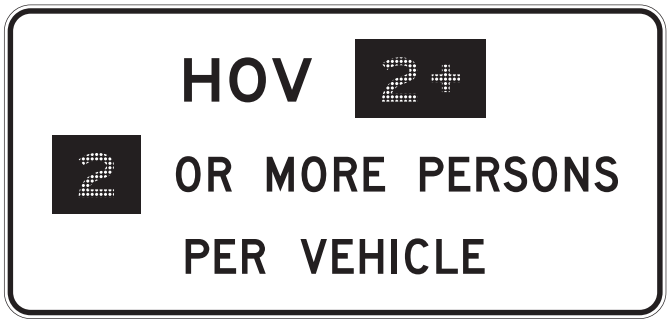


R3-48



R3-48a

* Refer to FHWA's List of Known Errors for error in sign. Refer to Section 1A.04 for more details.



Example of a regulatory sign with changeable message elements

Figure 2G-19. Examples of Guide Signs for Entrances to Priced Managed Lanes

A – Entrance to a priced managed lane from a general-purpose lane





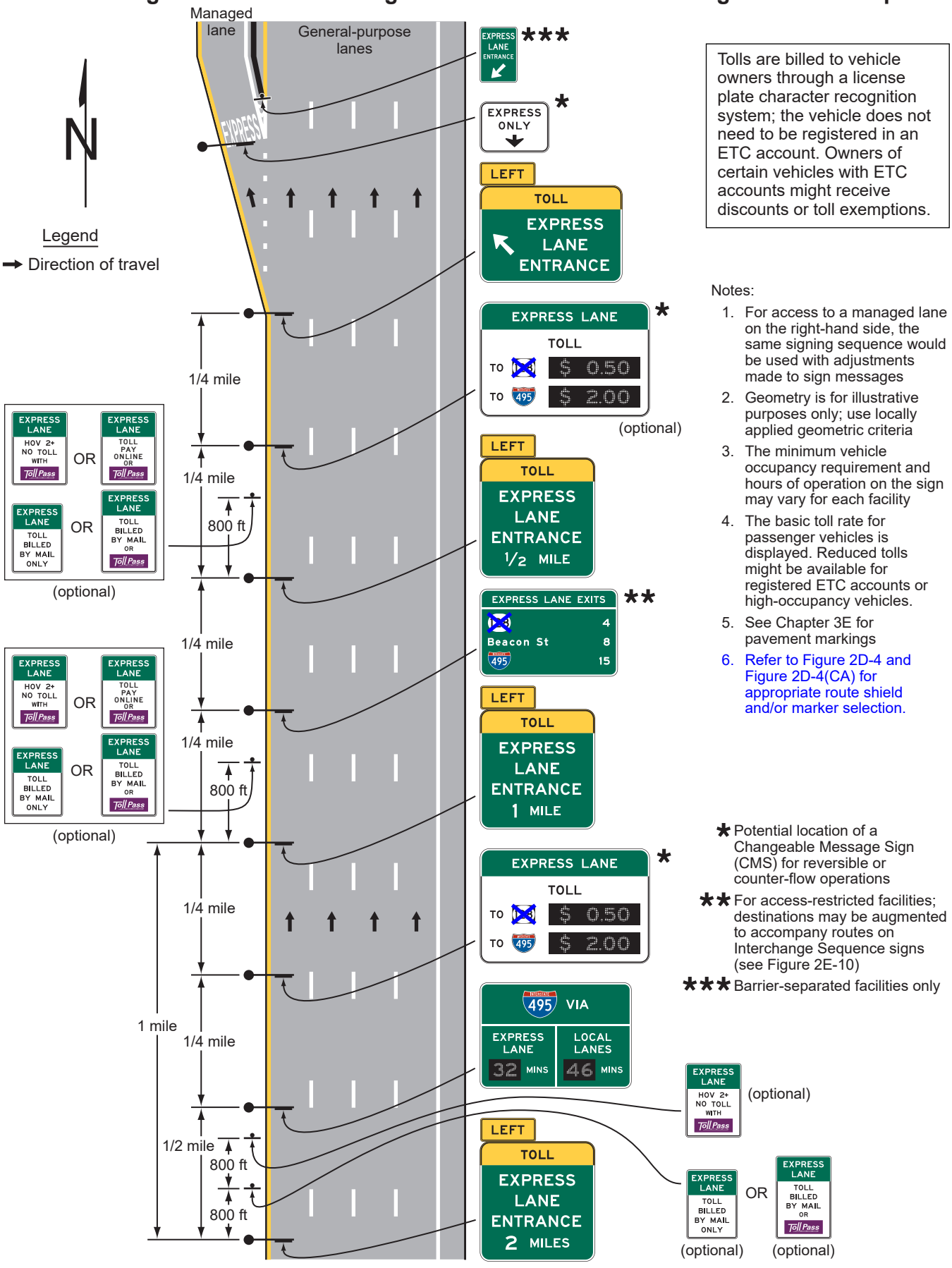
B – Direct entrance to a priced managed lane from a crossroad



Notes:

1. The ETC pictographs shown are examples only. The pictograph for the toll facility's adopted ETC system shall be used.
2. The examples shown are for facilities on which registration in a toll account program is required for toll payments.

Figure 2G-20. Example of Signing for the Entrance to an Access-Restricted Priced Managed Lane on which Registration in a Toll Account Program Is Not Required



Tolls are billed to vehicle owners through a license plate character recognition system; the vehicle does not need to be registered in an ETC account. Owners of certain vehicles with ETC accounts might receive discounts or toll exemptions.

Notes:

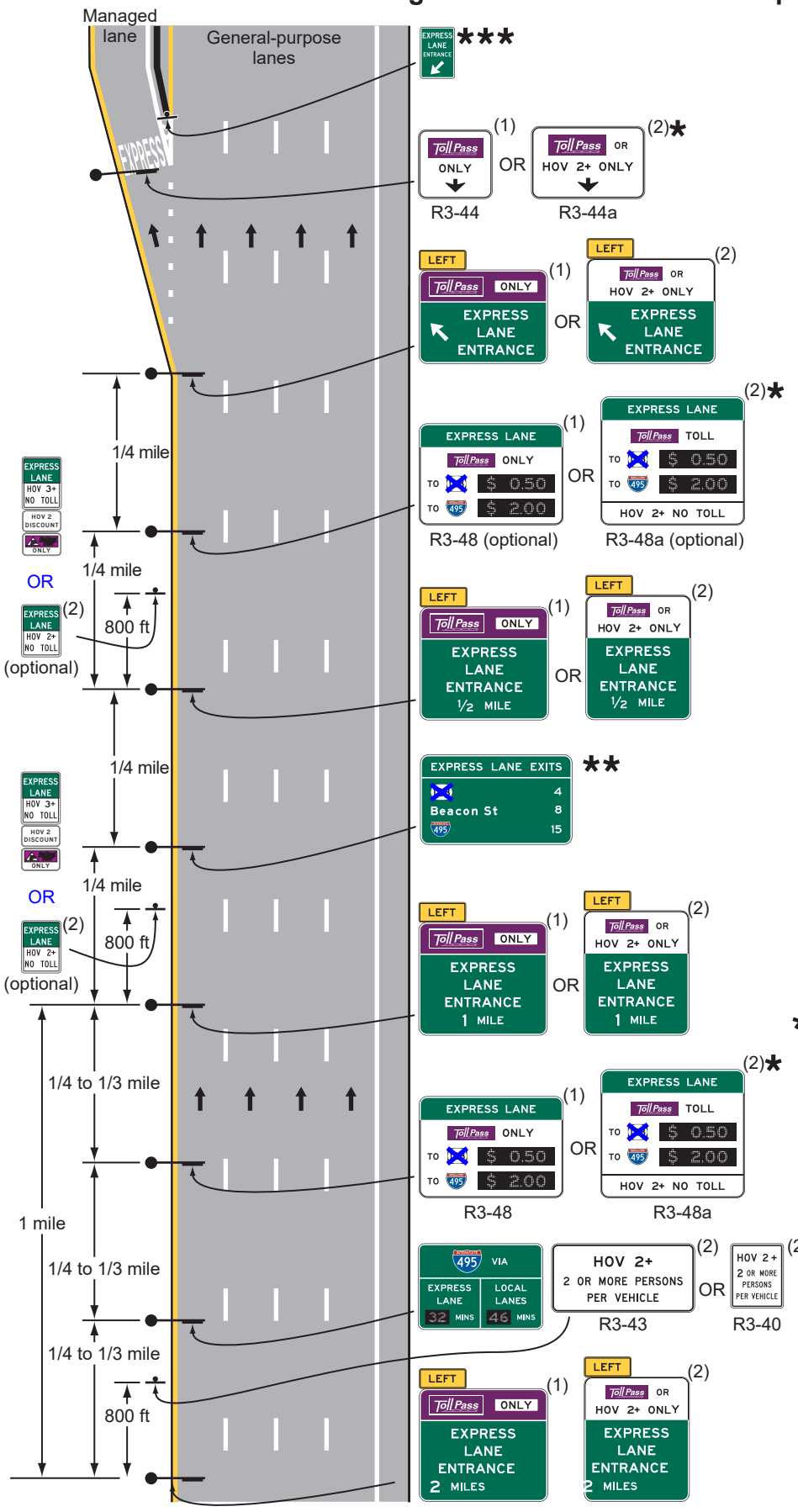
1. For access to a managed lane on the right-hand side, the same signing sequence would be used with adjustments made to sign messages
2. Geometry is for illustrative purposes only; use locally applied geometric criteria
3. The minimum vehicle occupancy requirement and hours of operation on the sign may vary for each facility
4. The basic toll rate for passenger vehicles is displayed. Reduced tolls might be available for registered ETC accounts or high-occupancy vehicles.
5. See Chapter 3E for pavement markings
6. Refer to Figure 2D-4 and Figure 2D-4(CA) for appropriate route shield and/or marker selection.

* Potential location of a Changeable Message Sign (CMS) for reversible or counter-flow operations

** For access-restricted facilities; destinations may be augmented to accompany routes on Interchange Sequence signs (see Figure 2E-10)

*** Barrier-separated facilities only

Figure 2G-21. Example of Signing for the Entrance to an Access-Restricted Priced Managed Lane – ETC Account Required



Legend

→ Direction of travel

Notes:

1. For access to a managed lane on the right-hand side, the same signing sequence would be used with adjustments made to sign messages
2. Geometry is for illustrative purposes only; use locally applied geometric criteria
3. The minimum vehicle occupancy requirement and hours of operation on the sign may vary for each facility
4. See Chapter 3E for pavement markings
5. Refer to Figure 2D-4 and 2D-4(CA) for appropriate route shield and/or marker selection.

★ Potential location of a Changeable Message Sign (CMS) for reversible or counter-flow operations

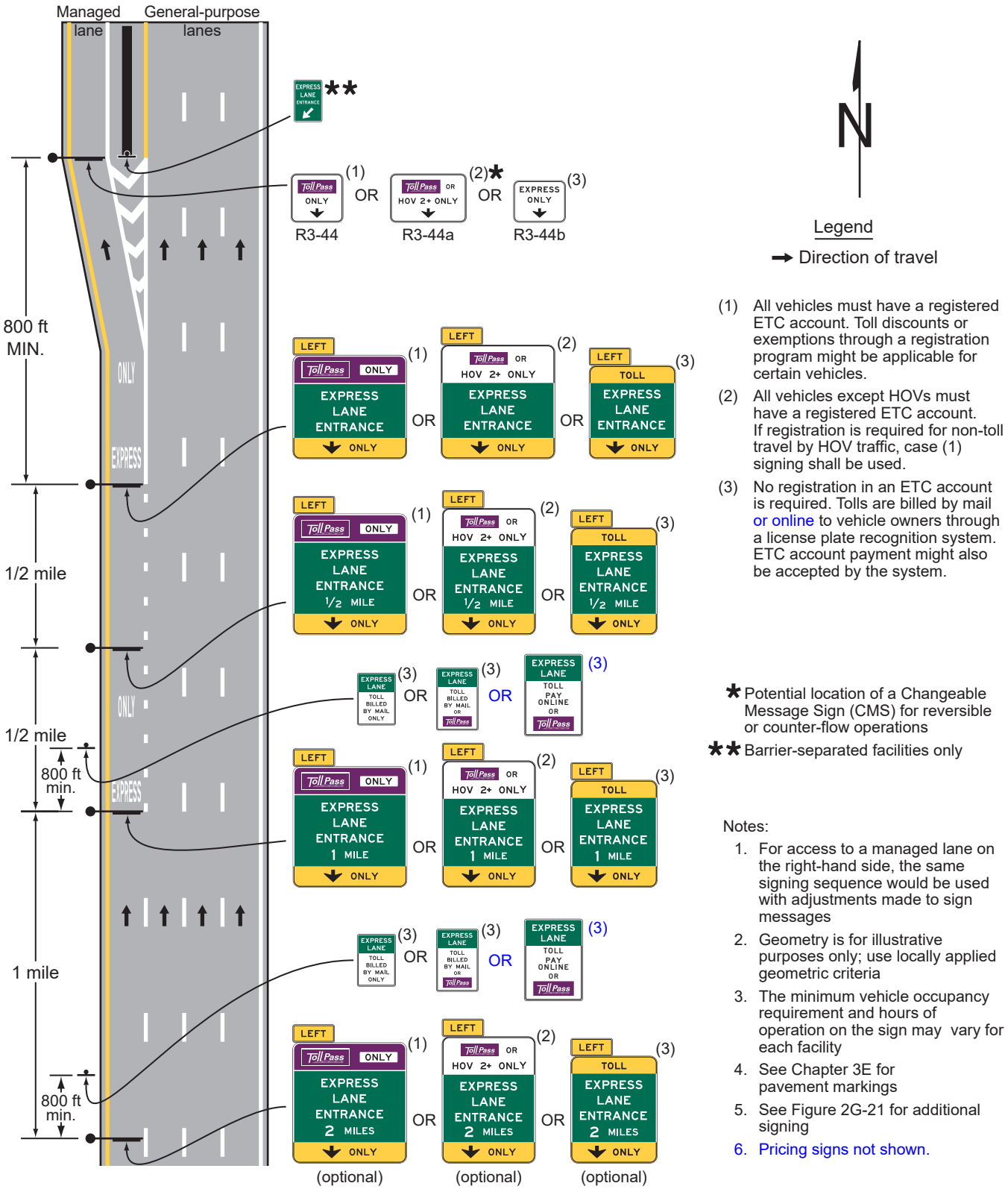
★★ For access-restricted facilities; destinations may be augmented to accompany routes on Interchange Sequence signs (see Figure 2E-10)

★★★ Barrier-separated facilities only

(1) All vehicles must have a registered ETC account. Toll discounts or exemptions through a registration program might be applicable for certain vehicles.

(2) All vehicles except HOVs must have a registered ETC account. If registration is required for non-toll travel by HOV traffic, case (1) signing shall be used.

Figure 2G-22. Example of Signing for the Entrance to an Access-Restricted Priced Managed Lane Where a General-Purpose Lane Becomes the Managed Lane



(1) All vehicles must have a registered ETC account. Toll discounts or exemptions through a registration program might be applicable for certain vehicles.

(2) All vehicles except HOVs must have a registered ETC account. If registration is required for non-toll travel by HOV traffic, case (1) signing shall be used.

(3) No registration in an ETC account is required. Tolls are billed by mail or online to vehicle owners through a license plate recognition system. ETC account payment might also be accepted by the system.

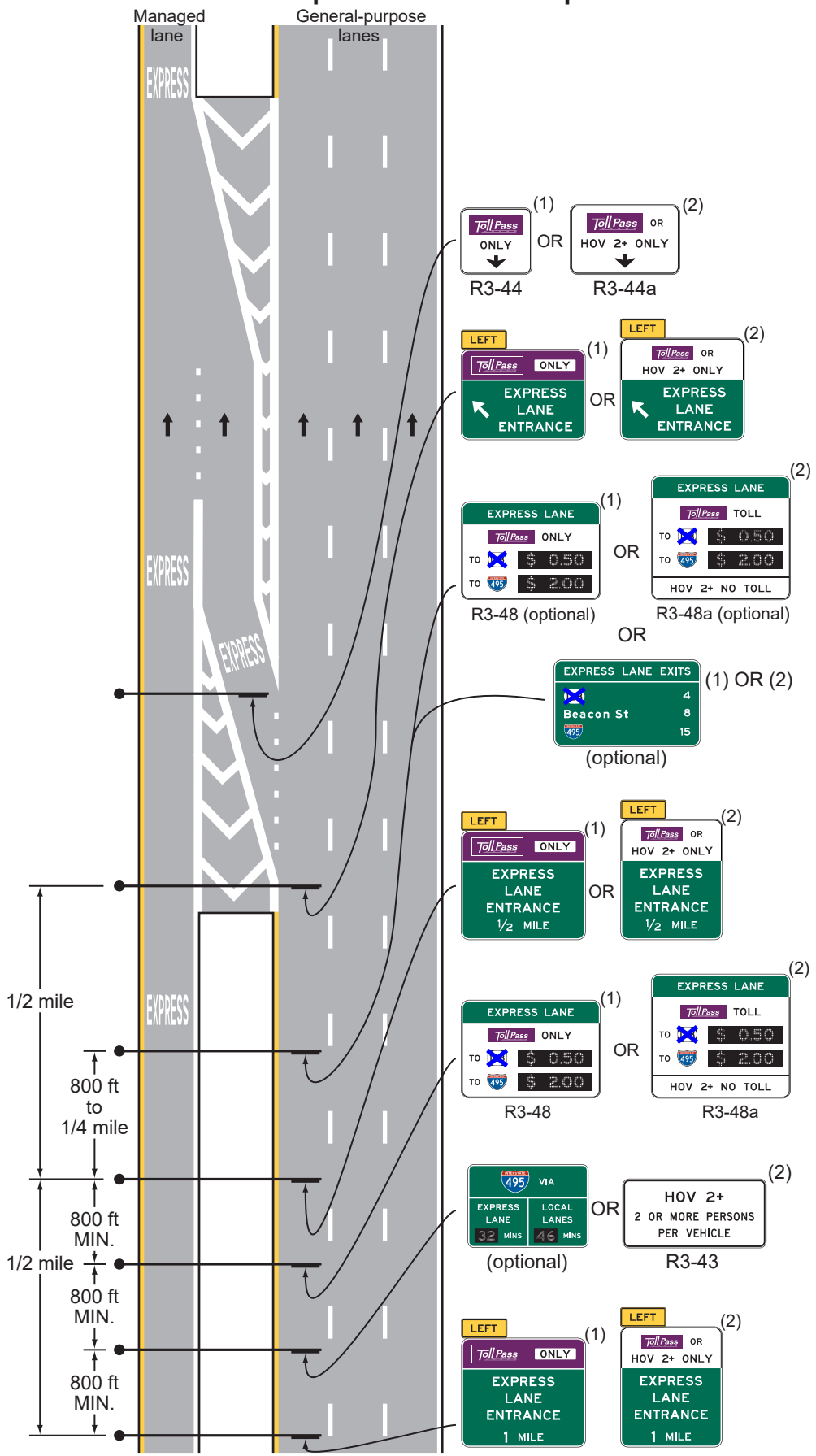
* Potential location of a Changeable Message Sign (CMS) for reversible or counter-flow operations

** Barrier-separated facilities only

Notes:

1. For access to a managed lane on the right-hand side, the same signing sequence would be used with adjustments made to sign messages
2. Geometry is for illustrative purposes only; use locally applied geometric criteria
3. The minimum vehicle occupancy requirement and hours of operation on the sign may vary for each facility
4. See Chapter 3E for pavement markings
5. See Figure 2G-21 for additional signing
6. Pricing signs not shown.

Figure 2G-23. Example of Signing for an Intermediate Entry to a Barrier-Separated or Buffer-Separated Priced Managed Lane



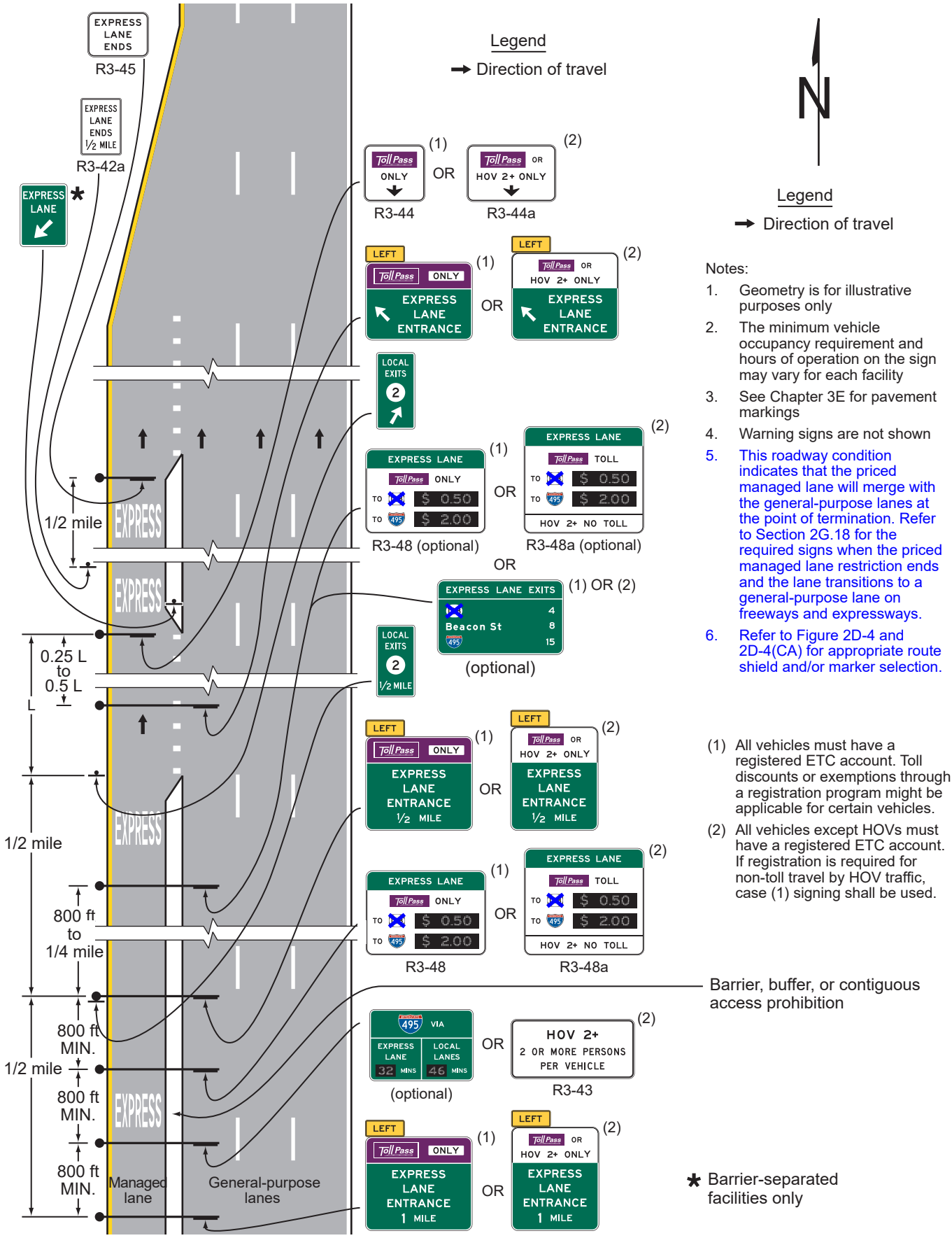
Notes:

1. For access to a managed lane on the right-hand side, the same signing sequence would be used with adjustments made to sign messages
2. Geometry is for illustrative purposes only; use locally applied geometric criteria
3. The minimum vehicle occupancy requirement and hours of operation on the sign may vary for each facility
4. See Chapter 3E for pavement markings
5. Warning signs are not shown
6. Refer to Figure 2D-4 and 2D-4(CA) for appropriate route shield and/or marker selection.

(1) All vehicles must have a registered ETC account. Toll discounts or exemptions through a registration program might be applicable for certain vehicles.

(2) All vehicles except HOVs must have a registered ETC account. If registration is required for non-toll travel by HOV traffic, case (1) signing shall be used.

Figure 2G-24. Example of Signing for the Intermediate Entry to, Egress from, and End of Access-Restricted Priced Managed Lanes



Legend

→ Direction of travel

Notes:

1. Geometry is for illustrative purposes only
2. The minimum vehicle occupancy requirement and hours of operation on the sign may vary for each facility
3. See Chapter 3E for pavement markings
4. Warning signs are not shown
5. This roadway condition indicates that the priced managed lane will merge with the general-purpose lanes at the point of termination. Refer to Section 2G.18 for the required signs when the priced managed lane restriction ends and the lane transitions to a general-purpose lane on freeways and expressways.
6. Refer to Figure 2D-4 and 2D-4(CA) for appropriate route shield and/or marker selection.

(1) All vehicles must have a registered ETC account. Toll discounts or exemptions through a registration program might be applicable for certain vehicles.

(2) All vehicles except HOVs must have a registered ETC account. If registration is required for non-toll travel by HOV traffic, case (1) signing shall be used.

★ Barrier-separated facilities only

Figure 2G-25. Example of an Exit Destinations Sign for a Managed Lane



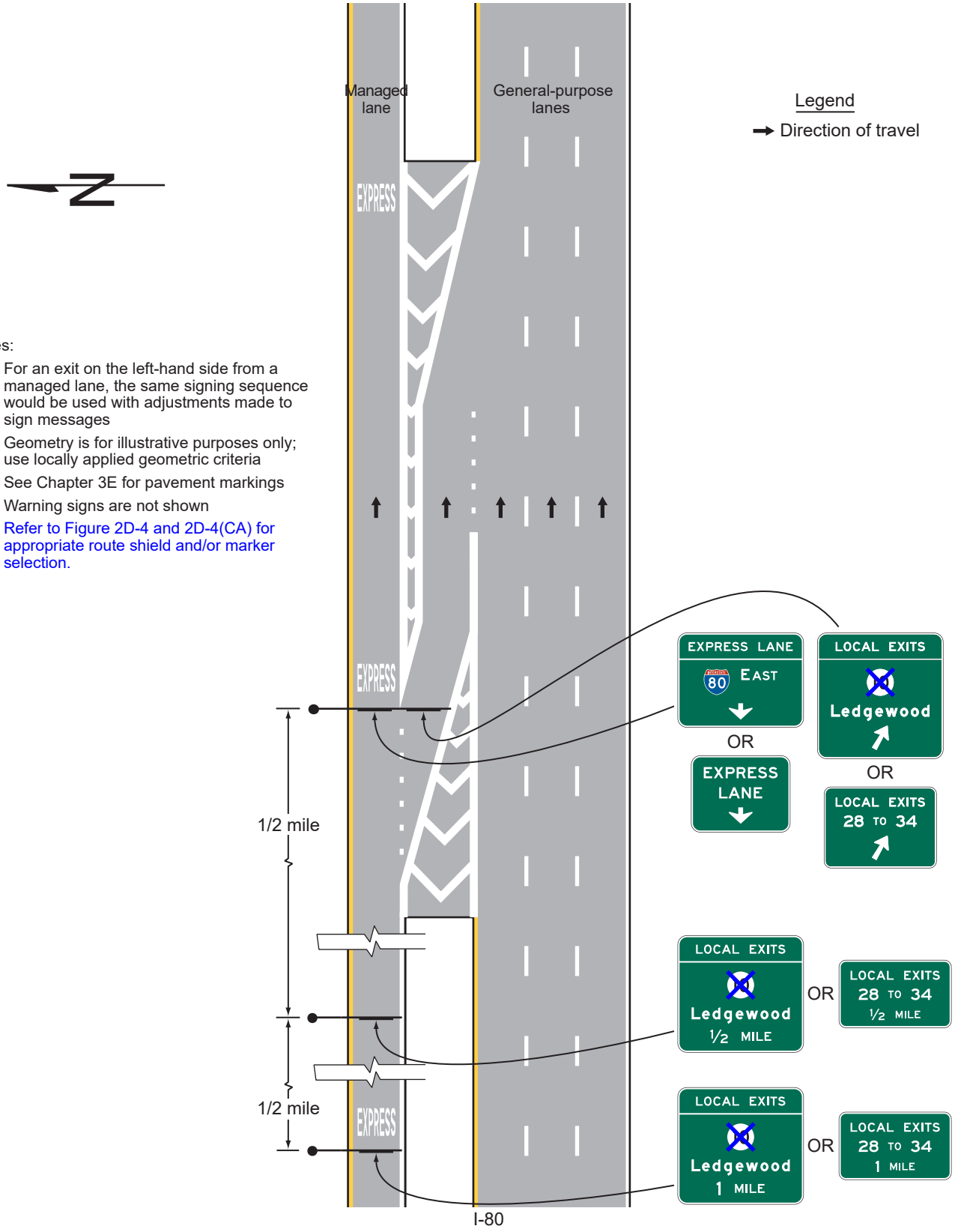
Note: The acronym "JCT" should be added adjacent to route shields, where applicable. Refer to Figure 2E-50 for reference.

Figure 2G-26. Example of a Comparative Travel Time Information Sign for Preferential or Managed Lanes



Note: CMS elements shall be used for the numerals displayed for the estimated travel times.

Figure 2G-27. Examples of Guide Signs for an Intermediate Egress from a Barrier-Separated or Buffer-Separated Managed Lane



Notes:

1. For an exit on the left-hand side from a managed lane, the same signing sequence would be used with adjustments made to sign messages
2. Geometry is for illustrative purposes only; use locally applied geometric criteria
3. See Chapter 3E for pavement markings
4. Warning signs are not shown
5. Refer to Figure 2D-4 and 2D-4(CA) for appropriate route shield and/or marker selection.

Figure 2G-28. Examples of Guide Signs for Direct Managed Lane Entrance and Exit Ramps

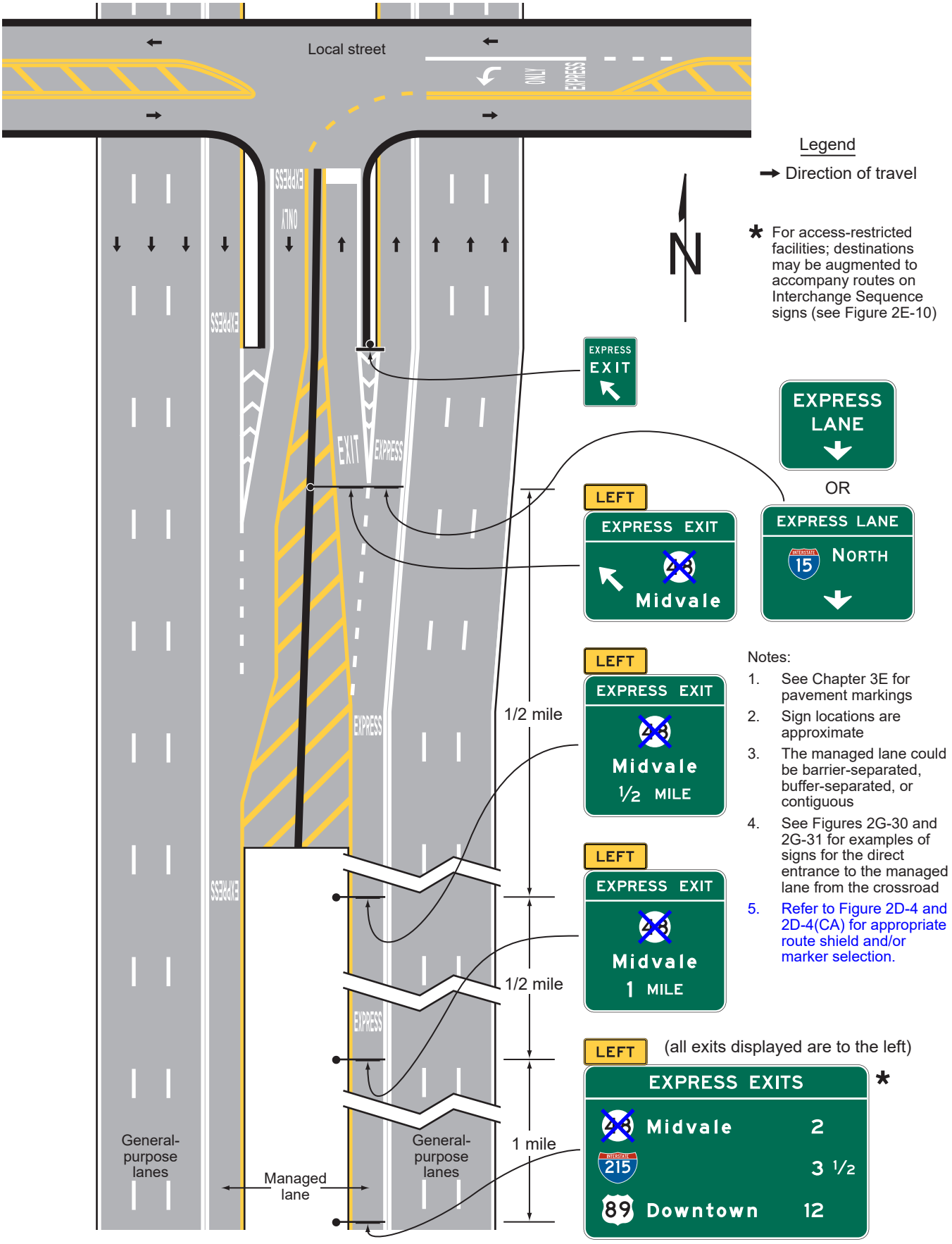


Figure 2G-29. Examples of Guide Signs for a Direct Access Ramp between Managed Lanes on Separate Freeways

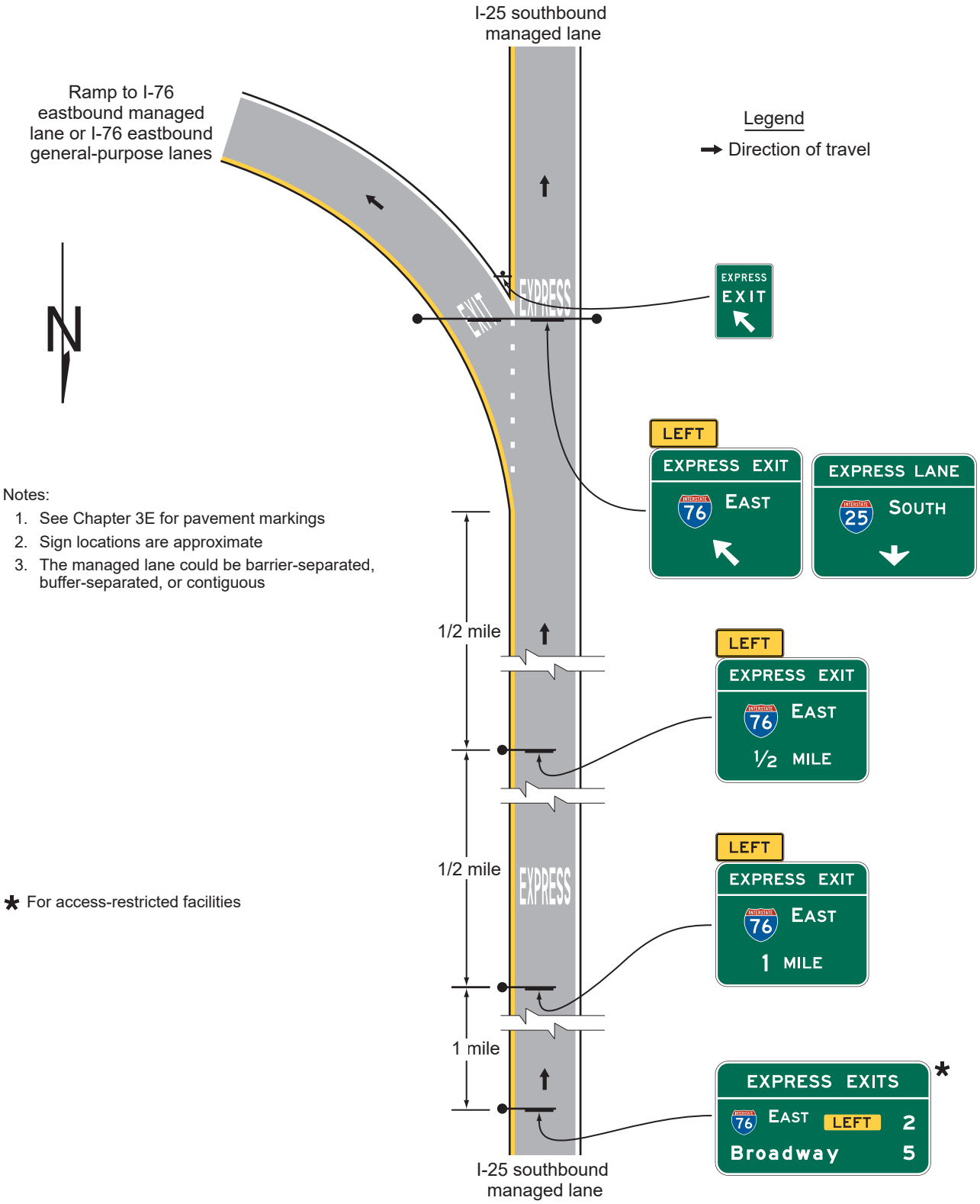


Figure 2G-30. Examples of Guide Signs for a Direct Entrance Ramp to a Priced Managed Lane and Trailblazing to a Nearby Entrance to the General-Purpose Lanes

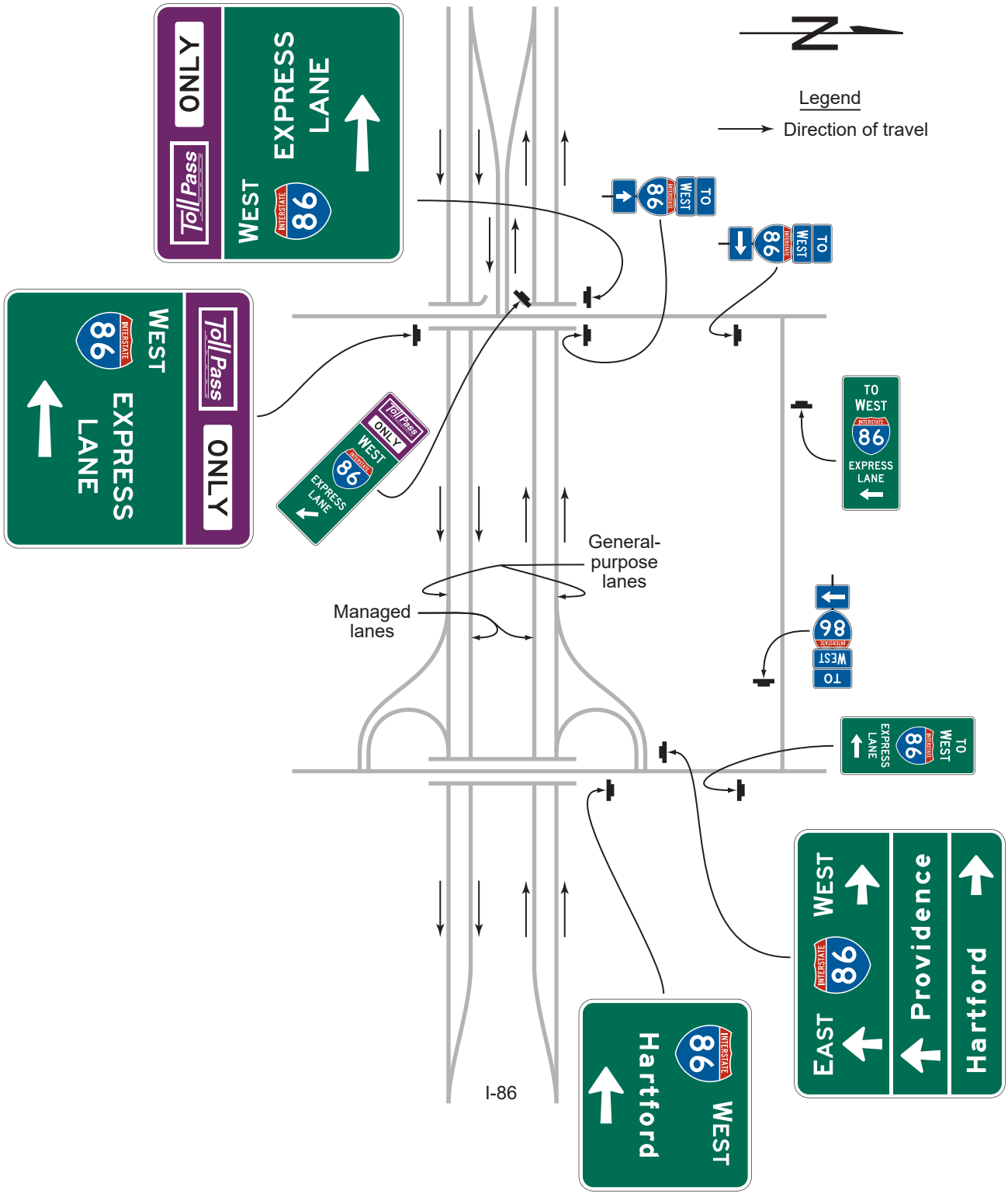


Figure 2G-31. Examples of Guide Signs for Separate Entrance Ramps to General-Purpose and Priced Managed Lanes from the Same Crossroad

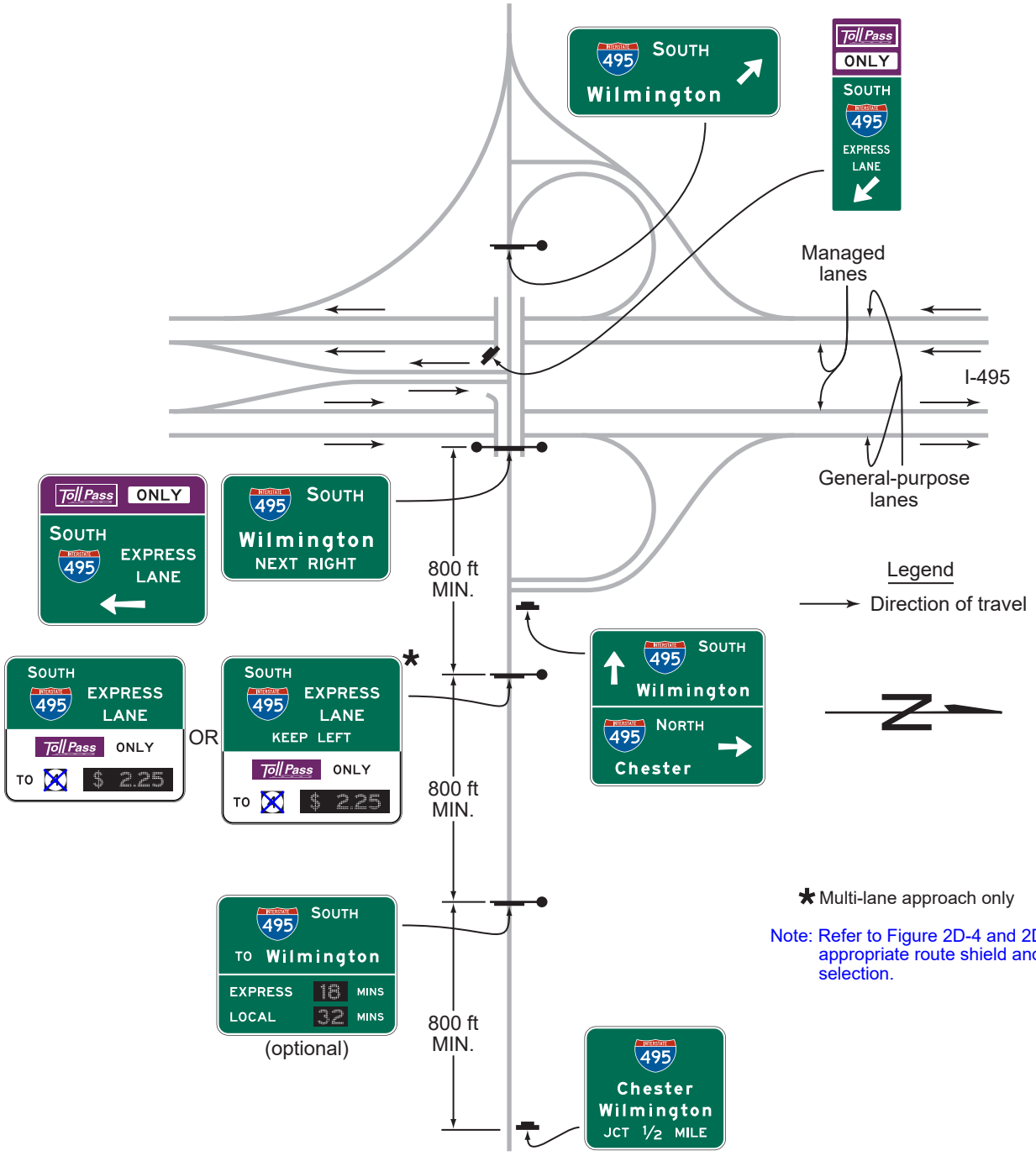
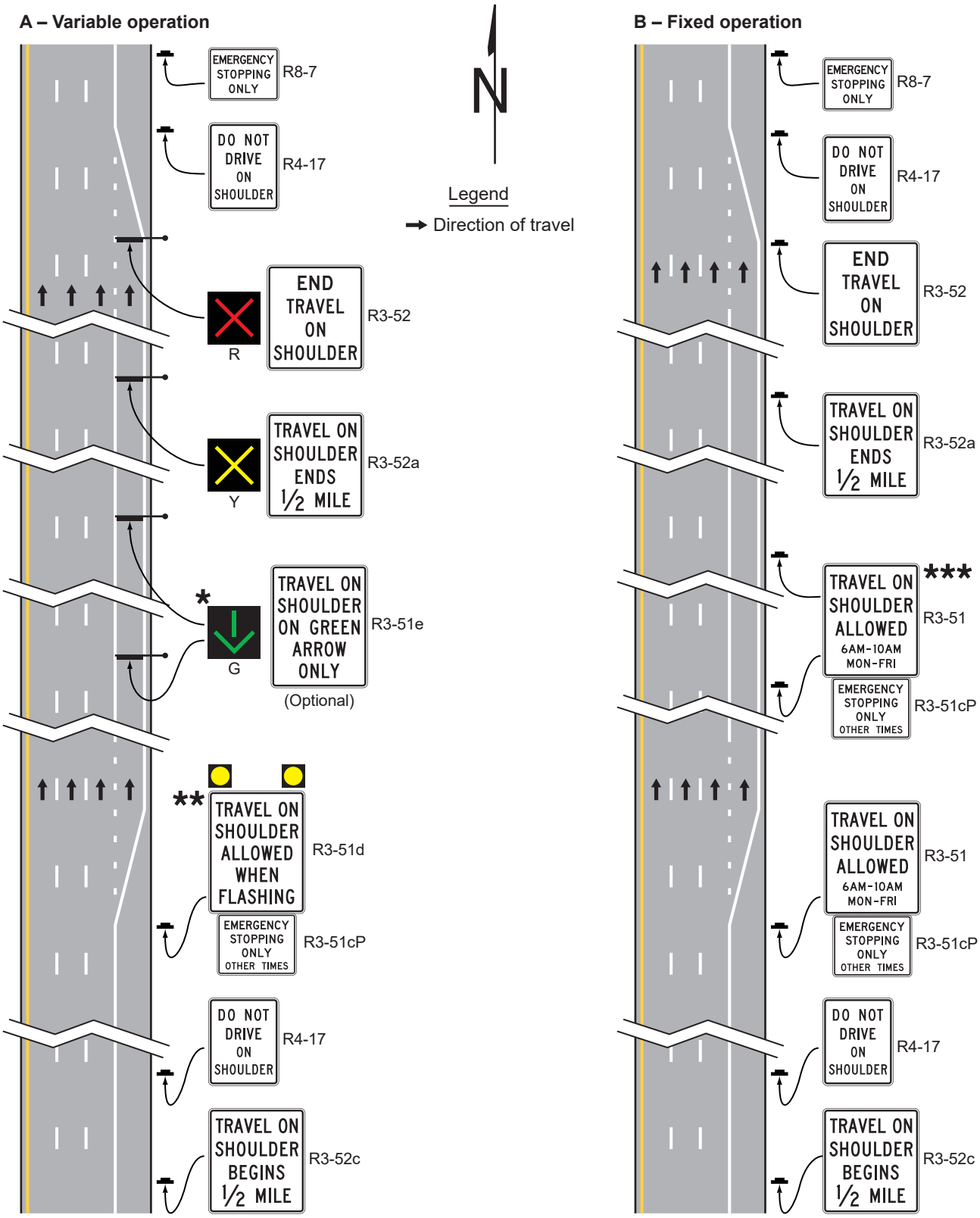


Figure 2G-32. Examples of Signing for Part-Time Travel on a Shoulder (Sheet 1 of 4)



**** Refer to FHWA's List of Known Errors for error. Refer to Section 1A.04 for more details.

Note: Consideration should be given to using blank-out signs in place of the R3-51 and R3-52 series conventional signs for part-time operations.

