

# PART 2

## SIGNS

### CHAPTER 2A. GENERAL

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

Support:

01 This Manual contains Standards, Guidance, and Options for the signing of all types of highways, ~~and private roads open to public travel~~. The functions of signs are to provide regulations, warnings, and guidance information for road users. Words, symbols, and arrows are used to convey the messages. Signs are not typically used to confirm rules of the road.

Detailed sign requirements are located in the following Chapters of Part 2:

Chapter 2B — Regulatory Signs, Barricades, and Gates

Chapter 2C — Warning Signs and Object Markers

Chapter 2D — Guide Signs for Conventional Roads

Chapter 2E — Guide Signs for Freeways and Expressways

Chapter 2F — Toll Road Signs

Chapter 2G — Preferential and Managed Lane Signs

Chapter 2H — General Information Signs

Chapter 2I — General Service Signs

Chapter 2J — Specific Service (Logo) Signs

Chapter 2K — Tourist-Oriented Directional Signs

Chapter 2L — Changeable Message Signs

Chapter 2M — Recreational and Cultural Interest Area Signs

Chapter 2N — Emergency Management Signs

**Standard:**

02 **Because the requirements and standards for signs depend on the particular type of highway upon which they are to be used, the definitions for freeway, expressway, conventional road, and special purpose road given in Section 1A.13 shall apply in Part 2.**

#### **Section 2A.02 Definitions**

Support:

01 Definitions and acronyms that are applicable to signs are given in Sections 1A.13 and 1A.14.

#### **Section 2A.03 Standardization of Application**

Support:

01 It is recognized that urban traffic conditions differ from those in rural environments, and in many instances signs are applied and located differently. Where pertinent and practical, this Manual sets forth separate recommendations for urban and rural conditions.

*Guidance:*

02 *Signs should be used only where justified by engineering judgment or studies, as provided in Section 1A.09.*

03 *Results from traffic engineering studies of physical and traffic factors should indicate the locations where signs are deemed necessary or desirable.*

04 *Roadway geometric design and sign application should be coordinated so that signing can be effectively placed to give the road user any necessary regulatory, warning, guidance, and other information.*

04a *After a sign has been erected, observations should be made to determine if the desired effect on traffic has been achieved.*

**Standard:**

<sup>05</sup> Each standard sign shall be displayed only for the specific purpose as prescribed in this Manual. Determination of the particular signs to be applied to a specific condition shall be made in accordance with the provisions set forth in Part 2. Before any new highway, ~~private road open to public travel (see definition in Section 1A.13)~~, detour, or temporary route is opened to public travel, all necessary signs shall be in place. Signs required by road conditions or restrictions shall be removed when those conditions cease to exist or the restrictions are withdrawn.

**Section 2A.04 Excessive Use of Signs**

*Guidance:*

<sup>01</sup> Regulatory and warning signs should be used conservatively because these signs, if used to excess, tend to lose their effectiveness. If used, route signs and directional guide signs should be used frequently because their use promotes efficient operations by keeping road users informed of their location.

*Support:*

<sup>02</sup> Sign information overload occurs when the frequency of signing, complexity of messages or diversity of messages is so great that they cannot be readily assimilated by motorists in time to respond properly and safely to roadway situations. Sign information overload can be avoided by:

- A. Increasing the spacing between signs so that they can be understood before encountering new messages.
- B. Minimizing content and using accepted symbols so as to simplify messages.
- C. Spreading the information so that each element of stand-alone information is presented in a separate sign.
- D. Using standard sign formats applied in a consistent fashion to enhance motorist recognition.
- E. Using redundant signing or a combination of signing and pavement messages to offer multiple opportunities for motorists to recognize and respond to the situation.
- F. Reducing or eliminating less-essential signs.

<sup>03</sup> See ITE's Traffic Control Devices Handbook, Chapter 2 for more information on this topic. See Section 1A.11 for information regarding this publication.

**Section 2A.05 Classification of Signs**

**Standard:**

<sup>01</sup> Signs shall be defined by their function as follows:

- A. Regulatory signs give notice of traffic laws or regulations.
- B. Warning signs give notice of a situation that might not be readily apparent.
- C. Guide signs show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, or cultural information.

*Support:*

<sup>01a</sup> In California, prior to the adoption of Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD) on May 20, 2004, signs were classified into four categories, the fourth category being Construction signs. In general, Construction signs are Warning, Regulatory or Guide signs. Hence, this categorical classification is deleted for Construction signs in California and as per the MUTCD only the three basic categories are recognized. Construction signs are now included in Part 6.

<sup>02</sup> Object markers are defined in Section 2C.63.

**Section 2A.06 Design of Signs**

*Support:*

<sup>01</sup> This Manual shows many typical standard signs and object markers approved for use on streets, highways, bikeways, and pedestrian crossings.

<sup>02</sup> In the specifications for individual signs and object markers, the general appearance of the legend, color, and size are shown in the accompanying tables and illustrations, and are not always detailed in the text.

<sup>03</sup> Detailed drawings of standard signs, object markers, alphabets, symbols, and arrows (see Figure 2D-2) are shown in the "Standard Highway Signs and Markings" book. Section 1A.11 contains information regarding how to obtain this publication.

<sup>04</sup> The basic requirements of a sign are that it be legible to those for whom it is intended and that it be understandable in time to permit a proper response. Desirable attributes include:

- A. High visibility by day and night; and
- B. High legibility (adequately sized letters, symbols, or arrows, and a short legend for quick comprehension by a road user approaching a sign).

<sup>05</sup> Standardized colors and shapes are specified so that the several classes of traffic signs can be promptly recognized. Simplicity and uniformity in design, position, and application are important.

**Standard:**

<sup>06</sup> **The term legend shall include all word messages and symbol and arrow designs that are intended to convey specific meanings.**

<sup>07</sup> **Uniformity in design shall include shape, color, dimensions, legends, borders, and illumination or retroreflectivity.**

<sup>08</sup> **Standardization of these designs does not preclude further improvement by minor changes in the proportion or orientation of symbols, width of borders, or layout of word messages, but all shapes and colors shall be as indicated.**

<sup>09</sup> **All symbols shall be unmistakably similar to, or mirror images of, the adopted symbol signs, all of which are shown in the "Standard Highway Signs and Markings" book (see Section 1A.11). Symbols and colors shall not be modified unless otherwise provided in this Manual. All symbols and colors for signs not shown in the "Standard Highway Signs and Markings" book shall follow the procedures for experimentation and change described in Section 1A.10.**

**Option:**

<sup>10</sup> Although the standard design of symbol signs cannot be modified, the orientation of the symbol may be changed to better reflect the direction of travel, if appropriate.

**Standard:**

<sup>11</sup> **Where a standard word message is applicable, the wording shall be as provided in this Manual.**

<sup>12</sup> **In situations where word messages are required other than those provided in this Manual, the signs shall be of the same shape and color as standard signs of the same functional type.**

**Option:**

<sup>13</sup> ~~State and local highway agencies~~ **Department of Transportation** may develop special word message signs in situations where roadway conditions make it necessary to provide road users with additional regulatory, warning, or guidance information, such as when road users need to be notified of special regulations or warned about a situation that might not be readily apparent. Unlike colors that have not been assigned or symbols that have not been approved for signs, new word message signs may be used without the need for experimentation.

**Standard:**

<sup>13a</sup> **Except as noted in the Option below, highway agencies shall not develop word message signs. In accordance with CVC Section 21401, only word message signs conforming to Department of Transportation standards and specifications shall be placed on streets and highways.**

**Option:**

<sup>13b</sup> Local agencies may develop place/facility name or day, date, time portion of the word message on signs to notify road users of special events/circumstances or to warn road users of a situation that might not be readily apparent. Unlike symbol signs and colors, these place/facility name or day, date, time modified word message signs may be used without the need for experimentation.