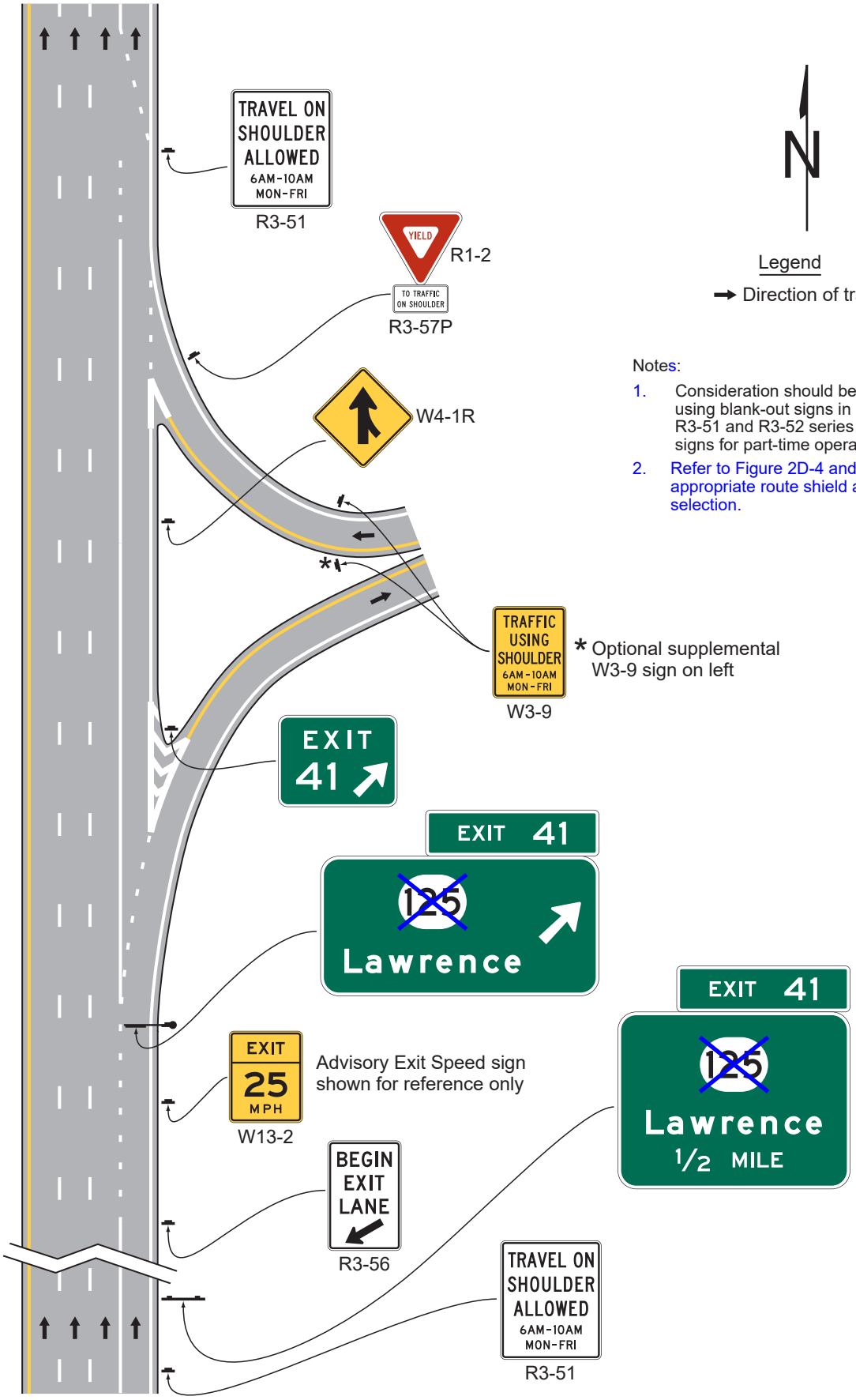
* Lane-use control signals (see Chapter 4T) located every 1/2 mile or less to reaffirm shoulder travel allowed (DOWNWARD GREEN ARROW) or prohibited (RED X).

** A post-mounted TRAVEL ON SHOULDER ALLOWED WHEN FLASHING sign (R3-51d) with beacons may be used lieu of lane-use control signals at the same intervals ****

*** The R3-51 sign is located every 1/2 mile or less to affirm when travel on shoulder is allowed for fixed period applications.

Figure 2G-32. Examples of Signing for Part-Time Travel on a Shoulder (Sheet 2 of 4)

C – Signing at interchange ramps

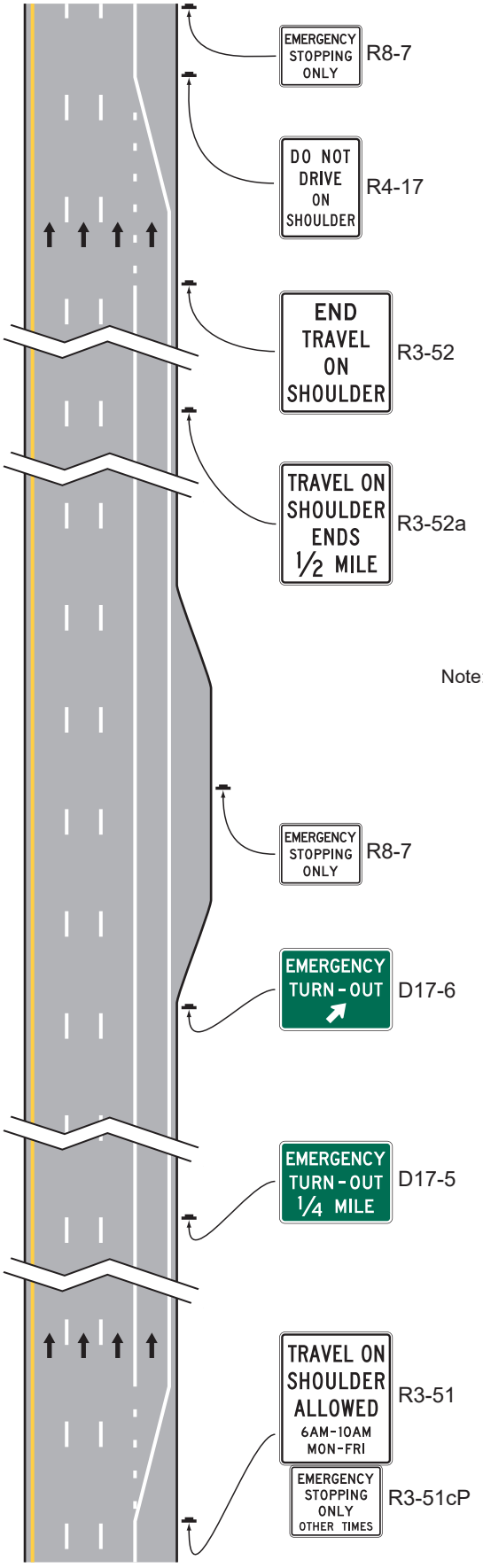


Notes:

1. Consideration should be given to using blank-out signs in place of the R3-51 and R3-52 series conventional signs for part-time operations.
2. Refer to Figure 2D-4 and 2D-4(CA) for appropriate route shield and/or marker selection.

Figure 2G-32. Examples of Signing for Part-Time Travel on a Shoulder (Sheet 3 of 4)

D – Emergency turnout signing for travel on shoulder applications





Legend

→ Direction of travel

Note: Consideration should be given to using blank-out signs in place of the R3-51 and R3-52 series conventional signs for part-time operations.

Figure 2G-32. Examples of Signing for Part-Time Travel on a Shoulder (Sheet 4 of 4)

E – Travel on shoulder ends at an interchange exit ramp

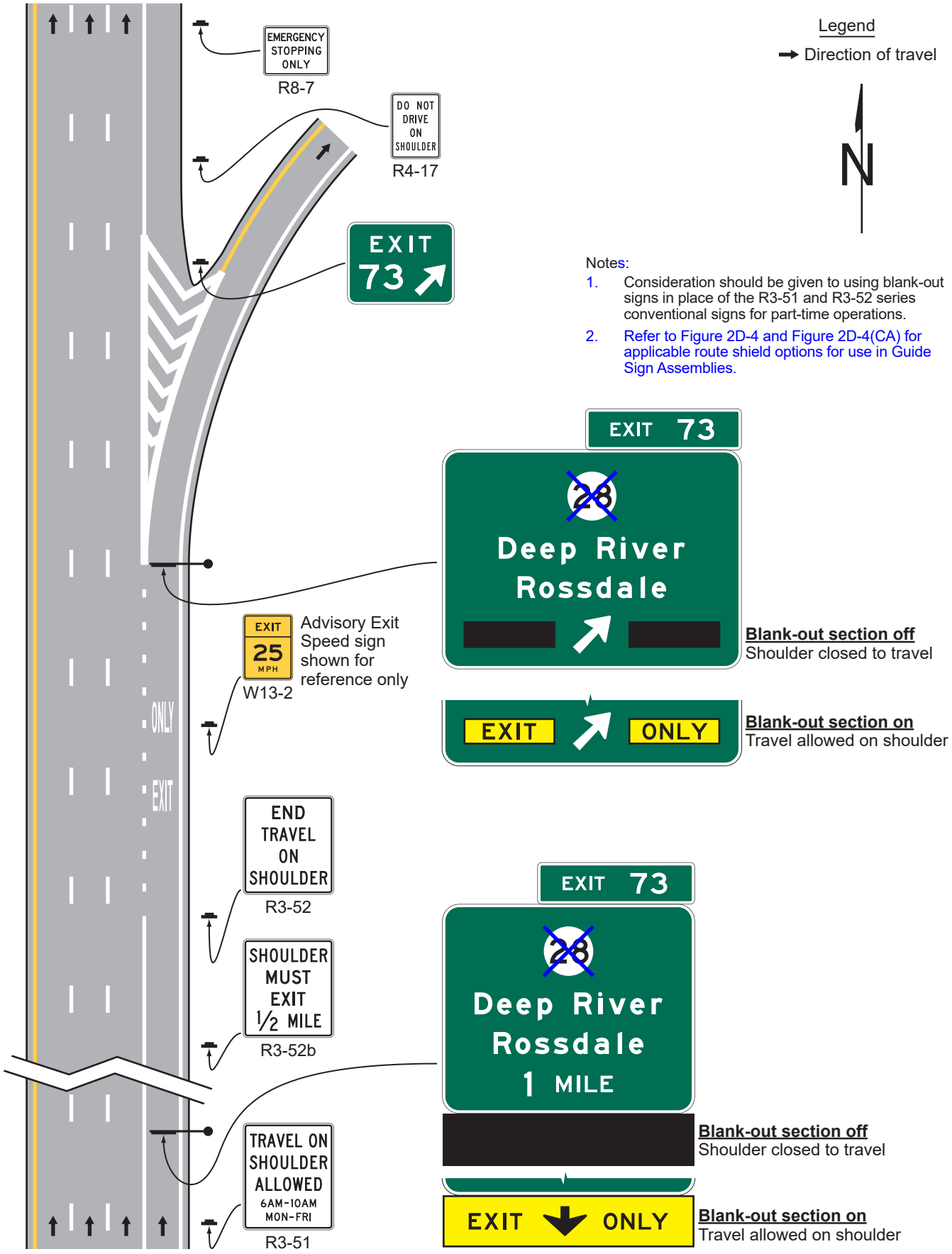
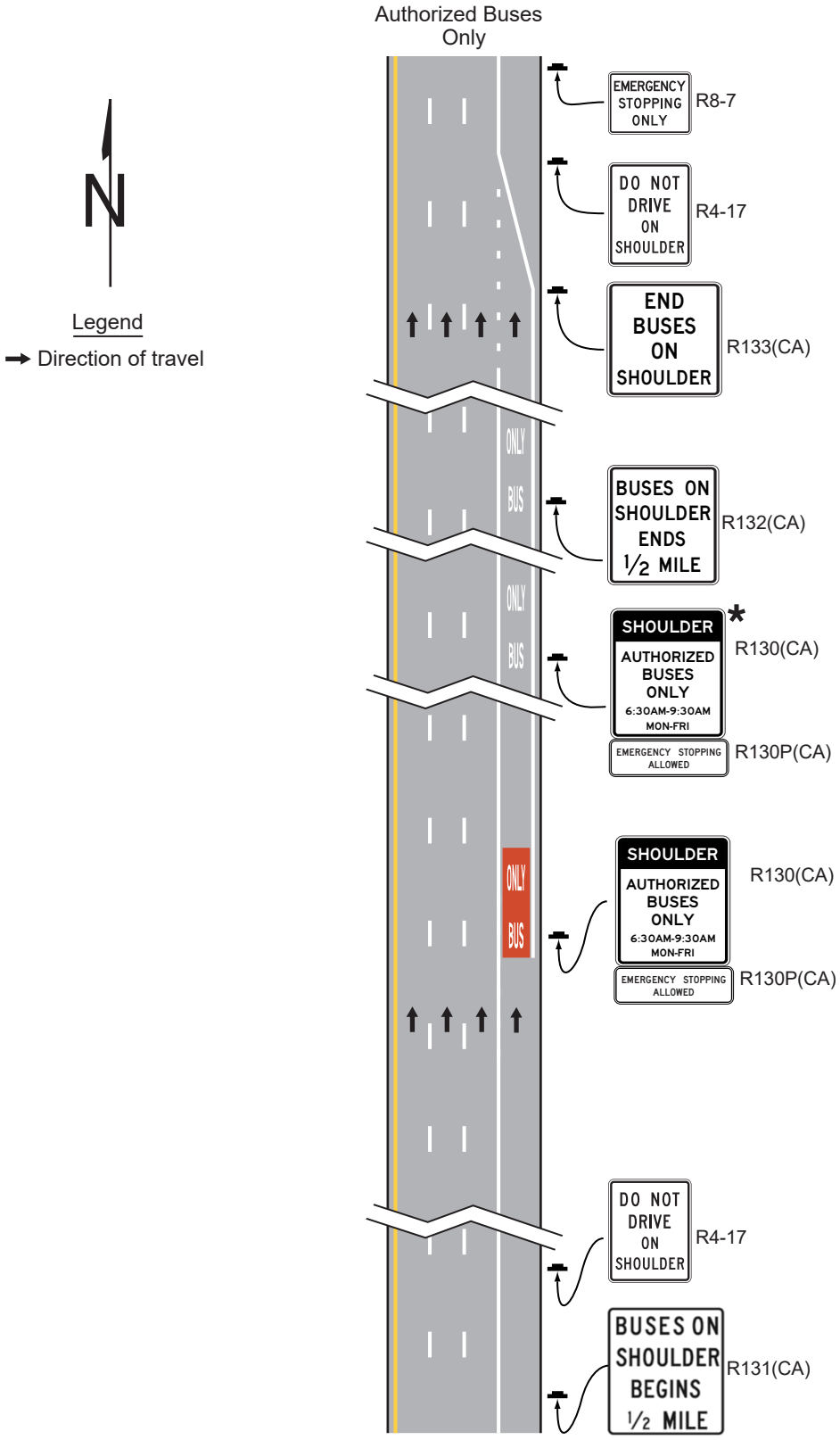


Figure 2G-32(CA). Examples of Signing for Part-Time Travel on a Shoulder



Note: Consideration should be given to using blank-out signs in place of the R130(CA), R131(CA), R132(CA) and R133(CA) conventional signs for part-time operations.

* The R130(CA) sign is located every 1/2 mile or less to affirm when travel on shoulder is allowed for fixed period applications.

Figure 2G-33. Example of Lane-Use Control Signals and Variable Speed Limit Signs for Active Lane Management During an Incident

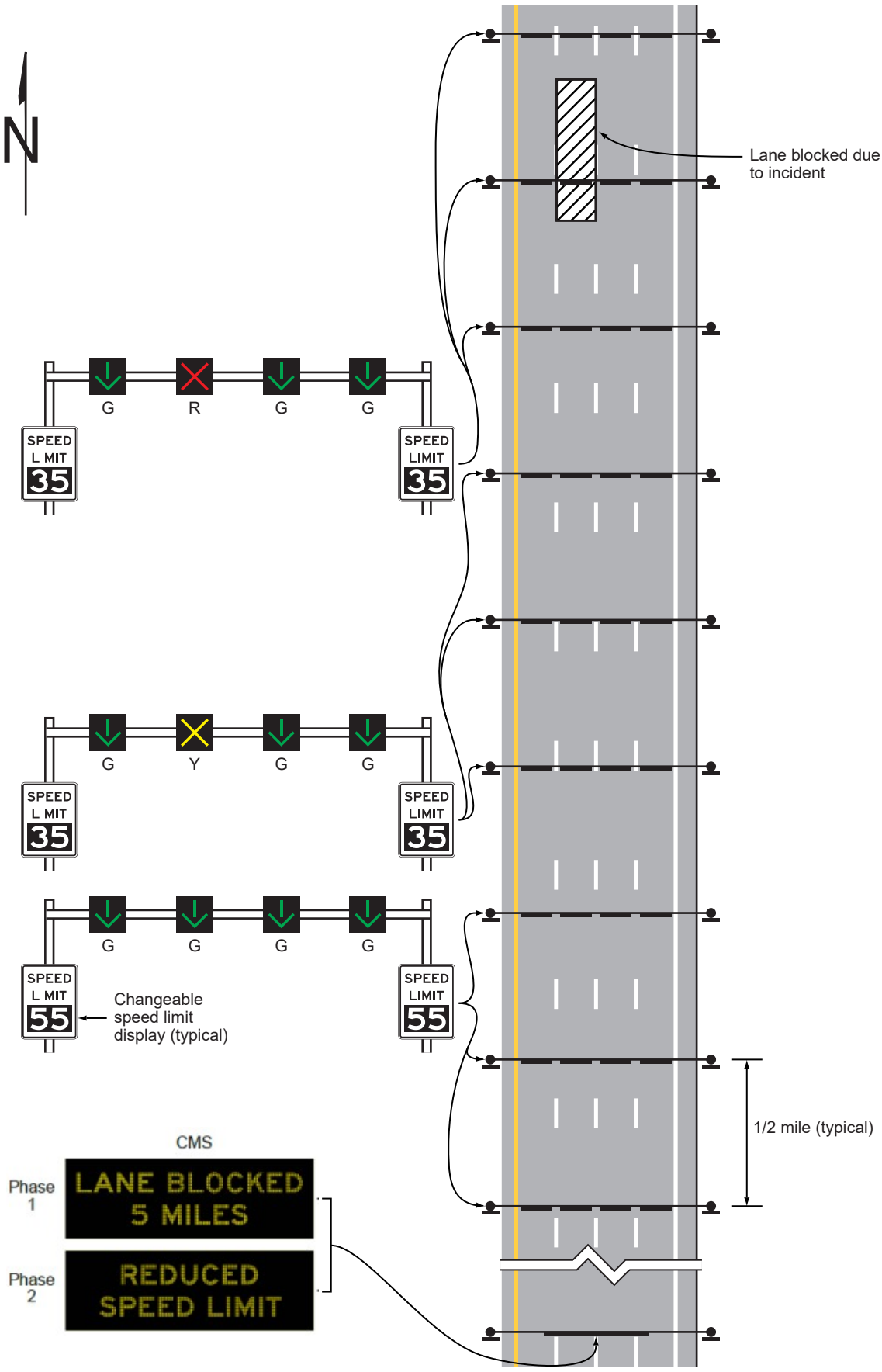


Figure 2G-101(CA). California Signs and Plaques for Part-Time Transit Bus on Shoulder

A. Regulatory Signs



R130(CA)



R130P(CA)



R131(CA)

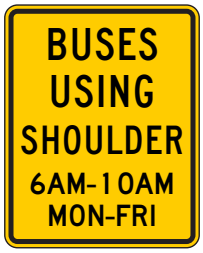


R132(CA)



R133(CA)

B. Warning Sign



W130(CA)

Table 2G-1. Managed and Preferential Lanes Sign and Plaque Minimum Sizes (Sheet 1 of 2)

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Oversized
			Single Lane	Multi-Lane			
Preferential Lane Vehicle Occupancy Definition (post-mounted)	R3-10,~~10a~~	2G.04	30 x 42	30 x 42	36 x 60	78 x 96*	78 x 96
Preferential Lane Operation - High-Occupancy Vehicles (post-mounted)	R3-11 series	2G.05	30 x 42	30 x 42	36 x 60	78 x 96*	78 x 96
Motorcycles Allowed (plaque)	R3-11hP	2G.05	30 x 15	30 x 15	36 x 18	78 x 36*	78 x 36
Preferential Lane Ahead or Ends - High-Occupancy Vehicles (post-mounted)	R3-12, 12a, 12b, 12c, 12d, 12e	2G.06 2G.07	30 x 42	30 x 42	36 x 60	48 x 84*	48 x 84
Preferential Lane Ahead or Ends (post-mounted)	R3-12f, 12g	2G.06 2G.07	30 x 36	30 x 36	36 x 48	48 x 60*	48 x 60
Preferential Lane Ends (post-mounted)	R3-12h	2G.07	36 x 48	36 x 48	48 x 66*	60 x 84*	60 x 84
Preferential Lane Vehicle Occupancy Definition (overhead)	R3-13,13a	2G.04	66 x 36	66 x 36	84 x 48	144 x 78	144 x 78
HOV Lane Operation (overhead)	R3-14,14a	2G.05	72 x 60	72 x 60	96 x 72	144 x 108	144 x 108
HOV Lane Operation (overhead)	R3-14b	2G.05	72 x 60	72 x 60	96 x 72	120 x 96	120 x 96
Preferential Lane Operation (overhead)	R3-14c	2G.05	90 x 60	90 x 60	108 x 72	156 x 102	156 x 102
HOV Lane Ahead (overhead)	R3-15	2G.06	66 x 36	66 x 36	84 x 48	102 x 60	102 x 60
HOV Lane Begins XX Miles (overhead)	R3-15a	2G.06	78 x 48	114 x 72	144 x 84	150 x 108	150 x 108
HOV Lane Ends (overhead)	R3-15b,15c	2G.07	66 x 36	66 x 36	84 x 48	102 x 60	102 x 60
Preferential Lane Ahead or Ends (overhead)	R3-15d,15e	2G.06 2G.07	42 x 36	42 x 36	54 x 48	72 x 60	72 x 60
Priced Managed Lane Vehicle Occupancy Definition (post-mounted)	R3-40	2G.18	—	—	54 x 66*	54 x 66*	66 x 78
Priced Managed Lane Ends (post-mounted)	R3-42	2G.18	—	—	48 x 60*	48 x 60*	60 x 78
Priced Managed Lane Ends Advance (post-mounted)	R3-42a	2G.18	—	—	48 x 66*	48 x 66*	60 x 84
Priced Managed Lane Restriction Ends (post-mounted)	R3-42b	2G.18	—	—	48 x 60*	48 x 60*	60 x 78
Priced Managed Lane Restriction Ends Advance (post-mounted)	R3-42c	2G.18	—	—	48 x 66*	48 x 66*	60 x 84
Priced Managed Lane Vehicle Occupancy Definition	R3-43	2G.18	—	—	138 x 66	138 x 66	—
Priced Managed Lane Operation (overhead)	R3-44	2G.18	—	—	90 x 84	90 x 84	—
Priced Managed Lane Operation (overhead)	R3-44a	2G.18	—	—	132 x 84	132 x 84	—
Priced Managed Lane Operation (overhead)	R3-44b	2G.18	—	—	90 x 72	90 x 72	—
Priced Managed Lane Ends (overhead)	R3-45	2G.18	—	—	90 x 66	90 x 66	—
Priced Managed Lane Restriction Ends (overhead)	R3-45a	2G.18	—	—	114 x 66	114 x 66	—
Priced Managed Lane Toll Rate	R3-48	2G.18	—	—	Varies	Varies	—
Priced Managed Lane Toll Rate	R3-48a	2G.18	—	—	Varies	Varies	—
Part-Time Travel on Shoulder Operation	R3-51	2G.21	—	—	66 x 78*	66 x 78*	—
No Trucks (plaque)	R3-51aP	2G.21	—	—	66 x 12*	66 x 12*	—
No Trucks or Buses (plaque)	R3-51bP	2G.21	—	—	66 x 24*	66 x 24*	—
Emergency Stopping Only Other Times (plaque)	R3-51cP	2G.21	—	—	54 x 42*	54 x 42*	—

Table 2G-1. Managed and Preferential Lanes Sign and Plaque Minimum Sizes (Sheet 2 of 2)

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Oversized
			Single Lane	Multi-Lane			
Part-Time Travel on Shoulder Variable Operation	R3-51d	2G.21	—	—	66 x 84*	66 x 84*	—
Part-Time Travel on Shoulder on Green Arrow	R3-51e	2G.24	—	—	66 x 84*	66 x 84*	—
Part-Time Travel on Shoulder Ends	R3-52	2G.21	—	—	66 x 72*	66 x 72*	—
Part-Time Travel on Shoulder Ends Advance	R3-52a	2G.21	—	—	66 x 72*	66 x 72*	—
Shoulder Must Exit Advance	R3-52b	2G.21	—	—	66 x 72*	66 x 72*	—
Part-Time Travel on Shoulder Begins Advance	R3-52c	2G.21	—	—	66 x 72*	66 x 72*	—
Begin Exit Lane	R3-56	2G.21	—	—	48 x 72*	48 x 72*	—
To Traffic on Shoulder (plaque)	R3-57P	2G.21	—	—	36 x 18	36 x 18	—
Traffic Using Shoulder	W3-9	2G.22	—	—	36 x 48	48 x 60	—
High-Occupancy Vehicles (plaque)	W16-11P	2G.09	24 x 12	24 x 12	30 x 18	30 x 18	30 x 18
Preferential Lane Entrance Gore	E8-1	2G.10	—	—	48 x 96	48 x 96	—
Preferential Lane Intermediate Entrance Gore	E8-1a	2G.10	—	—	48 x 84	48 x 84	—
Preferential Lane Entrance Direction (overhead)	E8-2	2G.10	—	—	228 x 72	228 x 72	—
Preferential Lane Entrance Direction (post-mounted)	E8-2a	2G.10	—	—	186 x 108	186 x 108	—
Preferential Lane Entrance Advance	E8-3	2G.10	—	—	186 x 96	186 x 96	—
Preferential Lane Direct Exit Gore	E8-4	2G.15	—	—	60 x 78*	60 x 78*	—
Preferential Lane Intermediate Egress Direction	E8-5	2G.13	—	—	Varies x 90	Varies x 90	—
Preferential Lane Intermediate Egress Advance	E8-6	2G.13	—	—	Varies x 84	Varies x 84	—

Notes: 1. Larger signs may be used when appropriate
2. Dimensions are shown as width x height, in inches

* Smaller signs may be used or formatted for use on the median barrier

Table 2G-1(CA). California Managed and Preferential Lane Signs and Plaques Minimum Sizes

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Oversized
			Single Lane	Multi-Lane			
HOV Advance Lane Assignment	G20-10(CA)	2G.14	VAR x 110	VAR x 110	VAR x 110	—	—
HOV LANE ENTRANCE	G92-1(CA)	2G.14, 2G.19	36 x 36	36 x 36	48 x 42	—	—
No Left Turn Specific Hours EXCEPT BUSSES AND HOV ___+	R33B(CA)	2G.03, 2G.102(CA)	24 x 60	24 x 60	—	—	—
No Left Turn WHEN METERED EXCEPT BUSES AND HOV ___+	R33C(CA)	2G.03, 2G.102(CA)	24 x 60	24 x 60	—	—	—
Specific Hours/Days (plaque)	R82aP(CA)	2G.06	30 x 12	30 x 12	36 x 18	36 x 18	48 x 24
Specific Hours/Days (plaque)	R82bP(CA)	2G.06	30 x 24	30 x 24	36 x 24	36 x 24	48 x 36
LEFT (CENTER OR RIGHT) LANE DO NOT STOP (BUSES ONLY)	R88(CA)	2G.03, 2G.102(CA)	30 x 30	30 x 30	—	—	—
ALL VEHICLES STOP ON RED	R90-1(CA)	2G.03, 2G.102(CA)	24 x 30	24 x 30	—	—	—
LEFT (CENTER OR RIGHT) LANE HOV ___+ OR MORE ONLY WHEN METERED (24 HOURS)	R91-1(CA)	2G.03, 2G.102(CA)	30 x 54	30 x 54	—	—	—
(HOV) NO TRUCKS 2 AXLES OR MORE – NO VEHICLES WITH TRAILERS	R91-4(CA)	2G.03, 2G.04	36 x 66	36 x 66	36 x 66	36 x 66	48 x 78
AUTOS/PICKUPS 2 SEATERS WITH 2 PERSONS OK (plaque)	R91bP(CA)	2G.03, 2G.04	30 x 18	36 x 18	36 x 18	36 x 18	48 x 24
Mandatory/Optional HOV Movement Lane Control	R94(CA)	2G.03, 2G.05	60 x 42	60 x 42	—	—	—
Part-Time Bus Travel on Shoulder Operation	R130(CA)	2G.21	36 x 42	36 x 42	42 x 60*	78 x 90*	78 x 90
EMERGENCY Stopping Allowed (plaque)	R130P(CA)	2G.21	36 x 12	36 x 12	42 x 15*	78 x 24*	78 x 24
Part-Time Bus Travel on Shoulder Begins Advance	R131(CA)	2G.21	36 x 42	36 x 42	54 x 66*	78 x 84*	78 x 84
Part-Time Bus Travel on Shoulder Ends Advance	R132(CA)	2G.21	36 x 42	36 x 42	54 x 66*	78 x 84*	78 x 84
Part-Time Bus Travel on Shoulder Ends	R133(CA)	2G.21	36 x 42	36 x 42	54 x 66*	78 x 84*	78 x 84
HOV VIOLATION $___ MINIMUM FINE	SR50-1(CA)	2G.101(CA)	—	—	192 x 70	192 x 70	—
HOV VIOLATION $___ MINIMUM FINE	SR50-2(CA)	2G.101(CA)	30 x 66	30 x 66	36 x 78	36 x 78	48 x 96
RIGHT LANE BUS LANE AHEAD	SR60-1(CA)	2G.06	30 x 42	30 x 42	30 x 42	—	—
RIGHT LANE BUS LANE AHEAD ON X ST.	SR60-2(CA)	2G.06	30 x 42	30 x 42	30 x 42	—	—
RIGHT LANE BUSES TAXIS ONLY 24 HOURS	SR60-4(CA)	2G.05	30 x 42	30 x 42	30x 42	—	—
RIGHT LANE TRAINS RIGHT TURNS ONLY 24 HOURS	SR60-6(CA)	2G.05	30 x 42	30 x 42	30 x 42	—	—
RIGHT LANE BUSES TAXIS ONLY Specific Hours/Days with Downward Arrow	SR60-8(CA)	2G.05	54 x 80	54 x 80	54 x 80	—	—
(HOV) Lane Reduction	W11-1(CA)	2G.08	30 x 60	30 x 60	36 x 60	36 x 60	48 x 72
(HOV) Merge	W59-1(CA)	2G.08	30 x 60	30 x 60	36 x 60	36 x 60	48 x 72
(HOV) Advisory Exit (Ramp) Speed	W72B(CA)	2G.08	36 x 66	36 x 66	48 x 78	48 x 78	60 x 102
(HOV) THRU TRAFFIC MERGE LEFT (RIGHT)	W74-1(CA)	2G.08	30 x 60	30 x 60	36 x 60	36 x 60	48 x 72
BUSES USING SHOULDER	W130(CA)	2G.22	—	—	36 x 48	48 x 60	—

* Smaller signs may be used or formatted for use on the median barrier

CHAPTER 2H. GENERAL INFORMATION SIGNS

Section 2H.01 Scope

Support:

01 General Information signs provide road users with navigational or orientation, geographic, or other information useful for traffic operational purposes. They include such items as State lines, city limits, time zones, stream names, elevations, landmarks, and similar geographic features. Chapter 2M contains recreational and cultural interest area symbol signs that are sometimes used in combination with General Information Signs. Section 1D.09 contains information on unnecessary traffic control devices. Section 2A.20 contains information on the excessive use of signs and sign clutter.

Option:

02 A General Information (I3-5 through I4-2) symbol sign (see Figure 2H-1) may be used to provide direction to a transportation (I3 series signs) or other (I4 series signs) facility. The symbol sign may be supplemented by an educational plaque where necessary. The name of the facility may be used, if needed, to distinguish between similar facilities in the same area.

03 The Advance Turn (M5 series) or Directional Arrow (M6 series) auxiliary plaques (see Figure 2H-1) with white arrows on green backgrounds may be used with General Information symbol signs to create a General Information Directional Assembly.

03a Refer to Section 2E.17 when a General Information symbol is incorporated into the legend of a guide sign.

04 The Recycling Center (I4-2) symbol sign may be used to direct road users to recycling centers.

Guidance:

05 *The Recycling Center symbol sign should not be used on freeways and expressways.*

Option:

06 The Passengers Only Ferry Terminal (I3-10) symbol sign may be used with the FERRY (I3-10P) plaque (see Figure 2H-1) mounted below it in a directional assembly to direct road users to passenger-only ferry terminals.

Guidance:

07 *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 tendency toward advertising, such as complex graphics or unnecessary messages, and in general compliance with other guide signing.*

Standard:

08 **Promotional descriptive messages that are not relevant to navigation and orientation, such as "Scenic" or "Historic," shall not be included in the legends of General Information signs, except as otherwise provided in this Chapter or in cases in which these terms are part of an official name, such as for a Scenic Byway or Historic District.**

09 **Except for State Welcome signs (see Section 2H.07), Acknowledgment signs (see Section 2H.13), and Alternative Fuels Corridor signs (see Section 2H.14), General Information signs shall have white legends and borders on green rectangular-shaped backgrounds.**

Section 2H.02 Sizes of General Information Signs

Standard:

01 **Except as provided in Section 2A.07, the sizes of General Information signs that have a standardized design shall be as shown in Table 2H-1 and Table 2H-1(CA).**

Support:

02 Section 2A.07 contains information regarding the applicability of the various columns in Table 2H-1.

Option:

03 Signs larger than those shown in Table 2H-1 may be used (see Section 2A.07), except where a maximum allowable size is specified.

Section 2H.03 Airport Signs

Support:

00 Refer to FHWA's List of Known Errors for error in Paragraph 1 heading. Refer to Section 1A.04 for more details.

01 Guide signs for commercial service airports and general aviation airports may be provided from the nearest Interstate, other freeway, or conventional highway intersection directly to the airport, normally not to exceed 15 miles. The Airport (I3-5) symbol sign (see Figure 2H-1) 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:

02 **Airport pictographs or other graphical representation of the specific airport shall not be used with or in place of the specific airport name on guide signs.**

Guidance:

03 *If airport guide signs are used, adequate trailblazer signs should be used to provide motorist direction to the airport.*

Support:

04 Location and placement of all airport guide signs depends upon the availability of longitudinal spacing on highways.

05 Figure 2D-39 shows an example of the guide signing that is typically used for a large commercial airport.

Option:

06 The Airport (I3-5) symbol sign may be used for large or small commercial airports and airports which do not accommodate large commercial jet aircraft.

Section 2H.04 Traffic Signal Speed Sign (I1-1)

~~Option:~~

01 ~~The Traffic Signal Speed (I1-1) sign (see Figure 2H-1) displaying the legend SIGNALS SET FOR 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.~~

02 ~~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 sign. If the system is operated in coordinated mode only during certain times, a blank-out version of the Traffic Signal Speed sign may be used to display the entire message only during those times.~~

~~**Standard:**~~

03 ~~**An electronic-display changeable section of the Traffic Signal Speed sign shall be a white legend on a black opaque or green background.**~~

~~*Guidance:*~~

~~*If used, the Traffic Signal Speed 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.*~~

Support:

04 The Traffic Signal Speed (I1-1) sign is not used in California because its displayed speed reflects an internal signal timing parameter rather than information intended for motorists.

Section 2H.05 Jurisdictional Boundary Signs (I2-1)

Option:

01 The Jurisdictional Boundary (I2-1) sign may be used to mark the location of the jurisdictional boundary of a State, county, ~~or municipality or the limits of an unincorporated municipal-level community~~, federally recognized Tribal Nation, or governmental district where legal jurisdiction, road maintenance responsibility, or emergency response obligation changes.

01a The WHERE WE HONOR VETERANS (G10-4P(CA)) sign may be used below the Jurisdictional Boundary Sign (I2-1) in reference to a county line. Refer to SHC § 1978.

Guidance:

02 *If used, the Jurisdictional Boundary sign should be located at or as near as practicable to the jurisdictional boundary without interfering with higher-priority traffic control devices. Notices of statutes or local ordinances should*

be located separately using regulatory signs (see Chapter 2B).

03 ~~*If used for an unincorporated community, the community should be one that is readily identifiable on official maps and be consistent with postal mailing addresses.*~~

Standard:

04 **In accordance with Section 2H.01, the Jurisdictional Boundary sign shall be rectangular in shape and shall have a white legend on a green background. The sign shall display only the name of the State, county, ~~municipality~~, federally recognized Tribal Nation, or other identifiable community, and an appropriate legend such as ENTERING, STATE LINE, County, ~~or the municipal classification~~.**

05 **Names of elected officials or promotional messages, such as notable accomplishments or claims, shall not be displayed on a Jurisdictional Boundary sign or added as a supplemental sign or plaque.**

Option:

06 A pictograph representing the jurisdiction may be displayed on the Jurisdictional Boundary sign.

Standard:

07 **If a pictograph is displayed on the Jurisdictional Boundary sign, it shall be the official seal of the jurisdiction and shall comply with the provisions of Section 2A.04. The pictograph shall be placed to the left of the legend. The height of the pictograph shall not exceed 2 times the height of the initial upper-case letter of the principal legend.**

Guidance:

08 *Signs should not be used to identify the boundaries of special-purpose governmental districts, such as school districts, sanitary districts, or improvement districts, as such signs are generally promotional in nature and do not provide navigational or orientation assistance in conjunction with official maps that are available to the general public.*

Support:

09 Section 2H.07 contains information on State Welcome signs.

Unincorporated Community and City Limit (G9-2(CA) and G9-5(CA)) Signs

Standard:

10 **The Unincorporated Community (G9-2(CA)) and City Limit (G9-5(CA)) signs shall be used to mark the limits of cities and to identify unincorporated towns. Refer to SHC § 101.1.**

Guidance:

11 *The G9-2(CA) signs should be placed on the right, as close as practical to the outer town limits of unincorporated towns, facing traffic entering the named town.*

12 *The G9-5(CA) sign should be placed on the right, as close as practical to the outer city limits of incorporated cities, facing traffic entering the named city.*

Option:

13 The population may be obtained from:

A. Federal census
B. California Dept. of Finance
C. County Board of Supervisors
D. County Planning Commission

14 The elevation shown may be that of the courthouse, post office, railroad station, or benchmark in the central district of the city.

Option:

15 On state highways Caltrans may place the state's 9-1-1 emergency telephone number on county, city, and town limits signs. Refer to § 101.1 of the SHC.

Standard:

16 **Caltrans, under certain conditions, shall replace any city limit signs. Refer to §§ 101.2 and 101.4 of the SHC.**

Guidance:

17 *If a city or community desires to install a distinctive type city limits or "Welcome" sign on conventional highways at its city limits in place of the standard G9-5(CA) sign, the following criteria should be followed:*

Standard:

A. The signs shall be installed by local authorities at no expense to the State, and an approved encroachment permit will be obtained prior to installation. They shall be maintained by the permittee to the satisfaction of the permitter.
B. Such signs shall be installed in accordance with current Caltrans practices.

C. Signs shall be of reasonable size and proportional to other guide signs in the area.
D. Signs shall be positioned so they do not obstruct the view of official traffic control devices.
E. No moving or flashing displays or advertising of any kind will be permitted.
F. No sign shall encroach over the highway.

Option:

G. Political jurisdiction logos may be displayed on the city limit signs, but the predominant characteristics of the sign will be white legend on a green rectangular shaped background. Distinctive type city limit signs not conforming to the above may remain in place until normal replacement is required.

Section 2H.06 Geographical Feature Signs (I2-2)

Option:

01 The Geographical Feature (I2-2) sign may be used to mark the locations of land features such as river or stream crossings, and summits, that are identifiable on maps or serve as landmarks in providing navigational orientation or reference to the road user.

01a The Geographical Feature (I2-2) sign may be used to identify bridges or structures across rivers and creeks and provide motorist orientation that is not otherwise included in the primary signing.

Guidance:

01b *The I2-2 sign should be used on freeways to identify major river crossings.*

02 *If used, the Geographical Feature sign should display only the name of the geographical feature. Additional information that is unnecessary for navigational or orientation purposes, such as watershed or tributary names, should not be displayed on the sign.*

Elevation (G16(CA) and G17(CA)) Signs

Option:

03 The Mountain Pass Elevation (G16(CA)) sign may be used at the summit to inform the public of a mountain pass name and elevation.

Guidance:

04 *The G16(CA) sign should be placed facing traffic in each direction on the right.*

Option:

05 The Elevation (G17(CA)) sign may be used to inform motorists of changes in elevation. Feet will be shown in multiples of 1,000 feet above sea level, and multiples of 100 feet below sea level.

Guidance:

06 *The G17(CA) sign should be placed facing traffic in each direction on the right.*

Section 2H.07 State Welcome Signs

Support:

01 The design, placement, and function of State Welcome signs that are used to identify State lines differ from Jurisdictional Boundary (I2-1) signs (see Section 2H.05). Because of these differences, it is necessary to distinguish State Welcome signs from State line Jurisdictional Boundary signs.

Option:

02 A State Welcome sign may be located at or in the vicinity of the State boundary except as prohibited in Paragraph 4 of this Section.

03 State Welcome signs may display the State seal or the State flag, the officially-adopted State motto or slogan, and the name of the Governor, in addition to the State name. State Welcome signs may use legend and background colors that provide adequate visual contrast rather than the standard sign colors.

Standard:

04 **State Welcome signs shall be located separate from other signs where they will not interfere with or detract from other traffic control devices.**

05 **State Welcome signs shall not display changeable or other electronic-display messages (see Chapter 2L). State Welcome signs shall not display messages that emulate promotional advertising of any type. State Welcome signs shall not incorporate Acknowledgment signs or messages (see Section 2H.13), or business identification sign panels or logos (see Section 2J.03) into their legends or assemblies. In accordance with Section 2A.04 of this**

Manual, telephone numbers, Internet addresses, and e-mail addresses, including domain names and uniform resource locators (URLs), and scanning graphics for the purpose of obtaining information shall not be displayed in the legends of State Welcome signs or on their supports.

Guidance:

06 *State Welcome signs should be located farther from the edge of the roadway than other traffic control devices.*

07 *The maximum size of a State Welcome sign should be consistent with the prevailing size of other guide signs based on the roadway type.*

Welcome to California (G10B(CA)) Sign

Guidance:

08 *The Welcome to California (G10B(CA)) sign should be used to indicate the California State line. The sign should be placed on the right near the State boundary facing traffic entering the State.*

Section 2H.08 Future Interstate Corridor Signs (I2-4 and I2-4a)

Option:

01 The Future Interstate Corridor (I2-4 and I2-4a) signs (see Figure 2H-2) may be used sparingly along an existing route that will be reconstructed as an Interstate route or along an existing route adjacent to a corridor through which an Interstate route will be constructed, in accordance with the Policy and Conditions stated in 23 CFR 470, Appendix C.

02 Where the route number has been approved by the FHWA, either the I2-4 or I2-4a sign may be used.

Standard:

03 **The I2-4a sign shall not be used where the route number has not been approved by the FHWA.**

04 **Future Interstate Corridor signs shall not be located where they could interfere with or detract from other traffic control devices. If used, Future Interstate Corridor signs shall be installed as independent, post-mounted sign assemblies.**

05 **Future Interstate Corridor signs shall not imply that an existing route has already been designated and marked as an Interstate route. Signs indicating that an existing route is designated as a future Interstate route or corridor shall not provide directional or distance information. Route Sign assemblies (see Section 2D.29) of any type shall not be used to sign a route as a future Interstate or other route. The Interstate route marker, or likeness thereof, shall not be displayed on the Future Interstate Corridor signs.**

Guidance:

06 *Future Interstate Corridor signs should be limited to strategic locations, such as at the beginning of the designated route or corridor, or beyond interchanges connecting from existing Interstate highways.*

Section 2H.09 Project Information Sign (I2-5)

Support:

00 For Construction Project Funding Identification Signs, please refer to section 6I.101(CA).

01 The Project Information (I2-5) sign (see Figure 2H-3) provides limited information to road users about a highway construction project on which work is imminently forthcoming or ongoing.

Standard:

02 **The Project Information sign legend shall be limited to the following project information:**

- **A. The roadway name or route number,**
- **B. A brief description or title of the project,**
- **C. The completion date expressed in either a month or season (Spring, Summer, Fall, or Winter), and**
- **D. The agency name.**

Option:

03 Project Information signs installed more than one week prior to commencement of work may include a start date.

Standard:

04 **Project Information signs shall not be installed more than one month prior to the commencement of work. When installing Project Information signs prior to the commencement of work, the jurisdiction shall have a policy on when the Project Information signs are to be installed. Project Information signs shall be removed at the conclusion of work on the project, even if the final inspection or project closeout has not yet occurred.**

05 **The number of Project Information signs shall be limited to one per direction of travel on the roadway on which the project is based. The location of the Project Information sign shall not interfere with the temporary**

traffic control zone devices.

06 **The Project Information sign shall have a white legend on a green background and shall not display Internet addresses, e-mail addresses, or telephone numbers (see Section 2A.04).**

Section 2H.10 Grade-Separated Roadway Identification Signs (I2-3 and I2-3a)

Option:

01 The Grade-Separated Roadway Identification (I2-3 and I2-3a) signs (see Figure 2H-4) may be used to identify a grade separation of another highway or other transportation facility such as a railway, bikeway, or pathway.

Guidance:

02 *Except as provided in Paragraph 4 of this Section, when used to identify an overcrossing structure, the I2-3 sign should be mounted above the travel lanes if no vertical clearance signs are present. If vertical clearance signs are present, the I2-3 sign should be mounted above the ~~or~~ shoulder (right or left) of the highway below, or over the median.*

03 *When used to identify an undercrossing structure, the I2-3 or I2-3a sign should be post-mounted in advance of the structure as near to it as practicable.*

Option:

04 When used to identify an overcrossing structure, the I2-3 or I2-3a sign may be post-mounted in front of an overcrossing or may be mounted to the abutment of the overcrossing facing approaching traffic.

Section 2H.11 Reference Location Signs (D10-1 through D10-3) and Intermediate Reference Location Signs (D10-1a through D10-3a)

Support:

01 There are two types of reference location signs:

A. Reference Location (D10-1 through D10-3) signs (see Figure 2H-5) show an integer distance point along a highway, and
B. Intermediate Reference Location (D10-1a through D10-3a) signs (see Figure 2H-6) show the same information as Reference Location signs, but they also show a tenth-of-a-mile decimal so that they can be installed between integer distance points along a highway.

Standard:

02 **Except when Enhanced Reference Location signs (see Section 2H.12) are used instead, Reference Location (D10-1 through D10-3) signs 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.**

Option:

03 Reference Location (D10-1 through D10-3) signs 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.~~ on the highway.

04 To augment the Reference Location sign system, Intermediate Reference Location (D10-1a through D10-3a) signs, which show the tenth of a mile with a decimal point, may be installed at one tenth of a mile, two tenths of a mile, or one-half mile intervals.

Standard:

05 **When Intermediate Reference Location (D10-1a through D10-3a) signs are used to augment the reference location sign system, the reference location sign at the integer mile point shall display a decimal point and a zero numeral.**

06 **Reference Location and Intermediate Reference Location signs shall have a minimum mounting height of 4 feet, measured vertically from the bottom of the sign to the elevation of the near edge of the roadway, and shall not be governed by the mounting height requirements prescribed in Section 2A.15.**

07 **The distance numbering shall be continuous for each route within a State, except where overlaps occur (see Section 2E.22). 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.**

08 **The route selected for continuity of distance numbering shall also have continuity in interchange exit numbering (see Section 2E.22).**

Guidance:

09 *On a route without continuity of distance numbering, the first reference location sign beyond the overlap should indicate the total distance traveled on the route (including on the portion that did not have continuity of distance numbering) so that road users will have a means of correlating their travel distance between reference location signs with that shown on their odometer.*

Standard:

10 **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.**

11 **Zero distance shall begin at the south and west State lines, or at the south and west terminus points where routes begin within a State.**

12 **Except as provided in Paragraph 13 of this Section, reference location signs shall be installed on the right-hand side of the roadway.**

Option:

13 Where conditions limit or restrict the use of reference location signs on the right-hand 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 30 feet from the edge of the pavement.

14 If a reference location sign cannot be installed in the correct location, it may be moved in either direction as much as 50 feet.

Guidance:

15 *If a reference location sign cannot be placed within 50 feet of the correct location, it should be omitted.*

Standard:

16 **In California, reference posts shall be mileage based.**

17 **The placement and location of reference posts on State highways shall conform to the database maintained by Caltrans' Division of Traffic Operations for reference posts. This database is different from the TASAS Highway database.**

Section 2H.12 Enhanced Reference Location Signs (D10-4) and Intermediate Enhanced Reference Location Signs (D10-5)

Support:

01 There are two types of enhanced reference location signs:

A. Enhanced Reference Location (D10-4) signs (see Figure 2H-7), and
B. Intermediate Enhanced Reference Location (D10-5) signs (see Figure 2H-7).

Option:

02 An Enhanced Reference Location (D10-4) sign, which enhances 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.

03 To augment an enhanced reference location sign system, an Intermediate Enhanced Reference Location (D10-5) sign, which shows the tenth of a mile with a decimal point, may be installed along any section of a highway route or ramp at one tenth of a mile, two tenths of a mile, or one-half mile intervals.

Standard:

04 **When an Intermediate Enhanced Reference Location (D10-5) sign is used to augment the reference location sign system, the Enhanced Reference Location sign at the integer mile point shall display a decimal point and a zero numeral.**

05 **Except as provided in Paragraph 6 of this Section, if enhanced reference location signs are used, they shall be vertical signs having a green background with a white legend and border, except for the route shield, which shall be the standard color and shape. The top line shall display the cardinal direction for the roadway. The second line shall display the applicable route shield for the roadway. The third line shall identify the mile reference for the location and the bottom line of the Intermediate Enhanced Reference Location sign shall give the tenth of a mile reference for the location preceded by a decimal point.**

Support:

05a Refer to FHWA's List of Known Errors for error in Paragraph 5 text. Refer to Section 1A.04 for more details.

06 The provisions in Section 2H.11 regarding mounting height, distance numbering and measurements, mileage-based requirements, 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.

Section 2H.13 Acknowledgment Signs and Plaques (I20 Series)

Support:

01 Acknowledgment signs and plaques (see Figure 2H-8) are a way of recognizing a company, business, or volunteer group that provides or sponsors 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:

02 *A State or local highway agency that elects to have a sponsorship acknowledgement program should develop a policy on Acknowledgment signs and plaques. 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.*

Standard:

03 **The State or local acknowledgment sign policy shall include all of the provisions regarding placement and design of Acknowledgment signs and plaques that are contained in this Section.**

04 **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.**

05 **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, merging or weaving areas, lane terminations, intersections, grade crossings, toll plazas, temporary traffic control zones, and areas of limited sight distance.**

06 **Acknowledgment signs and plaques shall have a white legend and border on a blue background. Acknowledgment signs shall be independent post-mounted roadside installations only and shall not be mounted overhead.**

Option:

07 An Acknowledgment sign may be used to acknowledge the sponsor of a rest area or welcome center.

Standard:

08 **Acknowledgment signs for a rest area, when located on the highway mainline, shall be limited to one sign per direction of travel from which the rest area is accessible, shall be located at least 500 feet from other traffic control devices, and shall not display names or representations of specific products or services provided by the sponsor within the rest area. Acknowledgment signs for rest areas shall display the legend REST AREA as the program activity, such as REST AREA SPONSORED BY. In accordance with Paragraph 5 of this Section, the Rest Area and Welcome Center Acknowledgment (I20-4 and I20-4a) signs shall not be combined in the same sign assembly with or substitute for the Rest Area General Service guide signs (see Section 2I.05).**

Option:

09 An additional Acknowledgment sign may be used within the rest area provided that it is not visible from the highway mainline or ramps to and from the rest area.

10 If a State has officially adopted and is actively promoting a program to encourage the use of safety rest areas through the use of a program name, then that program name may be displayed in smaller lettering below the legend REST AREA on the Rest Area Acknowledgment sign.

Standard:

11 **Program names or slogans, as described in Paragraph 14 of this Section, shall not be displayed on the Rest Area General Service guide signs or other types of traffic signs.**

Guidance:

12 *The minimum spacing between Acknowledgment signs and any other traffic control signs, except parking regulation signs, should be:*

A. 150 feet on roadways with speed limits of less than 30 mph,
B. 200 feet on roadways with speed limits of 30 to 45 mph, and
C. 500 feet on roadways with speed limits greater than 45 mph.

13 *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:

14 State or local highway agencies may use their own pictograph (see definition in Section 1C.02) and/or a brief jurisdiction-wide program name, such as "Adopt-A-Highway" or "Litter Removal," as part of any portion of the Acknowledgment sign, provided that the signs comply with the provisions for shape, sign and legend size, color, and lettering style in this Chapter and in Chapter 2A.

Guidance:

15 *Acknowledgment signs should clearly indicate the type of highway services provided by the sponsor.*

Standard:

16 **In addition to the general provisions for signs described in Chapter 2A and the sign design principles covered in the "Standard Highway Signs" publication (see Section 1A.05), Acknowledgment sign and plaque designs developed by State or local highway agencies shall comply with the following provisions:**

A. Neither the sign or plaque design nor the sponsor acknowledgment name or logo shall contain any contact information, directions, slogans (other than a brief jurisdiction-wide program name, if used), telephone numbers, e-mail or Internet addresses, including domain names and uniform resource locators (URLs), metadata tags ("hash-tags"), or quick-response (QR) codes, bar codes, or similar scanning graphics (see Section 2A.04);

B. Except for the sponsor acknowledgment logo, all of the lettering shall be in upper-case letters of the Standard Alphabets as provided in the "Standard Highway Signs" publication (see Section 1A.05);

C. If a logo, instead of a word legend, is used to represent the sponsor, the logo shall be the primary logo that identifies the sponsoring entity. Secondary or alternate logos, slogans, products, mascots, spokespersons, or other items associated with the sponsoring entity's commercial advertising or marketing shall not be displayed on Acknowledgment signs or plaques;

D. In order to keep the main focus on the highway-related service and not on the sponsor acknowledgment name or logo, the area reserved for the sponsor acknowledgment name or logo shall not be located at the top of the sign or plaque, shall be a maximum of 8 square feet in area, and shall not exceed ⅓ of the total area of the sign;

E. The entire sign display area of an Acknowledgment sign assembly shall not exceed 24 square feet;

F. The sign or plaque shall not contain any messages, lights, symbols, or logos that resemble any official traffic control devices;

G. The sign or plaque shall not contain any external or internal illumination, light-emitting diodes, luminous tubing, fiber optics, luminescent panels, or other flashing, moving, or animated features;

H. The sign or plaque shall not distract from official traffic control messages such as regulatory, warning, or guidance messages;

I. The area of the plaque shall not exceed the lesser of ⅓ the area of the General Service sign below which it is mounted or 24 square feet;

J. The plaque size shall be based on the standard sizes as specified in Table 2H-1. If the size of the General Service sign is oversized for its application (greater than the size specified for the corresponding roadway

application in Table 2H-1), or if the size of the General Service sign increases due to modification of the sign legend, a corresponding increase in the size of the plaque shall not be allowed; and

K. The sign or plaque shall not display promotional or contact information about the agency's sponsorship program, including if the sign or plaque does not currently display a sponsor.

Option:

17 If a specific outlet of a business with multiple locations in the same area is the sponsoring entity, such as a franchisee, the area reserved for the sponsor acknowledgment name or logo may include the name of the municipality or neighborhood in which the sponsoring entity is located.

18 An Acknowledgment plaque may be mounted below the following General Service signs to acknowledge the sponsor of a corridor-based or region-based highway-related service:

A. Radio-Weather Information (D12-1) sign (see Section 2I.09);
B. Radio-Traffic Information (D12-1a) sign (see Section 2I.09);
C. TRAVEL INFO CALL 511 (D12-5 and D12-5a) signs (see Section 2I.12); and
D. Roadside Assistance (D12-6) sign (see Section 2I.13).

19 **An Acknowledgment plaque shall not be mounted in conjunction with any other sign or traffic control device. An Acknowledgment plaque shall not be used alone or without one of the General Service signs specified in Paragraph 18 of this Section.**

20 **The general restrictions on the type of content allowed for display on Acknowledgment signs (see Paragraph 16 of this Section) shall apply to the legends of Acknowledgment plaques.**

Support:

21 The requirements in Section 2H.13 do not apply to State highways.

Section 2H.14 Alternative Fuels Corridor Sign (D9-19)

Option:

01 The Alternative Fuels Corridor (D9-19) sign (see Figure 2H-9) may be used to inform motorists of an alternative fuels corridor highway segment that has been designated by the Secretary of Transportation as "Corridor Ready."

Standard:

02 **Alternative Fuels Corridor signs shall only be used to designate alternative fuels corridor highway segments that have been designated by the Federal Highway Administration as "Corridor Ready." The appropriate General Service signs or plaques identifying the alternative fuels available in the corridor shall be included with the Alternative Fuels Corridor sign in a sign assembly. The alternative fuel services for an alternative fuels corridor shall be limited to electric vehicle charging, compressed natural gas, liquid natural gas, liquified petroleum, and hydrogen.**

Support:

03 The General Service (D9-11a, D9-11b, D9-11d, D9-11e, and D9-11f) symbol signs for use with an Alternative Fuels Corridor sign are shown in Figure 2I-1.

Standard:

04 **Alternative Fuels Corridor signs shall only be post-mounted on the side of the road and shall not be mounted overhead.**

05 **State or agency variations of the Alternative Fuels Corridor sign shall not be allowed. Acknowledgments of sponsors shall not be allowed in Alternative Fuels Corridor sign assemblies.**

06 **Except as provided in Paragraph 7 of this Section, Alternative Fuels Corridor signs shall be limited to one sign at or near the beginning of the alternative fuels corridor in each direction of travel.**

Option:

07 For long corridors, such as segments connecting control cities or major urban areas, additional signs may be located beyond major intersections or major interchanges following the typical post-interchange sign sequence.

08 The beginning of an alternative fuels corridor may be indicated with a BEGIN (M4-14P) plaque (see Figure 2H-9) with a white legend and border on a blue background mounted above the alternative fuels corridor sign in the sign assembly.

Support:

08a Refer to FHWA's List of Known Errors for error in Paragraph 8 text. Refer to Section 1A.04 for more details.

Option:

09 The end of an alternative fuels corridor may be indicated with an END (M4-6P) plaque (see Figure 2H-9) with a white legend and border on a blue background mounted above the Alternative Fuels Corridor sign in the sign assembly.

Standard:

10 **The General Service signs shall not be used in the sign assembly indicating the end of a corridor.**

11 **When the availability of one or more of the alternative fuel facilities discontinues in an alternative fuels corridor, the LAST IN CORRIDOR (W16-19P) plaque (see Figure 2H-9) shall be included on the last General Service directional assembly on the approach to the interchange or intersection.**

Option:

12 When the availability of one or more of the alternative fuel facilities discontinues in an alternative fuels corridor, an Alternative Fuels Corridor sign with accompanying General Service signs indicating the types of fuels still available in the corridor may be provided beyond the intersection or interchange where the last discontinued fuel facilities were available.

13 When the distance between electric vehicle (EV) charging services in an alternative fuels corridor is greater than 50 miles, the Next EV Charging (D9-17a) sign (see Figure 2H-9) may be located after the EV charging directional assembly, but before the EV charging service exit or turn, to inform road users of the extended distance to the next EV charging service.

Standard:

14 **The Alternative Fuels Corridor (D9-19) sign shall not be used as a directional sign in a directional assembly, or be combined with other signs, except as provided in this Section.**

Option:

15 Up to three General Service symbol signs arranged horizontally displaying the alternative fuels available in the designated corridor may be installed below the Alternative Fuels Corridor sign (see Figure 2H-10).

Standard:

16 **The size of the General Service symbol signs for the alternative fuels available shall not exceed 18 x 18 inches when mounted with the 24 x 24-inch Alternative Fuels Corridor sign and 24 x 24 inches when mounted with the 36 x 36-inch Alternative Fuels Corridor sign.**

Guidance:

17 *When the number of eligible alternative fuels available in the corridor exceeds three, a separate plaque with the two-letter or three-letter designations (D9-19aP or D9-19bP) of each of the fuels available (see Figure 2H-9) should be used in place of the General Service symbol signs.*

Standard:

18 **When the Alternative Fuels Corridor sign is used in a designated corridor on a freeway or expressway, the applicable General Service signs shall be installed on the approach to an interchange in the corridor from which the designated fuel services are available. If the services are not visible from the ramp of a single-exit interchange, the service signing shall be repeated at the intersection of the exit ramp and the crossroad (see Figure 2H-10). Where the alternative fuel facility is not located along the crossroad, additional General Service directional assemblies shall be installed in advance of each subsequent turn to reach the facility (see Figure 2H-11).**

Support:

19 Because regulatory, warning, and guide signs are necessary for safe and efficient movement of traffic, they have a higher priority in placement location over Alternative Fuels Corridor signs.

Standard:

20 **Alternative Fuels Corridor sign assemblies shall be limited to those locations where adequate spacing is available between the Alternative Fuels Corridor sign and other signs. Alternative Fuels Corridor signs shall not be installed in a location where they might distract driver's attention from other traffic control devices or the roadway in a complex roadway environment. If the placement of a newly-installed, higher-priority traffic control device conflicts with an existing Alternative Fuels Corridor sign, the Alternative Fuels Corridor sign shall be relocated, covered, or removed.**

21 **Alternative Fuels Corridor signs shall not be installed on routes other than those officially designated as alternative fuels corridors, even if to provide directional information to such corridors.**

Section 2H.101(CA) Coastal Access (SG28A(CA)) Sign

Option:

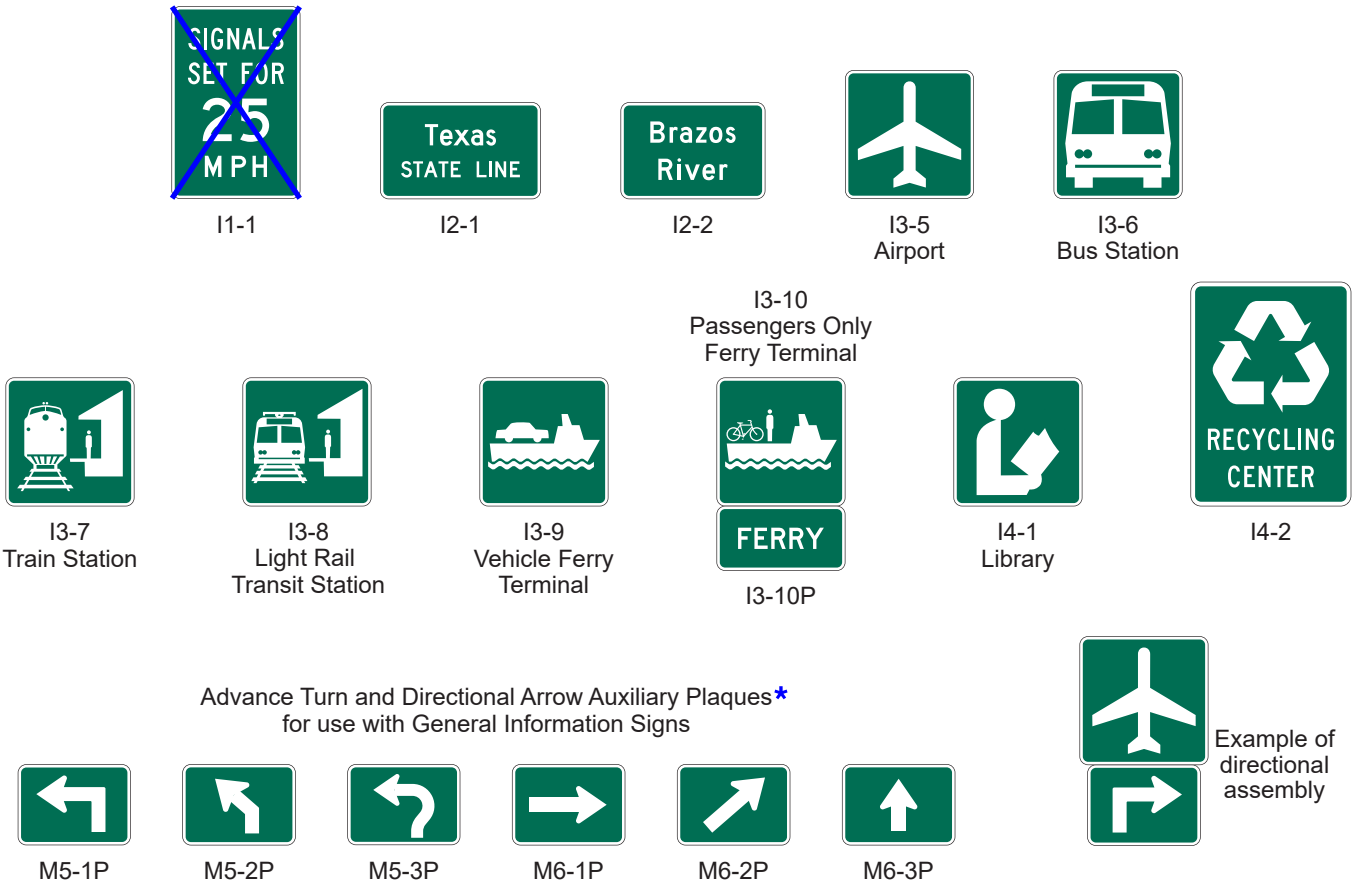
01 The Coastal Access (SG28A(CA)) sign may be used to identify only those improved coastal access points selected by the Coastal Commission in accordance with the agreement between the California Coastal Commission and Caltrans dated April 30, 1980.

Section 2H.102(CA) The POST OFFICE (SG60A(CA)) Sign

Option:

01 The POST OFFICE SG60A(CA) sign may be used in conjunction with the Advance Turn (M5 series) or Directional Arrow (M6 series) auxiliary plaques to indicate the direction to a local post office which is located off the arterial network.

Figure 2H-1. General Information and Miscellaneous Information Signs and Plaques



* Refer to FHWA's List of Known Errors for error in sign. Refer to Section 1A.04 for more details.

Figure 2H-1(CA). California General Information and Miscellaneous Information Signs and Plaques



G9-2(CA)



G9-5(CA)



G10B(CA)



G10-4P(CA)



G16(CA)



G17(CA)



SG28A(CA)



SG60A(CA)

Figure 2H-2. Future Interstate Signs (I2-4, I2-4a)



I2-4



I2-4a

Figure 2H-3. Examples of Project Information Signs

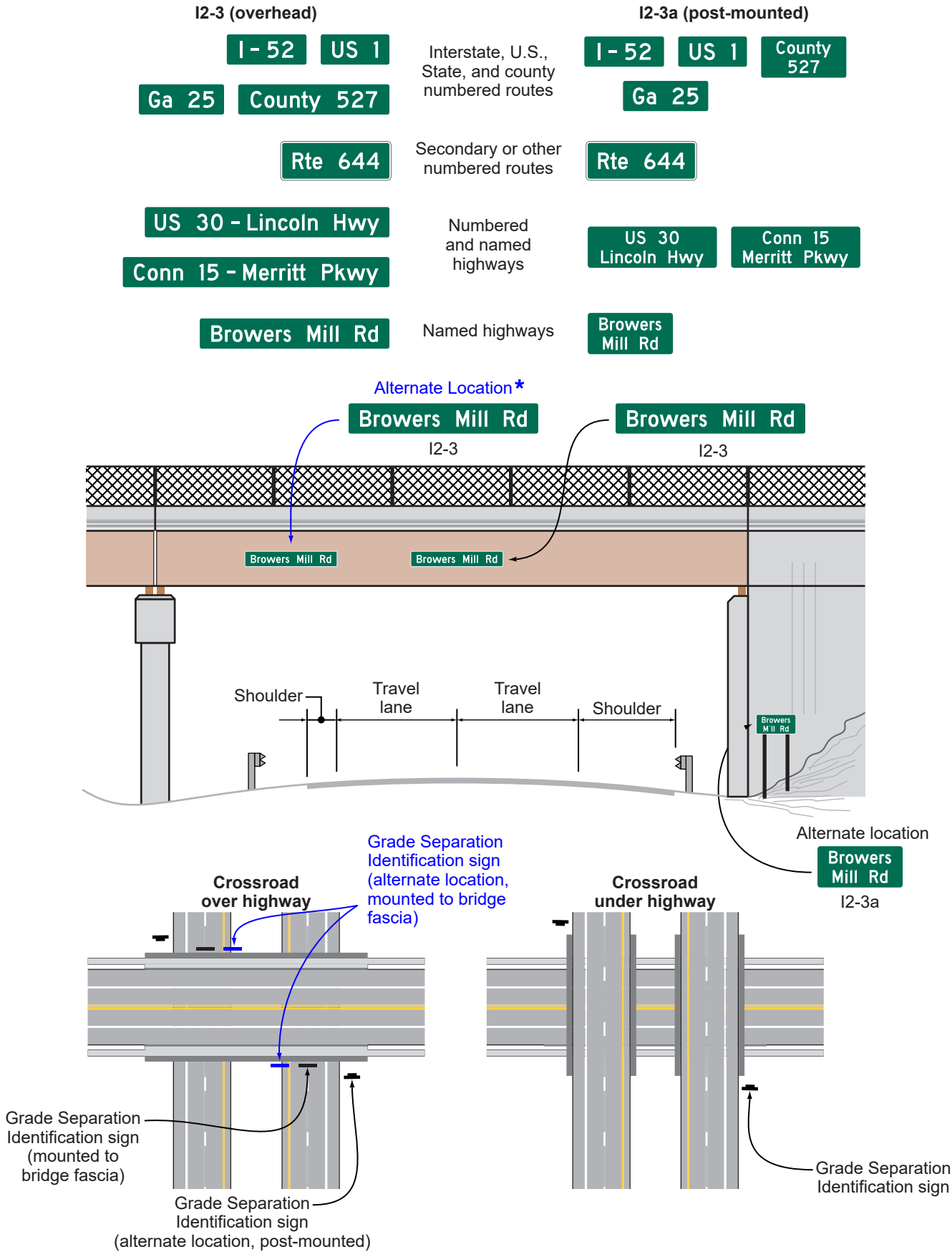




* The actual name of the State where the improvements are being implemented should be used instead of "State".

Note: Refer to Part 6 for construction project identification signs.

Figure 2H-4. Examples and Typical Placement of Grade Separation Identification Signs



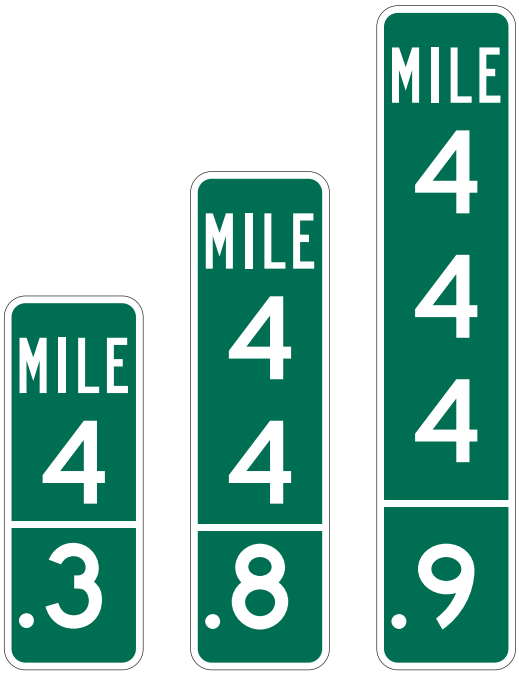
* Refer to Section 2H.10 for alternative locations when vertical clearance signs are present.

Figure 2H-5. Reference Location Signs



D10-1 D10-2 D10-3

Figure 2H-6. Intermediate Reference Location Signs



D10-1a D10-2a D10-3a

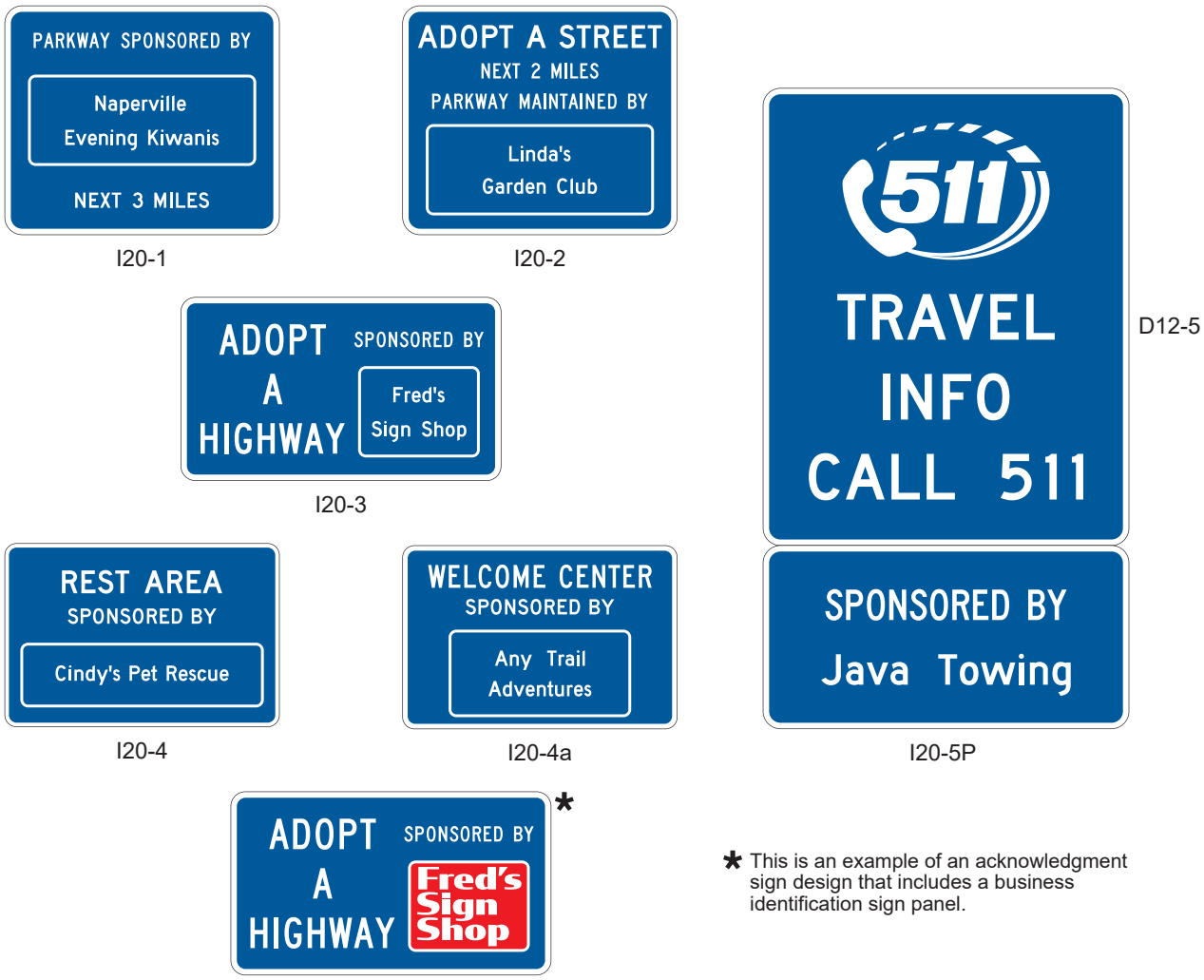
Figure 2H-7. Enhanced Reference Location Signs



D10-4 D10-5

Note: Refer to Figure 2D-4 and 2D-4(CA) for applicable Route Shields to be used on guide signs.

Figure 2H-8. Examples of Acknowledgment Sign Designs



* This is an example of an acknowledgment sign design that includes a business identification sign panel.

Figure 2H-9. Examples of Signs for Alternative Fuels Corridors



D9-17a



D9-19



D9-19aP



D9-19bP



M4-6P

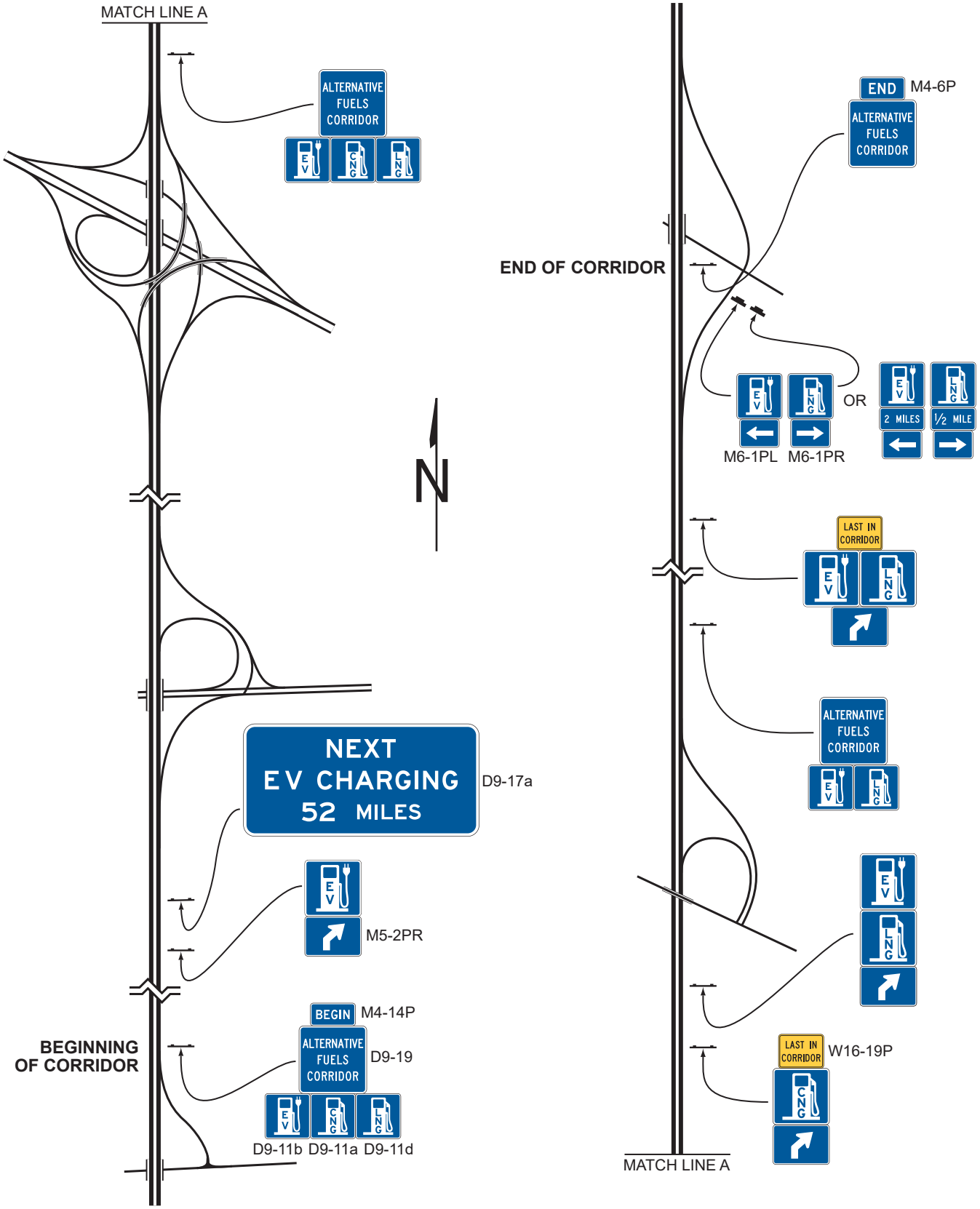


M4-14P



W16-19P

Figure 2H-10. Example of Signing for an Alternative Fuels Corridor



Note: Exit numbering may be used in place of directional arrows on the highway mainline.

Figure 2H-11. Typical Signing from a Freeway Exit Ramp to a Service Facility

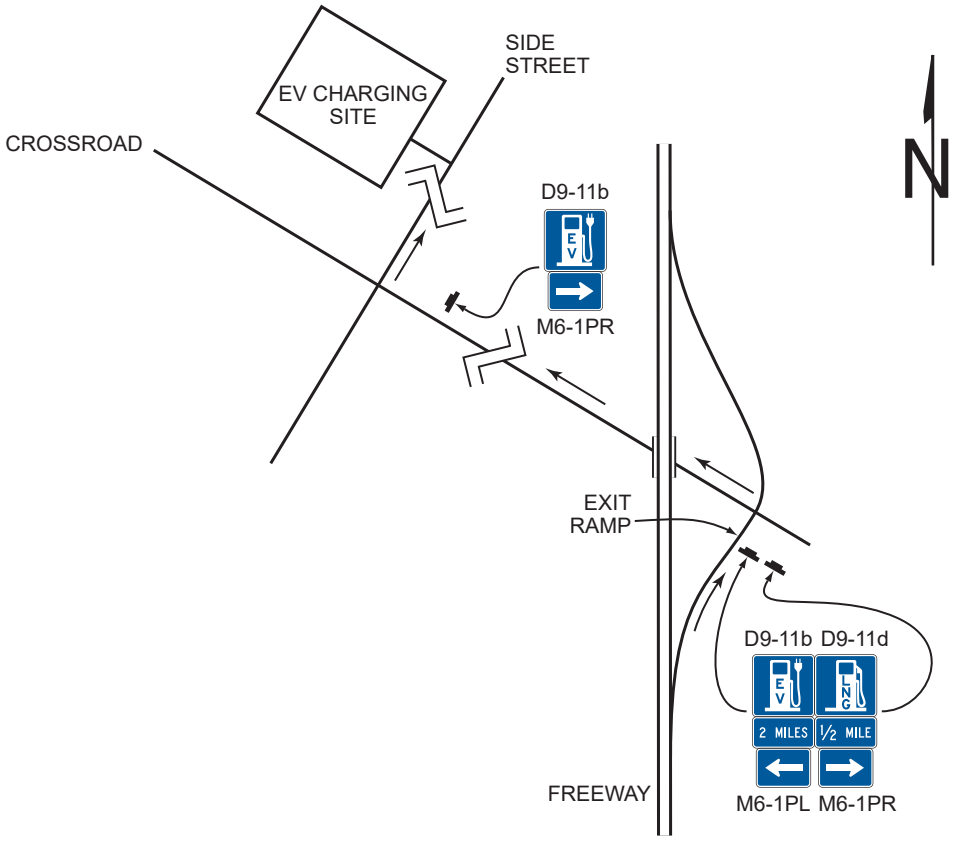


Table 2H-1. General Information Sign and Plaque Sizes

Sign ****	Sign Designation	Section	Conventional Road	Freeway or Expressway
Alternative Fuels Corridor	D9-19	2H.14	24 x 24	36 x 36
Alternative Fuels Corridor (1 line) (plaque)	D9-19aP	2H.14	30 x 9	42 x 12
Alternative Fuels Corridor (2 lines) (plaque)	D9-19bP	2H.14	30 x 12	42 x 18
Reference Location (1 digit)	D10-1	2H.11	10 x 18	12 x 24
Intermediate Reference Location (2 digits)	D10-1a	2H.11	10 x 27	12 x 36
Reference Location (2 digits)	D10-2	2H.11	10 x 27	12 x 36
Intermediate Reference Location (3 digits)	D10-2a	2H.11	10 x 36	12 x 48
Reference Location (3 digits)	D10-3	2H.11	10 x 36	12 x 48
Intermediate Reference Location (4 digits)	D10-3a	2H.11	10 x 48	12 x 60
Enhanced Reference Location	D10-4	2H.12	12 x 30 18 x 54 (O)	18 x 54
Intermediate Enhanced Reference Location	D10-5	2H.12	12 x 36 18 x 60 (O)	18 x 60
~~Traffic Signal Speed~~	~~I1-1~~	~~2H.04~~	~~24 x 36~~	—
Jurisdictional Boundary	I2-1	2H.05	Varies x 18** Varies x 24 (O)	Varies x 36** Varies x 42 (O)
Geographical Feature	I2-2	2H.06	Varies x 18** Varies x 24 (O)	Varies x 36**
Grade Separation Identification	I2-3	2H.10	—	Varies x 18
Grade Separation Identification (2 lines)	I2-3a	2H.10	—	Varies x 24
Future Interstate Corridor	I2-4	2H.08	54 x 36	72 x 48
Future I-XX Corridor	I2-4a	2H.08	48 x 36	66 x 48
Project Information	I2-5	2H.09	96 x 48	156 x 72
Airport	I3-5	2H.01	24 x 24	30 x 30
Bus Station	I3-6	2H.01	24 x 24	30 x 30
Train Station	I3-7	2H.01	24 x 24	30 x 30
Light Rail Transit Station	I3-8	2H.01	24 x 24	—
Vehicle Ferry Terminal	I3-9	2H.01	24 x 24	30 x 30
Passenger Only Ferry Terminal	I3-10	2H.01	24 x 24	30 x 30
Ferry (plaque)	I3-10P	2H.01	24 x 12	30 x 18
Library	I4-1	2H.01	24 x 24	—
Recycling Center	I4-2	2H.01	30 x 36	—
Acknowledgment	I20-1	2H.13	36 x 30*	72 x 48*
Acknowledgment	I20-2	2H.13	36 x 30*	72 x 48*
Acknowledgment	I20-3	2H.13	42 x 24*	96 x 36*
Acknowledgment - Rest Area	I20-4	2H.13	56 x 36*	72 x 48*
Acknowledgment - Welcome Center	I20-4a	2H.13	56 x 36*	72 x 48*
Acknowledgment (plaque)	I20-5P	2H.13	Varies x Varies***	Varies x Varies***
Last In Corridor (plaque)	W16-19P	2H.14	24 x 18	24 x 18

* The size shown is the maximum size for the corresponding roadway classification. The size of the sign and acknowledgment logo should be appropriately reduced where shorter legends are used.
** The size shown is for the typical sign illustrated in the figure. The size should be determined based on the number of lines of legend on the sign.
*** Limitations on the size of Acknowledgment plaques are provided in Section 2H.13.
**** Refer to FHWA's List of Known Errors for error in table. Refer to Section 1A.04 for more details.

Notes: 1. Larger signs may be used when appropriate, except for the I20 series signs and plaque
2. (O) denotes Oversized
3. Dimensions are in inches shown as width x height

Table 2H-1(CA). California General Information Sign and Plaque Sizes

Sign or Plaque	Sign Designation	Section	Conventional Road	Freeway or Expressway
Unincorporated Community	G9-2(CA)	2H.05	VAR x 18	VAR x 30
City Limit	G9-5(CA)	2H.05	VAR x 24	VAR x 42
Welcome to California	G10B(CA)	2H.07	60 x 36	132 x 84
WHERE WE HONOR VETERANS (plaque)	G10-4P(CA)	2H.05	60 x 9	90 x 12
Mountain Pass Elevation	G16(CA)	2H.06	VAR x 18	VAR x 36
Elevation	G17(CA)	2H.06	36 x 18	72 x 36
Coastal Access	SG28A(CA)	2H.101(CA)	30 x 24	48 x 36
POST OFFICE	SG60A(CA)	2H.102(CA)	36 x 24	—

CHAPTER 2I. GENERAL SERVICE SIGNS

Section 2I.01 Sizes of General Service Signs

Standard:

01 **Except as provided in Section 2A.07, the sizes of General Service signs that have a standardized design shall be as shown in Table 2I-1 and Table 2I-1(CA).**

Support:

02 Section 2A.07 contains information regarding the applicability of the various columns in Table 2I-1.

Option:

03 Signs larger than those shown in Table 2I-1 may be used (see Section 2A.07).

Section 2I.02 General Service Signs for Conventional Roads

Support:

01 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 needed in urban areas except for hospitals, law enforcement assistance, tourist information centers, and camping.

Option:

02 General Service signs (see Figure 2I-1 and Figure 2I-1(CA)) may be used on conventional roads where such services are infrequent and are found only on an intersecting highway or crossroad.

Standard:

03 **All General Service signs and supplemental sign panels shall have a white legend and border on a blue background.**

Guidance:

04 *General Service signs should be installed at a suitable distance in advance of the turn-off point or intersecting highway.*

05 *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:

06 Individual States may sign for whatever alternative fuels are available at appropriate locations.

Standard:

07 **To be eligible for an EV Charging General Service sign on a conventional road, the EV chargers provided shall meet the criteria for Direct Current Fast Chargers provided in 23 CFR 680.106 and be in continuous operation at least 16 hours per day, 7 days per week.**

08 **General Service signs, if used at intersections, shall be accompanied by a directional message.**

Option:

09 The Advance Turn (M5 series) or Directional Arrow (M6 series) auxiliary plaques (see Figure 2I-1) with white arrows on blue backgrounds may be used with General Service symbol signs to create a General Service directional assembly.

09a The NEXT RIGHT/LEFT (G58P(CA)) plaque may also be used in conjunction with the General Service signs.

10 The General Service sign legends may be either symbols or word messages.

Standard:

11 **Symbols and word message General Service legends shall not be intermixed on the same sign.**

12 **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 3 miles of an interchange on the Federal-aid system. The D9-20 sign shall have a 24 HR (D9-20aP) plaque mounted below it.**

13 **Use of the Hospital (D9-2) sign or the HOSPITAL (D9-13aP) plaque (see Figure 2I-1) shall be limited to facilities that operate 24 hours per day, 7 days per week.**

Option:

14 The Emergency Medical Services (D9-13) sign (see Figure 2I-1 and Paragraph ~~20~~ 21 of this Section) may be used

for facilities that provide emergency medical care but do not operate on a full-time basis.

Support:

15 Formats for displaying different combinations of these services are described in Section 2I.03.

Option:

16 If the distance to the next point at which services are available is 10 miles or more, a Next Services Advance (D9-17P) plaque (see Figure 2I-2) may be installed below the General Service sign.

17 The International Symbol of Accessibility (D9-6) sign (see Figure 2I-1) may be used beneath General Service signs where paved ramps and rest room facilities accessible to, and usable by, persons with disabilities are provided.

Guidance:

18 *When the D9-6 sign is used in accordance with Paragraph 16 of this Section, and van-accessible parking is available at the facility, a VAN ACCESSIBLE (D9-6P) plaque (see Figure 2I-1) should be mounted below the D9-6 sign.*

Option:

19 The Recreational Vehicle Sanitary Station (D9-12) sign (see Figure 2I-1) may be used as needed to indicate the availability of facilities designed for the use of dumping wastes from recreational vehicle holding tanks.

20 The Litter Container (D9-4) sign (see Figure 2I-1) may be placed in advance of roadside turn-outs or rest areas, unless it distracts the driver's attention from other more important regulatory, warning, or directional signs.

21 The Emergency Medical Services (D9-13) symbol sign (see Figure 2I-1) 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:

22 **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 sign shall be supplemented by a sign or plaque, as provided in Paragraph ~~22~~ 23 of this Section, identifying the type of service provided.**

Option:

23 The Emergency Medical Services symbol sign may be used above the HOSPITAL (D9-13aP) plaque or above a plaque with the legend AMBULANCE STATION (D9-13bP), EMERGENCY MEDICAL CARE (D9-13cP), or TRAUMA CENTER (D9-13dP). The Emergency Medical Services symbol sign may also be used to supplement Telephone (D9-1), Channel 9 Monitored (D12-3) (see Figure 2I-8), or POLICE (D9-14) signs.

Standard:

24 **The legend EMERGENCY MEDICAL CARE shall not be used for services other than qualified free-standing emergency medical treatment centers.**

Guidance:

25 *Each State should develop a policy for the implementation of the Emergency Medical Services symbol sign.*

26 *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 2I.03 General Service Signs for Freeways and Expressways

Support:

01 General Service (D9-18 series) signs (see Figure 2I-3) are generally not appropriate at major interchanges (see definition in Section 2E.11) and in urban areas.

Standard:

02 **General Service signs shall have a white legend and border on a blue background. Letter and numeral sizes shall 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 on the same sign. 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:

03 *Where General Service signs are used along routes with exit numbering, the General Service sign should include the exit number within the sign face as shown in Figure 2I-3.*

04 *Distance to services should be displayed on General Service signs along the exit ramp where distances are more than ~~1~~ 0.5 mile from the ramp intersection with the crossroad.*

04a *To avoid misleading the road user, those services that are more than 0.5 miles from the access point on the major route to the service, should have a Distance with Arrow (G66-21aP(CA)) plaque installed below the service sign.*

Support:

04b Accordingly, it would be a disservice to the traveler to lead them off on to a minor road to a business providing a service when that same service can be obtained in a shorter distance by remaining on the major road.

Guidance:

05 *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.*

~~*Guidance:*~~

Support:

05a Refer to FHWA's List of Known Errors for error in heading between Paragraphs 5 and 6. Refer to Section 1A.04 for more details.

Guidance:

06 *Only services that fulfill the needs of the road user should be displayed 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 eligibility and availability of the various types of services. The criteria should consider the following:*

- *A. Gas, diesel, and/or alternative fuels, except for electric vehicle (EV) charging, if all of the following are available:*
  - *1. Vehicle services such as gas, oil, and water;*
  - *2. Modern sanitary facilities and drinking water; and*
  - *3. Continuous operations at least 16 hours per day, 7 days per week.*
- *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; and*
  - *3. Modern sanitary facilities.*
- *C. Lodging if all of the following are available:*
  - *1. Licensing or approval, where required;*
  - *2. Adequate sleeping accommodations; and*
  - *3. 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 3 miles 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:

07 **To be eligible for an EV Charging General Service sign on freeways and expressways, the EV chargers provided shall meet the criteria for Direct Current Fast Chargers provided in 23 CFR 680.106 and be in continuous operation at least 16 hours per day, 7 days per week.**

Support:

08 Motorist expectations for facilities providing alternative fuels, such as EV Charging, compressed natural gas, liquefied natural gas, liquefied petroleum gas, and hydrogen, vary considerably and alternative fuel vehicles might have different needs than conventional fuel vehicles.

Guidance:

09 *The policy criteria for alternative fuel vehicles should take into account the needs, convenience, and safety of alternative fuel vehicle users (see Section 2H.14).*

Standard:

10 **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.**

11 **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.**

Option:

12 If the distance to the next point where services are available is greater than 10 miles, a Next Services Advance (D9-17P) plaque (see Figure 2I-2) may be installed below the ~~Exit Direction~~ Advance Guide sign.

Guidance:

12a *Whenever possible, General Service signs should be placed below the ground mounted Advance Guide (G83(CA) Series) signs. No more than four symbols should be mounted beneath a single advance directional sign.*

Option:

12b If there are no ground mounted Advance Guide (G83(CA) Series) signs available, the General Service signs may be placed as separate installations with a Directional Arrow Auxiliary (M6 Series) sign or NEXT RIGHT/LEFT (G58P(CA)) plaque.

Standard:

13 **Signs for services shall comply with the format for General Service signs (see Section 2I.02) and as provided in this Manual. No more than six general road user services shall be displayed on one sign, which includes any appended supplemental signs or plaques. General Service signs shall display the legends for one or more of the following services: Food, Gas, EV Charging, Lodging, Camping, Phone, Hospital, 24-Hour Pharmacy, or Tourist Information.**

14 **The qualified services available shall be displayed at specific locations on the sign.**

Guidance:

15 *To provide for future services that might become available, the sign space normally reserved for a given service symbol or word should be left blank when that service is not present.*

16 *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, 24-HOUR PHARMACY, and CAMPING should be on separate lines (see Figure 2I-3).*

Option:

17 Signing for EV Charging, 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 (D9-6) sign (see Figure 2I-1) may be used for facilities that qualify.

Guidance:

18 *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:

19 Substitutions of other services for any of the services described in Paragraph 18 of this Section may be made by placing the substitution in the lower right (four or six services) or extreme right (three services) portion of the sign. 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 (D9-11e) symbol may be substituted for the symbol representing fuel or appended to such assemblies. The Tourist Information (D9-10) or the 24-Hour Pharmacy (D9-20 and D9-20aP) symbol may be substituted on any of the configurations provided in Paragraph 18 of this Section.

Guidance:

20 *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 Rural Interchange General Services (D9-18dP, D9-18eP, or D9-18fP) plaque displaying one to three services (words or symbols) ~~may~~ should be mounted below a post-mounted Interchange Advance guide sign.*

Standard:

21 **If more than three services become available at rural interchange areas where limited road user services were anticipated, the appended supplemental plaque described in Paragraph 20 of this Section shall be removed and replaced with an independently mounted General Service sign as described in this Section.**

Option:

22 A separate Telephone Service (D9-1) sign (see Figure 2I-1) may be installed if telephone facilities are located adjacent to the route at places where public telephones would not normally be expected.

23 The Recreational Vehicle Sanitary Station (D9-12) sign (see Figure 2I-1) may be used as needed to indicate the availability of facilities designed for dumping wastes from recreational vehicle holding tanks.

24 In some locations, signs may be used to indicate that services are not available.

25 A separate Truck Parking (D9-16) sign (see Figure 2I-1) may be mounted below the other general road user services to direct truck drivers to designated parking areas.

26 A TRUCK EXTERNAL POWER (D9-16aP) plaque (see Figure 2I-1) may be mounted below the Truck Parking (D9-16) sign to indicate the availability of receptacles providing power for electrical devices within the truck.

Support:

26a Refer to FHWA's List of Known Errors for error in Paragraph 26. Refer to Section 1A.04 for more details.

Option:

27 General Service signs may be placed where appropriate, on freeways and expressways and for bypassed communities reasonably accessible from the highway.

Support:

28 General Service signs are not normally used on conventional highways except in rural areas where the service facilities are not visible from the highway or where commercial services are infrequent and the road users may need the information to enable them to plan their stops. Service signing is intended to be a service to the road user and not to be advertising for individual businesses. When private advertising for a service is provided, there is no need to place General Service signs.

29 In urban areas, commercial services (such as fuel, food, and lodging) are generally within sight and available to the road user at reasonably frequent intervals along the route. However, they can be desirable or necessary where services are infrequent or in areas that are predominantly residential or industrial, where such services are not readily apparent. Also, if the visibility of the private advertising signs have impaired or eliminated either by sound-walls or other items constructed on State right-of-way, or by landscaping or other vegetation that cannot be trimmed or removed, the location can qualify for General Service signing.

Standard:

30 **The following criteria shall apply to General Service signs:**

1. The business shall be within 1,000 feet of the intersection.

2. All other qualifying criteria for Fuel, Food, and Lodging listed below shall be met.

Support:

31 Except for the conditions stated above, General Service signing will not normally be provided in urban areas except for signs directing to a hospital and camping.

Standard:

32 **Follow-up signing, if necessary, shall be placed by local jurisdictions before General Service signs are placed on the State highway.**

33 **The maximum distance to a service station shall be 0.5 miles and have reasonably direct access from and return to the highway.**

Option:

34 Service may be signed to in bypassed communities, if the distance to the service is less than the distance to the next service on the through route.

Standard:

35 **Fuel, oil, compressed air, air gauge, radiator water, drinking water, telephone and restrooms shall be available during all service hours.**

Guidance:

36 *The station should be open at least 12 hours a day.*

Standard:

37 **Where gasoline is available, the Gas (D9-7) symbol sign shall be used.**

38 **Where gasoline and diesel are available, the Diesel Fuel (D9-11) symbol sign (with a superimposed "D") shall be used.**

Option:

39 Where biofuel is available, the Biofuel (D9-11g) sign may be used in addition to other appropriate service signs.

40 The ELECTRIC VEHICLE CHARGING (D9-11b) sign may be used for Electric Vehicle Charging Stations in compliance with paragraph 07 of this section or paragraph 07 of section 2I.02 for conventional highways.

41 The FAST (G66-21cP(CA)) header plaque may be used to supplement the D9-11b sign to indicate that a Fast Electric Vehicle Charging Station is located off the State highway.

Support:

42 A Fast Electric Vehicle Charging Station is where the rate of battery electric charging is at least 20 kWh in a 30-minute period. Fast charging stations include direct current (DC) fast charging and battery switching.