**Support:**

<sup>13c</sup> Sign design details are contained in FHWA's "Standard Highway Signs and Markings" book and Department of Transportation's California Sign Specifications. Signs other than those shown in these publications, the MUTCD or this California MUTCD may be required under special conditions. See Section 1A.11 for information regarding these publications.

**Standard:**

<sup>14</sup> **Except as provided in Paragraph 16 and except for the Carpool Information (D12-2) sign (see Section 2I.11), Internet addresses and e-mail addresses, including domain names and uniform resource locators (URL), shall not be displayed on any sign, supplemental plaque, sign panel (including logo sign panels on Specific Service signs), or changeable message sign.**

*Guidance:*

<sup>15</sup> Unless otherwise provided in this Manual for a specific sign, and except as provided in Paragraph 16, telephone numbers of more than four characters should not be displayed on any sign, supplemental plaque, sign panel (including logo sign panels on specific service signs), or changeable message sign.

*Option:*

<sup>16</sup> Internet addresses, e-mail addresses, or telephone numbers with more than four characters may be displayed on signs, supplemental plaques, sign panels, and changeable message signs that are intended for viewing only by pedestrians, bicyclists, occupants of parked vehicles, or drivers of vehicles on low-speed roadways where engineering judgment indicates that an area is available for drivers to stop out of the traffic flow to read the message.

**Standard:**

<sup>17</sup> **Pictographs (see definition in Section 1A.13) shall not be displayed on signs except as specifically provided in this Manual. Pictographs shall be simple, dignified, and devoid of any advertising. When used to represent a political jurisdiction (such as a State, county, or municipal corporation) the pictograph shall be the official designation adopted by the jurisdiction. When used to represent a college or university, the pictograph shall be the official seal adopted by the institution. Pictorial representations of university or college programs shall not be permitted to be displayed on a sign.**

**Section 2A.07 Retroreflectivity and Illumination**

*Support:*

<sup>01</sup> There are many materials currently available for retroreflection and various methods currently available for the illumination of signs and object markers. New materials and methods continue to emerge. New materials and methods can be used as long as the signs and object markers meet the standard requirements for color, both by day and by night.

**Standard:**

<sup>02</sup> **Regulatory, warning, and guide signs and object markers shall be retroreflective (see Section 2A.08) or illuminated to show the same shape and similar color by both day and night, unless otherwise provided in the text discussion in this Manual for a particular sign or group of signs.**

<sup>03</sup> **The requirements for sign illumination shall not be considered to be satisfied by street or highway lighting.**

*Option:*

<sup>04</sup> Sign elements may be illuminated by the means shown in Table 2A-1.

<sup>05</sup> Retroreflection of sign elements may be accomplished by the means shown in Table 2A-2.

<sup>06</sup> ~~Light Emitting Diode (LED) units may be used individually within the legend or symbol of a sign and in the border of a sign, except for changeable message signs, to improve the conspicuity, increase the legibility of sign legends and borders, or provide a changeable message.~~

<sup>06a</sup> ~~Light Emitting Diode (LED) units may be used in the border of a STOP or warning signs, except for Changeable Message Signs, to improve the conspicuity of signs.~~

**Standard:**

<sup>07</sup> **Except as provided in Paragraphs 11 and 12, neither individual LEDs nor groups of LEDs shall be placed within the background area of a sign.**

<sup>08</sup> **If used, the LEDs shall have a maximum diameter of 1/4 inch and shall be the following colors based on the type of sign:**

- ~~A. White or red, if used with STOP or YIELD signs.~~
- ~~B. White, if used with regulatory signs other than STOP or YIELD signs.~~
- ~~C. White or yellow, if used with warning signs.~~
- ~~D. White, if used with guide signs.~~
- ~~E. White, yellow, or orange, if used with temporary traffic control signs of warning type.~~
- ~~F. White or yellow, if used with school area signs.~~

<sup>09</sup> **If flashed, all LED units shall flash simultaneously at a rate of more than 50 and less than 60 times per minute.**

**10 The uniformity of the sign design shall be maintained without any decrease in visibility, legibility, or driver comprehension during either daytime or nighttime conditions.**

Option:

11 For STOP and YIELD signs, LEDs may be placed within the border or within one border width within the background of the sign.

12 For STOP/SLOW paddles (see Section 6E.03) used by flaggers and the STOP paddles (see Section 7D.05) used by adult crossing guards, individual LEDs or groups of LEDs may be used.

Support:

13 Other methods of enhancing the conspicuity of standard signs are described in Section 2A.15.

14 Information regarding the use of retroreflective material on the sign support is contained in Section 2A.21.

### **Section 2A.08 Maintaining Minimum Retroreflectivity**

Support:

01 Retroreflectivity is one of several factors associated with maintaining nighttime sign visibility (see Section 2A.22).

**Standard:**

**02 Public agencies or officials having jurisdiction shall use an assessment or management method that is designed to maintain sign retroreflectivity at or above the minimum levels in Table 2A-3.**

Support:

03 Compliance with the Standard in Paragraph 2 is achieved by having a method in place and using the method to maintain the minimum levels established in Table 2A-3. Provided that an assessment or management method is being used, an agency or official having jurisdiction would be in compliance with the Standard in Paragraph 2 even if there are some individual signs that do not meet the minimum retroreflectivity levels at a particular point in time.

*Guidance:*

04 *Except for those signs specifically identified in Paragraph 6, one or more of the following assessment or management methods should be used to maintain sign retroreflectivity:*

- A. *Visual Nighttime Inspection—The retroreflectivity of an existing sign is assessed by a trained sign inspector conducting a visual inspection from a moving vehicle during nighttime conditions. Signs that are visually identified by the inspector to have retroreflectivity below the minimum levels should be replaced.*
- B. *Measured Sign Retroreflectivity—Sign retroreflectivity is measured using a retroreflectometer. Signs with retroreflectivity below the minimum levels should be replaced.*
- C. *Expected Sign Life—When signs are installed, the installation date is labeled or recorded so that the age of a sign is known. The age of the sign is compared to the expected sign life. The expected sign life is based on the experience of sign retroreflectivity degradation in a geographic area compared to the minimum levels. Signs older than the expected life should be replaced.*
- D. *Blanket Replacement—All signs in an area/corridor, or of a given type, should be replaced at specified intervals. This eliminates the need to assess retroreflectivity or track the life of individual signs. The replacement interval is based on the expected sign life, compared to the minimum levels, for the shortest-life material used on the affected signs.*
- E. *Control Signs—Replacement of signs in the field is based on the performance of a sample of control signs. The control signs might be a small sample located in a maintenance yard or a sample of signs in the field. The control signs are monitored to determine the end of retroreflective life for the associated signs. All field signs represented by the control sample should be replaced before the retroreflectivity levels of the control sample reach the minimum levels.*
- F. *Other Methods—Other methods developed based on engineering studies can be used.*

Support:

05 Additional information about these methods is contained in the 2007 Edition of FHWA's "Maintaining Traffic Sign Retroreflectivity" (see Section 1A.11).

Option:

<sup>06</sup> Highway agencies may exclude the following signs from the retroreflectivity maintenance guidelines described in this Section:

- A. Parking, Standing, and Stopping signs (R7 and R8 series)
- B. Walking/Hitchhiking/Crossing signs (R9 series, R10-1 through R10-4b)
- C. Acknowledgment signs
- D. All signs with blue or brown backgrounds
- E. Bikeway signs that are intended for exclusive use by bicyclists or pedestrians

## Section 2A.09 Shapes

**Standard:**

<sup>01</sup> Particular shapes, as shown in Table 2A-4, shall be used exclusively for specific signs or series of signs, unless otherwise provided in the text discussion in this Manual for a particular sign or class of signs.

## Section 2A.10 Sign Colors

**Standard:**

<sup>01</sup> The colors to be used on standard signs and their specific use on these signs shall be as provided in the applicable Sections of this Manual. The color coordinates and values shall be as described in 23 CFR, Part 655, Subpart F, Appendix.

Support:

<sup>02</sup> As a quick reference, common uses of sign colors are shown in Table 2A-5 2A-5(CA). Color schemes on specific signs are shown in the illustrations located in each appropriate Chapter.

<sup>03</sup> Whenever white is specified in this Manual or in the “Standard Highway Signs and Markings” book (see Section 1A.11) as a color, it is understood to include silver-colored retroreflective coatings or elements that reflect white light.

<sup>04</sup> The colors coral and light blue are being reserved for uses that will be determined in the future by the Federal Highway Administration.

<sup>05</sup> Information regarding color coding of destinations on guide signs, including community wayfinding signs, is contained in Chapter 2D.

<sup>05a</sup> The fluorescent version of red, yellow, green or orange colors provide higher conspicuity than the standard colors, especially during twilight.

Option:

<sup>06</sup> The approved fluorescent version of the standard red, yellow, green, or orange color may be used as an alternative to the corresponding standard color.

## Section 2A.11 Dimensions

Support:

<sup>01</sup> The “Standard Highway Signs and Markings” book (see Section 1A.11) prescribes design details for up to five different sizes depending on the type of traffic facility, including bikeways. Smaller sizes are designed to be used on bikeways and some other off-road applications. Larger sizes are designed for use on freeways and expressways, and can also be used to enhance road user safety and convenience on other facilities, especially on multi-lane divided highways and on undivided highways having five or more lanes of traffic and/or high speeds. The intermediate sizes are designed to be used on other highway types.

**Standard:**

<sup>02</sup> The sign dimensions prescribed in the sign size tables in the various Parts and Chapters in this Manual and in the “Standard Highway Signs and Markings” book (see Section 1A.11) shall be used unless engineering judgment determines that other sizes are appropriate. Except as provided in Paragraph 3, where engineering judgment determines that sizes smaller than the prescribed dimensions are appropriate for use, the sign dimensions shall not be less than the minimum dimensions specified in this Manual. The sizes shown in the Minimum columns that are smaller than the sizes shown in the Conventional Road columns in the various sign size tables in this Manual shall only be used on low-speed roadways, and alleys,

~~and private roads open to public travel~~ where the reduced legend size would be adequate for the regulation or warning or where physical conditions preclude the use of larger sizes.

**02a** The standard sign dimensions prescribed in this California MUTCD, FHWA's "Standard Highway Signs and Markings" book and Department of Transportation's California Sign Specifications shall be used unless engineering judgment determines that other sizes are appropriate. Where engineering judgment determines that sizes smaller than the standard dimensions are appropriate for use, the sign dimensions shall not be less than the minimum dimensions specified in this California MUTCD, "Standard Highway Signs and Markings" book or the California Sign Specifications. See Section 1A.11 for information regarding these publications.

Option:

**03** For alleys with restrictive physical conditions and vehicle usage that limits installation of the minimum size sign (or the Conventional Road size sign if no Minimum size is shown), both the sign height and the sign width may be decreased by up to 6 inches.

Guidance:

**04** The sizes shown in the Freeway and Expressway columns in the various sign size tables in this Manual should be used on freeways and expressways, and for other higher-speed applications based upon engineering judgment, to provide larger signs for increased visibility and recognition.

**05** The sizes shown in the Oversized columns in the various sign size tables in this Manual size should be used for those special applications where speed, volume, or other factors result in conditions where increased emphasis, improved recognition, or increased legibility is needed, as determined by engineering judgment or study.

**06** Increases above the prescribed sizes should be used where greater legibility or emphasis is needed. If signs larger than the prescribed sizes are used, the overall sign dimensions should be increased in 6-inch increments.

**Standard:**

**07** Where engineering judgment determines that sizes that are different than the prescribed dimensions are appropriate for use, standard shapes and colors shall be used and standard proportions shall be retained as much as practical.

Guidance:

**08** When supplemental plaques are installed with larger sized signs, a corresponding increase in the size of the plaque and its legend should also be made. The resulting plaque size should be approximately in the same relative proportion to the larger sized sign as the conventional sized plaque is to the conventional sized sign.

## Section 2A.12 Symbols

**Standard:**

**01** Symbol designs shall in all cases be unmistakably similar to those shown in this Manual, California MUTCD, California Sign Specifications and in the "Standard Highway Signs and Markings" book (see Section 1A.11).

Support:

**02** New symbol designs are adopted by the Federal Highway Administration based on research evaluations to determine road user comprehension, sign conspicuity, and sign legibility.

**02a** Use of symbols to word messages is preferred. However, care needs to be taken so as not to mix the individual symbols.

**03** Sometimes a change from word messages to symbols requires significant time for public education and transition. Therefore, this Manual sometimes includes the practice of using educational plaques to accompany new symbol signs.

Guidance:

**04** New warning or regulatory symbol signs not readily recognizable by the public should be accompanied by an educational plaque.

Option:

**05** Educational plaques may be left in place as long as they are in serviceable condition.

**06** State and/or local highway agencies may conduct research studies to determine road user comprehension, sign conspicuity, and sign legibility.

*Guidance:*

*07 Although most standard symbols are oriented facing left, mirror images of these symbols should be used where the reverse orientation might better convey to road users a direction of movement.*

**Standard:**

**08 A symbol used for a given category of signs (regulatory, warning, or guide) shall not be used for a different category of signs, except as specifically authorized in this Manual.**

**09 Except as provided in Paragraph 11, a recreational and cultural interest area symbol (see Chapter 2M) shall not be used on streets or highways outside of recreational and cultural interest areas.**

**10 A recreational and cultural interest area guide sign symbol (see Chapter 2M) shall not be used on any regulatory or warning sign on any street, road, or highway.**

*Option:*

*11 A recreational and cultural interest area guide sign symbol (see Section 2M.04) may be used on a highway guide sign outside of a recreational and cultural interest area to supplement a comparable word message for which there is no approved symbol for that message in Chapters 2B through 2I or 2N.*

*Support:*

*12 Section 2M.07 contains provisions for the use of recreational and cultural interest area symbols to indicate prohibited activities or items in non-road applications.*

### **Section 2A.13 Word Messages**

**Standard:**

**01 Except as provided in Section 2A.06, all word messages shall use standard wording and letters as shown in this Manual and in the “Standard Highway Signs and Markings” book (see Section 1A.11).**

*Guidance:*

*02 Word messages should be as brief as possible and the lettering should be large enough to provide the necessary legibility distance. A minimum specific ratio of 1 inch of letter height per 30 feet of legibility distance should be used.*

*03 Abbreviations (see Section 1A.15) should be kept to a minimum.*

*04 Word messages should not contain periods, apostrophes, question marks, ampersands, or other punctuation or characters that are not letters, numerals, or hyphens unless necessary to avoid confusion.*

*05 The solidus (slanted line or forward slash) is intended to be used for fractions only and should not be used to separate words on the same line of legend. Instead, a hyphen should be used for this purpose, such as “TRUCKS - BUSES.”*

**Standard:**

**06 Fractions shall be displayed with the numerator and denominator diagonally arranged about the solidus (slanted line or forward slash). The overall height of the fraction is measured from the top of the numerator to the bottom of the denominator, each of which is vertically aligned with the upper and lower ends of the solidus. The overall height of the fraction shall be determined by the height of the numerals within the fraction, and shall be 1.5 times the height of an individual numeral within the fraction.**

*Support:*

*07 The “Standard Highway Signs and Markings” book (see Section 1A.11) contains details regarding the layouts of fractions on signs.*

*Guidance:*

*08 When initials are used to represent an abbreviation for separate words (such as “U S” for a United States route), the initials should be separated by a space of between 1/2 and 3/4 of the letter height of the initials.*

*09 When an Interstate route is displayed in text form instead of using the route shield, a hyphen should be used for clarity, such as “I-50.”*

**Standard:**

**10 All sign lettering shall be in upper-case letters as provided in the “Standard Highway Signs and Markings” book (see Section 1A.11), unless otherwise provided in this Manual for a particular sign or type of message.**

**11 The sign lettering for names of places, streets, and highways shall be composed of a combination of lower-case letters with initial upper-case letters.**

**Support:**

<sup>12</sup> Letter height is expressed in terms of the height of an upper-case letter. For mixed-case legends (those composed of an initial upper-case letter followed by lower-case letters), the height of the lower-case letters is derived from the specified height of the initial upper-case letter based on a prescribed ratio. Letter heights for mixed-case legends might be expressed in terms of both the upper- and lower-case letters, or in terms of the initial upper-case letter alone. When the height of a lower-case letter is specified or determined from the prescribed ratio, the reference is to the nominal loop height of the letter. The term loop height refers to the portion of a lower-case letter that excludes any ascending or descending stems or tails of the letter, such as with the letters "d" or "q." The nominal loop height is equal to the actual height of a non-rounded lower-case letter whose form does not include ascending or descending stems or tails, such as the letter "x." The rounded portions of a lower-case letter extend slightly above and below the baselines projected from the top and bottom of such a non-rounded letter so that the appearance of a uniform letter height within a word is achieved. The actual loop height of a rounded lower-case letter is slightly greater than the nominal loop height and this additional height is excluded from the expression of the lower-case letter height.