Option:

43 The Liquefied Petroleum Gas (D9-11e) sign may be used for Liquefied Petroleum Gas Refueling Stations within 3 miles of a State highway and be available to the public at least 16 hours a day.

44 Where methanol fuel is available, the Methanol Fuel (G66-11B(CA)) sign may be used in addition to other appropriate service signs.

45 The Compressed Natural Gas (D9-11a) sign may be used for Compressed Natural Gas Refueling Stations within 3 miles of a State highway and be available to the public at least 16 hours a day.

46 The Liquefied Natural Gas (D9-11d) sign may be used for Liquefied Natural Gas Refueling Stations within 3 miles of a State highway and be available to the public at least 16 hours a day.

47 Where ethanol E85 fuel is available, the Alternative fuel -Ethanol (D9-11c) symbol sign may be used in addition to the other appropriate signs.

48 Where hydrogen (HYD) fuel is available, the Hydrogen (D9-11f) symbol sign may be used within 3 miles of a State highway and be available to the public at least 16 hours a day, in addition to the other appropriate signs.

Support:

49 Refer to Section 2A.04 on the development of new word message signs for alternative fuels.

Food or Lodging Signs (D9-8 and D9-9)

Standard:

50 **To qualify for food signs, single establishments shall be open to serve at least two meals a day. Both food and lodging establishments shall score at least 10 points in the following categories, including at least one point in Category 4, to qualify for signs.**

1. Maximum distance from the highway exit to the first service facility:

0 – 1 mile 3 Points
1 – 2 miles 2 Points
2 – 5 miles 1 Point
More than 5 miles 0 Points

2. Number of traffic control devices (signals or stop signs) between the exit and the facility:

0 - 1 Devices 3 Points
2 – 3 Devices 2 Points
4 – 4 Devices 1 Point
More than 5 0 Points

3. Number of seats available in food facilities:

50 or more 3 Points
30 – 49 2 Points
15 – 29 1 Point
Less than 15 0 Points

4. Number of rooms available with private baths at lodging facilities:

30 or more 3 Points
10 – 30 2 Points
2 – 10 1 Point
Less than 2 0 Points

5. Distance to the next highway exit served by a food or lodging establishment:

15 miles or more 3 Points
7 – 15 miles 2 Points
3 – 7 miles 1 Point
3 miles or less 0 Points

Guidance:

6. Judgment factors include comfort, appearance, scope of service provided, etc., should be scored 0 to 3 points by the inspecting official.

Camping Signs (D9-3)

Option:

51 The Camping (D9-3) sign may be placed for campgrounds providing individual service and utility hookups for one-night stops for travel trailers, campers and other recreational vehicles.

Standard:

52 **To qualify for the Camping (D9-3) sign, the facility shall meet all the following criteria:**

1. **It shall be licensed for private operation or be operated by a governmental agency.**
2. **It shall be accessible to and capable of handling all types of recreational vehicles.**
3. **It shall be open to the public for 24 hours each day during the time the signs are in place.**
4. **It shall be no more than 10 miles from the highway exit designated by the sign.**
5. **It shall be equipped to handle a minimum of 25 travel trailers, campers, and other recreational vehicles for overnight stops, including individual service, utility hook-ups and individual sewer connections or a central sewer holding tank.**

Hospital Sign (D9-2 and D9-13)

Option:

53 Hospitals, as defined in CCR, Title 22, Division 5, Chapter 1, Article 1, § 70005 and licensed by the Department of Health Services, which provide 24 hour inpatient care, in urban and rural areas which are located in close proximity to a highway and provide specified medical services, may qualify for the Hospital (D9-2) symbol sign.

54 The D9-2 signs may be provided for hospitals in urban areas within 1 mile of a highway, accept emergency cases and have a medical doctor in attendance 24 hours a day.

55 The D9-2 signs may be provided for hospitals in rural areas within 3 miles of a highway, accept emergency cases and have a doctor on call 24 hours a day.

56 Exceptions to the distance requirement may be made in areas where hospitals are a great distance apart.

Telephone Sign (D9-1)

57 The Telephone (D9-1) sign is placed where a telephone is available 24 hours a day and is located in a remote area where it would not be expected.

STAA Truck Service and Terminal Access Signs (G66-55(CA) and G66-56(CA))

58 The STAA Truck Service (G66-55(CA)) and STAA Truck Terminal Access (G66-56(CA)) signs may be placed by Caltrans on the National Network of Highways to identify locations where STAA trucks may leave the National Network to access services and terminals per CVC § 35401.5(c) and (d). The G66-55(CA) and G66-56(CA) signs may also be used on Terminal Access routes to indicate turns and access ending points.

Support:

59 More information on the National Network and State Terminal Access routes is available from the Office of Traffic Engineering in Caltrans' Division of Traffic Operations. Some of this information can also be accessed on the Internet at the following web site: http://www.dot.ca.gov/hq/traffops/engineering/trucks/

STAA Definitions

- **STAA** - Surface Transportation Assistance Act of 1982, federal funding authorization that declared, among other things;
  1. Semitrailers up to and including 48 feet in length are exempt from state kingpin to rear axle (KPRA) and overall combination length limits,
  2. Semitrailers over 48 feet long and up to and including 53 feet in length are exempt from state overall length limits. (These semitrailers are subject to state KPRA limits in California.),
  3. Double trailers in combination where each does not exceed 28.5 feet in length are exempt from any state overall length limits.
  4. Federal length rules apply to these combination vehicles only when operating on a federally declared system of highways called the National Network and the state and local determined terminal access and service access highways.

  Note: Tour buses up to 45 feet long (motorcoaches) were added to the federal regulations under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). Motorhomes (housecars) up to 45 feet in length were legalized in California in October 2001. Although highway restrictions apply to both these vehicle types, they may operate beyond the STAA Network. However, the Motorcoach and Motorhome Network map defines highway access restrictions imposed at the limits of turning performance (i.e., the 45 feet vehicles would need to cross centerlines).
- **National Network** – federally designated state highways for STAA vehicles as defined and listed in the Federal Code of Regulations, Title 23, Part 658 (23CFR658) and 658.23 Appendix A.
- **Terminal Access** – state and local agency highways designated for "reasonable access" to/from the National Network by STAA vehicles as provided for in the CVC § 35401.5(c) and (d). All transitions (egress) from National Network to Terminal Access highways, critical decision points (all turns) and Terminal Access end points should be so designated with a G66-56(CA) sign.
- **STAA Network** – the California network of Terminal Access and National Network highways. A map and Truck Route List identifying the STAA Network (includes State highway system only, does not include local streets and roads) are available from Office of Traffic Engineering in Caltrans' Division of Traffic Operations.
- **Service Access (SA) –** state and local agency highways identified for service use by STAA vehicles. Service access is limited to 1 mile off the STAA network and must be "identified." Identification may include a map indicating service access for STAA vehicles, an approved list, or by G66-55(CA) signs.
- **STAA trucks** – are truck tractor-semitrailer combinations, or doubles with a long length configuration such that the vehicles may operate legally only on the STAA Network and SA routes.

STAA Truck Service (G66-55(CA)) Sign

Option:

60 The STAA Truck Service (G66-55(CA)) Sign may be placed on the STAA Network to identify locations where STAA trucks may exit the network to obtain services as provided for by CVC § 35401.5(c) and (d).

Standard:

61 **STAA trucks shall not exit the STAA Network to obtain services unless the G66-55(CA) sign indicates egress.**

62 **STAA Truck Service (G66-55(CA)) signs shall be provided as follows:**

1. **Access – All the following requirements shall be met:**
   - **Fuel, food, lodging and/or repair facilities shall be located within 1 mile of the point of ingress and egress from the designated system.**
   - **Ramps, intersections and streets shall have adequate turning radii and lane widths to safely accommodate STAA trucks.**
   - **The service being made accessible shall have parking provisions for STAA trucks, or alternative parking within 1 mile shall be identified.**
2. **Facilities – Two of the four services - fuel, food, lodging & repair - shall be provided:**
   - **Fuel (Diesel) - Fuel is available at least 12 hours during the working day.**
   - **Food - Conforms to requirements for Food (D9-8) signs in this section.**
   - **Lodging - Conforms to requirements for Lodging (D9-9) signs in this section.**
   - **Repair Services - Oil, tire repair, engine and brake services are available.**
3. **Concurrence:**
   - **The proposal for G66-55(CA) signing has written concurrence by the local jurisdiction(s) having responsibility for maintenance of the roadways within 1 mile of ingress/egress.**
4. **Sign Placement:**
   - **The G66-55(CA) sign on the STAA Network shall be displayed in advance of the ramp or intersection.**
   - **Although no follow-up signing is required, trailblazer signs may be used where applicable.**

STAA Truck Terminal Access (G66-56(CA)) Sign

Option:

63 STAA Truck Terminal Access (G66-56(CA)) signs may be placed to identify Terminal Access routes leading from the National Network as trailblazers and to indicate the end of a Terminal Access route. STAA trucks can exit the National Network onto Terminal Access routes only where indicated by a G66-56(CA) sign. (Note: In California, no signs indicate the National Network routes.) State routes may be designated Terminal Access only if the curves, ramps, and intersections meet the geometric criteria for STAA trucks, including adequate turning radii and lane width.

Support:

64 The geometric criteria for using the STAA design vehicle to design or analyze the intersection, ramp, or curve are described in Topic 404 in the Caltrans Highway Design Manual. If the Terminal Access route ends without connecting to another STAA route, then the geometric criteria also include ensuring that an adequate turn-around location is available for all STAA vehicles 24 hours per day, 7 days per week.

Standard:

65 **STAA Truck Terminal Access (G66-56(CA)) signs shall be provided as follows:**

1. **On State Routes:**
   - **State route segments under consideration for Terminal Access shall meet all geometric criteria (see Paragraph 60) for STAA trucks.**
   - **The end of any Terminal Access route segment shall be signed as such.**
   - **Trail-blazing signs shall be placed at decision points indicating direction(s) a STAA truck may proceed.**
   - **The G66-56(CA) sign shall be placed in advance of the ramp or intersection where a STAA truck may exit the National Network or the designated Terminal Access routes.**
2. **On Local Routes:**
   - **Signing of egress from a State Terminal Access route to a local Terminal Access route shall be done by Caltrans, only if:**
     a) **The local agency has requested that Caltrans place the sign and,**
     b) **the local agency has informed Caltrans in writing that the local roads and intersections on the proposed local Terminal Access route meet all geometric criteria for STAA trucks and,**

c) where the proposed Terminal Access route passes through more than one local jurisdiction, each affected agency has informed Caltrans in writing that the local roads and intersections on the proposed local Terminal Access route meet all geometric criteria for STAA trucks and,

d) Caltrans has verified that the State highway ramps or intersections meet all geometric criteria for STAA trucks.

- **After steps a) through d) have been completed in item 2 "On Local Routes," the local agency or agencies shall place G66-56(CA) signs at every critical decision point on the Terminal Access route in their respective jurisdictions, including a G66-56(CA) sign with END Auxiliary (M4-6) sign at the 24-hour turn-around location where the Terminal Access route ends if it does not connect to another STAA route.**
- **After the local agency or agencies have placed all the required signs on the local Terminal Access routes, Caltrans shall place a G66-56(CA) sign on the State route in advance of the ramp or intersection to the local Terminal Access route.**

Guidance:

- *Local agencies should furnish Terminal Access route information to the Office of Commercial Vehicle Operations for web publication. Some examples are available on the following website: https://dot.ca.gov/programs/traffic-operations/legal-truck-access/local-truck-routes*

NEXT EXIT OK Sign (G66-56aP(CA))

Option:

66 The NEXT EXIT OK (G66-56aP(CA)) sign may be used below the appropriate G66-55(CA) or G66-56(CA) signs.

Law Enforcement Signs (G66-57A(CA), G66-61A(CA) and D9-14

67 The Highway Patrol (G66-57A(CA)) signs may be placed for California Highway Patrol offices located within 1 mile of a highway.

68 The Sheriff (G66-61A(CA)) sign may be placed for a sheriff's office located within 1 mile of a highway.

69 The Police (D9-14) sign may be placed for a police station located within 1 mile of a highway.

Emergency Services Signs

70 Emergency Service signs, such as DRINKING WATER, RADIATOR WATER; etc. may be placed when appropriate.

Call Box Signs (SG25(CA) and SG41(CA))

Support:

71 The Call Box (SG25(CA)) sign is used to designate call boxes on the county SAFE (Service Authority for Freeway Emergencies) Call Box System. The special sign sizes are intended for use only on scenic highways, within designated coastal zones and National or State parks, to keep signing compatible with scenic values.

72 The call box identification number is established by using the route number to the left of the hyphen. The first two numbers to the right of the hyphen are the post mile numbers (or three numbers if applicable); the last number locates the call box within the post mile.

73 For northbound and eastbound routes, this number will be 2 for the call box in the first quarter mile; 4 for the call box between one quarter and one half mile; 6 for the call box between one half and three quarter mile; and 8 for the call box between three quarter and one mile, within a given post mile. 0 will be used for infills or for call boxes at the post mile.

74 For southbound and westbound routes, this number will be 3 for the call box in the first quarter mile; 5 for the call box between one quarter and one half mile; 7 for the call box between one half and three quarter mile; and 9 for the call box between three quarter and one mile, within a given post mile. 1 will be used for infills or for call boxes at the post mile.

Option:

- A letter code may precede the post mile (R for realignment, etc.).

Standard:

- **Call boxes located in the median shall be designated by the letter "M" following the post mile.**
- **Call boxes located on a transition or connector shall be designated by the letter "T" following the post mile.**
- **Call boxes located at a park and ride lot shall be designated by the letter "A" following the post mile.**
- **Call boxes located on a carpool lane shall be designated by the letter "P" following the post mile.**
- **Call boxes located on a split (i.e. Cypress) shall be designated by the letter "S" following the post mile.**

Option:

75 The END CALL BOXES (SG41(CA)) sign may be used to inform motorists of the end of the SAFE Call Box System for a particular segment of highway.

CAL Fire Station Signs (SG38A(CA) and SG39A(CA))

Option:

76 The CAL FIRE STATION NEXT RIGHT (SG38A(CA)) sign may be used on freeways in rural areas to give advance notice of an exit to a California Department of Forestry Fire Station which is within 0.5 miles of the exit and is open 24 hours each day of the year.

77 The CAL FIRE STATION with Arrow (SG39A(CA)) sign may be used in rural areas on expressways, conventional highways and freeway ramp terminals in advance of the turn off to a California Department of Forestry Fire Station which is within 0.5 miles of the exit and is open 24 hours each day of the year.

Section 2I.04 Interstate Oasis Signing (D5-12 Series)

Support:

01 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 Web site 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:

02 *If a State elects to provide or allow Interstate Oasis signing (see Figure 2I-4), 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 the FHWA's policy and with the provisions of this Section.*

03 *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 (D5-12) sign should be installed in an effective location with spacing of at least 800 feet 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 display the words INTERSTATE OASIS and the exit number or, for an unnumbered interchange, an action message such as NEXT RIGHT.*

B. *If the spacing of the other guide signs precludes the use of a separate sign as described in Item A of this Paragraph, an INTERSTATE OASIS (D5-12aP) supplemental plaque should be mounted below an existing D9-18 series General Service sign for the interchange.*

Option:

04 If Specific Service signing is provided at the interchange, a business designated as an Interstate Oasis and having a business identification sign panel on the Food and/or Gas Specific Service signs may use the bottom portion of the business identification sign panel to display the word OASIS.

05 If Specific Service signing is not provided at the interchange, the name of the business designated as an Interstate Oasis may be displayed on a business identification sign panel, in compliance with the provisions of Sections 2J.03 through 2J.05, below the INTERSTATE OASIS legend on the D5-12 sign.

Standard:

06 **If Specific Service signs containing the OASIS legend as a part of the business identification sign panel(s) are not used on the ramp and if the Interstate Oasis is not clearly visible and identifiable from the exit ramp, an Interstate Oasis Directional (D5-12b) sign shall be provided on the exit ramp to indicate the direction and distance to the Interstate Oasis.**

07 **If needed, additional trailblazer guide signs shall be used along the crossroad to guide road users to an Interstate Oasis.**

Section 2I.05 Rest Area and Other Roadside Area Signs (D5-1 through D5-11 Series)

Standard:

01 **Rest Area signs (see Figure 2I-5 and Figure 2I-5(CA)) shall have a retroreflective white legend and border on a blue background.**

02 **Signs that include the legend REST AREA shall be used only where parking and restroom facilities are available.**

Guidance:

03 *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 use the words PARKING AREA (D5-9 series) instead of REST AREA. The sign legends for an area with only picnic tables and parking should use words such as PICNIC AREA, ROADSIDE TABLE, or ROADSIDE PARK (D5- 10 series) instead of REST AREA.*

04 *Rest areas that have tourist information and welcome centers should be signed as provided in Section 2I.08.*

05 *Scenic area signing should be consistent with that provided for rest areas, except that the legends should use words such as SCENIC AREA, SCENIC VIEW, or SCENIC OVERLOOK (D5-11 series) instead of REST AREA.*

06 *If a rest area or other roadside area is provided on a conventional road, a D5-1 and/or D5-1a sign should be installed in advance of the rest area or other roadside area to permit the driver to reduce speed in preparation for leaving the highway. A D5-5 sign (or a D5-2 sign if an exit ramp is provided) should be installed at the turn-off point where the driver needs to leave the highway to access the rest area or other roadside area.*

07 *If a rest area or other roadside area is provided on a freeway or expressway, a D5-1 sign should be placed 1 mile and/or 2 miles in advance of the rest area.*

Standard:

07a **When rest areas are provided (or planned) on the same route, a NEXT REST (XX MILES) Plaque (G79aP(CA)) shall be placed below the REST AREA (XX MILES) (D5-1) sign.**

08 **A D5-2a sign shall be placed at the rest area or other roadside area exit gore.**

Option:

09 A D5-1a sign may be placed between the D5-1 sign and the exit gore on a freeway or expressway. A second D5-1 sign may be used in place of the D5-1a sign with a distance to the nearest ½ or ¼ mile displayed as a fraction rather than a decimal for distances of less than 1 mile.

10 To provide the road user with information on the location of succeeding rest areas, a Next Rest Area (D5-6) sign (see Figure 2I-5) may be installed independently or as a supplemental sign mounted below one of the REST AREA advance guide signs.

Standard:

11 **All signs on freeways and expressways for rest and other roadside areas shall have letter and numeral sizes that comply with the minimum requirements of Tables 2E-2 through 2E-5. The sizes for General Service signs that have standardized designs shall be as shown in Table 2I-1.**

Option:

12 If the rest area has facilities for persons with disabilities (see Section 2I.02), the International Symbol of Accessibility (D9-6) sign (see Figure 2I-1) may be placed with or beneath an advance guide sign for the rest area.

13 If telecommunication devices for the deaf (TDD) are available at the rest area, the TDD (D9-21) symbol sign (see Figure 2I-1) may be used to supplement the advance guide signs for the rest area.

14 If wireless Internet services are available at the rest area, the Wireless Internet (D9-22) symbol sign (see Figure 2I-1) may be used to supplement the advance guide signs for the rest area.

15 The PATROLLED BY HIGHWAY PATROL (G80B(CA)) sign may be used below the REST AREA (D5-2) sign where the California Highway Patrol has made an agreement with Caltrans to patrol a specific rest area.

16 The Highway Patrol PARKING ONLY (S34(CA)) sign may be used in a Safety Roadside Rest Area to designate a parking stall(s) dedicated for California Highway Patrol Vehicles only. The S34(CA) sign may be supplemented with a "CHP" pavement marking.

Guidance:

17 *When used, the pavement marking should be located so that it is visible when a vehicle is parked in the space.*

Option:

18 The Rest Area/Vista Point 8 HOUR PARKING (S23(CA)) sign may be used to discourage extended stays in roadside rests or

vista points for noncommercial vehicles. The 10-HOUR PARKING COMMERCIAL MOTOR VEHICLES (R39-3(CA)) may be used to allow ten total hours for parking for commercial vehicles. Refer to CVC § 22651(s)1 and CVC § 22651(s)2.

19 The NO SOLICITING (S24(CA)) sign may be used to prohibit the vending of merchandise, foodstuff, or services and the soliciting of money within any roadside rest areas or vista points. Refer to SHC § 225.5. Refer to Section 1A.05 for information regarding this publication.

20 The ALT FUEL VEHICLE PARKING ONLY (R116(CA)) sign may be used in a public parking facility or a park-and-ride lot to designate a parking stall(s) dedicated for alternatively fueled vehicles only.

Support:

21 Public Resource Code § 25722.9 (a) defines "alternatively fueled vehicles" as light-, medium-, and heavy-duty vehicles that reduce petroleum usage and related emissions by using advanced technologies and fuels, including those vehicles described in § 5205.5 of the CVC.

Section 2I.06 Brake Check Area Signs (D5-13 and D5-14)

Guidance:

01 *If an area has been provided for drivers to pull off of the roadway to check the brakes on their vehicle, a Brake Check Area Advance (D5-13) sign (see Figure 2I-6) should be installed in advance of the brake check area.*

Support:

02 The Brake Check Area (G66-58(CA) sign (refer to Figure 2I-6(CA)) is provided to give notice to motorists, particularly truck operators, of an area provided to allow vehicle operators to stop and check the condition and adjustment of their brakes. These areas are generally provided just prior to a significant downgrade.

Section 2I.07 Chain-Up Area Signs (D5-15 and D5-16)

Guidance:

01 *If an area has been provided for drivers to pull off of the roadway to install chains on their tires, a Chain-Up Area Advance (D5-15) sign (see Figure 2I-6) should be installed in advance of the chain-up area, and a D5-16 sign (see Figure 2I-6) should be placed at the entrance to the chain-up area.*

Section 2I.08 Tourist Information and Welcome Center Signs (D5-7 Series and D5-8)

Support:

01 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:

02 *The number of supplemental sign panels installed with Tourist Information or Welcome Center signs should be limited to three so as not to impose an undue informational load on the road user.*

Standard:

03 **Tourist Information or Welcome Center signs (see Figure 2I-7 and Figure 2I-7(CA)) 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.**

04 **If operated only on a seasonal basis, the Tourist Information or Welcome Center signs shall be removed or covered during the off seasons.**

Guidance:

05 *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 2I.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 Rest Area Tourist Info Center Advance (D5-7) sign should be REST AREA, TOURIST INFO CENTER, XX MILES or REST AREA, STATE NAME (optional), WELCOME CENTER XX MILES. On the Rest Area Tourist Info Center Entrance Direction (D5-8) sign the message should be REST AREA, TOURIST INFO CENTER with a diagonally upward-pointing directional arrow (or NEXT RIGHT), or

REST AREA, STATE NAME (optional), WELCOME CENTER with a diagonally upward-pointing directional 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 signs, the legend TOURIST INFO CENTER or STATE NAME (optional), WELCOME CENTER.*

D. *The Exit 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:

06 As an alternative to the supplemental TOURIST INFO CENTER legend, the Tourist Information (D9-10) sign (see Figure 2I-1) may be appended beneath the REST AREA advance guide sign.

07 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 in this Manual and is consistent with State policies.

Guidance:

08 *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 2I.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:

09 As an alternative, the Tourist Information (D9-10) sign (see Figure 2I-1) may be appended to the guide signs for the exit that provides access to the tourist information center. As a second alternative, the Tourist Information sign may be combined with General Service signing.

Tourist Information Signs (G81-21(CA) and G81-24(CA))

Option:

10 The TOURIST INFORMATION (G81-21(CA) and G81-24(CA)) signs may be placed directing to off-highway facilities.

Support:

11 These signed facilities need to have a principal function of providing local tourist information. Those facilities provided by local chamber of commerce (or other official body) representing a group of people or businesses need to be given initial priority for signing.

Guidance:

12 *The G81-21(CA) or G81-24(CA) signs should be placed on State highways only where privately-owned off-highway signs would not reasonably provide adequate directions to motorists. These signs should be restricted to those facilities which are spaced no closer than 15 miles apart in each direction along any highway. An excessive number of supplemental panels should not be installed with Tourist Information or Welcome Center signs so as not to overload the road user.*

13 *These signs should be placed beneath another primary guide sign.*

Option:

14 If no guide signs are available, the G81-21(CA) or G81-24(CA) signs may be placed as separate installations.

Guidance:

15 *Facilities should be within 0.5 miles of the highway and have reasonably direct access from, and return to, the highway.*

16 *Facilities should provide lighting, telephone and information on a 24-hour basis and cover the entire area served. Information should include area and regional maps, and 24-hour service information including, but not limited to medical, police, fire, restrooms, auto repair service and fuel. Outside maps and displays must be provided at all manned centers for use during periods when the facility is not manned.*

17 *Facilities should have adequate on premise and off right-of-way signing, where necessary, denoting "Tourist Information". Displays should be professionally designed and constructed and provide resistance to fading, chipping and vandalism.*

18 *For freeway or expressway rest area locations that also serve as tourist information centers, the following signing criteria should be used:*

A. The locations for the Advance Guide (G83(CA) Series), Exit Direction (G85(CA) Series), and Exit Gore (E5-1) signs should meet the General Service signing requirements.

B. The TOURIST INFORMATION (G81-21(CA) and G81-24(CA)) signs should be placed beneath the REST AREA (D5-2) sign or other primary guide sign. If no guide signs are available, they may be placed as a separate installation.

C. 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.

California Welcome Center Signs (SG47(CA) Series)

Option:

19 The CALIFORNIA WELCOME CENTER (SG47(CA) Series) signs may be placed directing to a statewide network of visitor information centers as designated by the California Office of Tourism to encourage tourism in California and provide benefits to the State economy.

Support:

20 The facilities signed need to have a principal function of providing statewide tourist information. Centers that can be so designated need to include, but not be limited to, centers operated by convention centers and visitor bureaus, chambers of commerce, federal, state or local governments, or private entities.

Standard:

21 **Designation of an entity as a California Welcome Center shall be based on conditions established by the Office of Tourism through written agreement with the entity.**

22 **The SG47(CA) Series signs shall have a yellow welcome center logo, and a white legend and border on a blue background.**

Guidance:

23 *The SG47(CA) Series signs should be placed as separate installations with the individual welcome centers being charged directly for the initial and ongoing cost and fees related production, maintenance and permitting of the signs.*

24 *Facilities should be within 3 miles in urban areas and 5 miles of a State highway and have reasonably direct access from, and return to, the highway.*

Standard:

25 **Follow-up signing or trail blazers, if necessary, shall be placed by local jurisdictions before these signs are place on the State highway.**

26 **If operated only on a seasonal basis, where criteria cannot be met during closed periods, signs shall be covered or removed as directed by the Office of Tourism.**

Option:

27 The CALIFORNIA WELCOME CENTER X MILES (SG47A(CA)) sign may be placed on the nearest freeway approximately 2 miles, or more as appropriate, in advance of the exit to a California Welcome Center that has been established under the authority of the California Office of Tourism.

28 The CALIFORNIA WELCOME CENTER NEXT RIGHT (SG47B(CA)) sign may be placed on the nearest freeway, at the appropriate exit to a California Welcome Center that has been established under the authority of the California Office of Tourism.

29 The CALIFORNIA WELCOME CENTER with Arrow (SG47C(CA)) sign may be placed at a freeway ramp terminal, conventional highway or local road to provide direction to a California Welcome Center that has been established under the authority of the California Office of Tourism.

30 The CALIFORNIA WELCOME CENTER X MILES with Arrow (SG47D(CA)) sign may be placed at a freeway ramp terminal to provide direction and distance to a California Welcome Center that has been established under the authority of the California Office of Tourism.

Guidance:

31 *The distance on the SG47D(CA) sign should be no more than 3 miles from the State highway.*

Support:

32 The Welcome Center will be charged directly for the initial and ongoing cost and fees related to production, maintenance and permitting of the SG47A(CA), SG47B(CA), SG47C(CA) and SG47D(CA) signs.

Section 2I.09 Radio Information Signing (D12-1 Series)

Option:

01 A Radio-Weather Information (D12-1) sign (see Figure 2I-8) may be used in areas where difficult driving conditions commonly result from weather systems. Radio-Traffic Information (D12-1a) signs may be used in conjunction with traffic management systems.

Standard:

02 **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. Stations shall broadcast on AM or FM frequencies licensed by the Federal Communications Commission (FCC) for traveler information stations. No more than three frequencies shall be displayed on each sign. Only radio stations whose signal will be of value to the road user and who agree to broadcast either of the following two items shall be identified on Radio-Weather and Radio- Traffic Information signs:**

- **A. Periodic weather warnings at 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.**

03 **If a station to be considered operates only on a seasonal basis, its signs shall be removed or covered during the off season.**

Guidance:

04 *The radio station should have a signal strength to adequately broadcast at least 70 miles 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:

05 The URGENT MESSAGE WHEN FLASHING (D12-1bP) plaque may be mounted below the D12-1 or D12-1a sign if supplemented by Warning Beacons (see Section 4S.03) that flash only when a message related to adverse travel conditions is being broadcast.

05a The WHEN FLASHING (G81-64aP(CA)) plaque may be used with the D12-1, D12-1a, and the G81-65(CA) sign when messages are not broadcast full time and to accommodate "real-time" usage.

Guidance:

05b *The G81-64aP(CA) plaque should be placed with flashing yellow beacons above and on the same posts with the D12-1 and D12-1a sign.*

06 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:

07 **Radio-Weather and Radio-Traffic Information signs installed in rest areas shall be positioned such that they are not visible from the main roadway.**

Support:

08 There are three types of radio information signs:

1. Radio – Weather Information (D12-1)
2. Radio – Traffic Information (D12-1a)
3. Radio – Recreational Information (G81-65(CA))

Radio – Traffic Information (D12-1a)

Option:

09 The D12-1a sign may be used to inform motorists of broadcasts about traffic conditions for highways and public inter-modal transportation facilities.

Support:

10 The radio station needs to be operated by the public agency having jurisdiction over the transportation facility. The agency operating the station will be responsible for monitoring and maintaining the system and changing the message content as situations warrant.

Radio – Recreation Information (G81-65(CA))

Option:

11 The G81-65(CA) sign (refer to Figure 2I-8(CA)) may be used on rural highways to inform travelers of broadcasts about State or federal parks and recreational facilities.

Standard:

12 **The G81-65(CA) sign shall have a white legend and border on a brown background. The sign and sign structure shall be free of extraneous messages or logos, and must stand alone with no external lights or flashing beacons. Only the numerical indication of the radio frequency shall be used to identify a station. No more than three frequencies shall be shown on each sign. Only radio stations whose signal will be of value to the road user and who agree to broadcast in accordance with the items below shall be identified on this sign:**

A. Provides information about State or federal recreational facilities located in rural areas.
B. Message content is devoted to public highway purposes.
C. Broadcasts operate 24 hours per day and 7 days per week.
D. Broadcasts contain no commercial messages.

Support:

13 For installation of G81-65(CA) sign on State highways, the sign needs to be installed by the permittee through Caltrans' encroachment permit process. The costs, conditions of operation, and specific message content needs to be clearly specified in the encroachment permit subject to the following terms and conditions:

A. The permittee is the State or federal agency that owns and/or operates the recreational facility.
B. The permittee possesses a valid FCC license to operate the radio station as a traveler information station.
C. The permittee is responsible for the accuracy of the message and message content.
D. The permittee bears all costs, including but not limited to, FCC approval and licensing; fabrication and installation of signs; and the installation, operation and maintenance of appurtenant radio equipment and facilities.

Section 2I.10 Channel 9 Monitored Sign (D12-3)

Option:

01 A Channel 9 Monitored (D12-3) sign (see Figure 2I-8) may be installed as needed. Official public agencies or their designees may be displayed as the monitoring agency on the sign.

Standard:

02 **Only official public agencies or their designee shall be displayed as the monitoring agency on the Channel 9 Monitored sign.**

Section 2I.11 EMERGENCY CALL 911 Sign (D12-4)

Option:

01 An EMERGENCY CALL 911 (D12-4) sign (see Figure 2I-8) may be used for cellular telephone communications.

Guidance:

01b *The* (D12-4) *sign should be installed as a separate installation in an appropriate location following the Welcome To California* (G10B(CA)) *sign.*

Option:

02 The EMERGENCY CALL 9-1-1 (G81-61P(CA)) plaque (refer to Figure 2I-8(CA)) may be placed below all new Unincorporated Community (G9-2(CA)), City Limit (G9-5(CA)) and Jurisdictional boundary I2-1 signs. The G81-61P(CA) may also be placed below the existing G9-2(CA), G9-5(CA) and I2-1 signs when they are changed for other purposes, such as updating population figures. The G81-61P(CA) plaque may be shorter than the G9-2(CA), G9-5(CA) and I2-1 sign panel under which it is placed.

Guidance:

03 *The G81-61P(CA) plaque should not be longer than the G9-2(CA), G9-5(CA) and I2-1 sign panel under which it is placed.*

Standard:

04 **The letter size used in the G81-61P(CA) sign shall not exceed that of the words "City Limit" on the G9-5(CA) sign or the words "COUNTY LINE" on the I2-1 sign.**

Section 2I.12 TRAVEL INFO CALL 511 Signs (D12-5 and D12-5a)

Option:

01 A TRAVEL INFO CALL 511 (D12-5 or D12-5a) sign (see Figure 2I-8) 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.

02 The pictograph of the transportation agency or the travel information service or program that is providing the travel information may be displayed in place of the 511 pictograph on the D12-5 sign above the TRAVEL INFO CALL 511 legend.

Standard:

03 **The logo of a commercial entity shall not be incorporated within the TRAVEL INFO CALL 511 signs.**

04 **If the pictograph of the transportation agency or the travel information service or program is used in place of the 511 pictograph on the D12-5 sign (see Paragraph 2 of this Section), the maximum height of the pictograph shall not exceed the height of the 511 pictograph on the standard sign size specified for the roadway classification in Table 2H-1.**

05 **The TRAVEL INFO CALL 511 signs shall have a white legend and border on a blue background.**

Section 2I.13 Roadside Assistance Sign (D12-6)

Option:

01 A Roadside Assistance (D12-6) sign (see Figure 2I-8) displaying the Highway Assistance cellular telephone code designated for that roadway or jurisdiction may be used along a highway that is served by an authorized roadside assistance program with authorized service vehicles and personnel that provide roadside vehicle repair assistance to road users free of charge.

02 Roadside Assistance Sign (D12-6) may be installed on freeways if a Service Authority for Freeway Emergencies (SAFE) has established a mobile call box program, which is available to road users for obtaining roadside assistance such as tow service.

Standard:

03 **The pictograph of the SAFE that is providing the roadside assistance or the logo of a commercial entity shall not be incorporated within the sign.**

04 **The ### shall be replaced with the mobile call number applicable to the SAFE providing the roadside assistance.**

05 **The Post Mile plaque (SG49dP(CA)) shall be placed below the D12-6 to indicate the county, route, and post mile.**

Option:

06 A call box identification number (refer to Section 2I.03, Paragraph 72) may be included on the sign for location identification purpose when the sign has been placed at a location where a call box has been removed.

Section 2I.14 Carpool and Ridesharing Signing (D12-2)

Option:

01 In areas having carpool matching services, a Carpool Information (D12-2) sign (see Figure 2I-8) may be provided adjacent to highways with preferential lanes or along any other highway.

02 Carpool Information signs may include an Internet domain name or telephone number of more than four characters within the legend.

Standard:

03 **If a local transit pictograph or carpool symbol is incorporated into the Carpool Information sign, the maximum vertical dimension of the pictograph or symbol shall not exceed 18 inches and the maximum horizontal dimension shall not exceed 30 inches.**

Option:

04 The Ridesharing Information (SG19(CA)) sign (refer to Figure 2I-8(CA)) may be placed at selected locations for incoming traffic in urban areas.

05 The Park & Ride Facility Information (SG20(CA)) sign (refer to Figure 2I-8(CA)) may be used to identify park and ride facilities

provided for the use of car-poolers and transit users.

Guidance:

06 *For freeways and expressways, the D12-2, SG19(CA), and SG20(CA) sign locations should be no closer than 10 miles apart.*

Section 2I.15 Signing for Truck Parking Availability (D9-16b through D9-16e)

Option:

01 General Service signs may be used to display the number of available truck parking spaces at roadside areas such as rest areas, welcome centers, and weigh stations, and at facilities off a highway that are open to the public and provide parking for commercial vehicles 24 hours per day, 7 days per week.

Standard:

02 **The Truck Parking Availability General Service (D9-16b through D9-16e) signs (see Figure 2I- 9) shall include a changeable message element with a white changeable legend on a black opaque background that displays only the number of parking spaces currently available at each location or the legend FULL. The upper section of the sign shall display the Truck Parking (D9-16) symbol sign and the legend SPACES OPEN. The sign shall display the number of available truck parking spaces for no more than three parking facilities. Where two lines of legend, such as the location and a distance, are displayed for a parking facility, not more than two parking facilities shall be displayed on the sign.**

03 **Where the truck parking facility is located off the main highway and is accessed from the crossroad, directional assemblies with the Truck Parking (D9-16) sign shall be installed along the ramp and along crossroads where the route to the facility requires a turn, where it is unclear as to which roadway to follow, or where additional guidance is needed.**

Support:

04 Displaying the number of parking spaces available at a facility when the number is low could result in truckers choosing to continue to a distant facility that no longer has available space by the time they arrive.

Option:

05 The word FULL in a white legend may be displayed on changeable message elements of a Truck Parking Availability General Service sign when the number of truck parking spaces available at the associated facility reaches a predetermined lower threshold.

Guidance:

06 *Truck Parking Availability signs should be located 3 to 5 miles in advance of the nearest parking facility. The parking facilities displayed on the sign should be no more than 60 miles from the sign location.*

Support:

07 Examples of uses of Truck Parking Availability signs are shown in Figure 2I-10.

Section 2I.101(CA) REPORT DRUNK DRIVERS CALL 911 (G81-66(CA)) Sign

Option:

01 The REPORT DRUNK DRIVERS CALL 911 (G81-66(CA)) Sign (refer to Figure 2I-8(CA)) may be installed on the roadway for safety enhancement.

Section 2I.102(CA) PEDESTRIANS PROHIBITED CALL 911 (G81-67(CA)) Sign

Option:

01 When pedestrians are prohibited on the roadway, the PEDESTRIANS PROHIBITED CALL 911 (G81-67(CA)) Sign (refer to Figure 2I-8(CA)) may be installed to report the presence of pedestrians on highways by calling 911 to improve roadway safety.

Figure 2I-1. General Service Signs and Plaques


D9-1
Telephone


D9-2
Hospital


D9-3
Camping


D9-4
Litter Container


D9-6
International Symbol of Accessibility



D9-6P


D9-7
Gas


D9-8
Food


D9-9
Lodging



D9-10
Tourist Information



D9-11
Diesel Fuel



D9-11a
Alternative Fuel-Compressed Natural Gas



D9-11b
Electric Vehicle Charging



D9-11bP
Electric Vehicle Charging



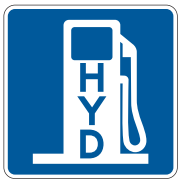
D9-11c
Alternative Fuel-Ethanol



D9-11d
Liquefied Natural Gas (LNG)*



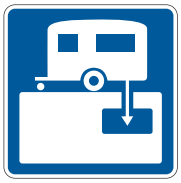
D9-11e
Liquefied Petroleum Gas (LPG)*



D9-11f
Hydrogen Fuel (HYD)*



D9-11g
Biofuel (BIO)*


D9-12
RV Sanitary Station


D9-13
Emergency Medical Services



D9-13aP
Hospital



D9-13bP
Ambulance Station



D9-13cP
Emergency Medical Care



D9-13dP
Trauma Center



D9-14
Police



D9-16
Truck Parking



D9-16aP
Truck External Power



D9-20
Pharmacy



D9-20aP
24-Hour


D9-21
Telecommunications Device for the Deaf


D9-22
Wireless Internet

* Refer to FHWA's List of Known Errors for error in sign name. Refer to Section 1A.04 for more details.

Advance Turn and Directional Arrow auxiliary plaques for use with General Service signs


M5-1P


M5-2P


M5-3P


M6-1P


M6-2P


M6-3P


Example of directional assembly

Figure 2I-1(CA). California General Service Signs and Plaques



G58P(CA)



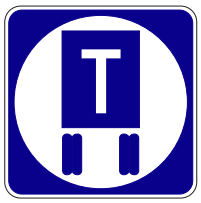
G66-21aP(CA)



G66-21cP(CA)



G66-55(CA)



G66-56(CA)



G66-56aP(CA)



G66-11B(CA)



G66-57A(CA)



G66-61A(CA)



SG38A(CA)



SG39A(CA)

Figure 2I-2. Example of Next Services Plaque



D9-17P

Figure 2I-3. Examples of General Service Signs with and without Exit Numbering



D9-18



D9-18a



D9-18b



D9-18c



D9-18dP



D9-18eP



D9-18fP

Figure 2I-4. Examples of Interstate Oasis Signs and Plaques

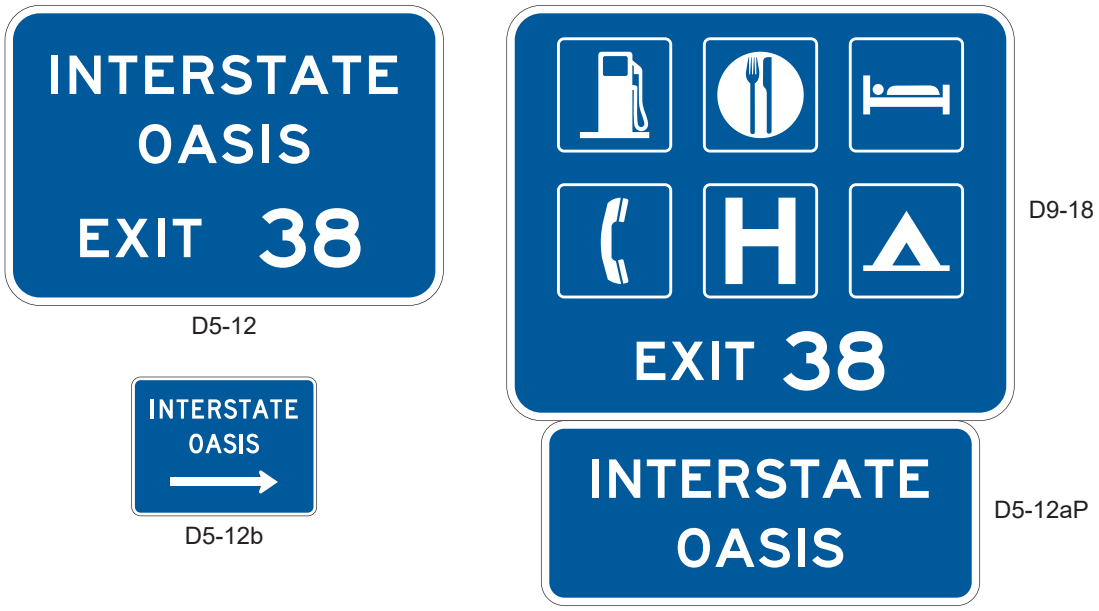


Figure 2I-5. Rest Area and Other Roadside Area Signs

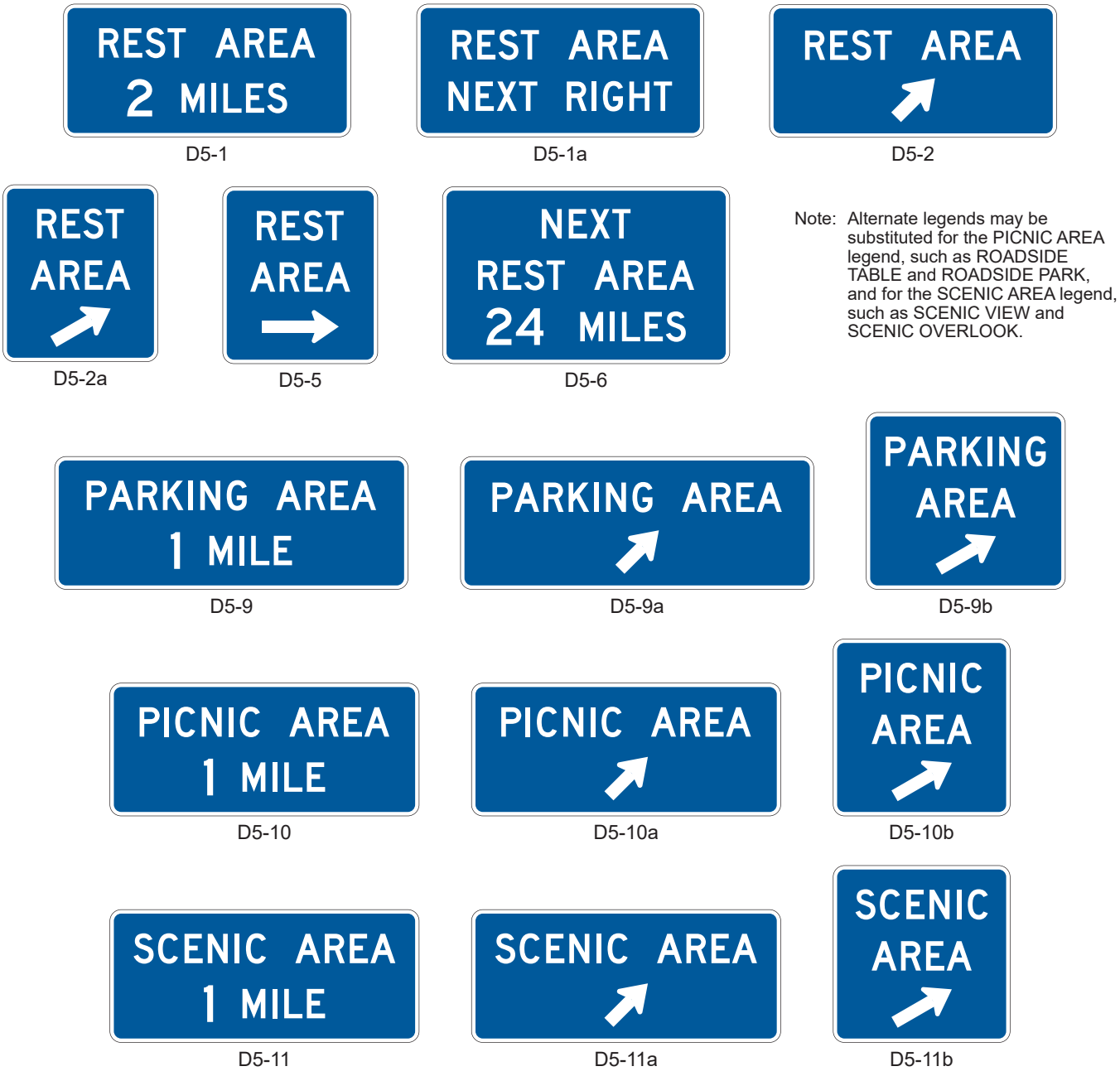


Figure 2I-5(CA). California Rest Area and Other Roadside Area Signs



G79aP(CA)



G80bP(CA)



R39-3(CA)



R116(CA)



S23(CA)



S24(CA)



S34(CA)

Figure 2I-6. Brake Check Area and Chain-Up Area Signs



D5-13



D5-14



D5-15



D5-16

Figure 2I-6(CA). California Brake Check Area and Chain-Up Area



G66-58(CA)

Figure 2I-7. Examples of Tourist Information and Welcome Center Signs



D5-7 D5-7a D5-8

Note: Alternate legends may be substituted for the TOURIST INFO CENTER legend, such as WELCOME CENTER and (State Name) WELCOME CENTER.