**Standard:**

<sup>13</sup> **When a mixed-case legend is used, the height of the lower-case letters shall be 3/4 of the height of the initial upper-case letter.**

<sup>14</sup> **The unique letter forms for each of the Standard Alphabet series shall not be stretched, compressed, warped, or otherwise manipulated.**

**Support:**

<sup>15</sup> Section 2D.04 contains information regarding the acceptable methods of modifying the length of a word for a given letter height and series.

## **Section 2A.14 Sign Borders**

**Standard:**

<sup>01</sup> **Unless otherwise provided, each sign illustrated in this Manual shall have a border of the same color as the legend, at or just inside the edge.**

<sup>02</sup> **The corners of all sign borders shall be rounded, except for STOP signs.**

*Guidance:*

<sup>03</sup> *A dark border on a light background should be set in from the edge, while a light border on a dark background should extend to the edge of the sign. A border for 30-inch signs with a light background should be from 1/2 to 3/4 inch in width, 1/2 inch from the edge. For similar signs with a light border, a width of 1 inch should be used. For other sizes, the border width should be of similar proportions, but should not exceed the stroke-width of the major lettering of the sign. On signs exceeding 72 x 120 inches in size, the border should be 2 inches wide, or on larger signs, 3 inches wide. Except for STOP signs and as otherwise provided in Section 2E.16, the corners of the sign should be rounded to a radius that is concentric with that of the border.*

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

**Option:**

<sup>01</sup> Based upon engineering judgment, where the improvement of the conspicuity of a standard regulatory, warning, or guide sign is desired, any of the following methods may be used, as appropriate, to enhance the sign's conspicuity (see Figure 2A-1):

- A. Increasing the size of a standard regulatory, warning, or guide sign.
- B. Doubling-up of a standard regulatory, warning, or guide sign by adding a second identical sign on the left-hand side of the roadway.
- C. Adding a solid yellow or fluorescent yellow rectangular "header panel" above a standard regulatory sign, with the width of the panel corresponding to the width of the standard regulatory sign. A legend of "NOTICE," "STATE LAW," or other appropriate text may be added in black letters within the header panel for a period of time determined by engineering judgment.
- D. Adding a NEW plaque (see Section 2C.62) above a new standard regulatory or warning sign, for a period of time determined by engineering judgment, to call attention to the new sign.

- E. Adding one or more red or orange flags (cloth or retroreflective sheeting) above a standard regulatory or warning sign, with the flags oriented so as to be at 45 degrees to the vertical.
  - F. Adding a solid yellow, a solid fluorescent yellow, or a diagonally striped black and yellow (or black and fluorescent yellow) strip of retroreflective sheeting at least 3 inches wide around the perimeter of a standard warning sign. This may be accomplished by affixing the standard warning sign on a background that is 6 inches larger than the size of the standard warning sign.
  - G. Adding a warning beacon (see Section 4L.03) to a standard regulatory (other than a STOP or a Speed Limit sign), warning, or guide sign.
  - H. Adding a speed limit sign beacon (see Section 4L.04) to a standard Speed Limit sign.
  - I. Adding a stop beacon (see Section 4L.05) to a STOP sign.
  - J. Adding light emitting diode (LED) units within the symbol or legend of a sign or border of a standard regulatory, warning, or guide sign, as provided in Section 2A.07.
  - K. Adding a strip of retroreflective material to the sign support in compliance with the provisions of Section 2A.21.
  - L. Using other methods that are specifically allowed for certain signs as described elsewhere in this Manual.
- Support:

<sup>02</sup> Sign conspicuity improvements can also be achieved by removing non-essential and illegal signs from the right-of-way (see Section 1A.08), and by relocating signs to provide better spacing.

**Standard:**

<sup>03</sup> **The NEW plaque (see Section 2C.62) shall not be used alone.**

<sup>04</sup> **Strobe lights shall not be used to enhance the conspicuity of highway signs.**

## **Section 2A.16 Standardization of Location**

Support:

<sup>01</sup> Standardization of position cannot always be attained in practice. Examples of heights and lateral locations of signs for typical installations are illustrated in Figure 2A-2, and examples of locations for some typical signs at intersections are illustrated in Figures 2A-3 and 2A-4.

<sup>02</sup> Examples of advance signing on an intersection approach are illustrated in Figure 2A-4. Chapters 2B, 2C, and 2D contain provisions regarding the application of regulatory, warning, and guide signs, respectively.

**Guidance:**

<sup>03</sup> *Signs requiring separate decisions by the road user ~~shall~~ **should** be spaced sufficiently far apart for the appropriate decisions to be made.*

**Standard:**

<sup>03</sup> **One of the factors considered when determining the appropriate spacing shall be the posted or 85<sup>th</sup>-percentile speed.**

**Guidance:**

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

<sup>05</sup> *Signs should be individually installed on separate posts or mountings except where:*

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

<sup>06</sup> *Signs should be located so that they:*

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

*F. Are not hidden from view.*

**Support:**

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

**Guidance:**

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

**Support:**

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

**Guidance:**

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

**Option:**

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

**Guidance:**

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

13 *The installation of signs, including route shields, on signal standards should be avoided unless they directly affect traffic movements in the intersection.*

14 *A minimum spacing of 200 feet between guide signs should be maintained on conventional highways.*

15 *A minimum spacing of 800 feet between guide signs should be maintained on freeways and expressways.*

**Support:**

16 *Figure 2A-2(CA) shows height and lateral location of signs for typical installations.*

## **Section 2A.17 Overhead Sign Installations**

**Guidance:**

01 *Overhead signs should be used on freeways and expressways, at locations where some degree of lane-use control is desirable, and at locations where space is not available at the roadside.*

**Support:**

02 The operational requirements of the present highway system are such that overhead signs have value at many locations. The factors to be considered for the installation of overhead sign displays are not definable in specific numerical terms.

**Option:**

03 The following conditions (not in priority order) may be considered in an engineering study to determine if overhead signs would be beneficial:

- A. Traffic volume at or near capacity,
- B. Complex interchange design,
- C. Three or more lanes in each direction,
- D. Restricted sight distance,
- E. Closely-spaced interchanges,
- F. Multi-lane exits,
- G. Large percentage of trucks,
- H. Street lighting background,
- I. High-speed traffic,
- J. Consistency of sign message location through a series of interchanges,

- K. Insufficient space for post-mounted signs,
- L. Junction of two freeways, and
- M. Left exit ramps.
- N. Exit Only" lanes and lane drops.
- O. Necessity to have a sign message directly over the lane to which it refers.

<sup>04</sup> Over-crossing structures may be used to support overhead signs.

**Support:**

<sup>05</sup> Under some circumstances, the use of over-crossing structures as sign supports might be the only practical solution that will provide adequate viewing distance. The use of such structures as sign supports might eliminate the need for the foundations and sign supports along the roadside.

<sup>06</sup> Refer to Department of Transportation's Standard Plans publication for standard application of overhead signs. See Section 1A.11 for information regarding this publication.

**Guidance:**

<sup>07</sup> *Whenever there is a deviation from the standards, a structural analysis should be considered. On State highways, all signs of this type should be referred to the Department of Transportation's Division of Engineering Services, Office of Structure Design Services.*

<sup>08</sup> *Signs mounted on overcrossing structures should not project above the bridge rail by more than 1 foot.*

**Option:**

<sup>09</sup> Structure mounted signs may be placed parallel with the structures for skews up to 10°. At greater angles of skew, position the sign as close to 10° from the normal as possible.

**Standard:**

<sup>10</sup> **If the skew is so great that this is not practical, separate sign structures shall be used.**

## **Section 2A.18 Mounting Height**

**Standard:**

<sup>01</sup> **The provisions of this Section shall apply unless specifically stated otherwise for a particular sign or object marker elsewhere in this Manual.**

**Support:**

<sup>02</sup> The mounting height requirements for object markers are provided in Chapter 2C.

<sup>03</sup> In addition to the provisions of this Section, information affecting the minimum mounting height of signs as a function of crash performance can be found in AASHTO's "Roadside Design Guide" (see Section 1A.11).

**Standard:**

<sup>04</sup> **The minimum height, measured vertically from the bottom of the sign to the elevation of the near edge of the pavement, of signs installed at the side of the road in rural areas shall be 5 feet (see Figure 2A-2).**

<sup>05</sup> **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, of signs installed at the side of the road in business, commercial, or residential areas where parking or pedestrian movements are likely to occur, or where the view of the sign might be obstructed, shall be 7 feet (see Figure 2A-2).**

**Option:**

<sup>06</sup> The height to the bottom of a secondary sign mounted below another sign may be 1 foot less than the height specified in Paragraphs 4 and 5.

**Standard:**

<sup>07</sup> **The minimum height, measured vertically from the bottom of the sign to the sidewalk, of signs installed above sidewalks shall be 7 feet.**

<sup>08</sup> **If the bottom of a secondary sign that is mounted below another sign is mounted lower than 7 feet above a pedestrian sidewalk or pathway (see Section 6D.02), the secondary sign shall not project more than 4 inches into the pedestrian facility.**

**Option:**

<sup>09</sup> Signs that are placed 30 feet or more from the edge of the traveled way may be installed with a minimum height of 5 feet, measured vertically from the bottom of the sign to the elevation of the near edge of the pavement.

**Standard:**

**10 Directional signs on freeways and expressways shall be installed with a minimum height of 7 feet, measured vertically from the bottom of the sign to the elevation of the near edge of the pavement. All route signs, warning signs, and regulatory signs on freeways and expressways shall be installed with a minimum height of 7 feet, measured vertically from the bottom of the sign to the elevation of the near edge of the pavement. If a secondary sign is mounted below another sign on a freeway or expressway, the major sign shall be installed with a minimum height of 8 feet and the secondary sign shall be installed with a minimum height of 5 feet, measured vertically from the bottom of the sign to the elevation of the near edge of the pavement.**

**11 Where large signs having an area exceeding 50 square feet are installed on multiple breakaway posts, the clearance from the ground to the bottom of the sign shall be at least 7 feet.**

**Option:**

12 A route sign assembly consisting of a route sign and auxiliary signs (see Section ~~2D.31~~ 2D.12) may be treated as a single sign for the purposes of this Section.

13 The mounting height may be adjusted when supports are located near the edge of the right-of-way on a steep backslope in order to avoid the sometimes less desirable alternative of placing the sign closer to the roadway.

**Standard:**

**14 Overhead signs shall provide a vertical clearance of not less than 17 feet to the sign, light fixture, or sign bridge over the entire width of the pavement and shoulders except where the structure on which the overhead signs are to be mounted or other structures along the roadway near the sign structure have a lesser vertical clearance.**

**14a The bottom of the overhead sign truss frame located over a roadway shall be at least 18 feet and 6 inches on State highways. Refer to Department of Transportation's Standard Plans publication. See Section 1A.11 for information regarding this publication.**

**Option:**

15 If the vertical clearance of other structures along the roadway near the sign structure is less than 16 feet, the vertical clearance to an overhead sign structure or support may be as low as 1 foot higher than the vertical clearance of the other structures in order to improve the visibility of the overhead signs.

16 In special cases it may be necessary to reduce the clearance to overhead signs because of substandard dimensions in tunnels and other major structures such as double-deck bridges.

**Support:**

17 Figure 2A-2 illustrates some examples of the mounting height requirements contained in this Section.

18 Exceptions to the mounting heights are the FREEWAY ENTRANCE (G92(CA)) and DO NOT ENTER (R5-1) sign packages which are mounted lower to avoid sight restrictions and be most responsive to headlights.

**Guidance:**

19 The FREEWAY ENTRANCE (G92(CA)) and DO NOT ENTER (R5-1) sign packages should be mounted with the bottom of the lower sign 2 feet above the edge of the pavement. The ONE WAY (R6-1) signs should be mounted 1.5 foot above the edge of the pavement.

20 Overhead signs should provide a vertical clearance of not less than 18 feet over the entire width of the pavement and shoulders, except where a lesser vertical clearance is used for the design of other structures. The vertical clearance to overhead sign structures or supports need not be greater than 1 foot in excess of the minimum design clearance of other structures.

**Option:**

21 In special cases it may be necessary to reduce the clearance still further because of substandard dimensions in tunnels and other major structures such as double-deck bridges.

**Support:**

22 Figure 2A-2(CA) shows height and lateral location of signs for typical installations.

**Section 2A.19 Lateral Offset**

**Standard:**

**01 For overhead sign supports, the minimum lateral offset from the edge of the shoulder (or if no shoulder exists, from the edge of the pavement) to the near edge of overhead sign supports (cantilever or sign**

**bridges) shall be 6 feet. Overhead sign supports shall have a barrier or crash cushion to shield them if they are within the clear zone.**

**02 Post-mounted sign and object marker supports shall be crashworthy (breakaway, yielding, or shielded with a longitudinal barrier or crash cushion) if within the clear zone.**

*Guidance:*

*03 For post-mounted signs, the minimum lateral offset should be 12 feet from the edge of the traveled way. If a shoulder wider than 6 feet exists, the minimum lateral offset for post-mounted signs should be 6 feet from the edge of the shoulder.*

*Support:*

*04 The minimum lateral offset requirements for object markers are provided in Chapter 2C.*

*05 The minimum lateral offset is intended to keep trucks and cars that use the shoulders from striking the signs or supports.*

*Guidance:*

*06 All supports should be located as far as practical from the edge of the shoulder. Advantage should be taken to place signs behind existing roadside barriers, on over-crossing structures, or other locations that minimize the exposure of the traffic to sign supports.*

*Option:*

*07 Where permitted, signs may be placed on existing supports used for other purposes, such as highway traffic signal supports, highway lighting supports, and utility poles.*

**Standard:**

**08 If signs are placed on existing supports, they shall meet other placement criteria contained in this Manual.**

*Option:*

*09 Lesser lateral offsets may be used on connecting roadways or ramps at interchanges, but not less than 6 feet from the edge of the traveled way.*

*10 On conventional roads in areas where it is impractical to locate a sign with the lateral offset prescribed by this Section, a lateral offset of at least 2 feet may be used.*

*11 A lateral offset of at least 1 foot from the face of the curb may be used in business, commercial or residential areas where sidewalk width is limited or where existing poles are close to the curb.*

*Guidance:*

*12 Overhead sign supports and post-mounted sign and object marker supports should not intrude into the usable width of a sidewalk or other pedestrian facility.*

*Support:*

*13 Figures 2A-2 and 2A-3 illustrate some examples of the lateral offset requirements contained in this Section.*

*14 Refer to Department of Transportation's Highway Design Manual Section 309.1 for horizontal clearances. See Section 1A.11 for information regarding this publication.*