Figure 2I-7(CA). California Examples of Tourist Information and Welcome Center Signs



G81-21(CA) G81-24(CA) SG47A(CA)

SG47B(CA) SG47C(CA) SG47D(CA)

Figure 2I-8. Radio, Telephone, and Carpool Information Signs



D12-1



D12-1a



D12-1bP



D12-2



D12-3



D12-4



D12-5*

*The pictograph of the transportation agency or the travel information service or program may be used in place of the 511 pictograph (see Section 2I.12)



D12-5a



D12-6

Figure 2I-8(CA). California Radio, Telephone, and Carpool Information Signs

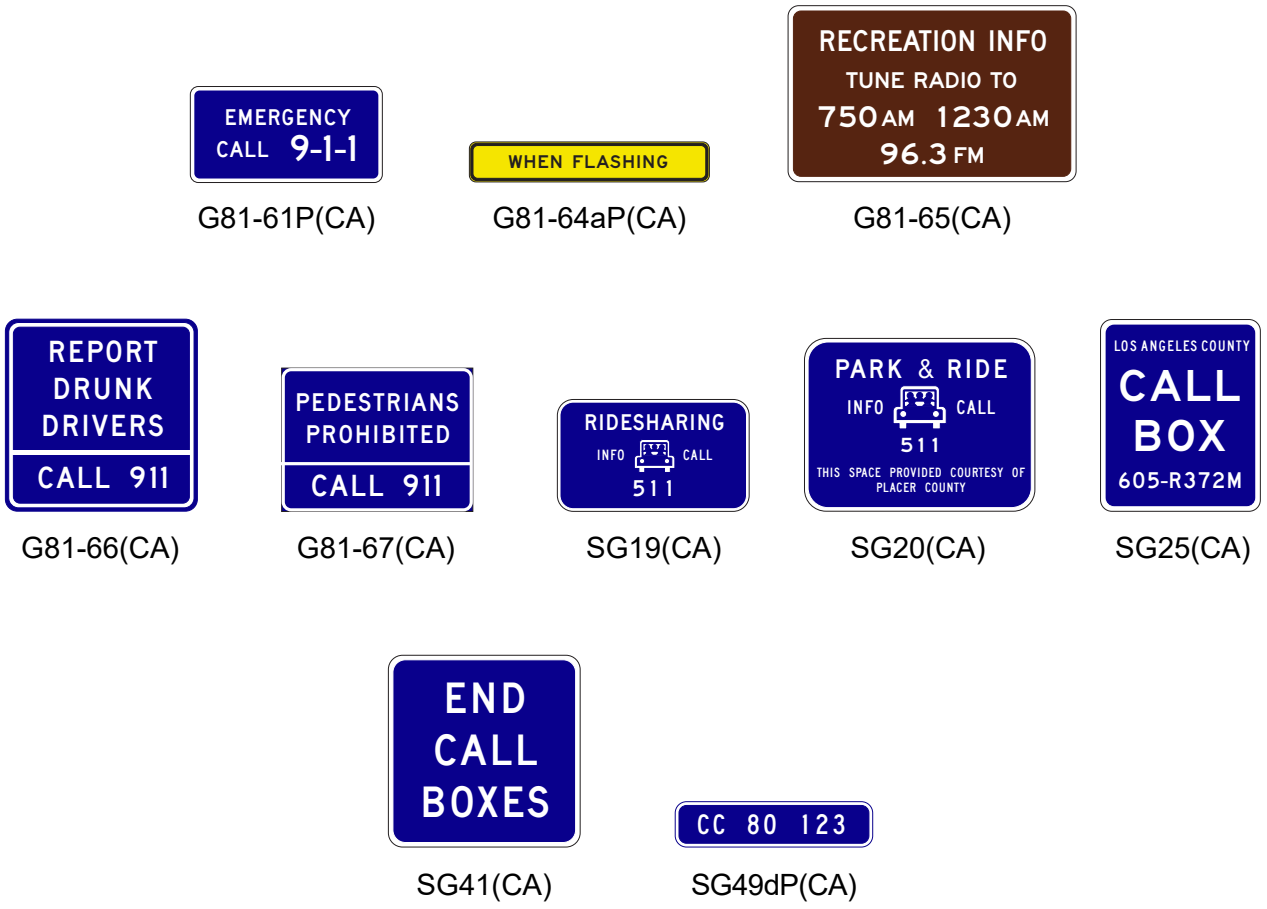
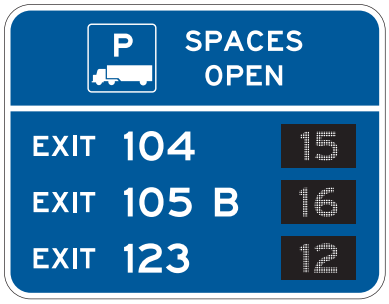
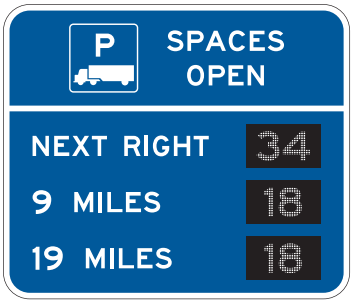
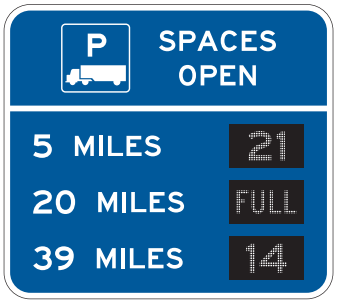


Figure 2I-9. Examples of Truck Parking Availability Signs



D9-16b
Reference Location Sign
Exit Numbering Method



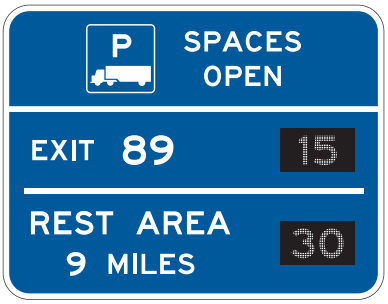


D9-16c
Unnumbered Exits

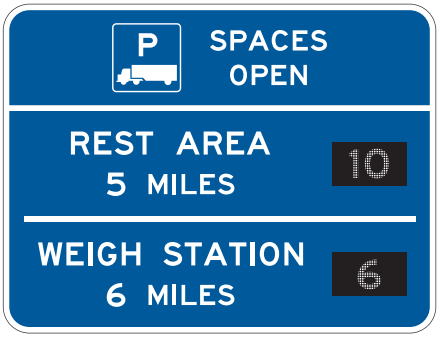


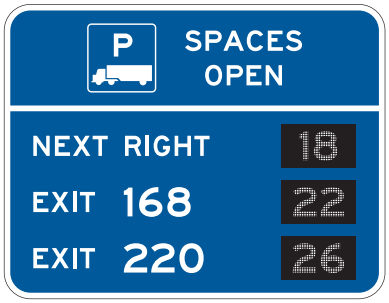


D9-16d
Rest Areas Only



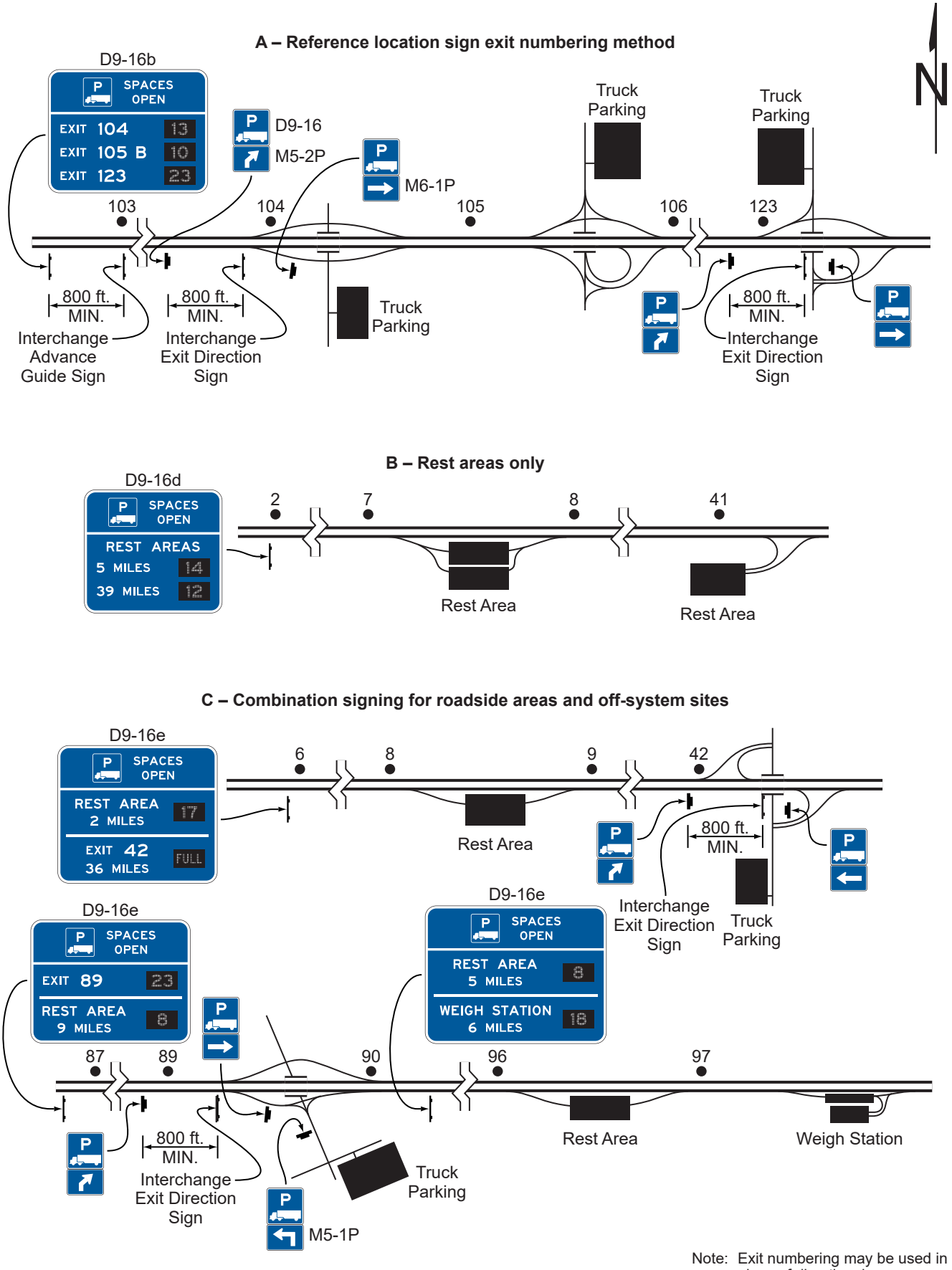






D9-16e
Combined Signing for Roadside Areas
and Off-System Sites

Figure 2I-10. Examples of Use of Truck Parking Availability Signs



Note: Exit numbering may be used in place of directional arrows on the highway mainline.

Table 2I-1. General Service Sign and Plaque Sizes (Sheet 1 of 2)

Sign or Plaque	Sign Designation	Section	Conventional Road	Freeway or Expressway
Rest Area Advance	D5-1	2I.05	78 x 36*	132 x 60* (F) 114x 48* (E)
Rest Area Advance Direction	D5-1a	2I.05	78 x 36*	132 x 60* (F) 114 x 48* (E)
Rest Area Entrance Direction	D5-2	2I.05	78 x 36*	132 x 66* (F) 114 x 60 (E)
Rest Area Gore ****	D5-2a	2I.05	42 x 48*	78 x 78* (F) 66 x 72* (E)
Rest Area Directional	D5-5	2I.05	42 x 48*	—
Next Rest Area	D5-6	2I.05	78 x 54*	132 x 78* (F) 108 x 66* (E)
Rest Area Tourist Info Center Advance	D5-7	2I.08	90 x 72*	156 x 108* (F) 132 x 96* (E)
Rest Area Tourist Info Center Advance Direction	D5-7a	2I.08	90 x 72*	156 x 108* (F) 132 x 96* (E)
Rest Area Tourist Info Center Entrance Direction	D5-8	2I.08	84 x 72*	138 x 108* (F) 120 x 96* (E)
Parking Area Advance	D5-9	2I.05	96 x 36*	162 x 60* (F) 138 x 48* (E)
Parking Area Entrance Direction	D5-9a	2I.05	96 x 36*	162 x 60* (F) 138 x 54* (E)
Parking Area Gore ****	D5-9b	2I.05	62 x 48*	108 x 78* (F) 88 x 66* (E)
Picnic Area (Roadside Table, Roadside Park) Advance	D5-10	2I.05	84 x 36*	144 x 60* (F) 120 x 48* (E)
Picnic Area (Roadside Table, Roadside Park) Entrance Direction	D5-10a	2I.05	84 x 36*	144 x 60* (F) 120 x 54* (E)
Picnic Area (Roadside Table, Roadside Park) Gore ****	D5-10b	2I.05	54 x 48*	92 x 78* (F) 76 x 66* (E)
Scenic Area (Scenic View, Scenic Overlook) Advance	D5-11	2I.05	84 x 36*	144 x 60* (F) 120 x 48* (E)
Scenic Area (Scenic View, Scenic Overlook) Entrance Direction	D5-11a	2I.05	84 x 36*	144 x 60* (F) 120 x 54* (E)
Scenic Area (Scenic View, Scenic Overlook) Gore ****	D5-11b	2I.05	54 x 48*	92 x 78* (F) 76 x 66* (E)
Interstate Oasis	D5-12	2I.04	—	198 x 60 (F) 162 x 48 (E)
Interstate Oasis (plaque)	D5-12aP	2I.04	—	114 x 48
Interstate Oasis Directional	D5-12b	2I.04	—	48 x 36
Brake Check Area Advance	D5-13	2I.06	96 x 54	132 x 66
Brake Check Area Entrance Direction	D5-14	2I.06	96 x 54	132 x 78
Chain-Up Area Advance	D5-15	2I.07	72 x 54	102 x 66
Chain-Up Area Entrance Direction	D5-16	2I.07	72 x 54	102 x 78
Telephone	D9-1	2I.02	24 x 24	30 x 30
Hospital	D9-2	2I.02	24 x 24	30 x 30
Camping	D9-3	2I.02	24 x 24	30 x 30
Litter Container	D9-4	2I.02	24 x 30	36 x 48
International Symbol of Accessibility	D9-6	2I.02	24 x 24	30 x 30
Van Accessible (plaque)	D9-6P	2I.02	18 x 9	—
Gas	D9-7	2I.02	24 x 24	30 x 30
Food	D9-8	2I.02	24 x 24	30 x 30
Lodging	D9-9	2I.02	24 x 24	30 x 30
Tourist Information	D9-10	2I.02	24 x 24	30 x 30
Diesel Fuel	D9-11	2I.02	24 x 24	30 x 30
Alternative Fuel - Compressed Natural Gas	D9-11a	2I.02	24 x 24***	30 x 30***
Electric Vehicle Charging	D9-11b	2I.02	24 x 24***	30 x 30***
Electric Vehicle Charging (plaque)	D9-11bP	2I.02	24 x 18	30 x 24
Alternative Fuel - Ethanol	D9-11c	2I.02	24 x 24	30 x 30

Table 2I-1. General Service Sign and Plaque Sizes (Sheet 2 of 2)

Sign or Plaque	Sign Designation	Section	Conventional Road	Freeway or Expressway
Alternative Fuel - Liquefied Natural Gas	D9-11d	2I.02	24 x 24***	30 x 30***
Alternative Fuel - Liquefied Petroleum Gas	D9-11e	2I.02	24 x 24***	30 x 30***
Alternative Fuel - Hydrogen	D9-11f	2I.02	24 x 24***	30 x 30***
Alternative Fuel - Biofuel	D9-11g	2I.02	24 x 24	30 x 30
RV Sanitary Station	D9-12	2I.02	24 x 24	30 x 30
Emergency Medical Services	D9-13	2I.02	24 x 24	30 x 30
Hospital (plaque)	D9-13aP	2I.02	24 x 12	30 x 12
Ambulance Station (plaque)	D9-13bP	2I.02	24 x 12	30 x 15
Emergency Medical Care (plaque)	D9-13cP	2I.02	24 x 18	30 x 24
Trauma Center (plaque)	D9-13dP	2I.02	24 x 12	30 x 15
Police	D9-14	2I.02	24 x 24	30 x 30
Truck Parking	D9-16	2I.03	24 x 24	30 x 30
Truck External Power (plaque)	D9-16aP	2I.03	24 x 24	30 x 30
Truck Parking Availability - Exit Number	D9-16b	2I.15	Varies x 144	Varies x 144
Truck Parking Availability - Distance	D9-16c	2I.15	Varies x 144	Varies x 144
Truck Parking Availability - Rest Area	D9-16d	2I.15	Varies x Varies	Varies x Varies
Truck Parking Availability - Combined	D9-16e	2I.15	Varies x Varies	Varies x Varies
Next Services Advance (plaque)	D9-17P	2I.02	72 x 24	114 x 30
Next EV Charging ****	D9-17a	2H, 2J	—	126 x 60
General Services (up to 6 symbols) with Exit Number	D9-18	2I.03	108 x 84	132 x 114 (F) 132 x 108 (E)
General Services with Exit Number	D9-18a	2I.03	72 x 60	132 x 108** (F) 102 x 84** (E)
General Services (up to 6 symbols) with Action Message	D9-18b	2I.03	108 x 84	132 x 114 (F) 132 x 108 (E)
General Services with Action Message	D9-18c	2I.03	72 x 60**	132 x 108** (F) 102 x 84** (E)
Rural Interchange General Services (up to 3 symbols) (plaque)	D9-18dP	2I.03	—	120 x 36
Rural Interchange General Services (1 line) (plaque)	D9-18eP	2I.03	—	Varies x 24
Rural Interchange General Services (2 line) (plaque)	D9-18fP	2I.03	—	Varies x 42
Pharmacy	D9-20	2I.02	24 x 24	30 x 30
24-Hour (plaque)	D9-20aP	2I.02	24 x 12	30 x 12
Telecommunications Device for the Deaf	D9-21	2I.02	24 x 24	30 x 30
Wireless Internet	D9-22	2I.02	24 x 24	30 x 30
Radio - Weather Information	D12-1	2I.09	84 x 48	132 x 84
Radio - Traffic Information	D12-1a	2I.09	96 x 48	120 x 60
Urgent Message When Flashing (plaque)	D12-1bP	2I.09	84 x 30	108 x 36
Carpool Information	D12-2	2I.14	60 x 42	96 x 66
Channel 9 Monitored	D12-3	2I.10	84 x 48	132 x 84
Emergency Call 911	D12-4	2I.11	66 x 30	96 x 48
Travel Info Call 511 (pictograph)	D12-5	2I.12	48 x 60	66 x 72
Travel Info Call 511	D12-5a	2I.12	48 x 36	66 x 48
Roadside Assistance	D12-6	2I.13	60 x 42	78 x 54

* The size shown is for a sign with a REST AREA, PARKING AREA, PICNIC AREA, SCENIC AREA, and/or TOURIST INFO CENTER legend. The size should be appropriately adjusted if an alternate legend is used.

** The size shown is for a sign with four lines of services. The size should be appropriately adjusted depending on the amount of legend displayed.

*** The Standard Highway Signs publication contains layouts for the 18 x 18-inch and 24 x 24-inch alternative fuels symbol signs mounted with the Alternative Fuels Corridor sign in accordance with Section 2H.14.

**** Refer to FHWA's List of Known Errors for error in sign. Refer to Section 1A.04 for more details.

Notes: 1. Larger signs may be used when appropriate.
2. Dimensions in inches are shown as width x height
3. Where two sizes are shown, the larger size is for freeways (F) and the smaller size is for expressways (E)

Table 2I-1(CA). California General Service Sign and Plaque Sizes

Sign or Plaque	Sign Designation	Section	Conventional Road	Freeway or Expressway
Next Right/Left (plaque)	G58P(CA)	2I.02, 2I.03	30 x 24	30 x 24
Methanol Fuel	G66-11B(CA)	2I.03	24 x 24	30 x 30
Distance with Arrow (plaque)	G66-21aP(CA)	2I.03	24 x 16	30 x 18
FAST (Header Plaque) (plaque)	G66-21cP(CA)	2I.03	24 x 6	30 x 8
STAA Truck Service	G66-55(CA)	2I.03	24 x 24	30 x 30
STAA Truck Terminal Access	G66-56(CA)	2I.03	24 x 24	30 x 30
NEXT EXIT OK (plaque)	G66-56aP(CA)	2I.03	30 x 30	30 x 30
Highway Patrol	G66-57A(CA)	2I.03	24 x 24	30 x 30
BRAKE CHECK AREA	G66-58(CA)	2I.06	VAR x 36	VAR x 42
Sheriff	G66-61A(CA)	2I.03	24 x 24	30 x 30
NEXT REST (X MILE) (plaque)	G79aP(CA)	2I.05	72 x 12	144 x 24
PATROLLED BY HIGHWAY PATROL (plaque)	G80bP(CA)	2I.05	72 x 12	144 x 24
TOURIST INFORMATION	G81-21(CA)	2I.08	144 x 24	204 x 30
TOURIST INFORMATION	G81-24(CA)	2I.08	96 x 42	132 x 48
EMERGENCY CALL 9-1-1 (plaque)	G81-61P(CA)	2I.11	VAR x 6	VAR x 18
WHEN FLASHING (plaque)	G81-64aP(CA)	2I.09	84 x 12	108 x 18
Radio-Recreation Information	G81-65(CA)	2I.09	84 x 48	108 x 66
REPORT DRUNK DRIVERS CALL 911	G81-66(CA)	2I.101(CA)	36 x 36	48 x 48
PEDESTRIANS PROHIBITED CALL 911	G81-67(CA)	2I.102(CA)	---	72 x 54
ALT FUEL VEHICLE PARKING ONLY	R116(CA)	2I.05	12 x 18	---
Ridesharing Information	SG19(CA)	2I.14	48 x 30	72 x 42
Park & Ride Facility Information	SG20(CA)	2I.14	48 x 36	66 x 54
Call Box	SG25(CA)	2I.03	18 x 24	30 x 36
CAL FIRE STATION NEXT RIGHT	SG38A(CA)	2I.03	78 x 30	102 x 36
CAL FIRE STATION with Arrow	SG39A(CA)	2I.03	48 x 21	60 x 30
END CALL BOXES	SG41(CA)	2I.03	36 x 36	48 x 48
CALIFORNIA WELCOME CENTER X MILES	SG47A(CA)	2I.08	66 x 48	108 x 66
CALIFORNIA WELCOME CENTER NEXT RIGHT	SG47B(CA)	2I.08	66 x 48	108 x 66
CALIFORNIA WELCOME CENTER with Arrow	SG47C(CA)	2I.08	42 x 24	54 x 30
CALIFORNIA WELCOME CENTER X MILES with Arrow	SG47D(CA)	2I.08	42 x 28	54 x 36
Rest Area/Vista Point 8 HOUR PARKING	S23(CA)	2B.52, 2I.05	24 x 24	---
NO SOLICITING	S24(CA)	2I.05	24 x 18	---
Highway Patrol PARKING ONLY	S34(CA)	2I.05	12 x 18	---
10 HOUR PARKING COMMERCIAL MOTOR VEHICLES	R39-3(CA)	2B.52, 2I.05	24 x 18	---

CHAPTER 2J. SPECIFIC SERVICE SIGNS

Section 2J.01 Eligibility

Standard:

01 **Specific Service signs shall be defined as guide signs that provide road users with business identification and directional information for eligible services. Eligible service categories shall be limited to ~~gas~~ fuel, food, lodging, camping, attractions, and electric vehicle (EV) charging.**

Support:

01a In California, the generic term FUEL is used for GAS.

~~*Guidance:*~~

Standard:

02 **The use of Specific Service signs ~~should~~ shall be limited to areas primarily rural in character with adequate space for all signs to be properly accommodated. Refer SHC, Division 1, Chapter 1, Article 3, § 101.7.**

Support:

03 When services at an interchange are abundant, this is an indication that the character of the area is no longer primarily rural and General Service signs would be more appropriate.

~~Option:~~

04 ~~Where an engineering study determines a need, Specific Service signs may be used on any class of highway, including freeways, expressways, and conventional roads.~~

04a SHC, Division 1, Chapter 1, Article 3, § 101.7 includes the use of specific service signs for freeways only.

~~*Guidance:*~~

Standard:

05 **Specific Service signs ~~should~~ shall 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.**

Support:

05a Refer to the CCR, Title 21, Division 2, Chapter 19, § 2108(d).

Standard:

06 **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.**

07 **The attraction services shall include only facilities that have the primary purpose of providing amusement, historical, cultural, or leisure activities to the public**.

~~*Guidance:*~~

08 ~~*Except as provided in Paragraph 9 of this Section, distances to eligible services should not exceed 3 miles in any direction.*~~

Support:

08a Refer to the CCR, Title 21, Division 2, Chapter 19, § 2111 for distances to eligible services.

~~Option:~~

09 ~~If, within the 3-mile limit, facilities for the services being considered are not available or choose not to participate in the program, the limit of eligibility may be extended in 3-mile increments until one or more facilities for the services being considered chooses to participate, or until 15 miles is reached, whichever comes first.~~

Standard:

10 **If State or local agencies elect to provide Specific Service signing, there shall be a statewide policy for such signing and criteria for the eligibility and availability of the various types of services.**

10a **Refer to the SHC, Division 1, Chapter 1, Article 3, § 101.7 and CCR, Title 21, Division 2, Chapter 19, §§ 2100 through 2120 for detailed policies on specific service signs. Refer to Section 1A.05 for information regarding these publications.**

Guidance:

11 *The criteria for the statewide policy should consider the following:*

A. To qualify for a ~~GAS~~ FUEL business identification sign panel, a business should have:

1. Vehicle services including gasoline, oil, and water;

2. 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~~

3. Modern sanitary facilities and drinking water.

B. To qualify for a FOOD business identification sign 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; and

3. Modern sanitary facilities.

C. To qualify for a LODGING business identification sign panel, a business should have:

1. Licensing or approval, where required;

2. Adequate sleeping accommodations; and

3. Modern sanitary facilities.

D. To qualify for a CAMPING business identification sign 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 business identification sign panel, a facility should have:

1. Regional significance, in compliance with the provisions of Paragraph 7 of this Section; and

2. Adequate parking accommodations.

Standard:

12 **To be eligible for an Electric Vehicle (EV) CHARGING business identification sign panel, the EV chargers provided shall meet the criteria for Direct Current Fast Chargers provided in 23 CFR 680.106 and be in continuous operation at least 16 hours per day, 7 days per week.**

Option:

13 Business identification sign panels for a proprietary electric vehicle charging service may be included on an EV Charging Specific Service sign if it meets the eligibility criteria in Paragraph 12 of this Section and the criteria found in the CCR.

Support:

14 Section 2J.12 contains additional information on criteria for the statewide policy regarding signing.

15 Section 2I.04 contains information regarding the Interstate Oasis program.

Standard:

16 **Refer to the CCR, Title 21, Division 2, Chapter 19, §§ 2100 through 2120 for administration, standards, eligibility, and fees concerning the Logo Sign Program. See Section 1A.05 for information regarding these publications.**

Section 2J.02 Application

Support:

01 Examples of Specific Service signs are shown in Figure 2J-1.

02 Examples of sign locations are shown in Figure 2J-2.

Standard:

03 **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. Except as provided in Paragraph 4 of this Section, in the direction of traffic flow, successive Specific Service signs shall be for attraction, camping, lodging, food, EV charging, and ~~gas~~ fuel services, in that order.**

Option:

04 When spacing does not allow EV Charging Specific Service signs to be located as described in Paragraph 3 of this Section, then the EV Charging Specific Service signs may be located anywhere within the successive Specific Service sign order where adequate spacing between signs allows.

Guidance:

05 *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.*

06 ~~*Where a service type is displayed on two signs, the signs for that service should follow one another in succession.*~~

Standard:

07 **A Specific Service sign shall display the word message ~~GAS~~ FUEL, EV CHARGING, FOOD, LODGING, CAMPING, or ATTRACTION, an appropriate directional legend such as the word message EXIT XX, NEXT RIGHT, SECOND RIGHT, or directional arrows, and the related business identification sign panels. Distances to eligible facilities shall not be displayed on the Specific Service signs on the approach to an interchange.**

08 ~~**A business that does not offer gasoline, but offers alternative fuels, shall not be signed using GAS Specific Service signs.**~~

Option:

09 A business that does not offer gasoline but offers alternative fuels may be signed using General Service signs for the alternative fuel provided.

Support:

10 General Service signs for facilities providing alternative fuels, including EV charging, **methanol,** compressed natural gas, liquefied natural gas, liquefied petroleum gas, and hydrogen, are provided in Chapter 2I.

Guidance:

11 *Due to the unique and widely varying characteristics of the services that qualify as attractions, and lesser recognition of their business identification sign panels (see Paragraph 12 of this Section), ATTRACTION Specific Service signs should have no more than four business identification sign panels.*

Support:

12 The types of services that meet the definition of attraction, such as those providing amusement, historical, cultural, or leisure activities to the public, vary considerably. In most cases, attractions do not include well-known services or easily recognizable logos, making it more difficult and requiring more time to distinguish between types of attractions shown on an ATTRACTION sign than for other categories of Specific Service signs.

Standard:

13 **No more than ~~three~~ two types of services shall be represented on any sign or sign assembly and no more than six business identification sign panels shall be displayed on any one sign. If ~~three~~ two types of services are displayed on one sign, then the business identification sign panels shall be limited to ~~two~~ three for each service type (for a total of six business identification sign panels) Refer to the CCR, Title 21, Division 2, Chapter 19, § 2110(f). ~~If two types of services are displayed on one sign, then the business identification sign panels shall be limited to either three for each service type, or four for one service type and two for the other service type (for a total of six business identification sign panels in either case).~~ The legend and business identification sign 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. Other configurations or arrangements of business identification sign panels shall not be allowed.**

14 **No service type shall appear on more than ~~two~~ one signs ~~(see Paragraph 6 of this Section)~~. Refer to the CCR, Title 21, Division 2, Chapter 19, § 2108(c).**

15 **The Specific Service signs shall have a blue background, a white border, and white legends of upper-case letters, numerals, and arrows.**

Guidance:

16 *If a service type is no longer available from an interchange or intersection, the Specific Service sign should be removed when the business identification sign panels are removed. If a sign is to remain, but the service type is no longer available, then the service type legend should be covered by a blue panel overlay or by another method so that road users do not misinterpret the sign as a General Service sign implying that the service is available.*

17 *A Specific Service sign should not be installed unless a service type is currently available from an interchange ~~or intersection.~~*

Option:

18 If there is indication that a service type will again be available in the near future, the sign may be covered, in accordance with Paragraph 16 of this Section, rather than removed.

19 Separate installations of General Service signs (see Figure 2J-3 and Sections 2I.02 and 2I.03) may be used in conjunction with Specific Service signs for eligible types of services that are not represented by a Specific Service sign.

Section 2J.03 Logos and Business Identification Sign Panels

Standard:

01 **A business identification sign panel legend shall be either an identification trademark or a word message of the business's name. Each logo or word message shall be placed on a separate business identification sign panel that shall be attached to the Specific Service sign. Logos or trademarks used alone for a business identification sign panel 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.**

02 **Scanning graphics that are visible to the road user from the roadway for the purpose of obtaining information shall not be displayed on business identification sign panels, including on any logo displayed thereupon.**

Guidance:

03 *The logo or trademark used on a business identification sign panel should be consistent with the on- premise business identification signs at the location of the business that are visible from the roadway.*

04 *A word message business identification sign panel that does not use a logo or trademark should have a blue background with a white legend and border.*

Support:

05 Section 2J.05 contains information regarding the minimum letter heights for business identification sign panels.

Option:

06 A portion of a business identification sign panel may be used to display a supplemental message horizontally along the bottom of the business identification sign panel, provided that the message displays essential motorist information consistent with the service category type and related to the operation of the business (see Figure 2J-4).

Standard:

07 **All supplemental messages shall be displayed within the business identification sign panel and shall have letters and numerals that comply with the minimum height requirements shown in Table 2J-1. Supplemental messages promoting the availability of products, amenities, or services that are not directly related to the service category and/or those not available to non-patrons of the primary service provided for the service category, such as car wash, automated teller machines, Internet, lottery, or swimming pool, shall not be displayed on business identification sign panels.**

08 **Messages related to the promotion or availability of business identification sign panel space shall not be displayed on Specific Service signs.**

09 **To be eligible for an EV CHARGING supplemental message on a business identification sign panel, the business shall:**

- **A. Offer electric vehicle charging to the general public without purchasing the primary service (gas, food, lodging, camping, or attraction, as appropriate); and**
- **B. For the service categories of gas, food, and attraction, provide EV chargers meeting the criteria for Direct Current Fast Chargers (DCFC) provided in 23 CFR 680.106; or**
- **C. For the service categories of camping and lodging, provide EV chargers meeting the criteria for DCFCs provided in 23 CFR 680.106 and/or AC Level 2 Charging.**

Option:

10 A Supplemental message identifying an alternative fuel available may be added only to the business identification sign panels on the ~~GAS~~ FUEL Specific Services sign for gasoline facilities that provide the specified alternative fuel in addition to gasoline.

11 The Supplemental message EV CHARGING may be added to a business identification sign panel for the service categories of gas, food, lodging, or camping in accordance with the criteria in Paragraph 9 of this Section.

Support:

11a Refer to FHWA's List of Known Errors for error in Paragraph 11. Refer to Section 1A.04 for more details.

~~*Guidance:*~~

Standard:

12 **A business identification sign panel ~~should~~ shall not display more than one supplemental message.**

13 **The supplemental message ~~should~~ shall be displayed in a black legend on a yellow background for that portion of the business identification sign panel.**

Guidance:

14 *State or local agencies that elect to allow supplemental messages on business identification sign panels should develop a statewide policy for such messages.*

Support:

15 Typical supplemental messages might include DIESEL, LP-GAS, EV CHARGING, 24 HOURS, CLOSED SUNDAY, and RV ACCESS.

Guidance:

16 *If a State or local agency elects to display the designation of businesses as providing on-premise accommodations for recreational vehicles with the RV ACCESS supplemental message, there should be a statewide policy for such designation and criteria for qualifying businesses. The criteria should include such site conditions as access between the public roadway and the site, on-premise geometry, and parking.*

Option:

17 If a business designated as an Interstate Oasis (see Section 2I.04) has a business identification sign panel on the Food and/or ~~Gas~~ Fuel Specific Service signs, the word OASIS may be displayed on the bottom portion of the business identification sign panel for that business.

Standard:

18 **A business identification sign panel shall not display the identification logo/trademark or name of more than one business. A business identification sign panel shall not display more than one name or identification logo/trademark for the same business. Slogans, such as marketing slogans associated with the business, shall not be displayed on business identification sign panels or the Specific Service sign itself.**

Section 2J.04 Number and Size of Signs and Business Identification Sign Panels

Guidance:

01 *Sign sizes should be determined by the amount and height of legend and the number and size of business identification sign panels attached to the sign. All business identification sign panels on a sign should be the same size.*

Standard:

02 **Each Specific Service sign or sign assembly shall be limited to no more than six business identification sign panels. There shall be no more than three logo panels for one of the two service types on the same sign or sign assembly. Refer to the CCR, Title 21, Division 2, Chapter 19, § 2110(f).**

~~Option:~~

03 ~~Where more than six businesses of a specific service type are eligible for business identification sign panels at the same interchange, additional business identification sign panels of that same specific service type may also be displayed in accordance with the provisions of Paragraph 4 of this Section. The additional business identification sign panels may be displayed either by placing more than one specific service type on the same sign (see Paragraph 13 of Section 2J.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 (see Paragraph 3 of Section 2J.02).~~

~~**Standard:**~~

04 ~~**Where business identification 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 12 business identification 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 business identification 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:

04a Refer to the CCR, Title 21, Division 2, Chapter 19, § 2108(c).

05 Section 2J.08 contains information regarding Specific Service signs for double-exit interchanges.

06 Section 2J.09 contains information regarding Specific Service signs for multiple interchanges that are accessed from collector-distributor roadways rather than from the highway mainline.

Standard:

07 **Each business identification sign panel attached to a Specific Service sign shall be a horizontally oriented**

rectangle with a width longer than the height. A business identification sign panel on signs for freeways ~~and expressways~~ shall not exceed 60 inches in width and 36 inches in height (see Table 2J-2). A business identification sign panel on signs for ~~conventional roads and~~ freeway and ~~expressway~~ ramps shall not exceed 30 inches in width and 18 inches in height (see Table 2J-2). SHC, Division 1, Chapter 1, Article 3, § 101.7 includes the use of specific service signs for freeways only. The vertical and horizontal spacing between business identification sign panels shall not exceed 8 inches and 12 inches, respectively.

07a **A logo panel on signs for the mainline shall be 48 inch in width and 36 inch in height.**

07b **A logo panel on signs for the ramps shall be 18 inch in width and 12 inch in height.**

Support:

08 Sections 2A.10, 2E.13, and 2E.14 contain information regarding borders, interline spacing, and edge spacing.

Section 2J.05 Size of Lettering

Standard:

01 **All Specific Service signs and business identification sign panels shall have letter and numeral sizes that comply with the minimum requirements of Table 2J-1.**

Guidance:

02 *Any legend on a business identification graphic/trademark should be proportional to the size of the graphic trademark.*

Section 2J.06 Signs at Interchanges

Standard:

01 **The Specific Service signs shall be installed between the preceding interchange and at least 800 feet in advance of the Exit Direction sign at the interchange from which the services are available (see Figure 2J-2).**

Option:

01a At the discretion of Caltrans, the location of the Specific Service signs with respect to their distances from the gore may be increased to avoid conflict with existing guide signs.

Standard:

02 **Specific Service signs shall not be used at freeway-to-freeway interchanges (see Section 2E.37), except where the exit ramp also provides direct access to a conventional road within that interchange (see Figure 2J-5).**

Guidance:

03 *There should be at least an 800-foot spacing between the Specific Service signs, except for Specific Service ramp signs. Excessive spacing should not be used between Specific Service signs, as this is not desirable either.*

04 *Specific Service ramp signs should be spaced at least 100 feet longitudinally beyond the Exit Gore sign, from each other, and from the ramp terminal. Specific Service ramp signs should be spaced at least 200 feet longitudinally from any Destination guide signs along the ramp. Longer longitudinal spacing should be provided between Specific Service ramp signs and any warning or regulatory signs along the ramp, and any intersection traffic control devices at the ramp terminal.*

05 *When the distance to the next exit providing access to EV charging service is 50 miles or greater, the Next EV Charging (D9-17a) sign should be used (see Figure 2H-9). When used, the Next EV Charging sign should be located directly after the General Service sign for the fuel type displayed in the signing sequence for the exit (see Figure 2H-10).*

Section 2J.07 Single-Exit Interchanges

Standard:

01 **At numbered single-exit interchanges, the name of the service type followed by the exit number shall be displayed on one line above the business identification sign panels. At unnumbered interchanges, the directional legend NEXT RIGHT (LEFT) shall be used in place of the exit number.**

02 **At single-exit interchanges where traffic is allowed to turn onto the crossroad in either direction from the ramp, Specific Service ramp signs shall be installed along the ramp or opposite the ramp terminal for facilities that have business identification sign 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. Business identification sign 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 (see Paragraph 7 of**

Section 2J.04).

Option:

03 Specific Service ramp signs may display distances (see Paragraphs 14 and 15 of Section 2A.08) to a service facility when the facility is not visible from ramp intersection with the crossroad.

Guidance:

04 *Distances of less than ¼ mile, when displayed, should be displayed to the nearest 1/10 mile.*

Standard:

05 **The Single-Exit Interchange (One Service) Mainline sign (SG42-1(CA)) shall be used for the Specific Service Signing Program (Logo Program) where there are at least four qualified facilities available with the possibility of more.**

06 **The Single-Exit Interchange (One Service) Mainline sign (SG42-2(CA)) shall be used for the Specific Service Signing Program (Logo Program) where there are one or two qualified facilities available and it is not likely that there will be more than three.**

07 **The Single-Exit Interchange (Two Services) Mainline sign (SG42-6(CA)) shall be used for the Specific Service Signing Program (Logo Program) where there are a limited number of services, three or four, in remote rural areas.**

08 **The Single-Exit Interchange (Two Services) Mainline sign (SG42-7(CA)) shall be used for the Specific Service Signing Program (Logo Program) where there are a limited number of services, one or two, in remote rural areas.**

09 **The Single-Exit Interchange (One Service) Mainline sign (SG42-9(CA)) shall be used for the Specific Service Signing Program (Logo Program) where there is only one service, in remote rural areas.**

10 **The Single-Exit Interchange (One Service) Mainline sign (SG42-10(CA)) shall be used for the Specific Service Signing Program (Logo Program) where there are at least two qualified facilities and it is not likely that there will be more than four.**

Section 2J.08 Double-Exit Interchanges

Guidance:

01 *At double-exit interchanges, the Specific Service signs should consist of two sections, one for each exit (see Figure 2J-1).*

Standard:

02 **At a double-exit interchange, the top section shall display the business identification sign panels for the first exit and the bottom section shall display the business identification sign panels for the second exit. At numbered interchanges, the name of the service type and the exit number shall be displayed above the business identification sign 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 business identification sign panels on the sign (total of both sections) or the sign assembly shall be limited to six.**

~~*Guidance:*~~

03 ~~*At a double-exit interchange, where a service type is displayed on two Specific Service signs in accordance with the provisions of Section 2J.04, one of the signs should display the business identification 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 business identification sign panels for that service type for the businesses that are accessible from the other exit.*~~

Support:

03a Refer to the CCR, Title 21, Division 2, Chapter 19, § 2108(c).

~~Option:~~

04 ~~At a double-exit interchange where there are four business identification sign panels to be displayed for one of the exits and one or two business identification sign panels to be displayed for the other exit, the business identification sign panels may be arranged in three rows with two business identification sign panels per row.~~

04a Refer to the CCR, Title 21, Division 2, Chapter 19, § 2110(f).

Option:

05 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.

06 Signs on ramps and crossroads as described in Section 2J.07 and Section 2J.101(CA) may be used at a double-exit interchange.

Standard:

07 **The Double-Exit Interchange Mainline sign (SG42-3(CA)) shall be used for the Specific Service Signing Program (Logo Program) where there are one or two qualified facilities available from each exit and it is not likely that there will be more**

than three from each exit.

08 **The Double-Exit Interchange Mainline sign (SG42-11(CA)) shall be used for the Specific Service Signing Program (Logo Program) where there is at least one qualified facility available from each exit and it is not likely that there will be more that two from each exit.**

Section 2J.09 Collector-Distributor Roadways for Successive Interchanges

Support:

01 Examples of Specific Service signs used in advance of interchanges for collector-distributor roadways that provide access to multiple interchanges are shown in Figure 2J-6.

Option:

02 If services are available from more than one of the interchanges along the collector-distributor roadway and those services are signed with Specific Service signs as described in Paragraph 4 of this Section, then Specific Service signs may be used on the mainline in conformance with the provisions of this Chapter.

Standard:

03 **No more than four Specific Service signs shall be displayed on a highway mainline approach to a collector-distributor roadway.**

04 **If Specific Service signs are located on the highway mainline for services accessed from the collector-distributor roadway, then the business identification sign panels displayed on the collector- distributor roadway shall be only duplicates of those displayed on the highway mainline.**

05 **If more than four Specific Services signs would be required on the mainline in advance of the collector-distributor roadway in order to display all the business identification sign panels used on Specific Service signs in advance of the collector-distributor roadway exits, then General Service signs shall be used on the mainline to identify the types of services displayed on Specific Service signs on the collector-distributor roadway.**

Section 2J.10 Specific Service Trailblazer Signs

Support:

01 Specific Service trailblazer signs (see Figure 2J-7) are guide signs with one to four business identification sign panels that display business identification and directional information for services and eligible attractions. Specific Service trailblazer signs are for facilities that have installed along crossroads business identification sign panels displayed along the main roadway and ramp, and that require additional vehicle maneuvers or are a long distance from the ramp along the crossroad.

Standard:

02 **Specific Service trailblazer signs shall be installed along crossroads where the route to the business requires a direction change, where it is questionable as to which roadway to follow, or where additional guidance is needed. Where it is not feasible or practical to install Specific Service trailblazer signs to such businesses, those businesses shall not be considered eligible for signing from the ramp and main roadway. A Specific Service trailblazer sign shall not be required at the point where the business is visible from the roadway and its access is readily apparent.**

Guidance:

03 *If used, a Specific Service trailblazer sign should be located a maximum of 500 feet in advance of any required turn.*

Standard:

04 **The location of other traffic control devices shall take precedence over the location of a Specific Service trailblazer sign.**

05 **When used, each Specific Service trailblazer sign or sign assembly shall be limited to no more than four business identification sign panels. The business identification sign panels on Specific Service trailblazer signs shall be duplicates of those displayed on the Specific Service ramp signs.**

06 **Appropriate legends, such as directional arrows or the action message NEXT RIGHT or SECOND RIGHT, shall be displayed with the business identification sign panel to provide proper guidance. The directional legend and border shall be white and shall be displayed on a blue background.**

Option:

07 Specific Service trailblazer signs may contain various types of services on a single sign or on a sign assembly.

08 Specific Service trailblazer signs may be placed farther from the edge of the road than other traffic control signs.

Section 2J.11 Signs at Intersections

~~*Guidance:*~~

01 ~~*If both tourist-oriented information (see Chapter 2K) and specific service information are proposed to be used at the same intersection, the tourist-oriented directional and Specific Service signs should be spaced sufficiently apart from one another, as well as apart from other guide, warning, and regulatory signs, to avoid confusion and allow sufficient time for road users to read and react to the information.*~~

~~**Standard:**~~

02 ~~**If sufficient space to provide appropriate reading and reaction to all proposed signs is not available, higher priority shall be given to guide, warning, and regulatory signs and either the tourist-oriented directional signs or the Specific Service signs, or both, shall not be used.**~~

~~*Guidance:*~~

03 ~~*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 300 feet in advance of the intersection from which the services are available.*~~

04 ~~*Business identification sign panels should not be displayed for a type of service for which a qualified facility is readily visible.*~~

~~**Standard:**~~

05 ~~**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 business identification sign 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 business identification sign panel(s).**~~

~~Option:~~

06 ~~Signs similar to Specific Service ramp signs as described in Section 2J.07 may be provided on the crossroad.~~

Standard:

07 **Per SHC, Division 1, Chapter 1, Article 3, § 101.7 includes the use of specific service signs for freeways only.**

08 **The tourist-oriented information and specific service information signs shall be separate installations. Refer SHC, Division 1, Chapter 1.5, Article 3, § 229.285.**

Section 2J.12 Signing Policy

Standard:

01 **In addition to a statewide policy for eligibility of service providers (see Section 2J.01), each highway agency that elects to use Specific Service signs shall establish a signing policy.**

Guidance:

02 *The signing policy should include, at a minimum, the provisions of Section 2J.01 and at least the following criteria:*

- *A. Selection of eligible businesses;*
- *B. Distances to eligible services;*
- *C. The use of business identification sign panels, legends, and signs complying with the provisions of this Manual and State design requirements;*
- *D. Removal or covering of business identification sign panels during off seasons for businesses that operate on a seasonal basis;*
- *E. The circumstances, if any, under which Specific Service signs are permitted to be used in non-rural areas; and*
- *F. Determination of the costs to businesses for initial permits, installations, annual maintenance, and removal of business identification sign panels.*

Support:

03 SHC, Division 1, Chapter 1, Article 3, § 101.7 provides for placement of Specific Service Signs (Logo Sign Program) on all rural freeways in California. The term "rural" for this purpose means any area outside of an "urban" area. An urban area is an area encompassing a population of 5,000 or more.

04 CCR, Title 21, Division 2, Chapter 19, §§ 2100 through 2120 contain standards for the Specific Service Signs (Logo Sign Program).

Standard:

05 **No new Specific Service (SG42 Series(CA)) signs shall be installed in a geographic area with a population over 5,000 as identified on maps prepared by Caltrans based on the most recent United States Bureau of Census data.**

06 **Upon the district's determination to terminate the logo sign program within a specified geographic area, the district**

shall cease the acceptance of new applications as well as the renewal of existing applications with immediate effect. Subsequently, the district must issue formal notification to all businesses currently participating in the program within the affected area. Such notification shall provide a minimum notice period of three months and shall stipulate that the removal of the specific service signs will become effective at the commencement of the following calendar year.

Option:

07 General Service signs may be installed following the removal of specific service signs.

Section 2J.101(CA) Signs at Ramps (SG42-4(CA), SG42-5(CA), SG42-8(CA) and SG42-12(CA))

Standard:

01 **Specific Service (Ramp) Signs shall be located on, opposite of, or at the terminus of an off-ramp, in the same direction of travel as the Specific Service (Mainline) Signs (Refer to Section 2J.07 and 2J.08). As viewed in the direction of travel, the successive signs shall be those for "ATTRACTION", "CAMPING", "LODGING", "FOOD", "EV CHARGING" and "FUEL" services in that order.**

Option:

02 When spacing does not allow EV Charging Specific Service Ramp Signs to be located as described in Paragraph 01 of this Section, then the EV Charging Specific Service Ramp Signs may be located anywhere within the successive Specific Service Ramp Sign order where adequate spacing between signs allows.

Standard:

03 **If either the business premises or an On-Site Sign of a Qualified Specific Service Business is not visible from any point on the off-ramp or from the terminus of the off-ramp, the Owner or Responsible Operator shall be required to make application to have a Logo Panel placed on a Specific Service (Ramp) Sign.**

Option:

04 If either the business premises or an on-site sign of a Qualified Specific Service Business is visible from any point on the off-ramp or from the terminus of the off-ramp, the Owner or Responsible Operator may apply for placement of a Logo Panel on the Specific Service (Ramp) Sign.

05 Caltrans may require that a Logo panel be placed on a Specific Service (Ramp) Sign when either the business premises or an On-Site Sign is visible from the off-ramp or from the terminus of the off-ramp, if a sign is necessary to avoid misdirection of the motorist because of the complexity of the interchange.

06 Appropriate trailblazers may be required by Caltrans along other public highways as necessary to adequately direct road users to the business referred to on any Logo Panel. Refer to Section 2J.10.

Standard:

07 **The Logo Panels fastened to a Specific Service (Ramp) Sign or a trailblazer sign shall be the same in shape, color, and message as those shown on the Specific Service (Mainline) Signs, but shall be of smaller size.**

Support:

08 The Specific Service Ramp sign (SG42-4(CA)) may be used for the Specific Service Signing Program (Logo Program) at an exit ramp where there are one or two qualified facilities available and it is not likely that there will be more than three in each direction.

09 The Specific Service Ramp sign (SG42-5(CA)) may be used for the Specific Service Signing Program (Logo Program) at an exit ramp where there are only one or two qualified facilities in only one direction.

10 The Specific Service Ramp sign (SG42-12(CA)) may be used for the Specific Service Signing Program (Logo Program) where there is only one qualified facility available and it is not likely that there will ever be more.

Standard:

11 **Ramp signs shall be installed along the ramp or at the ramp terminal for facilities that have logo 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 panels on Specific Service ramp signs shall be duplicates of those displayed on the mainline signs located in advance of the interchange, but shall be reduced in size.**

Support:

12 The Specific Service Ramp sign (SG42-8(CA)) may be used for the Specific Service Signing Program (Logo Program) in combination with a Directional Arrow Auxiliary (M6 Series) signs, at an exit ramp terminus, as a follow-up sign to freeway signs. A Mileage Plate may be applied to the sign panel, under the business logo where a business is not visible from the sign's location.

Figure 2J-1. Examples of Business Identification Panel Arrangements on Specific Service Signs

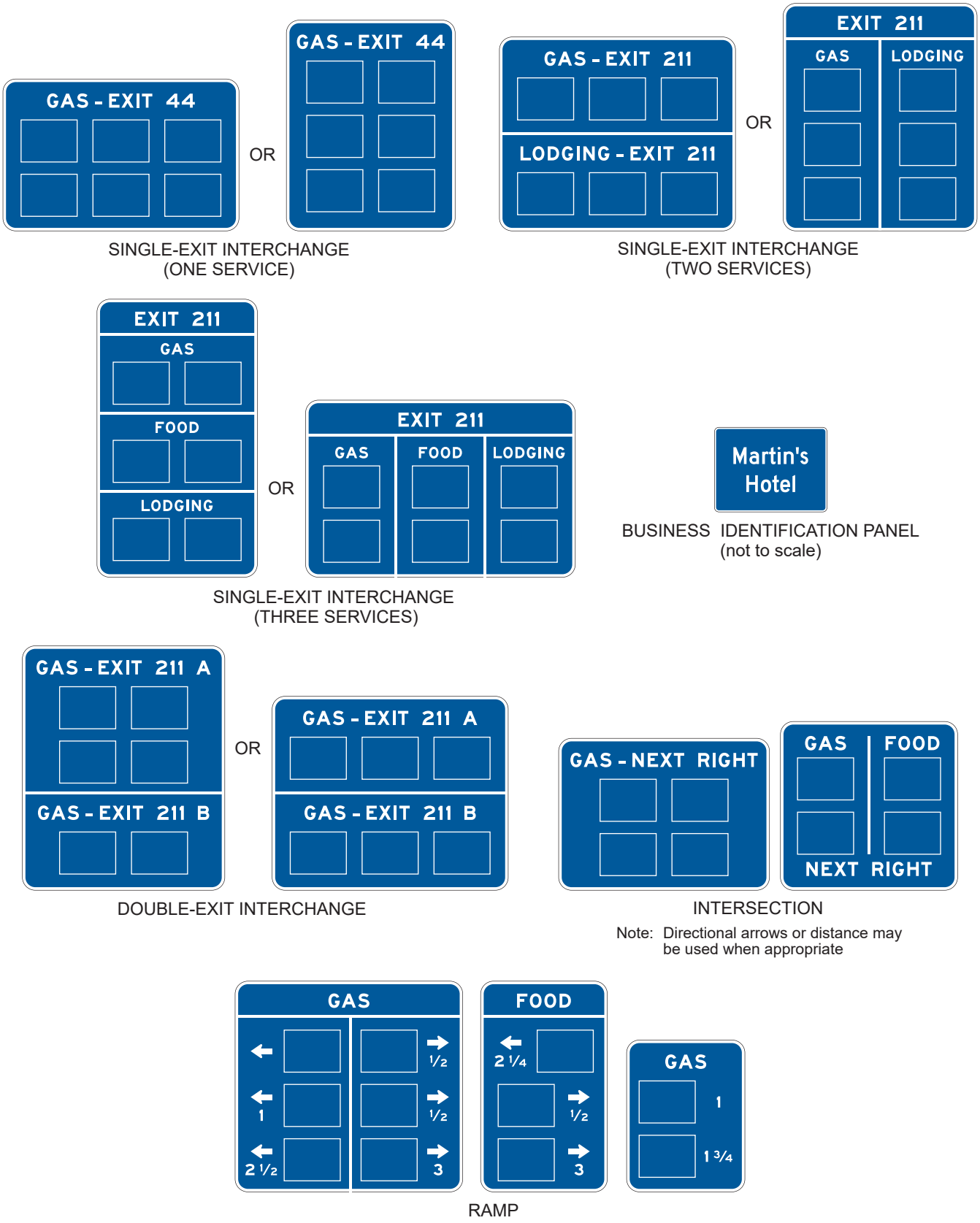
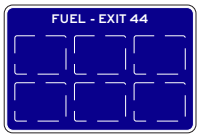


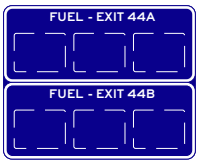
Figure 2J-1(CA). California Examples of Business Identification Panel Arrangements on Specific Service Signs



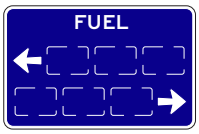
SG42-1(CA)



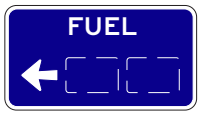
SG42-2(CA)



SG42-3(CA)



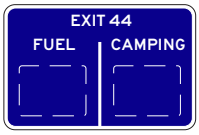
SG42-4(CA)



SG42-5(CA)



SG42-6(CA)



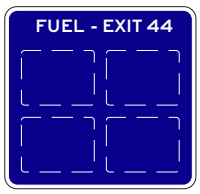
SG42-7(CA)



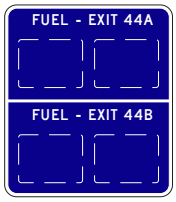
SG42-8(CA)



SG42-9(CA)



SG42-10(CA)



SG42-11(CA)



SG42-12(CA)

Figure 2J-2. Examples of Specific Service Sign Locations

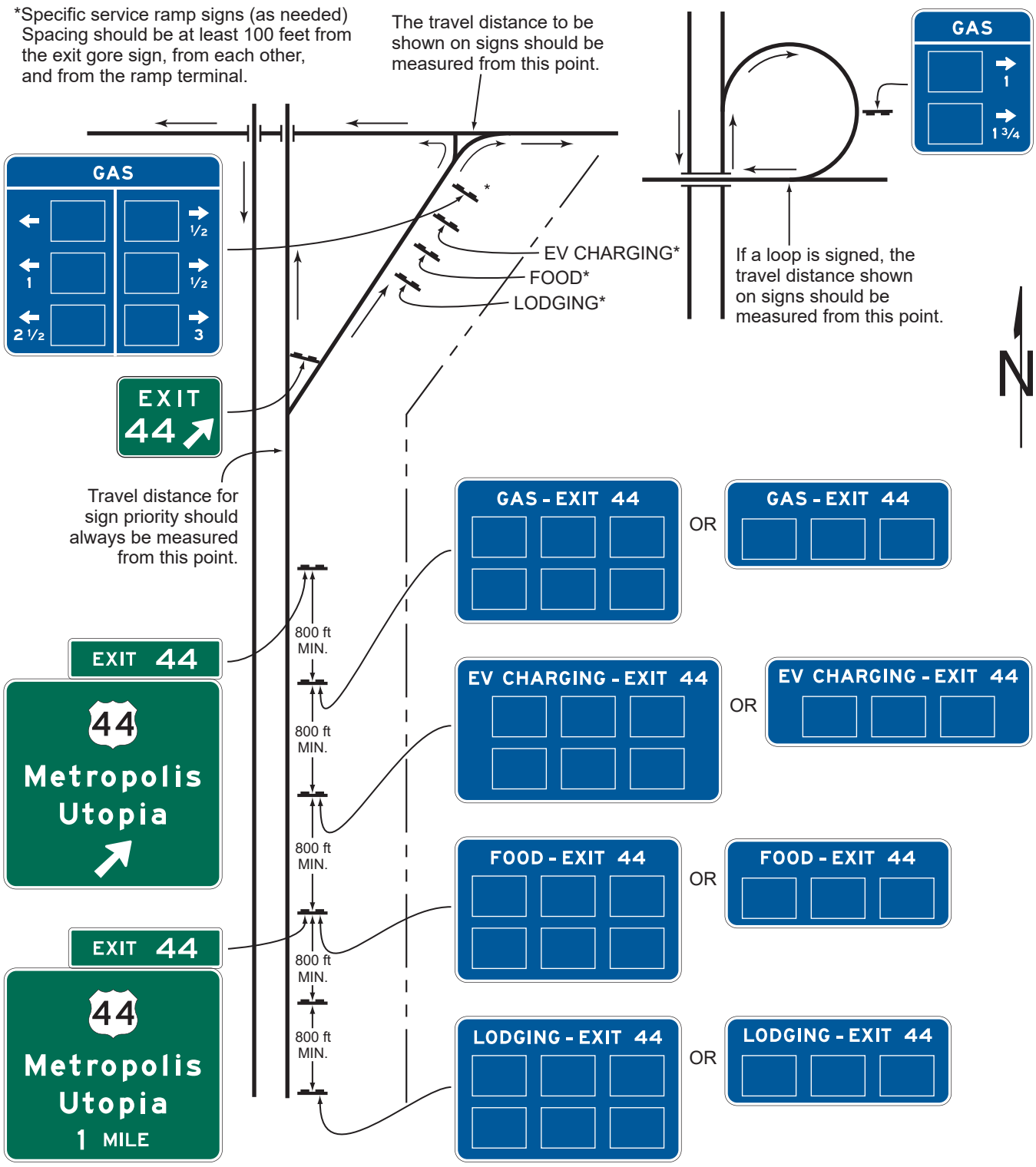
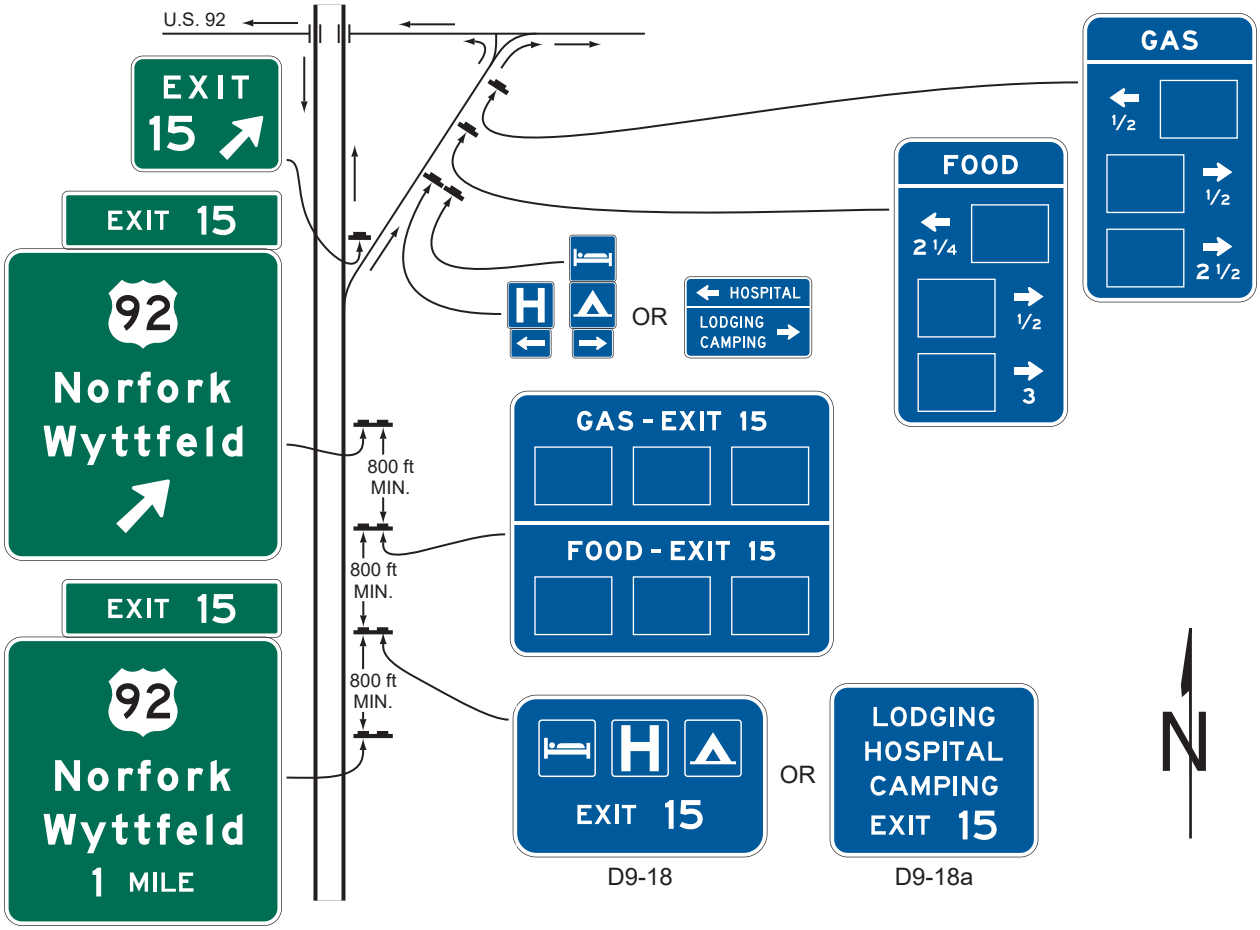


Figure 2J-3. Example of General Service Signs Used in Conjunction with Specific Service Signs



D9-18 D9-18a

Note: If specific service ramp signs are used, their spacing should be at least 100 feet from the exit gore sign, from each other, and from the ramp terminal.

Figure 2J-4. Examples of Supplemental Messages on Business Identification Sign Panels



Figure 2J-5. Example of Specific Services Signing for a Conventional Road Accessed within a Freeway-to-Freeway Interchange

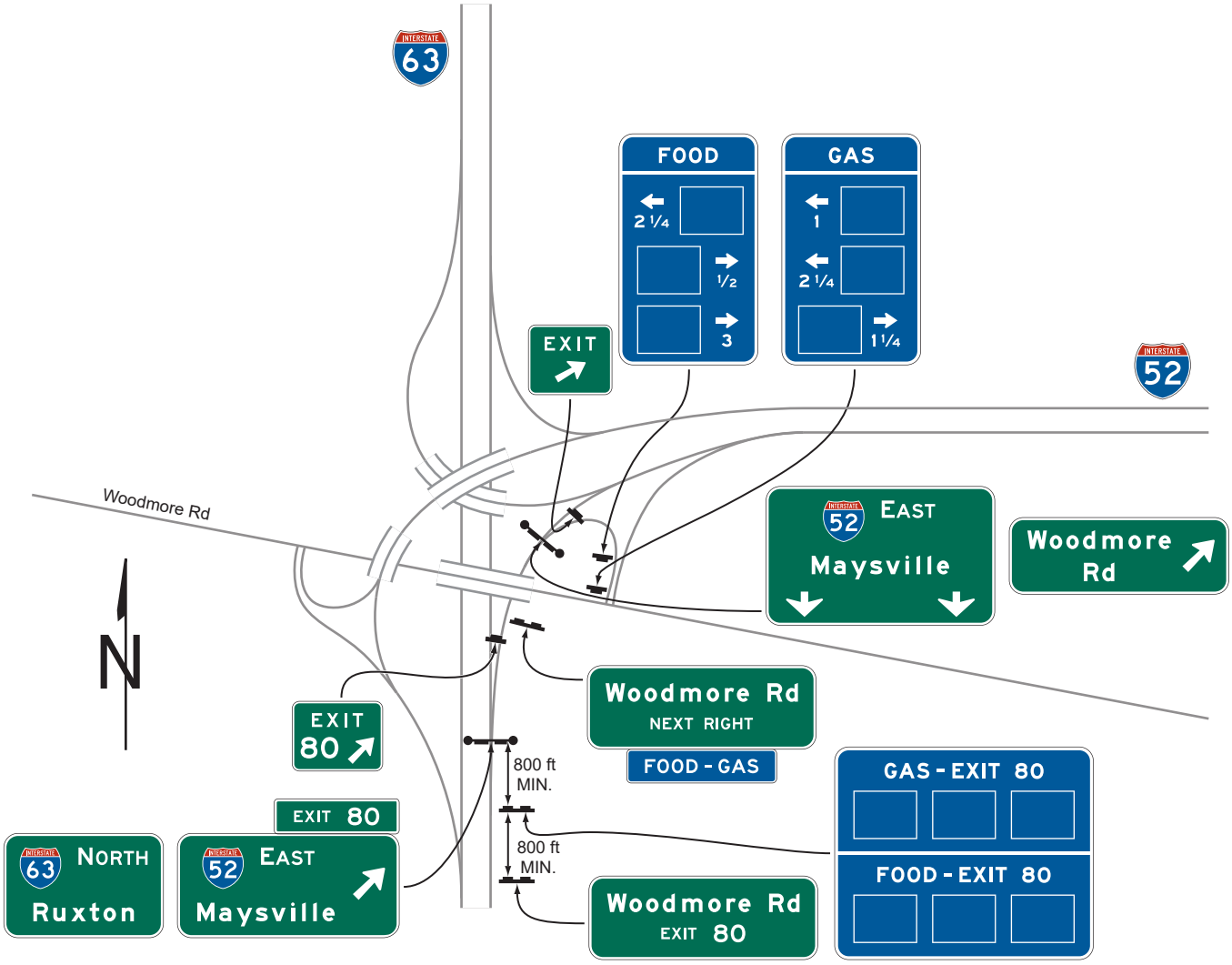
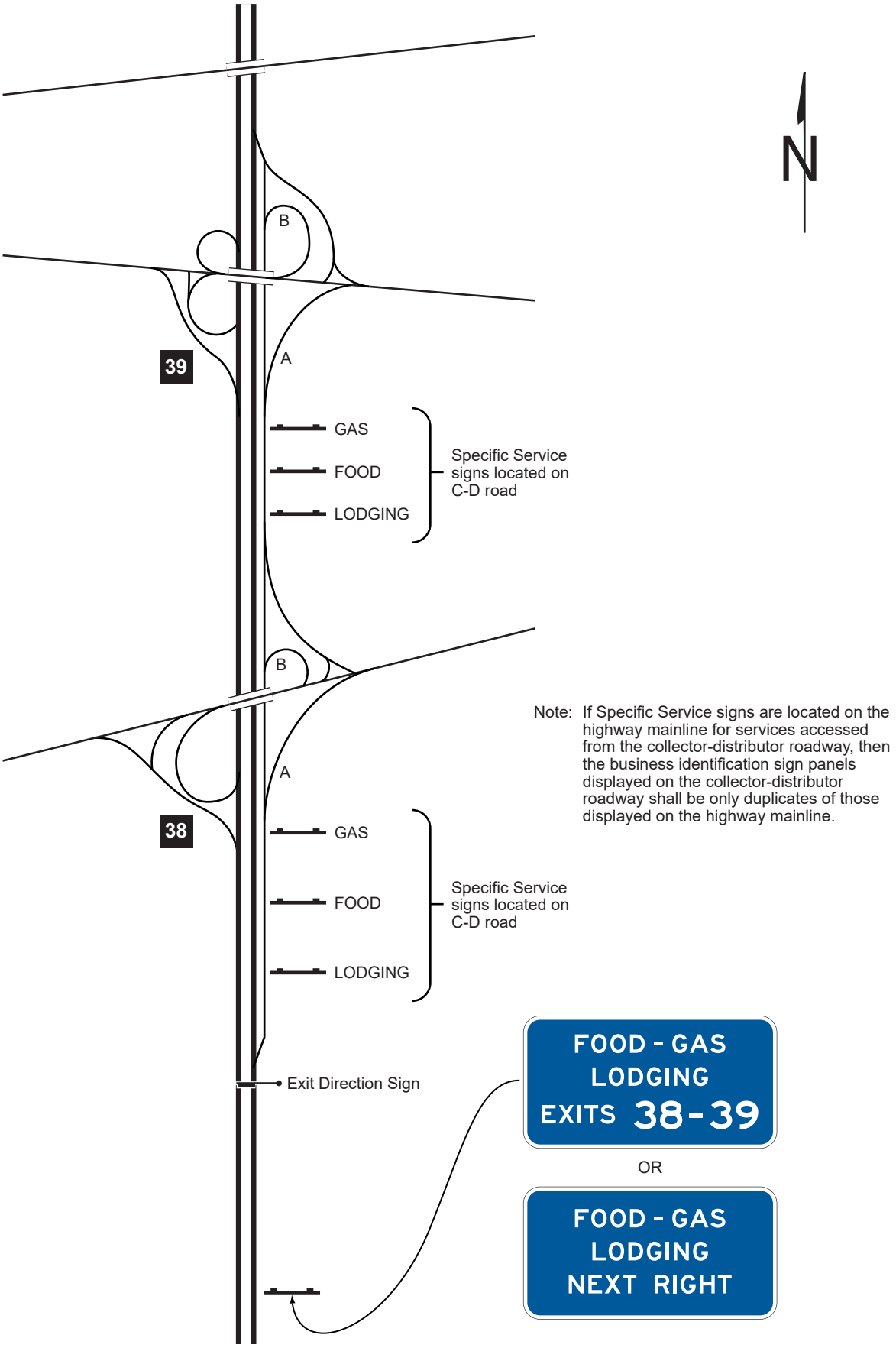


Figure 2J-6. Example of Signing for Services Accessed from a Collector-Distributor Road Adjacent to a Freeway



Note: If Specific Service signs are located on the highway mainline for services accessed from the collector-distributor roadway, then the business identification sign panels displayed on the collector-distributor roadway shall be only duplicates of those displayed on the highway mainline.

Figure 2J-7. Examples of Specific Service Trailblazer Signs

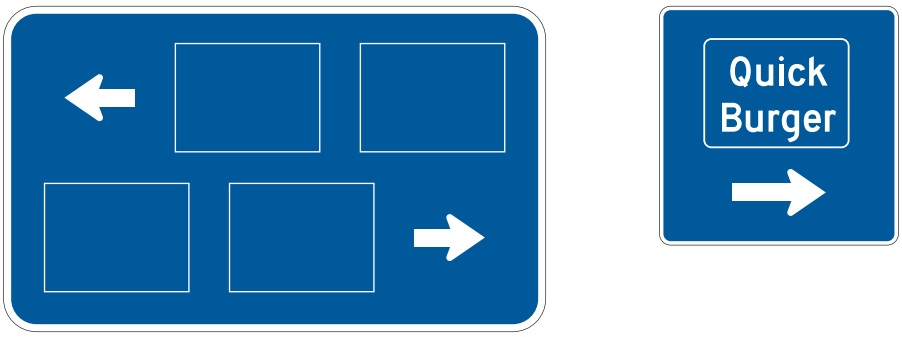


Table 2J-1. Minimum Letter and Numeral Sizes for Specific Service Signs According to Sign Type

Type of Sign	Freeway or Expressway	Conventional Road or Ramp
A. Specific Service Signs		
Service Categories	10	6
Exit Number Words	10	—
Exit Number Numerals and Letters	10	—
Action Message Words	10	6
Distance Numerals	—	6
Distance Fraction Numerals	—	4
B. Business Identification Sign Panels		
Words and Numerals (Non-Trademark/Graphic Logo)	8	4
Trademark/Graphic Logo	Proportional	Proportional
Supplemental Message Words and Numerals	5	2.5

Note: Sizes are shown in inches

Table 2J-2. Maximum Business Identification Sign Panel Sizes by Roadway Classification

Roadway Classification	Sign Panel Size
Freeway or Expressway	60 x 36
Conventional Road or Ramp	30 x 18

Note: Sizes are shown in inches as width x height

Table 2J-101(CA). California Specific Service Sign and Plaque Sizes

Sign or Plaque	Sign Designation	Section	Conventional Road	Freeway or Expressway
Single-Exit Interchange (One Service) Mainline	SG42-1(CA)	2J.07	180 x 120	180 x 120
Single-Exit Interchange (One Service) Mainline	SG42-2(CA)	2J.07	180 x 72	180 x 72
Double-Exit Interchange Mainline	SG42-3(CA)	2J.08	180 x 144	180 x 144
Specific Service Ramp	SG42-4(CA)	2J.101(CA)	84 x 54	84 x 54
Specific Service Ramp	SG42-5(CA)	2J.101(CA)	66 x 36	66 x 36
Single-Exit Interchange (Two Services) Mainline	SG42-6(CA)	2J.07	138 x 138	138 x 138
Single-Exit Interchange (Two Services) Mainline	SG42-7(CA)	2J.07	138 x 90	138 x 90
Specific Service Ramp	SG42-8(CA)	2J.101(CA)	30 x 30	30 x 30
Single-Exit Interchange (One Service) Mainline	SG42-9(CA)	2J.07	66 x 84	66 x 84
Single-Exit Interchange (One Service) Mainline	SG42-10(CA)	2J.07	126 x 120	126 x 120
Double-Exit Interchange Mainline	SG42-11(CA)	2J.08	126 x 144	126 x 144
Specific Service Ramp	SG42-12(CA)	2J.101(CA)	48 x 36	48 x 36

CHAPTER 2K. TOURIST-ORIENTED DIRECTIONAL SIGNS

Section 2K.01 Purpose and Application

Support:

01 Tourist-oriented directional signs are post-mounted guide sign assemblies with one or more signs that display the ~~business identification of and~~ directional information for generic eligible business, service, and activity facilities.

Standard:

02 **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:

03 Tourist-oriented directional signs may include businesses involved with seasonal agricultural products.

Standard:

04 **The use of tourist-oriented directional signs shall be limited to rural highways (see definition in Section 1C.02). Tourist-oriented directional signs shall not be installed on conventional roads in urban or urbanized areas or on freeway or expressway main roadways or ramps.**

04a **The tourist-oriented information and specific service information signs shall be separate installations.**

Support:

04b Refer to the SHC, Division 1, Chapter 1.5, Article 3, § 229.285.

Option:

05 Tourist-oriented directional signs may be used in conjunction with General Service signs (see Section 2I.02).

Support:

06 Section 2K.07 contains information on the adoption of a State policy for States that elect to use tourist-oriented directional signs.

Standard:

07 **Refer to SHC, Division 1, Chapter 1.5 for administration, standards, eligibility, and fees concerning the tourist-oriented directional signs. Refer to Section 1A.05 for information regarding these publications.**

Section 2K.02 Design

Standard:

01 **Tourist-oriented directional sign assemblies shall have one ~~or more~~ to three signs (see Figure ~~2K-1~~ 2K-1(CA)) for the purpose of displaying ~~the~~ generic business identification of and directional information for eligible facilities. Except as provided in Paragraph 7 of this Section, each sign shall be rectangular in shape and shall have a white legend and border on a blue background.**

02 **The content of the legend on each sign shall be limited to the generic identification and directional information for no more than one eligible business, service, or activity facility. The legends shall not include promotional advertising or gambling activities.**

Guidance:

03 *Each sign should have a maximum of two lines of legend including no more than one symbol (see Paragraph 4 of this Section), a separate directional arrow, and the distance to the facility displayed beneath the arrow. Arrows pointing to the left or up should be at the extreme left of the sign panel. Arrows pointing to the right should be at the extreme right of the sign panel. Symbols, when used, should be to the left of the word legend ~~or business identification sign panel (see Paragraphs 6 and 9 of this Section).~~*

Option:

04 The General Service sign symbols (see Section 2I.02) and the symbols for recreational and cultural interest area signs (see Chapter 2M) may be used on tourist-oriented directional signs.

05 ~~Based on engineering judgment, the hours of operation may be displayed on the sign.~~

06 ~~Business identification sign panels (see Section 2J.03) for specific businesses, services, and activities may be used in place of word legends on tourist-oriented direction signs.~~

Standard:

06a **The tourist-oriented directional signs shall not identify particular business or services by name, but rather shall be generic and identify only the type or nature of the business or service available.**

Support:

06b Refer to the SHC, Division 1, Chapter 1.5, Article 3, § 229.285.

Standard:

07 **When used, recreational and cultural interest area symbols shall be white on a brown background.**

08 **When used, symbols shall be an appropriate size (see Section 2K.04).**

09 ~~**When used, business identification sign panels shall not exceed 24 inches in width and 15 inches in height. Logos resembling official traffic control devices shall not be permitted.**~~

Option:

10 ~~The word message TOURIST ACTIVITIES may be displayed at the top of the tourist-oriented directional sign assembly~~.

Support:

10a The TOURIST ACTIVITIES word message unnecessarily increases the height of the sign.

~~**Standard:**~~

11 ~~**The TOURIST ACTIVITIES word message shall have a white legend in all upper-case letters and a white border on a blue background. If used, it shall be placed above and in addition to the directional signs.**~~

Support:

12 Examples of tourist-oriented directional signs are shown in Figures ~~2K-1 and 2K-2~~ 2K-1(CA).

Section 2K.03 Style and Size of Lettering

Guidance:

01 *All letters and numbers on tourist-oriented directional signs, ~~except on the business identification sign panels~~, should be upper-case and at least 6 inches in height. ~~Any legend on a business identification sign panel should be proportional to the size of the business identification sign panel.~~*

Standard:

02 **Design standards for letters, numerals, and spacing shall be as provided in the "Standard Highway Signs" publication (see Section 1A.05).**

03 **Figure 2K-1(CA) and the Caltrans' California Sign Specifications for Tourist Oriented Directional signs shall be used for arrangement and size of tourist-oriented directional signs. A single sign arrangement is used in California for tourist-oriented directional signs.**

Section 2K.04 Arrangement and Size of Signs

Standard:

01 **The total height of the tourist-oriented directional signs in a sign assembly shall be limited to a maximum of 6 feet excluding the mounting height measured vertically from the bottom of the sign assembly to the elevation of the near edge of the roadway.~~ Additional height shall be allowed to accommodate the addition of the optional TOURIST ACTIVITIES message provided in Section 2K.02 and the action messages provided in Section 2K.05.~~**

~~*Guidance:*~~

02 ~~*The number of intersection approach sign assemblies (one sign assembly 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.*~~

Standard:

02a **The number of signs installed in each assembly ~~should~~ shall not exceed three.**

Support:

02b Refer to the SHC, Division 1, Chapter 1.5, Article 3, § 229.28.

Guidance:

02c ~~*The signs for right-turn, left-turn, and straight-through destinations should be on separate sign assemblies. Signs for facilities in the straight-through direction should be considered only when there are signs for destinations in either the left or right direction.*~~

03 *If it has been determined to be appropriate to combine the left-turn and right-turn destination signs on a single sign assembly, the left-turn destination signs should be above the right-turn destination signs (see Figure 2K-1). When there are multiple destinations in the same direction, they should be in order based on their distance from the intersection. ~~Except as provided in Paragraph 5 of this Section, a straight-through sign should not be combined in a sign assembly~~*

~~*displaying left-turn and/or right-turn destinations.*~~

04 *The signs should not exceed the size necessary to accommodate two lines of legend without crowding. Symbols on a directional sign should not exceed the height of two lines of a word legend. All directional signs and other parts of the sign assembly should be the same width, which should not exceed 6 feet.*

~~Option:~~

Standard:

05 **At intersection approaches where three or fewer facilities are displayed, the left-turn, right-turn, and straight-through destination sign panels ~~may~~ shall be combined on the same sign assembly.**

06 **Figure 2K-1(CA) and the Caltrans' California Sign Specifications for Tourist Oriented Directional (SG44-1A(CA) and SG44-2A(CA)) signs shall be used for arrangement and size of tourist-oriented directional signs. A single sign arrangement is used in California for tourist-oriented directional signs.**

Section 2K.05 Advance Signs

~~*Guidance:*~~

01 ~~*Advance signs should be limited to those situations where sight distance, intersection vehicle maneuvers, or other vehicle operating characteristics require advance notification of the destinations and their directions.*~~

02 ~~*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 destinations should be omitted and the action messages NEXT RIGHT, NEXT LEFT, or AHEAD should be placed on the sign above the business identification signs. The action messages should have the same letter height as the other word messages on the directional signs (see Figures 2K-1 and 2K-2).*~~

~~**Standard:**~~

03 ~~**The action message signs shall have a white legend in all upper-case letters and a white border on a blue background.**~~

~~Option:~~

04 ~~The legend RIGHT ½ MILE or LEFT ½ MILE may be used on advance sign assemblies when there are intervening minor roads.~~

05 ~~The height required to add the directional word messages recommended for the advance sign assembly may be added to the maximum sign height of 6 feet.~~

~~*Guidance:*~~

06 ~~*The optional TOURIST ACTIVITIES message, when used on an advance sign assembly, and the action message should be combined on a single sign with TOURIST ACTIVITIES as the top line and the action message as the bottom line (see Figure 2K-2).*~~

Support:

07 Advance signs are not used in California for tourist-oriented directional signs.

Section 2K.06 Sign Locations

Guidance:

01 *If used, the intersection approach signs should be located at least 200 feet in advance of the intersection. Sign assemblies should be spaced ~~at least 200 feet apart and~~ at least 200 feet from other traffic control devices.*

02 ~~*If used, advance signs should be located approximately ½ mile from the intersection with 500 feet between these sign assemblies. In the direction of travel, the order of advance sign placement should be to show the destinations to the left first, then destinations to the right, and last, the destinations straight ahead (see Figure 2K-2).*~~

Support:

02a Advance signs are not used in California for tourist-oriented directional signs.

Guidance:

03 *Position, height, and lateral offset of sign assemblies should be governed by Chapter 2A except as permitted in this Section.*

Option:

04 Tourist-oriented directional signs may be placed farther from the edge of the road than other traffic control signs.

Standard:

05 **The location of other traffic control devices shall take precedence over the location of tourist- oriented directional signs.**

Section 2K.07 State Policy

Standard:

01 **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:

02 *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 covering signs during off seasons for facilities operated on a seasonal basis.*
- *D. Provisions for signs to facilities that are not located on the crossroad when such facilities are eligible for signs.*
- *E. A definition of the immediate area in compliance with the provisions of Paragraph 2 of Section 2K.01.*
- *F. Maximum distances to eligible facilities. The maximum distance should be 5 miles.*
- *G. Provision for information centers (plazas) when the number of eligible sign applicants exceeds the maximum permissible number of sign panel installations.*
- *H. Provision for limiting the number of signs when there are more applicants than the maximum number of signs permitted.*
- *I. Criteria for use at intersections on expressways.*
- *J. 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).*
- *K. Provisions for States to charge fees to cover the cost of signs through a permit system.*
- *L. A definition of the conditions under which the time of operation is displayed.*
- *M. Provisions for determining if advance signs will be permitted, and the circumstances under which they will be installed.*

Option:

03 The Tourist Oriented Directional signs may be placed at qualifying conventional rural highway intersections.

Support:

04 These qualifying intersections are described in Chapter 1.5 of the SHC.

05 Refer to the SHC, Division 1, Chapter 1.5 for administration, standards, eligibility, and fees concerning the tourist-oriented directional signs. Refer to Section 1A.05 for information regarding these publications.

Figure 2K-1. Examples of Tourist-Oriented Directional Signs

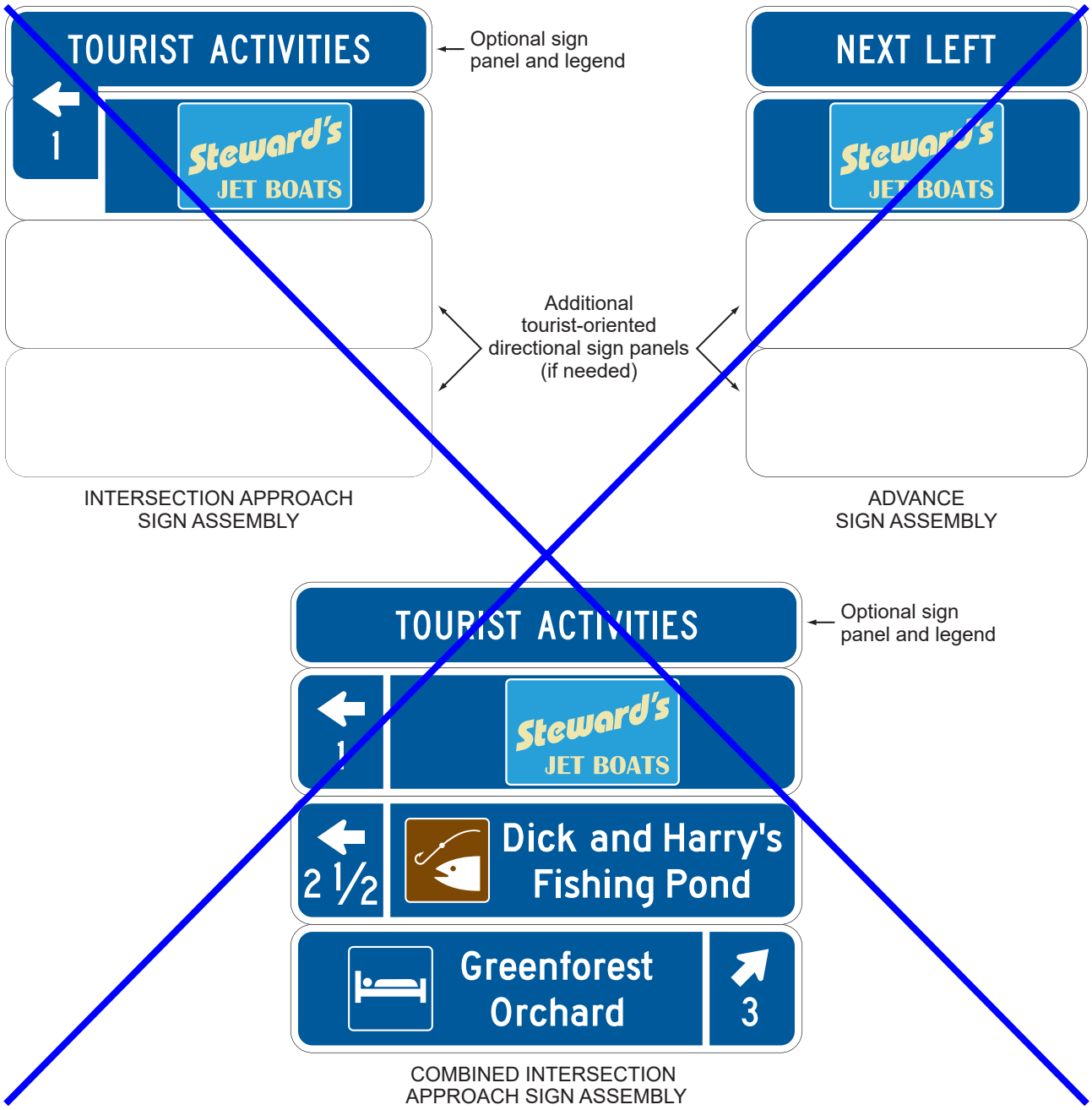


Figure 2K-1(CA). California Examples of Tourist-Oriented Directional Signs

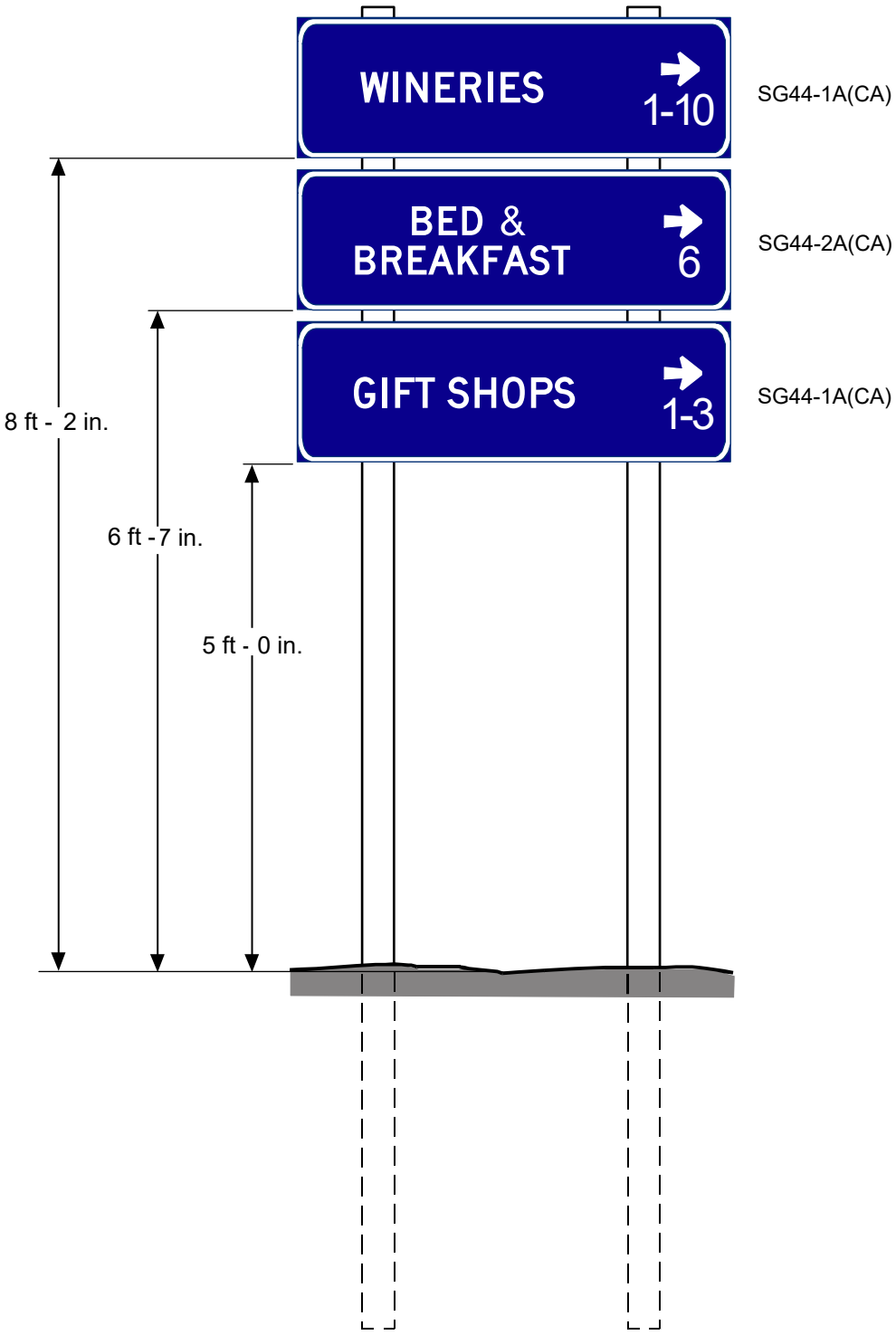
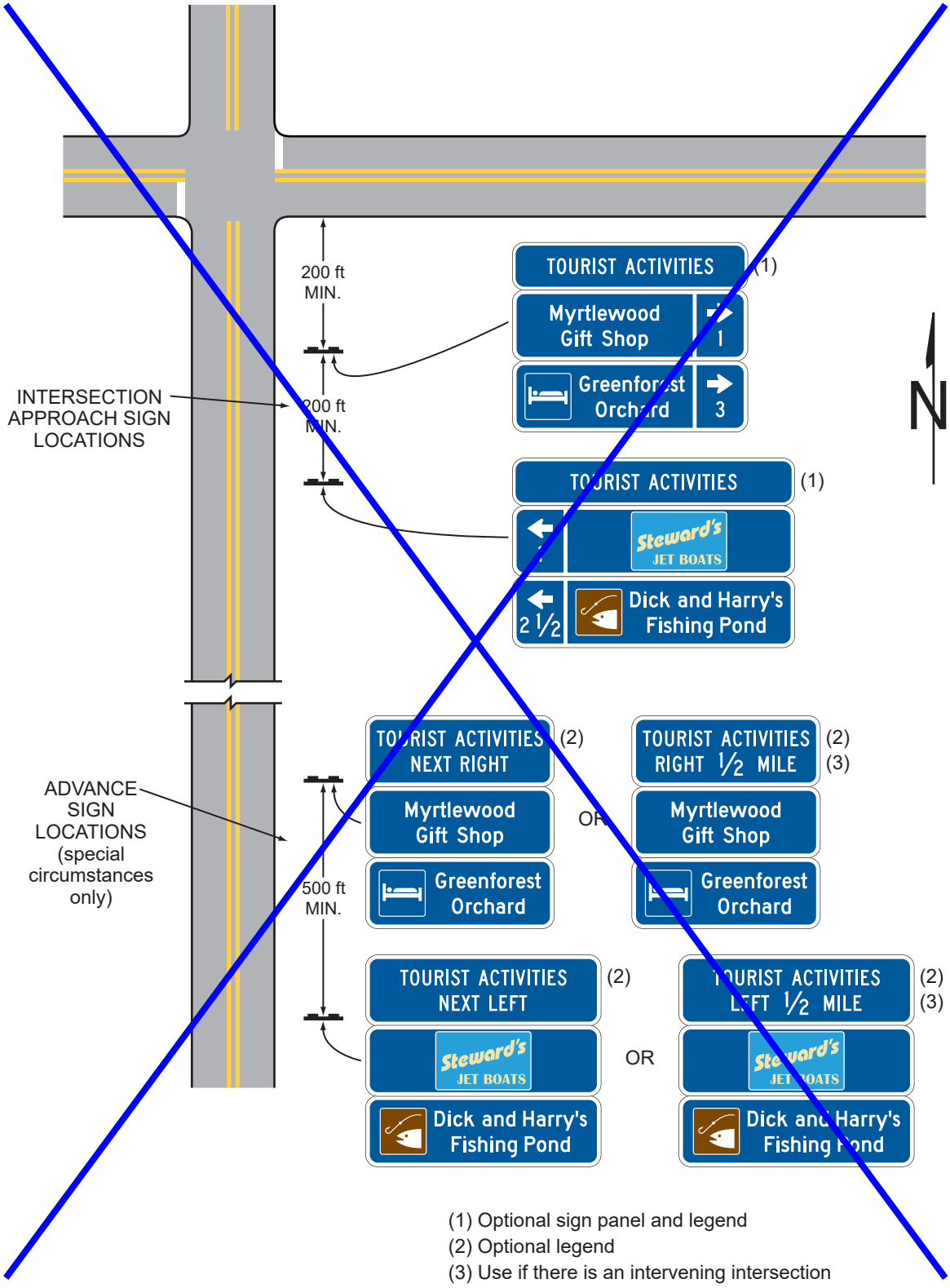


Figure 2K-2. Examples of Tourist-Oriented Directional Signs on an Intersection Approach



(1) Optional sign panel and legend
(2) Optional legend
(3) Use if there is an intervening intersection

Table 2K-101(CA). California Tourist-Oriented Directional Sign Sizes

Sign or Plaque	Sign Designation	Section	Conventional Road
Tourist-Oriented Directional Sign (TODS)	SG44-1A(CA)	2K.04	VARS x 18
Tourist-Oriented Directional Sign (TODS)	SG44-2A(CA)	2K.04	VARS x 18

CHAPTER 2L. CHANGEABLE MESSAGE SIGNS

Section 2L.01 Description of Changeable Message Signs

Support:

01 A changeable message sign (CMS) is a traffic control device that is capable of displaying one or more alternative messages. Some CMS 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).

02 The provisions in this Chapter apply to both permanent (fixed) and portable changeable message signs with electronic displays or the electronic display portion of an otherwise conventional static sign. Additional provisions that only apply to portable changeable message signs (PCMS) can be found in Section 6L.05. The provisions in this Chapter generally do not apply to CMS with non-electronic displays that are changed either manually or electromechanically, such as a hinged-panel, rotating-drum, or back-lit curtain or scroll CMS.

03 The CMS is a traffic control device at all times regardless of the type of message being displayed. Accordingly, the limitations on design, format, and manner of display of a message conveyed on a conventional sign apply to CMS regardless of the type of message being displayed at any given time. Some of the general provisions regarding traffic control devices are reiterated in this Chapter. However, this Chapter is not an independent or stand-alone reference for CMS. Users of CMS are expected to consult the other chapters in this Manual for criteria on how to develop effective messages that comply with this Manual and that meet the expectancy and limitations of the road user. In this regard, the engineering processes applied to decisions about whether to use a particular sign, for example, are no different for the decisions about the type and content of the message under consideration for display on a CMS. The other limited-use messages allowed on CMS as provided for in this Chapter likewise fall under the same MUTCD provisions as the primary-use traffic operation regulatory, warning, and guidance messages except as stated otherwise in this Chapter.

04 CMS messaging can be subject to habituation, a phenomenon by which repeated exposure to a stimulus results in diminished response. CMS habituation can occur through repeated exposure to messages, especially those messages that might not be perceived as having relevance to the road user, resulting in diminished responsiveness of the road user to that message. Because messages can be changed or extinguished, the effectiveness of CMS is tied more to the messages displayed thereon, the frequency of displayed messages, and the relevance to the road user, rather than to the installation of the signs themselves.

Guidance:

05 *Changeable message signs should be used judiciously to avoid habituation and preserve their effectiveness during the display of real-time messages about traffic conditions or traffic advisories.*

Standard:

06 **The design of legends for non-electronic display CMS shall comply with the provisions of Chapters 2A through 2K, 2M, and 2N of this Manual. Other CMS shall comply with the design and application principles established in this Chapter, Chapter 2A, and provisions elsewhere in this Manual for specific signs.**

07 **No items other than inventory or maintenance-related information (see Section 2A.04) shall be displayed on the front or back of a CMS or portable CMS. Names or logos of the manufacturer, brand, or model shall not be displayed on a CMS or portable CMS, either in the message display itself or on the exterior housing.**

Guidance:

08 *Blank-out signs that display only single-phase, predetermined electronic-display legends that are limited by their composition and arrangement of pixels or other illuminated forms in a fixed arrangement (such as a blank-out sign indicating a part-time turn prohibition, a blank-out or changeable lane-use sign, or a changeable OPEN/CLOSED sign for a weigh station) should comply with the provisions of the applicable Section for the specific type of sign, provided that the letter forms, symbols, and other legend elements are duplicates of the conventional messages as detailed in the "Standard Highway Signs" publication (see Section 1A.05). Because such a sign is effectively an illuminated version of a conventional sign, the size of its legend elements, the overall size of the sign, and the placement of the sign should comply with the applicable provisions for the conventional version of the sign.*

Section 2L.02 Applications of Changeable Message Signs

Standard:

01 **CMS shall display only traffic operational, regulatory, warning, and guidance information except as otherwise provided in this Chapter. Advertising or other messages not related to traffic control shall not be**

displayed on a CMS or on its supports or other equipment.

Option:

02 CMS may display traffic safety campaign messages (see Section 2L.07), transportation-related messages, emergency homeland security messages, and America's Missing: Broadcast Emergency Response (AMBER) alert messages, all as provided for in this Chapter.

03 Transportation-related messages for the purpose of improving traffic conditions, such as those providing information on alternative means of transportation, electronic toll collection, or carpooling may be displayed to remind or inform drivers of relevant options or opportunities for transportation.

Support:

04 Messages regarding broader transportation items not related to improving traffic conditions, such as reminders of driver's license or vehicle registration renewal, vehicle recall information, and vehicle maintenance, do not meet the purpose of a transportation-related message.

05 Examples of transportation-related messages include "STADIUM EVENT SUNDAY, DELAYS NOON TO 4 PM" and "OZONE ALERT—USE TRANSIT."