*Guidance:*

*15 On freeways, expressways, and in interchange areas, and on rural highways where practicable, warning and regulatory signs should be placed a minimum of 12 feet and a maximum of 30 feet from the edge of traveled way.*

**Standard:**

**16 When clear roadside recovery areas are provided, guide signs on overhead sign supports shall be placed as far from the edge of traveled way as is practical, up to a maximum of 30 feet.**

*Guidance:*

*17 When possible, they should be located in protected areas or placed behind guardrails, crash cushions, barriers, etc.*

**Standard:**

**18 Overhead signs placed in unprotected locations shall be placed on cantilever structures to provide the maximum possible horizontal clearance to the sign support.**

*Support:*

*19 Overcrossing structures can often serve for the support for overhead signs, and may be the only practical location that will provide adequate viewing distance. Use of these structures, as sign supports will minimize the need for sign supports along the roadway. Where overhead crossings are closely spaced and the proximity of other structures does not limit visibility, it is desirable to place signs on the bridges for economy, to reduce fixed objects and to enhance safety.*

*Guidance:*

*20 Where a freeway or an expressway median is 12 feet or less in width, consideration should be given to spanning both roadways without a center support. Butterfly-type signs or other overhead sign supports should not be erected in neutral areas (gores) or other exposed locations.*

**Standard:**

**21 Guardrail protection shall be provided for overhead sign supports if they are located within the clear recovery area.**

**22 In cuts steeper than 1 to 4, where there are no recovery areas, the sign supports shall be placed on the slopes a minimum of 4 feet vertically from the hinge point. In fill sections, sign supports shall be protected by a minimum of 50 feet of guardrail plus the breakaway end anchor. The supports shall be placed over the hinge point approximately 4 feet from the face of the guard rail.**

**23 The median support on overhead sign bridges shall be centered in medians 60 feet or less in width and shall be placed 30 feet from the edge of the traveled way in wider medians. Unless there are protected locations, sign bridge supports shall not be placed in medians 22 feet or less in width.**

*Guidance:*

*24 Overhead signs should be placed at least 30 feet from light standards.*

## **Section 2A.20 Orientation**

*Guidance:*

*01 Unless otherwise provided in this Manual, signs should be vertically mounted at right angles to the direction of, and facing, the traffic that they are intended to serve.*

*02 Where mirror reflection from the sign face is encountered to such a degree as to reduce legibility, the sign should be turned slightly away from the road. Signs that are placed 30 feet or more from the pavement edge should be turned toward the road. On curved alignments, the angle of placement should be determined by the direction of approaching traffic rather than by the roadway edge at the point where the sign is located.*

**Option:**

**03 On grades, sign faces may be tilted forward or back from the vertical position to improve the viewing angle.**

## **Section 2A.21 Posts and Mountings**

**Standard:**

**01 Sign posts, foundations, and mountings shall be so constructed as to hold signs in a proper and permanent position, and to resist swaying in the wind or displacement by vandalism.**

**Support:**

**02 The latest edition of AASHTO's "Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals" contains additional information regarding posts and mounting (see Page i for AASHTO's address).**

**Option:**

**03 Where engineering judgment indicates a need to draw attention to the sign during nighttime conditions, a strip of retroreflective material may be used on regulatory and warning sign supports.**

**Standard:**

**04 If a strip of retroreflective material is used on the sign support, it shall be at least 2 inches in width, it shall be placed for the full length of the support from the sign to within 2 feet above the edge of the roadway, and its color shall match the background color of the sign, except that the color of the strip for the YIELD and DO NOT ENTER signs shall be red.**

**Support:**

**05 Refer to Department of Transportation's Highway Design Manual Section 309.1 for horizontal clearances. See Section 1A.11 for information regarding this publication.**

*Guidance:*

*06 In areas where ground mounted sign supports cannot be sufficiently offset from the pavement edge, sign supports of a suitable breakaway or yielding design should be considered.*

**Standard:**

**07 Breakaway or yielding supports shall be used on freeways and expressways unless the sign supports are adequately shielded by guardrail, crash cushions, or similar devices.**

**Support:**

08 In some cases, especially in urban areas, essential signs can be placed on existing supports used for other purposes, such as traffic signals or street lights, thereby saving expense and minimizing sidewalk obstruction.

**Option:**

09 When needed for emphasis to facilitate traffic safety on streets with speed limits of 35 mph or less, small plastic signs not exceeding 12 inch in width may be mounted on channelizers, cones or portable delineators to be placed on lane lines and/or centerlines.

**Standard:**

**10 When installed, they shall supplement permanently mounted standard signs and shall use standard legends, sign colors and retroreflectivity, but in a smaller, proportional format. If the device is used on lane lines, there shall be an engineering study, which documents the limited potential of the device to be struck due to lane changing.**

**Section 2A.22 Maintenance**

*Guidance:*

01 *Maintenance activities should consider proper position, cleanliness, legibility, and daytime and nighttime visibility (see Section ~~2A.09~~ 2A.08). Damaged or deteriorated signs, gates, or object markers should be replaced.*

02 *To assure adequate maintenance, a schedule for inspecting (both day and night), cleaning, and replacing signs, gates, and object markers should be established. Employees of highway, law enforcement, and other public agencies whose duties require that they travel on the roadways should be encouraged to report any damaged, deteriorated, **missing** or obscured signs, gates, or object markers at the first opportunity.*

03 *Steps should be taken to see that weeds, trees, shrubbery, and construction, maintenance, and utility materials and equipment do not obscure the face of any sign or object marker.*

04 *A regular schedule of replacement of lighting elements for illuminated signs should be maintained.*

**Section 2A.23 Median Opening Treatments for Divided Highways with Wide Medians**

*Guidance:*

01 *Where divided highways are separated by median widths at the median opening itself of 30 feet or more, median openings should be signed as two separate intersections.*

**Option:**

02 Additional signs may be placed where the median width is 30 feet or more.

03 Standard directional or wrong way arrow pavement markings may be placed in each approach lane of each roadway in advance of a grade intersection and at other selected locations to indicate the direction of traffic flow.

04 At locations which are determined to have special need, other standard warning or prohibitive methods and devices may be used as a deterrent to the wrong way movement.

**Support:**

05 See Section 2E.53, Wrong-Way Traffic Control at Interchange Ramps.

**Section 2A.101(CA) Signs Off the State Right-of-Way**

**Support:**

01 CVC 21350 permits the Department of Transportation, with the consent of the local authorities, to place and maintain along city streets and county roads appropriate signs as may be necessary or desirable to direct traffic to State highways.

*Guidance:*

02 *Where a sign beyond the right-of-way line is required for the proper operation of a State highway, such sign should be placed and maintained at State expense.*

Figure 2A-1. Examples of Enhanced Conspicuity for Signs

A – W16-15P plaque above a regulatory or warning sign if the regulation or condition is new



B – Red or orange flags above a regulatory, warning, or guide sign



C – W16-18P plaque above a regulatory sign



D – Solid yellow, solid fluorescent yellow, or diagonally striped black and yellow (or black and fluorescent yellow) strip of retroreflective sheeting around a warning sign