Guidance:

06 *A CMS should not be used to display a transportation-related message if doing so could adversely affect 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, delay and travel time, alternative route, or other similar messages.*

07 *CMS should not be used in place of conventional signs for conditions that do not change, except for blank-out type signs used to display regulatory, warning, and guidance information that routinely reoccurs, but only on a part-time basis. Similarly, when only certain elements of a message on a non-changeable sign are subject to change, only those elements of the sign should be in an electronic display, for example the prices shown on the R3-48 and R3-48a signs (see Figure 2G-18).*

Support:

08 The purpose of CMS is to provide real-time traffic regulatory, warning, or guidance messages as follows:

A. Incident management and route diversion;
B. Warning of adverse roadway travel conditions due to weather;
C. Special event applications associated with traffic control or conditions;
D. Lane, ramp, and roadway control;
E. Priced or other types of managed lanes;
F. Travel times;
G. Warning situations;
H. Traffic regulations;
I. Speed control or warning;
J. Variable destination guidance;
K. Supporting temporary traffic control; or
L. Active Traffic Management.

09 CMS provide significant flexibility and capability in communicating many types of real-time traffic control messages to road users. While their intended purpose is the display of traffic regulatory, warning, or guidance information, other limited uses are also allowed under certain conditions, as provided in this Chapter. Their integrity as an official traffic control device rests significantly on their judicious use and proper messaging format and content, regardless of the message type being displayed.

Standard*:*

10 **State and local highway agencies that have permanently-installed (fixed) or positioned (portable) CMS shall issue and maintain a policy regarding the use and display of all types of messages to be used on their CMS. The policy shall define the types of messages that will be allowed, the priority of messages, the proper syntax of messages, the timing of messages, and other important messaging elements to ensure messages displayed meet the basic principles that govern the design and use of traffic control devices in general (see Section 1D.01) and traffic signs in particular as provided for in this Manual.**

Guidance:

11 *State and local agencies that use CMS, but do not have permanently-installed (fixed) or positioned (portable) signs, should develop and establish a policy as discussed in Paragraph 10 of this Section.*

12 *When CMS are used at multiple locations to address a specific situation, the message displays should be consistent along the roadway corridor and adjacent corridors, which might necessitate coordination among different operating agencies.*

13 *AMBER alerts (see Paragraph 2 of this Section), when displayed, should not preempt messages related to traffic or travel conditions. AMBER alert messages should be kept as brief as possible and, when possible, direct road users to another source, such as broadcast or highway advisory radio, for detailed information about the alert.*

Standard:

14 **Types of "alert" messages other than AMBER alerts that are unrelated to traffic or travel conditions shall not be displayed on CMS.**

15 **The format of CMS displays shall not be of a type that could be considered similar to advertising or promotional displays.**

Support:

16 In times of a declared state of emergency, it might be appropriate to display messages related to evacuation, homeland security, or emergency information. Traffic patterns, movement, or other situations might be atypical due to the emergency, necessitating unique messaging not specifically related to traffic conditions.

Standard:

17 **Homeland security and emergency messages shall only be displayed in declared states of emergency when there is an imminent threat to the general population. Generic security or personal safety messages shall not be displayed when there is no context of a declared state of emergency or known imminent national security threat. Homeland security and emergency messages shall not be promotional or advisory in nature, including the message design, layout, or manner of display.**

Guidance:

18 *Homeland Security and emergency messages should undergo significant levels of scrutiny prior to being approved for broadcast to ensure accuracy and consistency with emergency conditions. These messages should be designed to convey a clear and simple meaning in a similar format to traffic control messages.*

Support:

19 Section 2B.21 contains information regarding the design of CMS that are used to display variable speed limits that change based on ambient or operational conditions on the variable Speed Limit (R2-1) sign.

20 Section 2C.13 contains information regarding the design of CMS that are used to display the speed at which approaching vehicles are traveling on the Vehicle Speed Feedback (W13-20 and W13-20aP) sign and plaque.

21 Section 2H.04 contains information regarding the design of CMS that are used to display variable speeds for traffic signal progression on the Traffic Signal Speed (I1-1) sign.

22 Section 5B.01 contains provisions for LEDs used in electronic-display signs to accommodate driving automation systems.

Caltrans' Policy regarding the use of CMS for AMBER alert messages on State Highways

Support:

23 A primary mission of Caltrans is the safe and orderly movement of traffic. It is the policy of Caltrans to display only real-time information that conveys current traffic safety and congestion information on CMS.

Standard:

24 **An exception to Caltrans policy on the use of CMS shall be made only for AMBER Alerts. Only credible real-time information, where it is crucial to the safety of the victim to disseminate the information to the public in the near term, shall be displayed on these CMS.**

Support:

25 Law enforcement activates an AMBER Alert when circumstances meet the following criteria: the person is confirmed missing; the law enforcement agency believes the person has been kidnapped; the agency believes the missing person is under threat of serious bodily harm or death.

Standard:

26 **The California Highway Patrol (CHP) shall consult with the investigating agency prior to requesting any CMS activation.**

Caltrans shall only respond to AMBER alert requests from the CHP. Caltrans' District Traffic Management Center (TMC) staff and local CHP staff shall jointly agree upon the most appropriate CMS message content(s). The TMC staff shall also consult with CHP staff regarding the length of time to display messages (initially 2-3 hours), and extent of roadway system to display the messages (i.e. radius and/or directions and specific routes).

Guidance:

27 *TMC personnel should discuss with CHP the limitations on message content, the number of signs that can be deployed within a given time period, conflicts with other necessary sign messages etc.*

Support:

28 There is a concern that messages that are too general in describing vehicles might result in inappropriate vigilantism. The preferred response is to display a radio frequency (thus referring the public elsewhere for details) – Caltrans' Highway Advisory Radios (HAR) or appropriate commercial radio. Alternatively, a license plate number (or partial number) might be displayed along with a vehicle description. The display of any contact phone number is not allowed.

29 Nothing in this policy suggests a requirement to pre-empt true road users safety messages, e.g. unexpected "end of queue" motorist alerts, severe weather advisories (fog, smoke), road closure and detour information etc.

Option:

30 It may be necessary to turn off an AMBER alert message that creates a traffic hazard.

Support:

31 This policy primarily applies to the use of fixed CMS. Should the use of portable CMS be necessary and appropriate at a specific location(s); Caltrans can expect CHP assistance with portable CMS deployment as needed.

Guidance:

32 *The TMCs should notify Caltrans' HQ Communications Center when responding to an AMBER alert request. The TMCs should monitor and save traffic data to determine if unintended consequences of displaying such a message occurred on the highway.*

Standard:

33 **A joint debriefing of Caltrans and CHP staff shall follow every event.**

34 **In all cases, messages shall maintain the credibility of the CMS.**

Section 2L.03 Legibility and Visibility of Changeable Message Signs

Support:

01 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.

02 For the more common types of CMS, the longest measured legibility distances on sunny days occur during mid-day when the sun is overhead. Legibility distances are much shorter when the sun is behind the sign face, when the sun is on the horizon and shining on the sign face, or at night.

03 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 CMS and can reduce the available legibility distances. During these conditions, there might not be enough viewing time for drivers to read the message.

Guidance:

04 *CMS used on roadways with speed limits of 55 mph or higher should be visible from ½ mile under both day and night conditions. The message should be designed to be legible from a minimum distance of 600 feet for nighttime conditions and 800 feet for normal daylight conditions. When environmental conditions that reduce visibility and legibility are present, or when the legibility distances stated in the previous sentences in this paragraph cannot be practically achieved, messages composed of fewer units of information should be used and consideration should be given to limiting the message to a single phase (see Section 2L.05 for information regarding the lengths of messages displayed on CMS).*

05 *The electronic display of standardized regulatory and warning signs used individually or as part of the legend for a larger sign should meet the size and legend requirements for those specific signs in Chapters 2B and 2C.*

Section 2L.04 Design Characteristics of Messages

Standard:

01 **Except as provided in Paragraph 2 of this Section, messages shall not include animation, flashing, dissolving, exploding, scrolling, or other dynamic display elements.**

02 **When a portable CMS is used as an arrow board that uses a flashing or sequential display for a lane or shoulder closure, the display and operation shall be considered that of an arrow board and shall comply with the provisions of Sections 6L.05 and 6L.06.**

Guidance:

03 *In developing messages for display on CMS, the provisions of Section 1D.01 should be consulted for the principles of an effective traffic control device.*

Standard:

04 **All message displays on CMS, whether for traffic operational, regulatory, warning, or guidance information, or for the other allowable message types as defined in this Chapter, shall follow the same design and display principles found in this Manual used for other traffic control signs, except as provided elsewhere in this Chapter.**

Guidance:

05 *Except in the case of a limited-legend CMS (such as a blank-out or a part-time regulatory sign display) that is used in place of a conventional regulatory sign or an activated blank-out warning sign that supplements a conventional warning sign at a separate location, the signs should be used as a supplement to and not as a substitute for conventional signs and markings unless otherwise provided for in this Manual.*

Support:

06 When CMS are overused for messages not directly associated with real-time driving conditions, road users might pay less attention to the sign, thereby limiting their effectiveness as traffic control devices.

Guidance:

07 *Warning Beacons (see Section 4S.03) should not be installed on CMS, rather CMS should be used predominately to display messages that are critical to real-time travel conditions. CMS word messages should be limited to no more than three lines, with no more than 20 characters per line.*

08 *The spacing between characters in a word should be between 25 and 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. Table 2L-1 contains information for spacing between characters, words, and lines of text.*

09 *Except as otherwise provided in this Manual, word messages on CMS should be composed of all upper-case letters. The minimum letter height should be 18 inches for CMS on roadways with speed limits of 45 mph or higher. The minimum letter height should be 12 inches for CMS on roadways with speed limits of less than 45 mph. When a message is composed of two phases and higher informational load (see Section 2L.05), the letter height should be 18 inches, regardless of the speed limit, to optimize legibility distance and available viewing time.*

Option:

10 CMS used to replicate a conventional sign may use the character size of the conventional sign being replicated.

Support:

11 Using letter heights of more than 18 inches will not result in proportional increases in legibility distance.

Guidance:

12 *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:

13 The width-to-height ratio is commonly accomplished using a minimum font matrix density of five pixels wide by seven pixels high.

Standard:

14 **CMS shall automatically adjust their brightness under varying light conditions to maintain legibility.**

Guidance:

15 *The luminance design of a CMS should meet industry criteria for daytime and nighttime conditions. Luminance contrast design should be between 8 and 12 for all conditions.*

Support:

16 CMS maintenance and replacement practices might need to account for the reduction of LED luminance and

luminance contrast that occurs naturally over time and might substantially impact legibility.

Guidance:

17 *Contrast orientation of CMS should always be positive, that is, with luminous characters on a dark or less-luminous background.*

Support:

18 Legibility distances for negative-contrast CMS are likely to be at least 25 percent shorter than those of positive-contrast messages. In addition, the increased light emitted by negative-contrast CMS has not been shown to improve detection distances and might visually overwhelm the darker characters of the sign legend.

Standard:

19 **The colors used for the legends and backgrounds on CMS shall be as provided in Table 2A-2 and Table 2A-2(CA).**

20 **Except as provided for in Paragraph 21 of this Section, if a black background is used, the color used for the legend on a CMS shall match the background color that would be used on a standard sign for that type of legend as specified in Table 2A-2 and Table 2A-2(CA).**

Option:

21 CMS that use only yellow or amber LEDs may display a yellow or amber legend that does not match the background color used on a standard sign for that type of legend as specified in Table 2A-2 and Table 2A-2(CA).

Standard:

22 **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.**

Support:

23 Some CMS that employ newer technologies have the capability to display a near duplicate of a standard sign or other sign legend using standard symbols, the Standard Alphabets and letter forms, route shields, and other typical sign legend elements with no apparent loss of resolution or recognition to the road user when compared with a conventional version of the same sign legend. Such signs are of the full-matrix type and can typically display full-color legends. Figure 2L-1 shows comparative examples of the effects of varying pixel densities on legend form.

Guidance:

24 *If used, the CMS described in Paragraph 23 of this Section should not display symbols or route shields unless they can do so in the appropriate legend and background color combinations. Where an LED matrix is used to form the changeable legend, signs with pixel spacing greater than 20 millimeters should display only word legends and no symbols or route shields.*

25 *For a single-phase message where the Standard Alphabets and other legend elements of standard designs are used, the lettering style, size, and line spacing should comply with the applicable provisions for the type of message displayed as provided elsewhere in this Manual. For two-phase messages, larger legend heights should be used as described previously in this Section because of the need for such messages to be legible at a greater distance. Regardless of the number of phases, the CMS should comply with the legibility and visibility provisions of Section 2L.03.*

Section 2L.05 Message Length and Units of Information

Guidance:

01 *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:

02 In order to illustrate the concept of units of information, Table 2L-2 shows an example message that is comprised of four units of information.

03 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:

04 **Each message shall consist of no more than two phases. A phase shall consist of no more than three lines of text. Each phase shall be understood by itself, and the meaning of the entire message shall be the same, regardless of the sequence in which the phases are read. Each line of legend shall be centered on the sign. Except for signs located on toll plaza structures or other facilities with a similar booth-lane arrangement, if more than one CMS is**

visible to road users, then only one sign shall display a sequential message at any given time.

Option:

05 A legend on a CMS that replicates a legend on a conventional sign that would not normally be center justified may be left justified or right justified as appropriate, such as a travel time or a variable rate toll display.

Standard:

06 **Abbreviations displayed on CMS shall comply with the provisions of Section 1D.08.**

Guidance:

07 *When designing and displaying messages on CMS, the following principles 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. *The duration between the display of two phases should not exceed 0.3 seconds.*
D. *No more than three units of information should be displayed in a message phase.*
E. *No more than four units of information should be in a message when the traffic operating speeds are 35 mph or more.*
F. *No more than five units of information should be in a message when the traffic operating speeds are less than 35 mph.*
G. *Only one unit of information should appear on each line of the CMS.*

Support:

08 Table 2L-2 provides an example of the number of units of information in a message. Option:

09 A unit of information consisting of more than one word may be displayed on more than one line. An additional CMS at a downstream location may be used for the purpose of allowing the entire message to be read twice.

10 If more than two phases would be needed to display the necessary information, additional CMS may be used to display this information as a series of two distinct, independent messages with a maximum of two phases at each location, in accordance with the provisions of Paragraph 4 of this Section.

Support:

11 Tables 2L-3 and 2L-4 provide examples of message construction for CMS. Each example shows the message content, layout, and phasing for a potential message and an improved message. The improved message for each example has been optimized for recognition, comprehension, and effectiveness.

Section 2L.06 Travel Time Messages

Support:

01 Travel times provide road users useful information about the level of congestion on segments of highways where motorists experience frequent incidents that slow traffic. Travel times are only helpful to the road user if they have a general understanding of the length of the road segment the travel time is related to so that they can compare that to the time it takes them to travel a similar distance on a highway without congestion. However, travel time messages require road users to read and process a significant amount of information and careful consideration is needed to ensure the overall message is not overloading the motorist.

Guidance:

02 *Travel times should be tied to the distance to a particular destination or junction so that road users can estimate the level of congestion based on the time to travel that distance. When travel times are displayed on CMS, such as during peak traffic conditions, the message should comply with the provisions of Sections 2E.49 and 2E.50. If both a travel time and a distance are displayed, the sign should display only one destination. A distance displayed as part of a travel time message should be rounded to the nearest whole mile.*

Option:

03 When comparative travel time displays are used providing travel times on different routes to one destination, distances to that destination may be eliminated.

04 A reference-location-based exit number (see Section 2E.22) may be displayed in lieu of a destination name or junction thereby providing the necessary distance information to the road user. If reference-location- based exit numbers are displayed, then up to two travel times may be displayed provided that the distance to the exit is not also displayed.

Section 2L.07 Traffic Safety Campaign Messages

Support:

01 An allowable ancillary use of CMS is the display of traffic safety messages in conjunction with a traffic safety campaign that includes other forms of media as the primary communication and education mechanism.

Standard:

02 **Traffic control messages shall have priority over traffic safety campaign messages.**

Guidance:

03 *When a CMS is used to display a traffic safety campaign, the message should be simple, direct, brief, legible, and clear (see Section 1D.01). Traffic safety campaign messages should be relevant to the road user on the roadway on which the message is displayed. For example, messages regarding school bus stop safety should not be displayed on freeways where school bus stops are not found.*

04 *A CMS should not be used to display a traffic safety campaign message if doing so could adversely affect respect for the sign. Messages with obscure or secondary meanings, such as those with popular culture references, unconventional sign legend syntax, or that are intended to be humorous, should not be used as they might be misunderstood or understood only by a limited segment of road users and require greater time to process and understand. Similarly, slogan-type messages and the display of statistical information should not be used.*

05 *The broad traffic safety campaign marketing message should be appropriately shortened or otherwise modified to comply with the provisions of Section 2L.05 when a traffic safety campaign message is displayed on a CMS.*

06 *Traffic safety campaign messages should emphasize the applicable regulation or warning and should reference any penalties associated with violations of the regulation. Traffic safety campaigns using CMS should include coordinated enforcement efforts where penalties or enforcement type warnings are part of the message displayed on the CMS.*

07 *Traffic safety campaign messages should not be displayed on CMS unless they are part of an active, coordinated safety campaign that uses other media forms as the primary means of outreach. For consistency on a national level, traffic safety campaigns should be coordinated with those on the National Highway Transportation Safety Administration's annual communications calendar.*

Support:

08 Examples of traffic safety campaign messages include "UNBUCKLED SEAT BELTS FINE + POINTS" and "IMPAIRED DRIVERS LOSE LICENSE + JAIL."

Section 2L.08 Permanently-Located (Fixed) Changeable Message Signs

Support:

01 Careful consideration of CMS installation location is important to having a safe and effective message, taking into account several factors. CMS message length and complexity will vary and often include two-phase displays, all of which might require longer glance times by motorists than would be required for conventional sign messages.

02 Permanently-located (Fixed) CMS (FCMS) are generally used on higher-speed, multi-lane facilities with high traffic volumes where more time might be required to properly respond to a message, such as by changing lanes or reducing speed. It also is common for other signs to be in the same vicinity of the desired location for a permanently-located (Fixed) CMS (FCMS) raising the concern of overloading road users with information.

Guidance:

03 *A CMS that is used in place of a conventional sign (such as a blank-out or variable legend regulatory sign) should be located in accordance with the provisions of Chapter 2A and the provisions for the conventional sign it replaces.*

04 *Permanently-located (Fixed) CMS (FCMS) should:*

- *A. Be located sufficiently upstream of known bottlenecks and high crash locations to enable road users to select an alternate route or take other appropriate action in response to a recurring condition.*
- *B. Be located sufficiently upstream of major diversion decision points, such as interchanges, to provide adequate distance over which road users can change lanes to reach one destination or the other.*
- *C. Not be located within an interchange except for toll plazas or managed lanes.*
- *D. Not be positioned at locations where the information load on drivers is already high because of guide signs and other types of information.*
- *E. Not be located in areas where drivers frequently perform lane-changing maneuvers in response to guide sign information, or because of merging or weaving conditions.*

Support:

05 Many of the factors in locating permanently-located (Fixed) CMS (FCMS) apply to PCMS. Information regarding the design and application of PCMS in temporary traffic control zones is contained in Section 6L.05.

Section 2L.101(CA) Extinguishable Message Signs

Support:

01 Extinguishable message signs are designed to have one or more messages that can be displayed or deleted as required. Such a sign can be changed manually, by remote control, or by automatic controls that can "sense" the conditions that require special sign messages.

02 It is recognized that due to technological limitations, many extinguishable message signs cannot conform to the exact sign shape, color, and dimensions specified in these standards. Nevertheless, it is essential that extinguishable message signs ascribe to the principles established in this California MUTCD, and to the extent practicable, with the design and applications prescribed herein.

Figure 2L-1. Example of CMS Capability to Display Sign Legends Based on Pixel Pitch



Color full-matrix CMS with pixel pitches of 20 millimeters or less are typically capable of displaying legends nearly identical to conventional sign legends, including route shields and symbols as provided in the MUTCD.



CMS with insufficient pixel density, typically with pixel pitches greater than 20 millimeters – whether full color or monochrome – are generally not capable of adequately displaying conventional sign legends with sufficient clarity and should only display monochrome word messages.

Notes:

1. Pixel pitch is the distance from the center of a pixel to the center of an adjacent pixel.
2. The pixel pitch is described in Metric units because sign manufacturers only use Metric units.

Table 2L-1. Spacing between Message Characters, Words, and Lines of Text

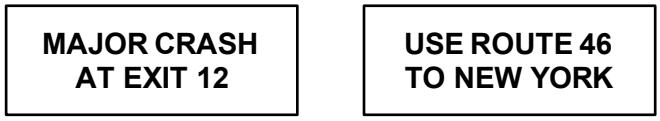
Height of Letters Used on CMS	Spacing between Characters in Words	Horizontal Spacing between Words	Vertical Spacing between Lines of Text
12	3 - 5	9 - 12	6 - 9
18	4 ½ - 7	13 ½ - 18	9 - 13 ½

Note: All units are in inches

Table 2L-2. Example of Units of Information

Question	Answer	Number of Information Units
What happened?	MAJOR CRASH	1
Where?	AT EXIT 12	1
Who is the advisory for?	Drivers heading TO NEW YORK	1
What is advised?	USE ROUTE 46	1

Note: The following is an example of a two-phase message that could be developed from the four information units shown in this table:



Phase 1 Phase 2

Table 2L-3. Examples of Message Construction for CMS

Example	Phase	Potential Message	Improved Message	Comments
1	1	EXIT 10	EXIT 10 CLOSED	**Diversionary message:** Each message phase should convey a complete thought independent of the other message phase. The entire message should also make sense regardless of which phase is read first.
	2	CLOSED USE EXIT 12	USE EXIT 12	
2	1	ROADWORK AHEAD	ROAD WORK AHEAD	**Advance warning message:** Condensing ROAD and WORK into single word is not necessary since sign width will accommodate the conventional 2-word message. A general CAUTION message is not specific enough to be actionable by the road user. Message should not be repeated to fill sign. Phase 2 of the improved message can be eliminated without any loss of meaning to Phase 1.
	2	CAUTION CAUTION CAUTION	FINES DOUBLE	
3	1	RIGHT LANE CLOSED	RIGHT LANE CLOSED 1 MILE	**Advance warning message:** Use of single phase message reduces time necessary to read and glances away from the road. Second phase does not provide a complete message.
	2	1 MILE	N/A Single-Phase Message	
4	1	RT LN CLSD 1 MI	RIGHT LANE CLOSED 1 MILE	**Advance warning message:** Less common abbreviations (see Table 1D-2) are not warranted when the sign can accommodate the full message. Abbreviations in Table 1D-2 should be limited only to portable CMS where the number of characters per line is limited.
	2	N/A Single-Phase Message	N/A Single-Phase Message	
5	1	9TH AVENUE SOUTHWEST KEEP RIGHT	9TH AVE SW KEEP RIGHT	**Directional message:** Conventional abbreviations for street name descriptors (see Table 2D-3) are used for consistency with standard signs to improve recognition and reduce the apparent amount of legend.
	2	N/A Single-Phase Message	N/A Single-Phase Message	
6	1	EXPWY CONGESTED USE 101 FOR AIRPORT	US 19 CONGESTED	**Diversionary message:** Lack of Expressway route number is vague to unfamiliar road user. Adding exit number for diversion route simplifies message. Diversion message is stated in reverse order and requires more words as a result.
	2	N/A Single-Phase Message	AIRPORT USE EXIT 101	
7	1	TRAVEL TIME TO I-89 13 MINUTES	I-89 JCT 12 MILES 13 MINS	**Travel time information:** TRAVEL TIME legend is extraneous and out of context for the distance message. Changing only one line of legend between phases compromises recognition of the message.
	2	TRAVEL TIME TO I-89 12 MILES	N/A Single-Phase Message	
8	1	SEAT BELTS SAVE LIVES	STATE LAW FASTEN SEAT BELTS	**Safety campaign regulatory message:** Slogan-type message does not convey the legal requirement. As an alternative, the STATE LAW legend could be eliminated and the fine for violations displayed on a second phase to convey the regulatory nature of the message.
	2	N/A Single-Phase Message	N/A Single-Phase Message	
9	1	DONT TEXT JUST DRIVE	NO HAND-HELD PHONE BY DRIVER	**Regulatory message.** Slogan-type message does not convey the legal requirement. Phase 2 of the improved message can be eliminated without any loss of meaning to Phase 1.
	2	IT CAN WAIT	$250 FINE AND POINTS	

Note: Examples shown are for single-color CMS with pixel spacing greater than 20 mm and use all upper-case lettering. Multi-color, full- matrix CMS with pixel spacing of 20 mm or less should use upper- and lower-case lettering where appropriate and proper legend and background colors.

Table 2L-4. Examples of Message Construction for Portable CMS*

Example	Phase	Potential Message	Improved Message	Comments
1	1	EXIT 10	EXIT 10 CLOSED	**Diversionary message:** Each phase conveys a complete thought.
	2	CLOSED USE EXIT 12	USE EXIT 12	
2	1	ROADWORK AHEAD	ROAD WORK AHEAD	**Advance warning message:** Condensing ROAD and WORK into a single word is unnecessary because the sign width will accommodate the conventional 2-word phrase. A general CAUTION message is not specific enough to be useful to the road user. Message should not be repeated to fill the sign. Phase 2 of the improved message can be eliminated without any loss of meaning to Phase 1.
	2	CAUTION CAUTION CAUTION	FINES DOUBLE	
3	1	RIGHT LANE CLOSED	RIGHT LN CLOSED 1 MILE	**Advance warning message:** Separation of the message into 2 phases is unnecessary. Second phase does not provide a complete message.
	2	1 MILE	N/A Single-Phase Message	
4	1	RT LN CLSD 1 MI	RIGHT LN CLOSED 1 MILE	**Advance warning message:** Less common abbreviations (see Table 1D-2) are not warranted when the sign can accommodate the full message.
	2	N/A Single-Phase Message	N/A Single-Phase Message	
5	1	9TH AVENUE SW	9 AVE SW KEEP RIGHT	**Directional message:** Conventional abbreviations for street name descriptors (see Table 2D-3) are used for consistency with standard signs to improve recognition and reduce the apparent amount of legend.
	2	KEEP RIGHT	N/A Single-Phase Message	
6 **	1	ROAD WORK	ROADWORK NEXT 3 MILE	**Advance warning message:** Condensing ROAD and WORK into single word (see Table 1D-2) accommodates a single-phase message.
	2	NEXT 3 MILES	N/A Single-Phase Message	
7	1	SEAT BELTS	FASTEN SEAT BELTS	**Safety campaign regulatory message:** Slogan-type message does not convey the legal requirement. As an alternative, the STATE LAW legend could be eliminated and the fine for violations displayed on a second phase to convey the regulatory nature of the message. Phase 2 of the improved message can be eliminated without any loss of meaning to Phase 1.
	2	SAVE LIVES	STATE LAW	
8	1	DONT TEXT	NO HAND- HELD PHONE	**Regulatory message:** Slogan-type message does not convey the legal requirement.
	2	JUST DRIVE	BY DRIVER	

* Examples shown are for a portable CMS where the display width is generally limited to 8 characters per line of legend.
** Refer to FHWA's List of Known Errors for error in row. Refer to Section 1A.04 for more details.

CHAPTER 2M. RECREATIONAL AND CULTURAL INTEREST AREA SIGNS

Section 2M.01 Scope

Support:

01 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, game-hunting facilities, and ski areas, while examples of cultural attractions include museums, art galleries, and historical buildings or sites.

02 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:

03 Recreational and cultural interest area guide signs directing road users to significant traffic generators may be used on freeways and expressways where there is direct access to these areas as provided in Section 2M.09.

04 Recreational and cultural interest area signs may be used off the road network, as appropriate.

Section 2M.02 Application of Recreational and Cultural Interest Area Signs

Support:

01 Provisions for signing recreational or cultural interest areas are subdivided into two different types of signs: (1) symbol signs and (2) destination guide signs.

Guidance:

02 *Highway agencies providing recreational and cultural interest area signing should establish a policy with 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:

03 Recreational and cultural interest area guide signs may be used in recreational or cultural interest areas for signing non-vehicular events and amenities such as trails, structures, and facilities.

Support:

04 Symbols for use only within recreational and cultural interest area facilities are noted in Table 2M-1.

05 Section 2A.09 contains information regarding the use of recreational and cultural interest area symbols on other types of signs.

06 The recreational and cultural interest area signs are supplemental signs and are subject to the same spacing and number of messages limitations set forth in Chapters 2A, 2D, and 2E. Under these limitations, the supplemental destination, recreational and cultural interest area signs compete for signing on the basis of traffic service.

Guidance:

07 *Recreational area signs to National Heritage Areas, National Parks, and State Parks should normally include the name of the area. County and City Park signs should not normally include the name.*

Option:

08 Recreational area signs may be placed for the following facilities:

A. National Parks or Monuments.
B. State Parks, when located within 5 miles of the highway.
C. County Parks, when located within 3 miles of the highway.
D. In urban areas, City Parks within 1 mile may be signed from conventional highways. Normally, City Parks will not be signed to or from metropolitan freeways.
E. Campgrounds in National Forests or State Parks may be signed from conventional highways when the entrances are located on the highway. An advance sign reading "Campground 1/4 mile" may be placed. Signs at the immediate entrance will be placed by the agency having jurisdiction over the campground.
F. Major rural recreational areas may be signed by name. When a recreational area is served by more than a single exit, the appropriate colored NEXT X EXITS (E9) sign may be used. Normally, the sign will include the name of the area and the text "RECREATIONAL AREA".
G. In rural recreational areas, guide signs may be supplemented with white on brown symbol signs mounted below indicating recreational facilities available to the road users.
H. National Heritage Areas, at or near the boundary or within the National Heritage Areas.

Guidance:

09 *On State highways, signs to major rural recreational areas that include a jurisdictional logo or are unique in shape should be placed under an encroachment permit from Caltrans.*

Standard:

10 **Placement of these signs to major rural recreational areas shall be by the jurisdiction or agency making the request through the normal permit process as a fee exempt permit.**

Guidance:

11 *These signs to major rural recreational areas should be limited to areas where they do not block or interfere with other signs necessary for safe and efficient operation of the highway. The sign panels should be clearly marked as to the ownership.*

Standard:

12 **The use of the following symbol signs shall conform to the warrants shown here and in Chapter 2I:**

General Information

Option:

13 The Lookout Tower (RS-006) sign may be used for lookout facilities that are publicly owned, within 3 miles of the highway, and open for visitors at least 8 hours per day, 180 days per year.

Standard:

14 **Follow up signs to the RS-006 sign, where required, shall be installed by the local authority having jurisdiction in the area.**

Option:

15 The Lighthouse (RS-007) sign may be used for lighthouse facilities that are within 3 miles of the highway and open for visitors at least 8 hours per day, 180 days per year.

16 The Deer Viewing Area (RS-011) sign may be placed to indicate an area which is determined by the Department of Fish and Wildlife to be particularly well suited for viewing deer and other wild life. This area should have adequate parking and be within 1 mile of the highway, via a well-maintained road.

17 The Information (D9-10) sign may be used to indicate publicly operated informational facilities that are located within 1 mile of the highway and open all year.

Option:

18 The Pick-Up Truck (RS-140) sign indicates that trucks may use the signed facility within a recreation area.

Standard:

19 **The RS-140 sign shall not be used on State highways.**

Option:

20 The Wildlife Viewing (RS-076) sign may be used to direct road users to the Wildlife Viewing Areas as published in the California Watchable Viewing Guide.

Support:

21 Refer to the following web link for more information:
http://www.cawatchablewildlife.org

Standard:

22 **The WILDLIFE VIEWING (G200-81aP(CA)) plaque shall be placed below the Wildlife Viewing (RS-076) sign.**

Road User Services

Option:

23 The Camping (Tent) (D9-3) sign may be used for campsite facilities, either public or private, located within 3 miles of the highway.

Standard:

24 **For the use of D9-3 sign, a minimum of 15 campsites shall be provided. Water and sanitary facilities shall be available, but not necessarily at each individual campsite.**

Option:

25 The Trailer Site (RS-040) sign may be used to indicate trailer site facilities within a public recreation area, located within 3 miles of the highway.

Standard:

26 **For the use of RS-040 sign, a minimum of 15 trailer sites shall be provided. Water and sanitary facilities shall be available.**

Option:

27 The Food Service (D9-8) sign may be used to sign for food service facilities in public recreation areas which meet the criteria for food (D9-8) signs in Chapter 2I. On State highways, only the D9-8 sign is used, where appropriate, to sign for food service facilities.

28 The Gas (D9-7) sign may be used to indicate fuel stations in public recreation areas, which meet the criteria for Gas (D9-7) signs in Chapter 2I. On State highways, only the D9-7 sign may be used where appropriate.

29 The Handicapped (D9-6) sign may be used in public recreation areas where paved ramps and rest room facilities accessible to, and usable by, the physically handicapped are provided. On State highways and at other State facilities, only the International Symbol of Accessibility for the Handicapped (D9-6) sign is to be used.

30 The Lodging (D9-9) sign may be used to indicate lodging facilities in public recreation areas, which meet the criteria for lodging (D9-9) signs in Section 2D.45. On State highways, only the D9-9 sign is used, where appropriate, to sign to lodging facilities.

31 The Picnic Site (RS-044) sign may be used for picnic areas, either public or private, located within 1 mile of the highway.

Standard:

32 **For the use of RS-044 sign, a minimum of 10 sites with tables shall be provided. Water and sanitary facilities shall be available.**

Option:

33 The Rest Room (RS-022) sign may be used to indicate free public access to a restroom within 0.25 miles of the highway where no other publicly accessible restroom is available within 10 miles.

34 The Telephone (D9-1) sign may be used within public recreation areas where a public telephone is available 24 hours a day and it is located in a remote area where it is not expected. On State highways, only the Telephone (D9-1) sign is used, where appropriate, to indicate the availability of a telephone.

35 The Viewing Area (RS-036) sign may be used to direct road users to public recreation area sites, located within 0.25 miles of the highway, which have significant views.

Guidance:

36 *For the use of RS-036 sign, the sites should have adequate parking and well maintained access. On freeways, the VISTA POINT (D5-1) sign should be used where appropriate. Refer to Chapter 2I.*

Accommodation Services

Option:

37 The Airport (I3-5) sign may be used in public recreation areas to direct road users to airports, which meet the criteria, specified for Airport (I3-5) signs. Only the I3-5 signs may be used on State highways to indicate nearby airports.

38 The Parking (RS-034) sign may be used to indicate public parking facilities less than 0.25 miles from a highway in recreation areas.

Guidance:

39 *Use of RS-034 signs should be restricted to locations outside of urbanized zones, where the Parking Area (D4-1) sign is inappropriate.*

Land Recreation

Option:

40 The Playground (W15-1) sign may be used to identify playgrounds within a recreation area and not more than 1 mile from the highway.

41 The Hiking Trail (RS-068) sign may be used for marked and maintained hiking trails.

Standard:

42 **For the use of RS-068 sign, the trailhead shall be within 1 mile of the highway, with sufficient parking to accommodate normal demand.**

Option:

43 The Horse Trail (RS-064) sign may be used for identifying horse trails located within public recreation areas.

Guidance:

44 *For the use of RS-064 sign, the trailhead should be within 3 miles of the highway.*

Option:

45 The All-Terrain Trail (RS-095) sign may be used to identify recreation vehicle trails located within public recreation areas.

46 The OHV TRAIL (S12(CA)) sign may be used to direct off highway vehicle operators to the location of a OHV trail. The S12(CA) sign may be supplemented by a white on brown Directional Arrow Auxiliary (M6 Series) sign.

Guidance:

47 *For the use of RS-095 sign, the trailhead should be 3 miles or less from the highway. For this application, the term "recreation*

vehicle" is synonymous with "off highway vehicle" (OHV), which includes vehicles with two or more wheels. The OHV TRAIL (S12(CA)) sign should be used at points where off-highway vehicle trails intersect highways.

Option:

48 The Tramway (RS-071) sign may be used to identify recreational tramways or gondolas that provide year-round service and are located within 5 miles of the highway.

49 The Golfing (RS-128) sign may be used to identify a 9 hole or more golf course within 3 miles on a conventional highway which does not have its main entrance adjacent to the highway. The RS-128 signs may be installed under permit by local agencies only.

Standard:

50 **The RS-128 signs shall not be used at driving ranges or miniature golf courses.**

Water Recreation

Option:

51 The Canoeing (RS-079) sign may be used to indicate where canoeing facilities and services are available within 3 miles of the highway.

52 The Diving (Scuba) (RS-060) sign may be used to indicate areas suitable for scuba diving within 3 miles of the highway.

53 The Fishing Area (RS-063) sign may be used to indicate a fishing area, either public or private, within 3 miles of the highway.

54 The Marina (RS-053) sign may be used to indicate an area where boats can be anchored and serviced within 3 miles of the highway.

55 The Motorboating (RS-055) sign may be used to indicate areas where motorboating facilities and services are available within 3 miles of the highway.

56 The Boat Ramp (RS-054) sign may be used to indicate boat launching facilities, either public or private, located within 3 miles of the highway.

57 The Waterskiing (RS-058) sign may be used to indicate areas where water-skiing facilities and services are available within 3 miles of the highway.

58 The Swimming (RS-061) sign may be used to indicate a swimming facility within a recreational area.

Winter Recreation

Option:

59 The Cross Country Skiing (RS-046) sign may be used to indicate cross country skiing facilities within 1 mile of the highway.

Guidance:

60 *For the use of RS-046 sign, there should be sufficient parking to accommodate normal demand.*

Option:

61 The Sledding (RS-049) sign may be used to indicate sledding facilities within 1 mile of the highway.

Guidance:

62 *For the use of RS-049 sign, there should be sufficient parking to accommodate normal demand.*

Option:

63 The Snowshoeing (RS-078) sign may be used to indicate an area within 1 mile of the highway where special facilities or services are available for Snowshoeing.

Guidance:

64 *For the use of RS-078 sign, there should be sufficient parking to accommodate normal demand.*

Option:

65 The Winter Recreation Area (RS-077) sign may be used to indicate a winter recreation area within 1 mile of the highway when other recreation symbols are not appropriate.

Guidance:

66 *For the use of RS-077 sign, there should be sufficient parking to accommodate normal demand.*

Sno-Park Signs

Option:

67 Only those specific parking areas designated by the Department of Parks and Recreation may be signed as Sno-Park parking areas. Parking is by permit only.

68 The SNO-PARK X MILE (SG30(CA)) sign may be used on expressways or conventional highways to give advance notice of a snow plowed parking area. The SNO-PARK with Arrow (SG32(CA)) sign may be used on expressways or conventional highways in advance of a turn off to a snow plowed parking area.

69 The SNO-PARK NEXT RIGHT (SG31(CA)) sign may be used on freeways to give advance notice of an exit to a snow plowed parking area. The SNO-PARK (SG34(CA)) sign may be placed below an existing Advance Guide (G83(CA) Series) or Supplemental

Destination (G86(CA) Series) sign on freeways to indicate an exit to a snow plowed parking area.

Standard:

70 **If the SG31(CA) or SG34(CA) sign is used, a SNO-PARK with Arrow (SG33(CA)) sign shall be placed at the ramp terminal.**

Guidance:

71 *If used, the PERMIT REQUIRED (SG35P(CA)) plaque should be placed below the SG30(CA) or SG31(CA) sign and the PERMIT REQUIRED NOV 1 TO MAY 30 (SG35-1P(CA)) plaque should be placed below the SG32(CA) or SG33(CA) sign. Placement should be under the sign, which is nearest to the Sno-Park entrance.*

72 *Between November 1 and May 30, during periods when snow is not available for recreational activities, the SG35P(CA) and SG35-1(CA) plaques should be covered.*

Standard:

73 **At the end of the Sno-Park season, May 30, the SG35P(CA) and SG35-1(CA) signs shall be covered or removed.**

Section 2M.03 Regulatory and Warning Signs

Standard:

01 **All regulatory and warning signs installed on roads and streets open to public travel within recreational and cultural interest areas shall comply with the requirements elsewhere in this Manual.**

Section 2M.04 General Design Requirements for Recreational and Cultural Interest Area Symbol Guide Signs

Standard:

01 **When a General Information symbol contained in Chapter 2H (see Figure 2H-1) is used in conjunction with recreational and cultural interest area signing on roadways outside a recreational and cultural interest area facility, the legend and background color of the General Information symbol sign shall be as prescribed in Chapter 2H.**

02 **When a General Service symbol contained in Chapter 2I (see Figure 2I-1) is used in conjunction with recreational and cultural interest area signing on roadways outside a recreational and cultural interest area facility, the legend and background color of the General Service symbol sign shall be as prescribed in Chapter 2I.**

Option:

03 For roadways inside a recreational and cultural interest area, General Information symbol signs and General Service symbol signs may have a white legend on a brown background (see Figures 2H-1 and 2I-1).

Standard:

04 **Except as provided in Section 2M.09, 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:**

- **A. General Applications,**
- **B. Accommodations,**
- **C. Services,**
- **D. Land Recreation,**
- **E. Water Recreation, and**
- **F. Winter Recreation.**

Support:

05 Table 2M-1 contains a listing of the symbols within each series category.

Option:

06 Mirror images of symbols may be used where the reverse image will better convey the message (see Section 2A.09).

Section 2M.05 Symbol Sign Sizes

Guidance:

01 *Recreational and cultural interest area symbol signs should be 24 x 24 inches. Where greater visibility or emphasis is needed, larger sizes should be used. Symbol sign enlargements should be in 6-inch increments.*

02 *Recreational and cultural interest area symbol signs should be 30 x 30 inches when used on guide signs on freeways or expressways.*

Option:

03 A smaller size of 18 x 18 inches may be used on low-speed, low-volume roadways and on non-road applications.

Section 2M.06 Use of Educational Plaques

Guidance:

01 *Educational plaques should accompany all initial installations of recreational and cultural interest area symbol signs. If used, the educational plaque should be the same width as the symbol sign.*

Option:

02 Symbol signs that are readily recognizable by the public may be installed without educational plaques.

Support:

03 Figure 2M-1 illustrates some examples of the use of educational plaques.

Section 2M.07 Use of Prohibitive Circle and Diagonal for Non-Road Applications

Standard:

01 **Where it is necessary to indicate a 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, the appropriate recreational and cultural interest area symbol shall be used in combination with a red prohibitive circle and diagonal. The recreational and cultural interest area symbol and the sign border shall be black and the sign background shall be white. The symbol shall be scaled proportionally to fit completely within the circle. The diagonal shall be oriented from the upper left to the lower right portions of the circle as shown in Figure 2M-1 and 2M-102(CA) and as detailed in the "Standard Highway Signs" publication.**

02 **Requirements for retroreflection of the red circle and diagonal shall be the same as those requirements for backgrounds, legends, symbols, arrows, and borders.**

03 **If used, Figure 2M-102(CA), Table 2M-1 (with annotations), and Table 2M-1(CA) shall identify eligible Prohibited Symbol (PS- (CA) series) signs and eligible Prohibited Recreation Educational Plaque (PREP- (CA) series) for use in California.**

Option:

04 Eligible Prohibited Recreation Educational Plaque (PREP(CA) series) are optional for use in California.

Section 2M.08 Placement of Recreational and Cultural Interest Area Symbol Signs

Standard:

01 **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 as sign panels in the uppermost part of the sign and the directional information shall be placed below the symbol(s).**

02 **If the name of the recreational or cultural interest area facility or activity is displayed on a destination guide sign (see Section 2M.09) and a symbol is used, the symbol shall be placed below the name (see Figure 2M-2).**

Option:

03 The symbols displayed with the facility or activity name may be placed below the destination guide sign as illustrated in Figure 2M-2 instead of as sign panels placed with the destination guide sign.

04 Secondary symbols of a smaller size (18 x 18 inches) may be placed beneath the primary symbols (see Drawing A in Figure 2M-1), where needed.

Standard:

05 **Recreational and cultural interest area symbols installed for non-road use shall be placed in accordance with the general sign position requirements of the authority having jurisdiction.**

Support:

06 Figure 2M-3 illustrates typical height and lateral mounting positions. Figure 2M-4 illustrates some examples of the placement of symbol signs within a recreational or cultural interest area. Figures 2M-5 through 2M-10 illustrate some of the symbols that can be used.

Guidance:

07 *The number of symbols used in a single sign assembly should not exceed four.*

Option:

08 The Advance Turn (M5 series) or Directional Arrow (M6 series) auxiliary signs (see Figure 2D-6) with white arrows on brown backgrounds may be used with recreational and cultural interest area symbol guide signs to create a

recreational and cultural interest area directional assembly. The symbols may be used singularly, or in groups of two, three, or four on a single sign assembly (see Figures 2M-1, 2M-3, and 2M-4).

09 The NEXT RIGHT/LEFT (G58P(CA)) plaque (refer to Figure 2M-1(CA)) may also be used in conjunction with the recreational and cultural interest area signs.

Section 2M.09 Destination Guide Signs

Standard:

01 **When recreational or cultural interest area destinations are displayed on a Supplemental guide sign (see Section 2E.51), the sign shall be rectangular in shape with a white legend on a ~~green or~~ brown background.**

Option:

02 Trapezoidal-shaped signs (see Figure 2M-2) may be used to display recreational and cultural interest area destinations on conventional roads.

Standard:

03 **Whenever the trapezoidal shape is used, the color combination shall be a white legend and border on a brown background. When the trapezoidal shape is used for a sign with a directional arrow, a right-angled trapezoid with the wider dimension of the bases (parallel sides) at the top of the sign shall be used. The diagonal leg of the trapezoid shall be oriented in the same direction as the directional arrow. When the trapezoidal shape is used for an advance sign legend, such as with a distance or action message, an isosceles trapezoid with the wider dimension of the bases at the top of the sign shall be used.**

Option:

04 Destination guide signs with a white legend and border on a brown background 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. Supplemental guide signs with a white legend and border on a brown background 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 (see Section 2E.23) and the Exit Direction sign (see Section 2E.25) may have a white legend and border on a brown background.

04a The National/State Park (G72(CA)) sign may be installed at conventional road intersections to indicate the direction of a national or state park destination.

Standard:

05 **All Exit Gore (E5-1 series) signs (see Section 2E.26) shall have a white legend and border on a green background. The background color of the interchange Exit Number (E1-5P or E1-5bP) plaque (see Section 2E.22) shall match the background color of the guide sign above which it is mounted. Design characteristics of conventional road, expressway, or freeway guide signs shall comply with Chapter 2D or 2E except as provided in this Section for color combination.**

06 **The Advance guide sign and the Exit Direction sign shall retain the white-on-green color combination where the crossroad also leads to a destination other than a recreational or cultural interest area.**

Support:

07 Figure 2M-2 and 2M-2(CA) illustrates destination guide signs commonly used for identifying recreational or cultural interest areas or facilities.

08 The name of a community that is culturally unique and historically significant can be used on supplemental guide signs in accordance with the SHC § 101.12.

Option:

09 The Historic District Supplemental Destination (G86-11(CA)) signs may be placed directing traffic to a commercial or residential area that is of historic significance to a community and is recognized as such in the National Register of Historic Places.

Standard:

10 **For a Historic District to be signed from a State highway, its boundaries shall be within 3 miles of the highway. Only one sign, for each direction shall be allowed and it will be from the nearest State highway. The type of sign, whether it is a supplemental plate under an existing Supplemental Destination (G86(CA) Series) sign or a stand alone sign shall be determined by Caltrans. Any follow-up signs, if needed, shall be in place before the highway signs are installed.**

11 **The requesting local agency shall be responsible for consulting with the Department of Parks and Recreation, Office of Historic Preservation to verify the Historic District's official name and to insure there are no conflicts with existing historic**

landmarks or points of historical interest signs which may already be in place.

12 **When the above requirements are met, the requesting agency shall adopt a resolution, requesting Caltrans to place the signs. The cost of these signs and their installation shall be the responsibility of the requesting agency.**

Section 2M.10 Memorial or Dedication Signing

Support:

01 Legislative bodies will occasionally adopt an act or resolution memorializing or dedicating a highway, bridge, or other component of the highway.

Option:

01a The Legislature, by legislative action, may designate names for State highways and bridges. The Legislature may request memorial named highway facilities to be designated with signs instead of a plaque and specify that the signs are to be furnished and installed "at no cost to the State".

Support:

02 Named highways (see Section 2D.56) are officially designated and shown on official maps and serve the purpose of providing route guidance, primarily on unnumbered highways, and property addresses. A highway designated as a memorial or dedication is not considered to be a named highway for the purposes of highway signing or road user navigation and orientation.

03 Section 2A.20 contains information regarding excessive use of signs. Because memorial or dedication names are not official highway names, memorial and dedication signing is not essential to providing navigational guidance.

Guidance:

04 *Such memorial or dedication names should not appear on or along a highway or be placed on bridges or other highway components. If a route, bridge, or highway component is officially designated as a memorial or dedication, and if notification of the memorial or dedication is to be made on the highway right- of-way, such notification should consist of installing a memorial or dedication marker 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.*

05 *Memorial or dedication signs should have a white legend and border on a brown background. On all such signs, the design should be simple and dignified, devoid of any appearance of advertising, and in general compliance with other signing.*

06 *The lettering for the name of the person or entity being recognized should be composed of a combination of lower-case letters with initial upper-case letters.*

Standard:

07 **Where such memorial or dedication signs are installed on the highway mainline because the provisions of Paragraph 4 of this Section cannot be met, (1) memorial or dedication names shall not appear on directional guide signs, (2) memorial or dedication signs shall not interfere with the placement of any other traffic control devices, and (3) memorial or dedication signs shall not compromise the safety or efficiency of traffic flow. The memorial or dedication signing shall be limited to one sign at an appropriate location in each route direction except as noted in Paragraph 07a, each as an independent post-mounted sign installation.**

07a **When highway facilities are named by the Legislature, the following guidelines shall apply according to the type of facility:**

1. ***Bridges.*** **One sign (G11(CA) series) shall be placed at each approach end of the bridge, underpass, tunnel or other structure with the name of the memorialized individual.**
2. ***Freeways and Highways.*** **One sign (G12(CA) series) shall be placed at each terminal of the highway segment memorialized by the Legislature.**
3. ***Rest Areas.*** **One bronze plaque shall be installed at each legislatively named rest area. Memorial name signs shall not be installed in advance of rest areas.**
4. ***Interchanges.*** **One sign (G12(CA) series) shall be placed at a minimum of two approaches to the legislatively named interchange.**
5. ***Vista Points.*** **One bronze plaque shall be installed at each legislatively named vista point. Memorial name signs shall not be installed in advance of vista points.**
6. ***Roundabout.*** **One sign (G12(CA) series) shall be placed at a minimum of two approaches to the roundabout.**

7. *Bikeways*. Refer to Chapter 9D.