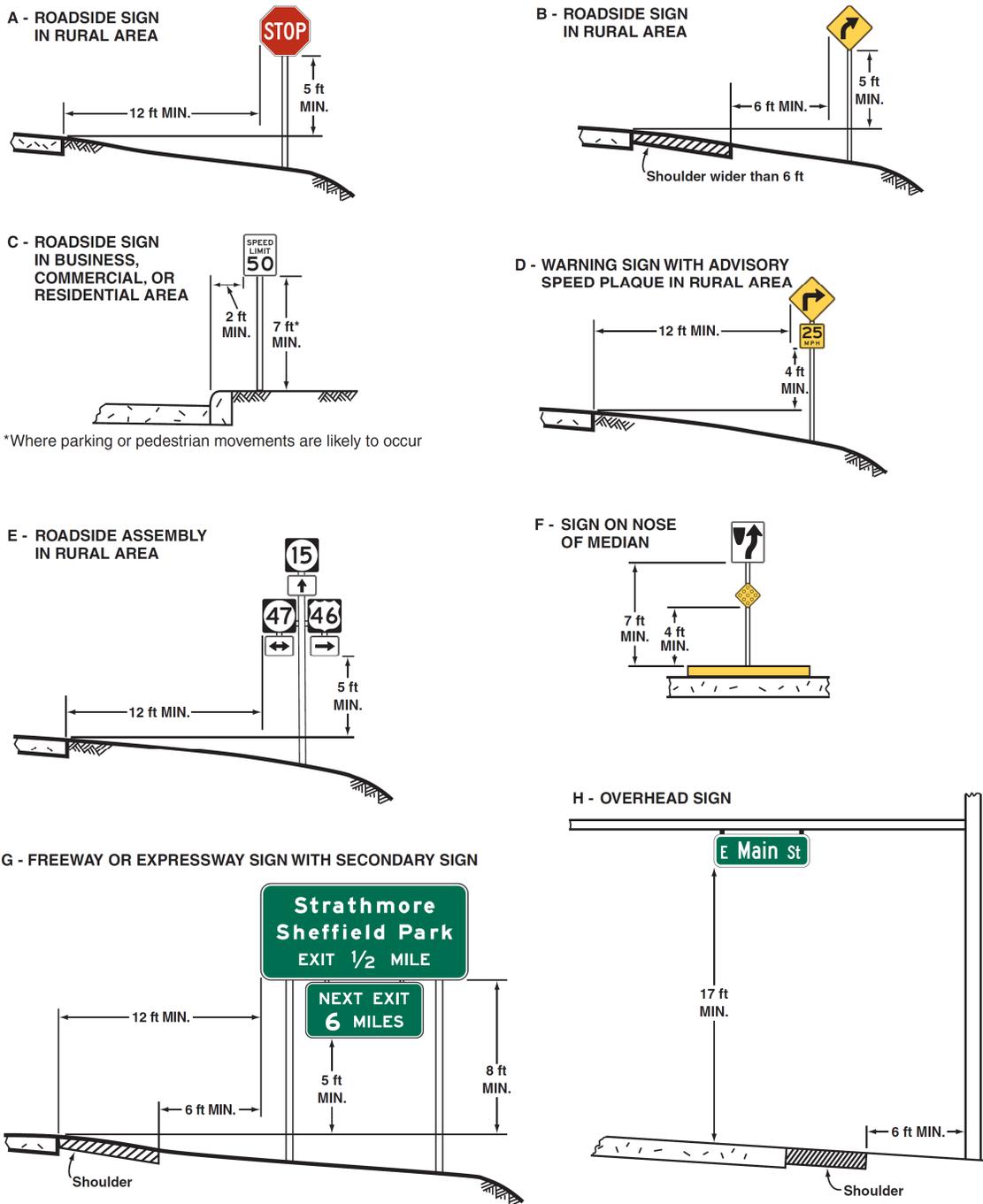
E – Vertical retroreflective strip on sign support



F – Supplemental beacon



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



\*Where parking or pedestrian movements are likely to occur

Note:  
 See Section 2A.19 for reduced lateral offset distances that may be used in areas where lateral offsets are limited, and in business, commercial, or residential areas where sidewalk width is limited or where existing poles are close to the curb.

**Figure 2A-2 (CA). Examples of Heights and Lateral Locations of Sign Installations**

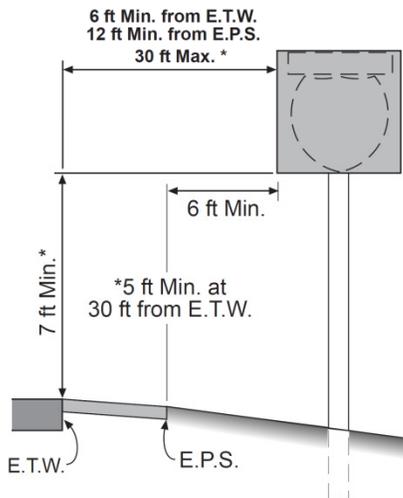
**NOTES:**

These sign positions are typical and should be considered a standard. When physical conditions require deviation from these typicals, they should be documented. When clear roadside recovery areas are provided, signs shall be placed as far from the traveled way as possible, up to 30 ft. When possible, they should be placed in protected locations.

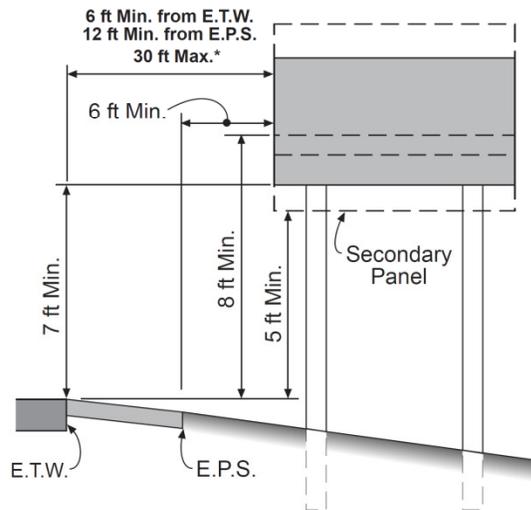
Signs in medians shall be placed at midpoint of median, and should not be closer than 6 ft from the edge of a paved shoulder, or if none, 12 ft from the edge of the traveled way. When appropriate, signs for opposing directions shall be placed back to back.