07b **The principal legend on post-mounted memorial or dedication signs shall be in letters and numerals 6 inches in height for upper-case letters and 4.5 inches in nominal loop height. Refer to Section 2D.05.**

Guidance:

07c *Bronze plaques normally should bear the name in 1 inch letters. However, the plaque should be no larger than 30 x 30 inches.*

Support:

07d Caltrans is authorized to expend reasonable sums for bronze plaques.

Standard:

08 **Memorial or dedication signs shall be rectangular in shape. The legend displayed on memorial or dedication signs shall be limited to the name of the person with an optional nickname in quotation marks if stated in the concurrent resolution, or entity being recognized and a simple message preceding the name, such as "DEDICATED TO." Additional legend, such as biographical information, shall not be displayed on memorial or dedication signs. Decorative or graphical elements, pictographs, logos, or symbols shall not be displayed on memorial or dedication signs. All letters and numerals displayed on memorial or dedication signs shall be as provided in the "Standard Highway Signs" publication (see Section 1A.05). The route number or officially mapped name of the highway shall not be displayed on the memorial or dedication sign.**

09 **Memorial or dedication signs shall not imply that a highway has been officially renamed.**

10 **Memorial or dedication names shall not appear on supplemental signs, street name signs or on any other information sign on or along the highway or its intersecting routes.**

10a **Memorial or dedication signs shall not be installed as overhead signs.**

Guidance:

11 *Freeways and expressways should not be signed as memorial or dedicated highways.*

12 *When used, memorial or dedication signs should be located in accordance with the provisions for excessive use of signs (see Section 2A.20).*

Support:

13 Paragraph 36 of Section 2D.45 contains provisions regarding the use of memorial or dedication signing in conjunction with Street Name signs.

Option:

14 The Memorial Bridge (G11-4A(CA) and G11-4B(CA)) signs (refer to Figure 2M-101(CA)) may be placed above an existing Inventory Marker (G11-1(CA), G11-2(CA), G11-4(CA) or G11-5(CA)) when an appropriate authority has requested that a highway facility be designated as a memorial facility.

25 The Memorial Bridge and Inventory Marker (G11-8(CA) and G11-9(CA)) combination signs (refer to Figure 2M-101(CA)) may be placed when an appropriate authority has requested that a highway facility be designated as a memorial facility.

Guidance:

16 *The Inventory Markers should be placed at each end of a structure, with the bottom of the sign even with the top of the bridge rail.*

Support:

17 The official name and number of structures on State highways are determined by Caltrans' Office of Structures Design.

Victims Memorial Program Signs (S35(CA) Series)

Support:

18 Refer to the SHC § 101.10.

Option:

19 The PLEASE DON'T DRINK AND DRIVE (S35(CA)) sign (refer to Figure 2M-101(CA)) may be placed on any state highway upon request from an immediate family member of a person who was killed by a driver intoxicated with drugs or alcohol, in memory of the victim.

Standard:

20 **The IN MEMORY OF XXX – 1 PERSON (S35-1P(CA)), IN MEMORY OF XXX – 2 PERSONS (S35-2P(CA)) or IN MEMORY OF XXX – 3 PERSONS (S35-3P(CA)) sign (refer to Figure 2M-101(CA)) shall be placed below the S35(CA) sign.**

21 **The following conditions shall be satisfied to qualify for a S35(CA) sign on a state highway:**

1. **At least one of the deceased victim's immediate family members requests a memorial sign. An immediate family member is a spouse, child, stepchild, brother, stepbrother, sister, stepsister, mother, stepmother, father or stepfather.**
2. **The accident occurred on or after January 1, 1991.**
3. **Either (a) or (b) is true:**
   a. **The intoxicated driver was convicted of second-degree murder, or gross vehicular manslaughter, or vehicular manslaughter.**
   b. **The intoxicated driver died or could not be prosecuted because of mental incompetence.**
4. **Note: An intoxicated driver who died does NOT qualify as a victim.**

22 **The placement of the S35(CA) sign on state highways shall be per the following requirements:**

1. **Signs will be installed in accordance with applicable Caltrans policies and standards for signs. This includes posts, hardware, materials, vertical, longitudinal, and lateral positioning.**
2. **Caltrans will NOT install or maintain a memorial sign if there is written opposition from any immediate family member.**
3. **Only one sign will be installed in one direction of travel on the right side of the state highway in close proximity to where the accident occurred at a location where it is safe and practical to do so.**
4. **Caltrans will maintain the sign for 7 years or until the condition of the sign has deteriorated to a point where it is no longer serviceable, whichever occurs first.**
5. **Only one sign will be installed per accident. Multiple victim names may appear on the sign.**
6. **A sign will NOT be installed in the median of any state highway.**

Section 2M.101(CA) Historical Landmark Signs (G13-1A(CA), G13-2A(CA) and G14A(CA))

Standard:

01 **The Historical Landmark (G13-1A(CA) and G13-2A(CA)) signs and the Advance Historical Landmark (G14A(CA)) sign shall have a white legend and border on a brown colored background.**

Option:

02 The G13-1A(CA), G13-2A(CA) and G14A(CA) signs may be in addition to the normal compliment of signs, but minimum spacing will be maintained.

03 The G13-1A(CA), G13-2A(CA) and G14A(CA) signs may be placed directing to Historical Landmarks that are registered with the Department of Parks and Recreation.

Standard:

04 **On freeways, the G13-1A(CA), G13-2A(CA) and G14A(CA) signs shall be limited to those more important and better known landmarks where some physical evidence remains, such as missions, forts, state monuments, etc., rather than mere sites of former buildings or happenings.**

05 **The Office of Historic Preservation within the Department of Parks and Recreation (or the Resource Protection Division in the case of State Historic Park sites) shall be notified prior to the removal of existing G13-1A(CA), G13-2A(CA) and G14A(CA) signs.**

Guidance:

06 *The Historical Landmark (G13-1A(CA)) sign should be used on conventional highways to guide road users by the most direct route to registered historical landmarks which are located within 5 miles of the highway. The sign should be placed not more than 150 feet in advance of the intersection on the right.*

07 *The Historical Landmark (G13-2A(CA)) sign should be used on freeways to guide road users to the original 21 California Missions and other important well-known historical landmarks. Refer to § 123.5 of the SHC for signing to Missions. The G13-2A(CA) sign should also be used on freeways to guide road users to historical landmarks that have a profound impact on the history of California as a whole.*

Option:

08 Supplemental Destination (G86(CA) Series) signs (white text on green background) may be used on freeways where the landmark generates considerable traffic.

Standard:

09 **These G86(CA) Series signs shall be followed up by standard Historical Landmark signs on the next exit ramps.**

Guidance:

10 *The Advance Historical Landmark (G14A(CA)) sign should be used in advance of a registered historical landmark monument or plaque within or adjacent to the right of way. The sign should be placed 500 to 1500 feet in advance of the landmark or monument on the right, depending on the approach speed of traffic.*

Section 2M.102(CA) POINT OF HISTORICAL INTEREST Sign (G15A(CA))

Standard:

01 **The POINT OF HISTORICAL INTEREST (G15A(CA)) sign shall have a white legend on a brown background.**

02 **The G15A(CA) sign shall not be used on freeways.**

Option:

03 The POINT OF HISTORICAL INTEREST (G15A(CA)) sign may be used to direct the public to a historical point of interest that has been registered with the Office of Historic Preservation, Department of Parks and Recreation. The G15A(CA) sign may be used on the right on city streets or conventional rural highways.

Support:

04 The G15A(CA) sign is placed when requested by local authorities, after markers or other identification have been placed at the location and follow-up signs, if necessary, have been installed.

Section 2M.103(CA) Historic Route Signs (SG2(CA), SG2A(CA), S18(CA) and S25(CA))

Guidance:

01 *The EL CAMINO REAL (SG2(CA)) sign should be used in combination with the Mission Bell assembly, to identify the original route of El Camino Real.*

02 *The HISTORIC EL CAMINO REAL (SG2A(CA)) sign should be used in combination with the Mission Bell assembly, to identify Historic El Camino Real.*

Option:

03 The Historic Route (S18(CA)) sign may be used to identify a "Historic Route". Legislature may direct the use of this sign.

Support:

04 Caltrans and local agencies with portions of Historic Routes under their jurisdiction, upon application by an interested local agency or private group and receiving donations from non-State sources for the cost of the sign and their installation, can place these signs as requested.

05 The Historic Route 99 (S25(CA)) sign is used to identify "Historic Route 99".

06 Caltrans and local agencies with portions of former U.S. Route 99 currently under their jurisdiction, upon application by an interested local agency or private group and receiving donations from non-State sources for the cost of the sign and their installation, can place these signs as requested.

Guidance:

07 *Suggested placement should be staggered in each direction at approximately 10 mile intervals on conventional highways and 25 mile intervals on freeways for the S18(CA) and S25(CA) signs.*

Section 2M.104(CA) Historic Bridge Signs (S29(CA), S29-1(CA) and S29-2(CA))

Guidance:

01 *The Historic Bridge (S29(CA) and S29-1(CA)) sign should be used to identify 280 bridges in the State that are of historical significance and appear in Caltrans' publication titled "Historical Highway Bridges of California". Refer to Section 1A.11 for information regarding this publication.*

02 *The Advance Historic Bridge (S29-2(CA)) sign should be used in advance of a historic bridge to direct the public to the historic bridge.*

Support:

03 The initial installation of the Historic Bridge signs was through a grant provided under the ISTEA Enhancement Program and administered by Caltrans' Environmental Program. Maintenance for the existing signs is borne by the agency responsible for the bridge.

Figure 2M-1. Examples of Use of Arrows, Educational Plaques, and Prohibitive Circles and Diagonals



Figure 2M-1(CA). California Examples of Use of Arrows, Educational Plaques, and Prohibitive Circles and Diagonals



G58P(CA)

Figure 2M-2. Examples of Recreational and Cultural Interest Area Guide Signs

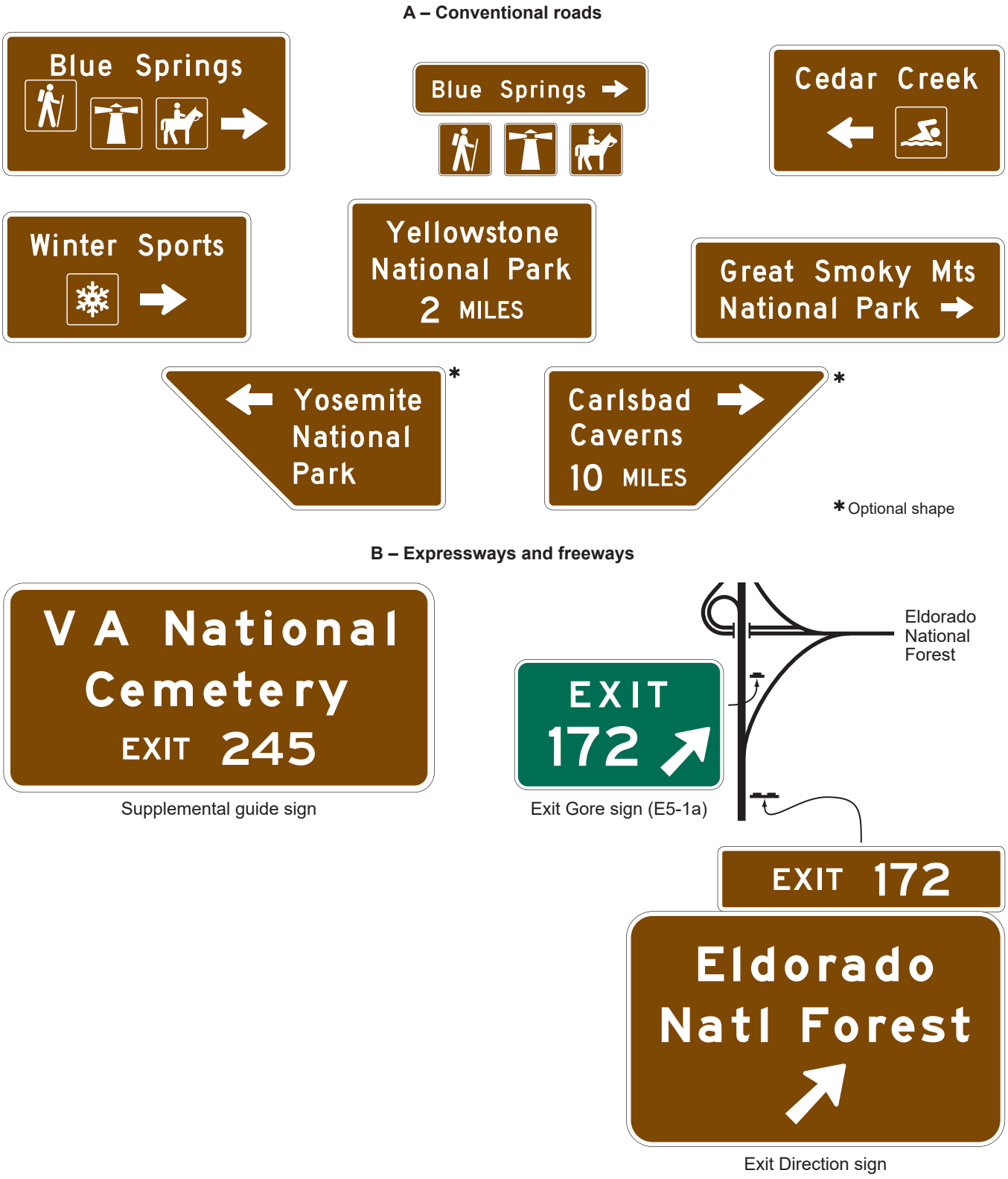


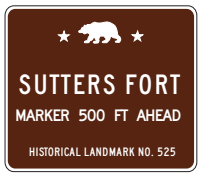
Figure 2M-2(CA). California Examples of Recreational and Cultural Interest Area Guide Signs



G13-1A(CA)



G13-2A(CA)



G14A(CA)



G15A(CA)



G72(CA)



G86-11(CA)



SG2(CA)



SG2A(CA)



S18(CA)



S25(CA)



S29(CA)

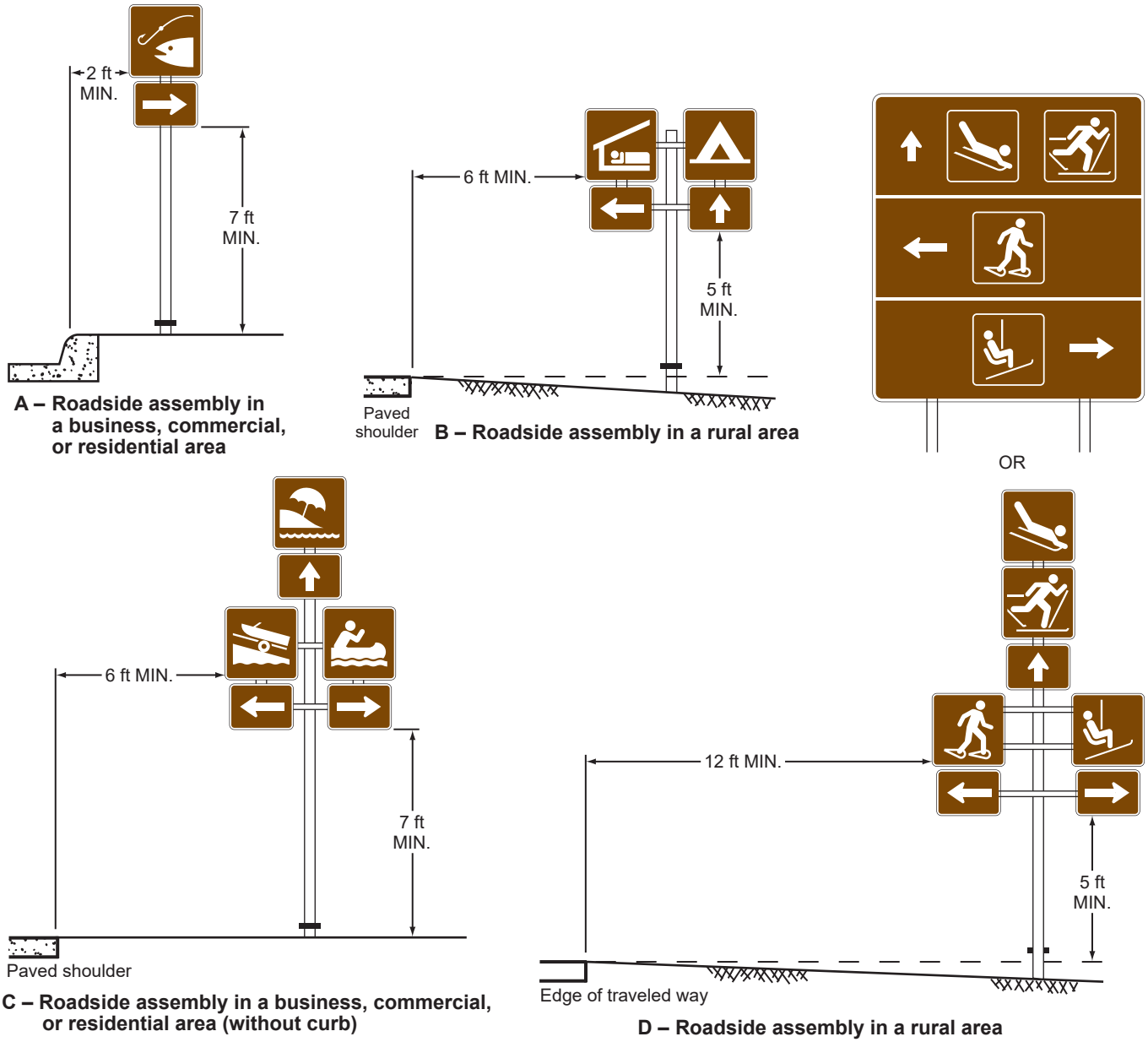


S29-1(CA)



S29-2(CA)

Figure 2M-3. Arrangement, Height, and Lateral Position of Signs Located within Recreational and Cultural Interest Areas



A – Roadside assembly in a business, commercial, or residential area

B – Roadside assembly in a rural area

C – Roadside assembly in a business, commercial, or residential area (without curb)

D – Roadside assembly in a rural area

Note: See Section 2A.16 for reduced lateral offset distances that may be used in areas where lateral offsets are limited, and in urban areas where sidewalk width is limited or where existing poles are close to the curb

Figure 2M-4. Examples of Symbol and Destination Guide Signing Layout

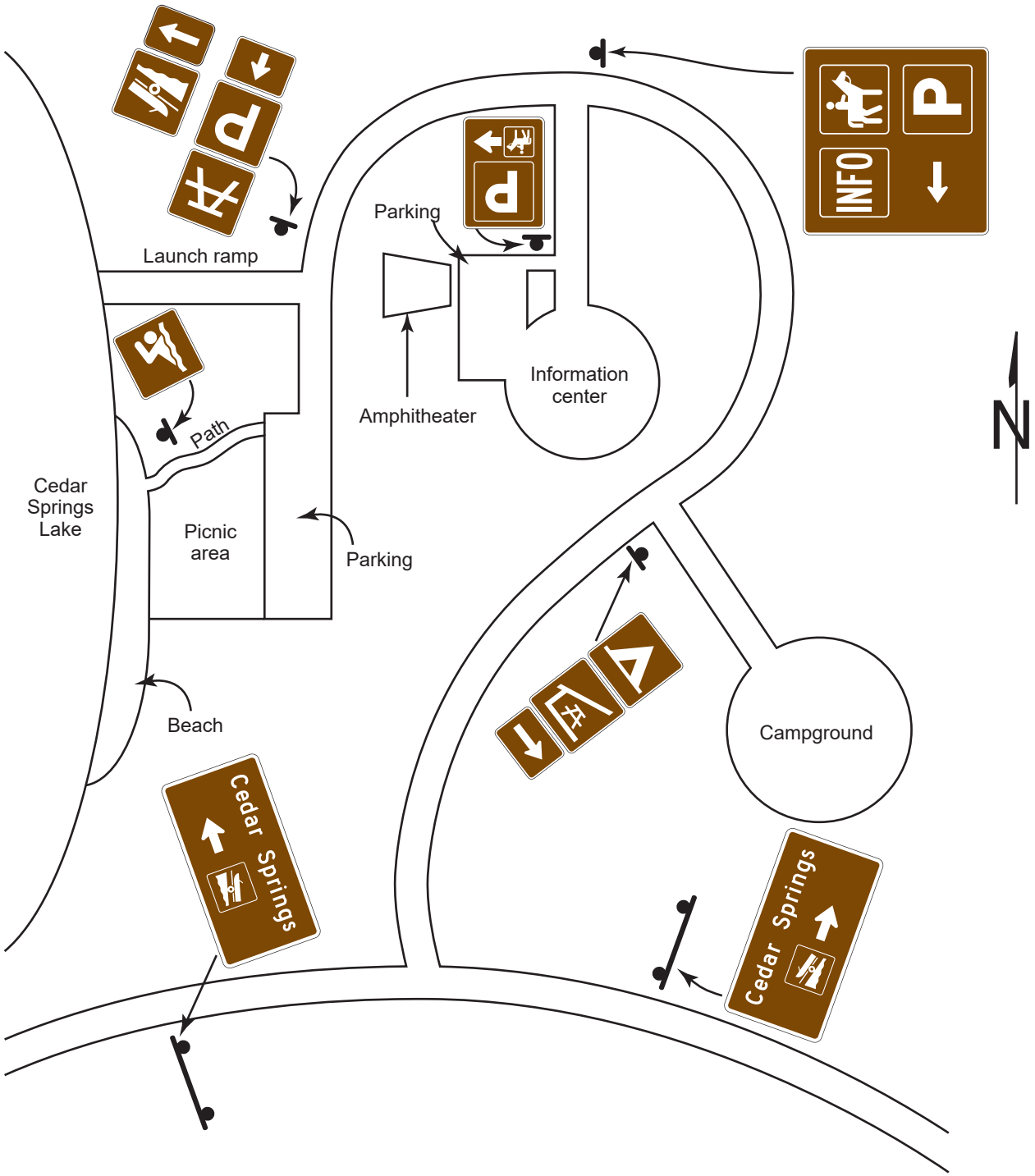


Figure 2M-5. Recreational and Cultural Interest Area Symbol Signs for General Applications



Figure 2M-6. Recreational and Cultural Interest Area Symbol Signs for Accommodations

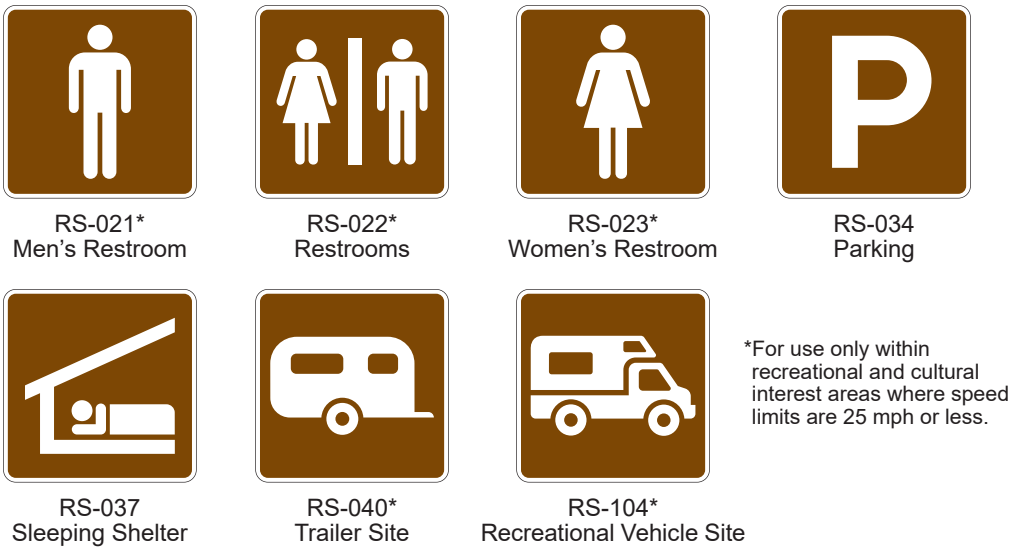


Figure 2M-7. Recreational and Cultural Interest Area Symbol Signs for Services



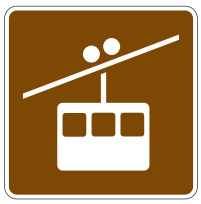
RS-024*
First Aid

RS-026*
Post Office

RS-035*
Showers

RS-039
Picnic Shelter

RS-044
Picnic Site



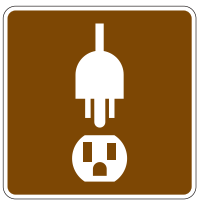
RS-071
Tramway



RS-085*
Laundromat



RS-091*
Trash Dumpster



RS-150*
Electrical Hook-Up

*For use only within recreational and cultural interest areas where speed limits are 25 mph or less.

Figure 2M-8. Recreational and Cultural Interest Area Symbol Signs for Land Recreation



RS-064
Horse Trail

RS-068
Hiking Trail

RS-076
Wildlife Viewing

RS-081*
Technical Rock Climbing

RS-082
Climbing

RS-084*
Spelunking/Caves

RS-095
All-Terrain Trail

RS-096
Baseball

RS-098*
Skateboarding

RS-116
Archery

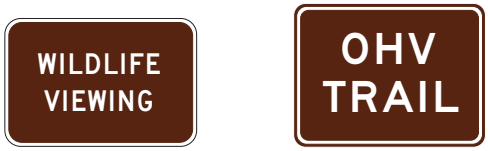
RS-125*
In-Line Skating

RS-128
Golfing

RS-129
Tennis

*For use only within recreational and cultural interest areas where speed limits are 25 mph or less.

Figure 2M-8(CA). California Recreational and Cultural Interest Area Symbol Signs for Land Recreation



G200-81aP(CA)

S12(CA)

Figure 2M-9. Recreational and Cultural Interest Area Symbol Signs for Water Recreation



RS-053*
Marina

RS-054
Boat Ramp

RS-055
Motorboating

RS-058
Waterskiing

RS-060
Scuba Diving

RS-061
Swimming

RS-063
Fishing Area

RS-079
Canoeing

RS-106
Seal Viewing

RS-107
Whale Viewing

RS-117*
Hand Launch/
Small Boat Launch

RS-121
Jet Ski/Personal
Watercraft

RS-145
Beach

*For use only within recreational and cultural interest areas where speed limits are 25 mph or less.

Figure 2M-10. Recreational and Cultural Interest Area Symbol Signs for Winter Recreation



Figure 2M-10(CA). California Recreational and Cultural Interest Area Symbol Signs for Winter Recreation



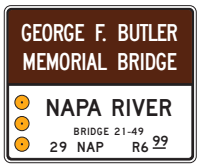
Figure 2M-101(CA). Memorial or Dedication Signing



G11-4A(CA)



G11-4B(CA)



G11-8(CA)



G11-9(CA)



G12-1(CA)



G12-2A(CA)



S35-1P(CA)



S35(CA)



S35-2P(CA)



S35-3P(CA)

Figure 2M-102(CA). Prohibited Recreational and Cultural Interest Area Symbol Signs and Educational Plaque

General



PS-002(CA)
PREP-002(CA)



PS-042(CA)
PREP-042(CA)



PS-140(CA)
PREP-140(CA)

Land



R9-14
PREP-064(CA)



R9-3
R5-10c



PS-082(CA)
PREP-082(CA)



PS-096(CA)
PREP-096(CA)



PS-098(CA)
PREP-098(CA)



R9-13
PREP-125(CA)



PS-128(CA)
PREP-128(CA)

Water



PS-061(CA)
PREP-061(CA)



PS-063(CA)
PREP-063(CA)

Related Recreation Activities or Services



R5-6
PREP-R5-6(CA)



S22(CA)



S22-1(CA)

PS - Prohibited [Recreation Series] Symbol

PREP - Prohibited Recreational [Series] Educational Plaque

Table 2M-1. Category Chart for Recreational and Cultural Interest Area Symbols

General	
Bear Viewing Area	RS-012
Bus Stop *	RS-031
Campfires * ⊘	RS-042
Deer Viewing Area	RS-011
Fire Extinguisher *	RS-090
Lighthouse	RS-007
Lookout Tower	RS-006
Nature Study Area	RS-141
Pick-Up Trucks * ⊘	RS-140
Recycling *	RS-200
Sea Plane	RS-115
Tunnel *	RS-005
Viewing Area	RS-036

Services	
Electrical Hook-Up *	RS-150
First Aid *	RS-024
Laundromat *	RS-085
Picnic Shelter	RS-039
Picnic Site	RS-044
Post Office *	RS-026
Showers *	RS-035
Tramway	RS-071
Trash Dumpster *	RS-091

Water Recreation	
Beach	RS-145
Boat Ramp	RS-054
Canoeing	RS-079
Fishing Area ⊘	RS-063
Hand Launch/Small Boat Launch *	RS-117
Jet Ski/Personal Watercraft	RS-121
Marina *	RS-053
Motorboating	RS-055
Scuba Diving	RS-060
Seal Viewing	RS-106
Swimming ⊘	RS-061
Waterskiing	RS-058
Whale Viewing	RS-107

Accommodations	
Men's Restroom *	RS-021
Parking	RS-034
Recreational Vehicle Site *	RS-104
Restrooms *	RS-022
Sleeping Shelter	RS-037
Smoking * ** ⊘	RS-002
Trailer Site *	RS-040
Women's Restroom *	RS-023

Land Recreation	
All-Terrain Trail	RS-095
Archery	RS-116
Baseball ⊘	RS-096
Climbing ⊘	RS-082
Golfing ⊘	RS-128
Hiking Trail	RS-068
Horse Trail ⊘	RS-064
In-Line Skating * ⊘	RS-125
Skateboarding * ⊘	RS-098
Spelunking/Caves *	RS-084
Technical Rock Climbing *	RS-081
Tennis	RS-129
Wildlife Viewing	RS-076

Winter Recreation	
Chair Lift/Ski Lift	RS-105
Cross Country Skiing	RS-046
Dog Sledding	RS-143
Sledding	RS-049
Snow Tubing	RS-144
Snowshoeing	RS-078
Winter Recreational Area	RS-077

*For use only within recreational and cultural interest areas where speed limits are 25 mph or less.
** Refer to FHWA's List of Known Errors for errors in sign. Refer to Section 1A.04 for more details.

⊘ Eligible for Prohibited Symbol sign

Table 2M-1(CA). California Category Chart for Recreational and Cultural Interest Area Symbols

General RS-Series Title	Sign Designation	PS-(CA) Series Title	Sign Designation	PREP-(CA) Series Legend	Sign Designation
Campfires ⊘	RS-042	No Campfires	PS-042(CA)	NO CAMPFIRES	PREP-042(CA)
Pick-Up Trucks ⊘	RS-140	No Pickups	PS-140(CA)	NO PICKUPS	PREP-140(CA)

Land RS-Series Title	Sign Designation	PS-(CA) Series Title	Sign Designation	PREP-(CA) Series Legend	Sign Designation
Baseball ⊘	RS-096	No Ball Playing	PS-096(CA)	NO BALL PLAYING	PREP-096(CA)
Climbing ⊘	RS-082	No Climbing	PS-082(CA)	NO CLIMBING	PREP-082(CA)
Golfing ⊘	RS-128	No Golfing	PS-128(CA)	NO GOLFING	PREP-128(CA)
Hiking Trail ⊘	RS-068	No Pedestrians	R9-3	NO PEDESTRIANS	R5-10c
Horse Trail ⊘	RS-064	No Equestrians	R9-14	NO EQUESTRIANS	PREP-064(CA)
In-Line Skating ⊘	RS-125	No Skaters	R9-13	NO SKATERS	PREP-125(CA)
Skateboarding ⊘	RS-098	No Skateboarding *	PS-098(CA)	NO SKATEBOARDING	PREP-098(CA)

Water RS-Series Title	Sign Designation	PS-(CA) Series Title	Sign Designation	PREP-(CA) Series Legend	Sign Designation
Fishing Area ⊘	RS-063	No Fishing	PS-063(CA)	NO FISHING	PREP-063(CA)
Swimming ⊘	RS-061	No Swimming	PS-061(CA)	NO SWIMMING	PREP-061(CA)

Related Recreation Activities or Services	Sign Designation	Related Recreation Activities or Services	Sign Designation	PREP-(CA) Series Legend	Sign Designation
Bicycles Permitted ⊘	D11-11	No Bicycles	R5-6	NO BICYCLES	PREP-R5-6(CA)
Camping ⊘	D9-3			NO LOITERING, CAMPING, VENDING OR PARKING OF VEHICLES 30 FEET OR LONGER	S22(CA)
				VEHICLE INSPECTION ONLY, NO LOITERING OR CAMPING	S22-1(CA)

⊘ Eligible for Prohibited Symbol Sign

PS- Prohibited [Recreational Series] Symbol
PREP- Prohibited Recreational [Series] Educational Plaque

Table 2M-101(CA). California Recreational and Cultural Interest Area Sign and Plaque Sizes

Sign or Plaque	Sign Designation	Section	Conventional Road	Freeway or Expressway
Memorial Bridge	G11-4A(CA)	2M.10	44 x 18	44 x 18
Memorial Bridge	G11-4B(CA)	2M.10	44 x 24	44 x 24
Memorial Bridge and Inventory Marker	G11-8(CA)	2M.10	44 x 36	44 x 36
Memorial Bridge and Inventory Marker	G11-9(CA)	2M.10	44 x 42	44 x 42
Memorial Highway	G12-1(CA)	2M.10	VAR x 18	VAR x 24
Memorial Highway	G12-2A(CA)	2M.10	VAR x 30	VAR x 42
Historical Landmark	G13-1A(CA)	2M.101(CA)	36 x 30	36 x 30
Historical Landmark	G13-2A(CA)	2M.101(CA)	72 x 60	72 x 60
Advance Historical Landmark	G14A(CA)	2M.101(CA)	36 x 30	36 x 30
POINT OF HISTORICAL INTEREST	G15A(CA)	2M.102(CA)	15 x 9	36 x 30
NEXT RIGHT/LEFT (plaque)	G58P(CA)	2M.08	30 x 24	30 x 24
National/State Park with Arrow	G72(CA)	2M.09	VAR x 18	VAR x 30
Historic District Supplemental Destination	G86-11(CA)	2M.09	VAR x 42	VAR x 54
WILDLIFE VIEWING (plaque)	G200-81aP(CA)	2M.02	24 x 12	30 x 18
EL CAMINO REAL	SG2(CA)	2M.103(CA)	30 x 28	48 x 40
HISTORIC EL CAMINO REAL	SG2A(CA)	2M.103(CA)	42 x 15	42 x 15
SNO-PARK X MILE	SG30(CA)	2M.02	60 x 30	60 x 30
SNO-PARK NEXT RIGHT	SG31(CA)	2M.02	60 x 30	60 x 30
SNO-PARK with Arrow	SG32(CA)	2M.02	60 x 30	60 x 30
SNO-PARK with Arrow	SG33(CA)	2M.02	VAR x 12	VAR x 18
SNO-PARK	SG34(CA)	2M.02	96 x 24	120 x 30
PERMIT REQUIRED (plaque)	SG35P(CA)	2M.02	60 x 12	60 x 12
PERMIT REQUIRED with Dates (plaque)	SG35-1P(CA)	2M.02	60 x 18	60 x 18
OHV TRAIL	S12(CA)	2M.02	24 x 18	24 x 18
Historic Route	S18(CA)	2M.103(CA)	12 x 18	24 x 36
Historic Route 99	S25(CA)	2M.103(CA)	12 x 18	24 x 36
Historic Bridge	S29(CA)	2M.104(CA)	VAR x 18	VAR x 36
Historic Bridge	S29-1(CA)	2M.104(CA)	VAR x 24	VAR x 48
Advance Historic Bridge	S29-2(CA)	2M.104(CA)	VAR x 24	VAR x 48
PLEASE DON'T DRINK AND DRIVE	S35(CA)	2M.10	36 x 30	36 x 30
IN MEMORY OF XXX - 1 PERSON (plaque)	S35-1P(CA)	2M.10	36 x 12	36 x 12
IN MEMORY OF XXX - 2 PERSONS (plaque)	S35-2P(CA)	2M.10	36 x 15	36 x 15
IN MEMORY OF XXX - 3 PERSONS (plaque)	S35-3P(CA)	2M.10	36 x 18	36 x 18

CHAPTER 2N. EMERGENCY MANAGEMENT SIGNS

Section 2N.01 Emergency Management

Guidance:

01 *Contingency planning for an emergency evacuation should be considered by all State and local jurisdictions and should consider the use of all applicable roadways.*

02 *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 2N.02 Design and Use of Emergency Management Signs

Standard:

01 **Emergency Management signs (see Figure 2N-1) shall be used to guide and control highway traffic during an emergency.**

Guidance:

02 *During an emergency, permanently-installed regulatory and warning signs that conflict with Emergency Management signs should be removed or covered until such time as the Emergency Management signs are no longer necessary.*

03 *Except for Evacuation Route signs, Emergency Management signs that are no longer necessitated by the emergency should be promptly removed and signs that normally provide regulation, warning, or guidance that were removed or covered during the emergency should be promptly displayed again.*

Standard:

04 **Advance planning for transportation operations emergencies shall be the responsibility of State and local authorities.**

Support:

05 The Federal Government provides guidance to the States as necessitated by changing circumstances.

Standard:

06 **Except as provided in Section 2A.07, the sizes for Emergency Management signs shall be as shown in Table 2N-1.**

Support:

07 Section 2A.07 contains information regarding the applicability of the various columns in Table 2N-1. Option:

08 Signs larger than those shown in Table 2N-1 may be used (see Section 2A.07).

Guidance:

09 *As conditions permit, the Emergency Management signs should be replaced or augmented by standard signs.*

10 *Except where specifically required elsewhere in this Chapter, the background of Emergency Management signs should be retroreflective.*

11 *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:

12 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 the standard symbol that is illustrated in the upper left corner of the EM4-1b and EM4-1c signs in Figure 2N-1.

Section 2N.03 Evacuation Route Signs (EM1 Series)

Standard:

01 **An Advance Turn Arrow (M5 series) or Directional Arrow (M6 series) auxiliary plaque (see Figure 2D-6) shall be installed below the EM1-2 sign. The Advance Turn Arrow or Directional Arrow auxiliary plaque shall have a white arrow and border on a blue background when used with an EM1-2 sign.**

Option:

02 Where different evacuation conditions use different evacuation routes in the same area, the word HURRICANE, or a word that describes some other type of evacuation route, may be added above the EVACUATION ROUTE legend

within the blue circular symbol on the EM1-1a sign.

Standard:

03 **The EM1-1 series signs shall include a white directional arrow. The arrow designs on the EM1-1 series signs 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.**

Guidance:

04 *If used, the Evacuation Route sign, with the appropriate arrow, should be installed 150 to 300 feet in advance of, and at, any turn in an approved evacuation route. The sign should also be installed elsewhere for straight-ahead confirmation where needed.*

Standard

05 **If used in urban areas, the Evacuation Route sign shall be mounted at the right-hand side of the roadway, not less than 7 feet above the top of the curb, and at least 1 foot back from the face of the curb. If used in rural areas, the Evacuation Route sign shall be mounted at the right-hand side of the roadway, not less than 7 feet above the near edge of the pavement and not less than 6 feet or more than 10 feet to the right of the right-hand roadway edge.**

06 **Evacuation Route signs shall not be placed where they will conflict with other signs. Where a conflict in placement would occur between the Evacuation Route sign and a standard regulatory sign, the regulatory sign shall take precedence.**

Option:

07 In case of a conflict with guide or warning signs, the Evacuation Route sign may take precedence.

Guidance:

08 *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.*

09 *Use of the specific Evacuation Route (EM1-1a and EM1-2) signs should be limited to areas where different evacuation conditions use different evacuation routes.*

Option:

10 Informational tsunami hazard zone signs may be placed along California roadways, including the state highway system, following the guidelines published by California Office of Emergency Services.

Section 2N.04 AREA CLOSED Sign (EM2-1)

Guidance:

01 *The AREA CLOSED (EM2-1) sign (see Figure 2N-1) should be used to close a roadway in order to prohibit traffic from entering the area. It should be installed on the shoulder as near as practical to the right- hand edge of the roadway, or preferably, on a portable mounting or barricade partly or entirely in the roadway.*

02 *For best visibility, particularly at night, the sign height should not exceed 4 feet 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 2N.05 TRAFFIC CONTROL POINT Sign (EM2-2)

Guidance:

01 *The TRAFFIC CONTROL POINT (EM2-2) sign (see Figure 2N-1) should 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.*

02 *The sign should be installed in the same manner as the AREA CLOSED sign (see Section 2N.04), and at the point where traffic must stop to be checked.*

03 *A STOP (R1-1) sign (see Section 2B.04) should be used in conjunction with the TRAFFIC CONTROL POINT sign.*

04 *The TRAFFIC CONTROL POINT sign should be mounted directly below the STOP sign.*

Section 2N.06 MAINTAIN TOP SAFE SPEED Sign (EM2-3)

Option:

01 The MAINTAIN TOP SAFE SPEED (EM2-3) sign (see Figure 2N-1) may be used on highways where conditions

are such that it is prudent to evacuate or traverse an area as quickly as possible.

02 Where an existing Speed Limit (R2-1) sign is in a suitable location, the MAINTAIN TOP SAFE SPEED sign may be mounted directly over the face of the speed limit sign that it supersedes.

Support:

03 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 speed.

Guidance:

04 *The sign should be installed as needed, in the same manner as other standard speed signs.*

Standard:

05 **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 not less than 6 feet or more than 10 feet from the roadway edge, and at a minimum height, measured vertically from the bottom of the sign to the elevation of the near edge of the traveled way, of 5 feet. 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 7 feet, and the nearest edge of the sign shall be not less than 1 foot back from the face of the curb.**

Section 2N.07 Permit Required Sign (EM2-4)

Support:

01 The intent of the Permit Required (EM2-4) sign (see Figure 2N-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:

02 **If used, the Permit Required (EM2-4) sign shall be used at an intersection that is an entrance to a route on which a traffic control point is located.**

03 **If used, the EM2-4 sign shall be installed in a manner similar to that of the MAINTAIN TOP SAFE SPEED sign (see Section 2N.06).**

Section 2N.08 Emergency Aid Center Signs (EM3-1 Series)

Standard:

01 **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.**

02 **Emergency Aid Center (EM3-1 series) signs (see Figure 2N-1) shall display 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 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, of 7 feet, and not less than 1 foot 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 traveled way, of 5 feet, and at a horizontal distance of not less than 6 feet or more than 10 feet from the roadway edge.**

03 **Emergency Aid Center signs shall display one of the following legends, as appropriate, or others designating similar emergency facilities:**

- **A. MEDICAL CENTER (EM3-1),**
- **B. WELFARE CENTER (EM3-1a),**
- **C. REGISTRATION CENTER (EM3-1b), or**
- **D. DECONTAMINATION CENTER (EM3-1c).**

04 **The Emergency Aid Center sign shall be a horizontally-oriented rectangle. Except as provided in Paragraph 5 of this Section, the Emergency Aid Center signs shall have a black legend and border on a white background.**

Option:

05 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 6O).

Section 2N.09 Shelter Directional Signs (EM4-1 Series)

Standard:

01 **Shelter Directional (EM4-1 series) signs (see Figure 2N-1) shall be used to direct the public to selected shelters that have been licensed and marked for emergency use.**

02 **The installation of Shelter Directional signs shall comply with established signing standards. Where used, the signs shall not be installed in competition with other necessary highway regulatory, guide, and warning signs.**

03 **The Shelter Directional sign shall be a horizontally-oriented rectangle. Except as provided in Paragraph 4 of this Section, the Shelter Directional signs shall have a black legend and border on a white background.**

Option:

04 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 6O).

05 The distance to the shelter may be omitted from the sign when appropriate.

06 Shelter Directional signs may display one of the following legends, or others designating similar emergency facilities:

A. EMERGENCY (EM4-1),
B. HURRICANE (EM4-1a),
C. FALLOUT (EM4-1b), or
D. CHEMICAL (EM4-1c).

07 If appropriate, the name of the facility may be used.

08 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.

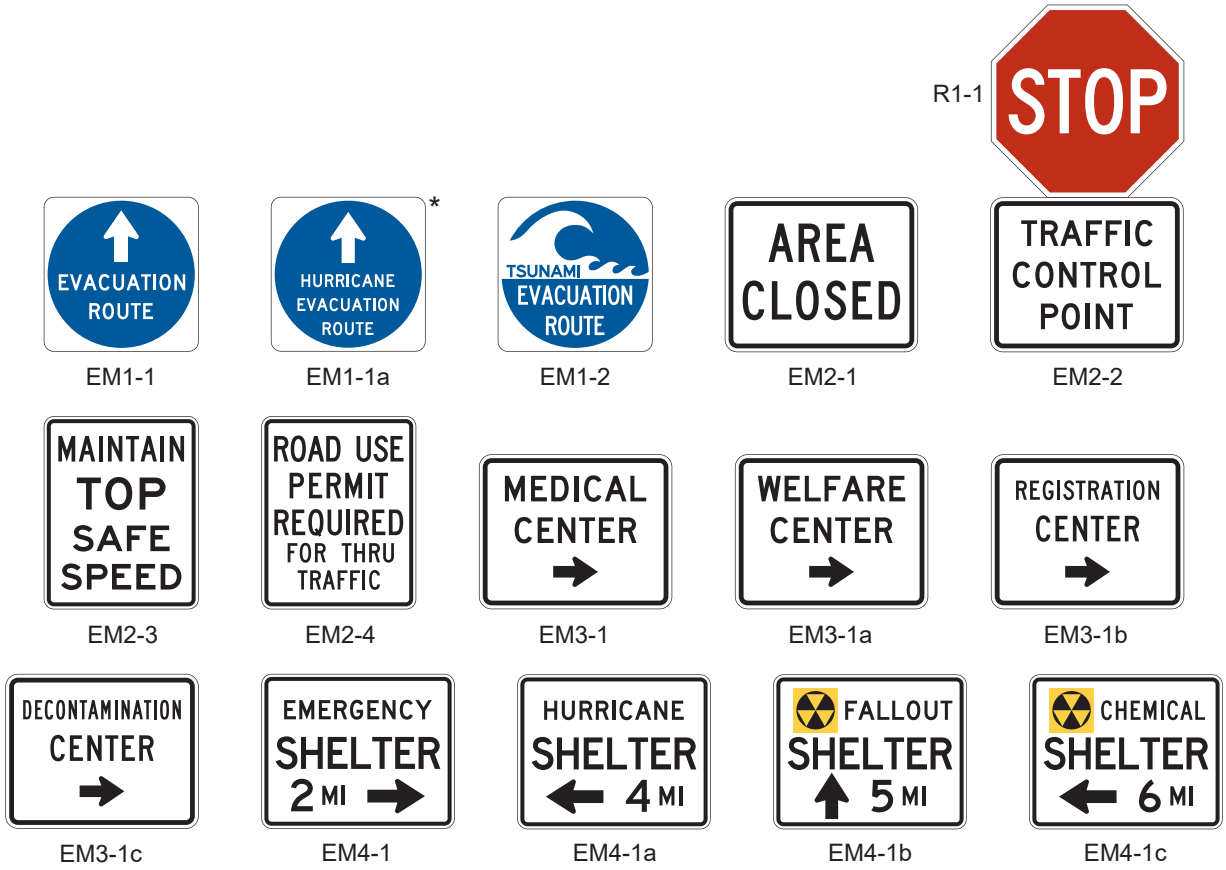
09 The Shelter Directional signs may be used to identify different routes to a shelter to provide for rapid movement of large numbers of persons.

Guidance:

10 *The Shelter Directional sign should be used sparingly and only in conjunction with approved plans of State and local authorities.*

11 *The Shelter Directional sign should not be posted more than 5 miles from a shelter.*

Figure 2N-1. Emergency Management Signs



*HURRICANE is an example of one type of evacuation route. Legends for other types may also be used.

Table 2N-1. Emergency Management Sign Sizes

Sign or Plaque	Sign Designation	Section	Minimum Size
Evacuation Route	EM1-1, EM-1a, EM1-2	2N.03	24 x 24*
Area Closed	EM2-1	2N.04	30 x 24
Traffic Control Point	EM2-2	2N.05	30 x 24
Maintain Top Safe Speed	EM2-3	2N.06	24 x 30
Permit Required	EM2-4	2N.07	24 x 30
Emergency Aid Center	EM3-1, EM3-1a, EM3-1b, EM3-1c	2N.08	30 x 24
Shelter Directional	EM4-1, EM4-1a, EM4-1b, EM4-1c	2N.09	30 x 24

* A minimum size of 18 x 18 may be used on low-volume roadways or roadways with speeds of 25 mph or less

Notes: 1. Larger signs may be used when appropriate. For EM1-1 and EM1-1a, a larger sign of 32 x 32 for single lane or multilane conventional roadways and 42 x 42 for expressways or freeways may be used.

2. Dimensions are shown as width x height, in inches