E.T.W. = Edge of Traveled Way  
 E.P.S. = Edge of Paved Shoulder

**FREEWAY AND EXPRESSWAY LOCATIONS**

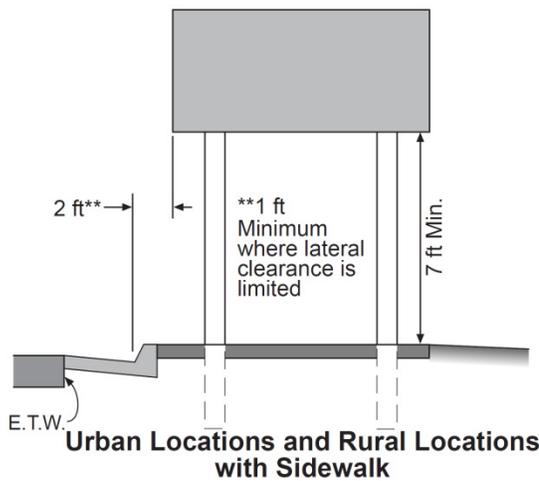


**ROUTE SHIELDS  
 REGULATORY AND WARNING SIGNS**

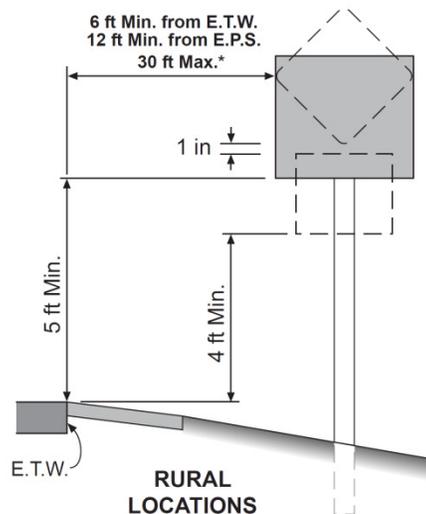


**GUIDE SIGNS**

**CONVENTIONAL HIGHWAYS AND INTERCHANGE AREAS**

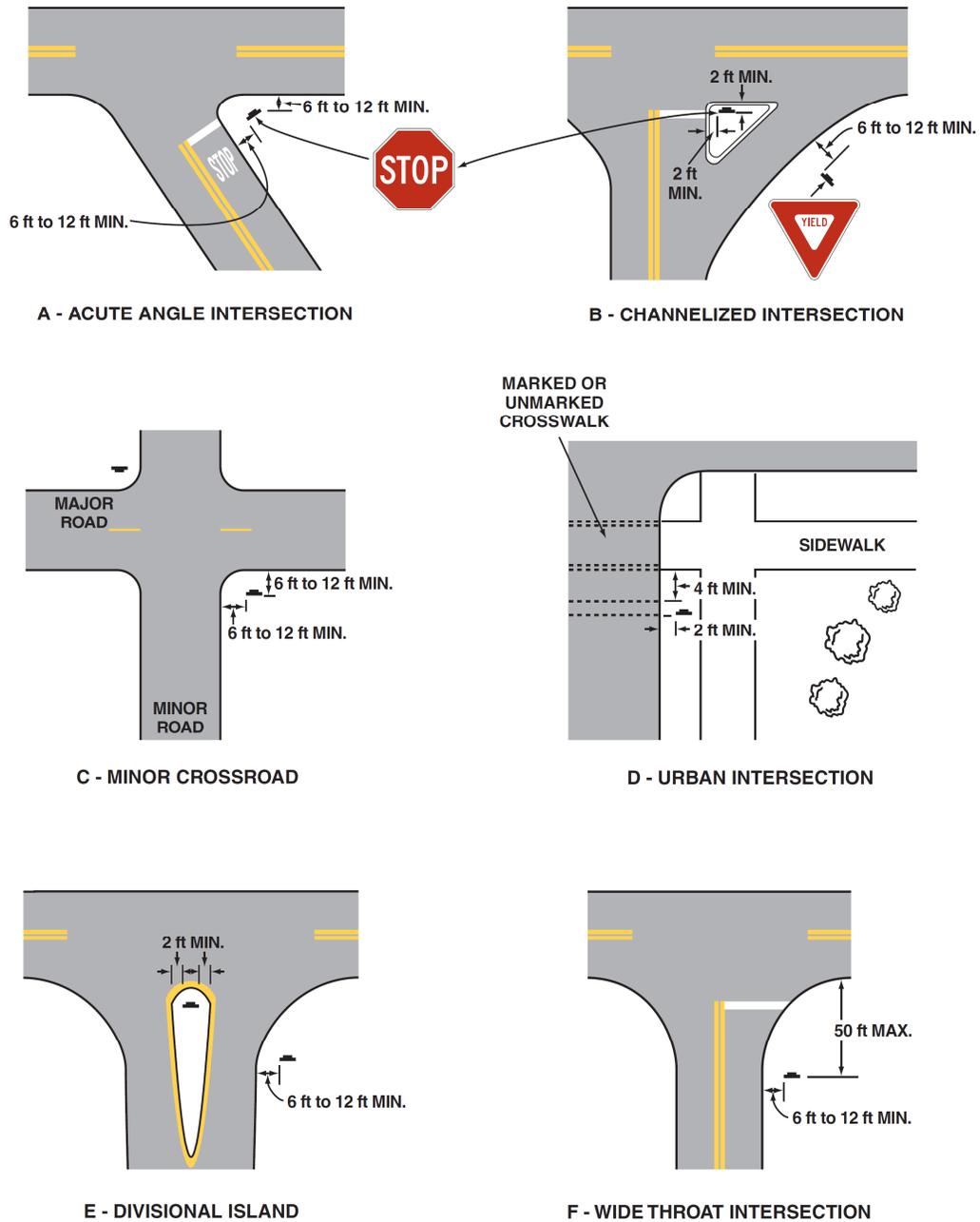


**Urban Locations and Rural Locations  
 with Sidewalk**



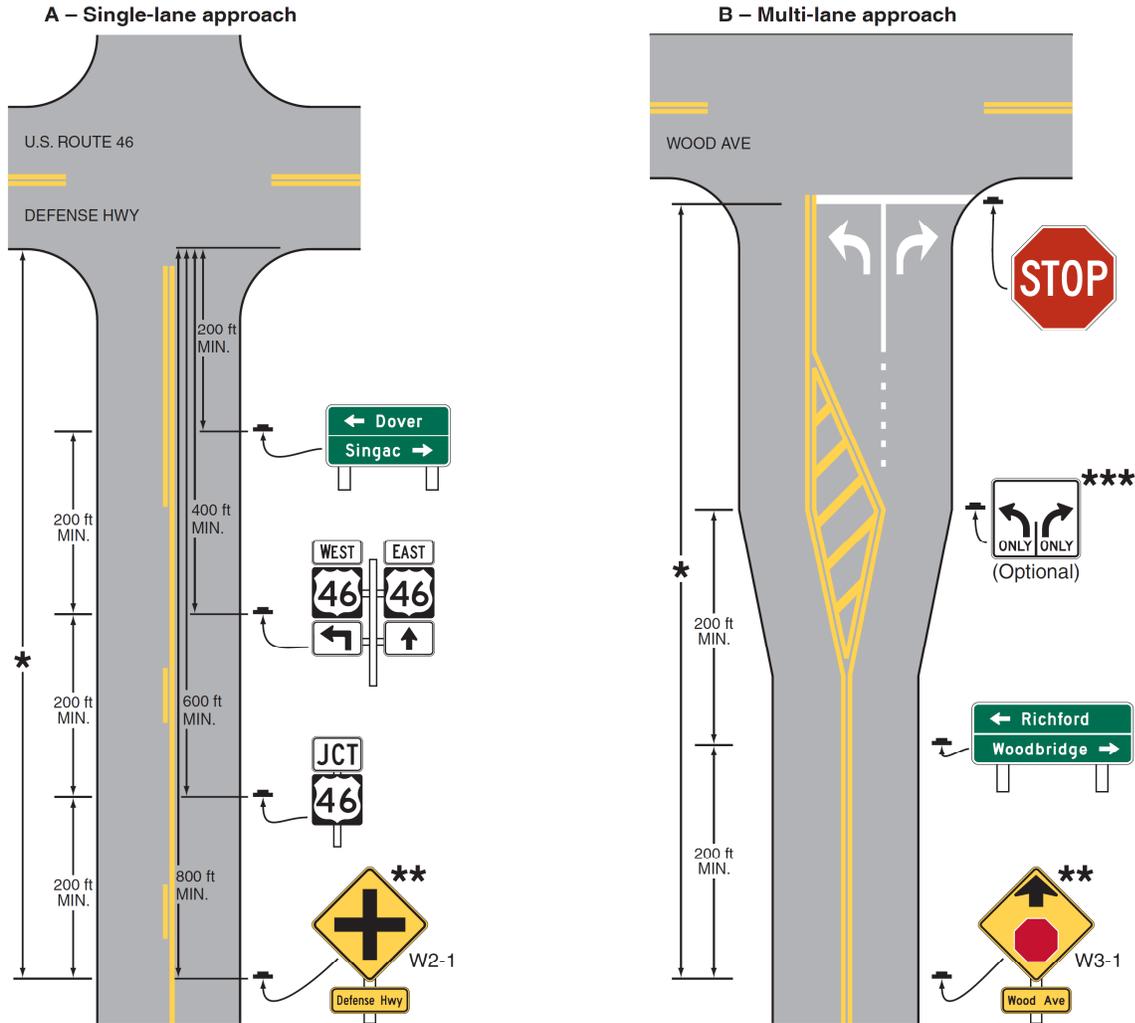
**RURAL  
 LOCATIONS**

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



Note: Lateral offset is a minimum of 6 feet measured from the edge of the shoulder, or 12 feet measured from the edge of the traveled way. See Section 2A.19 for lower minimums that may be used in urban areas, or where lateral offset space is limited.

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



Note: See Chapter 2D for information on guide signs and Part 3 for information on pavement markings

- \* See Table 2C-4 for the recommended minimum distance
- \*\* See Section 2C.46 for the application of the W2-1 sign and Section 2C.36 for the application of the W3-1 sign
- \*\*\* See Section 2B.22 for the application of Intersection Lane Control signs

**Table 2A-1. Illumination of Sign Elements**

Means of Illumination	Sign Element to be Illuminated
Light behind the sign face	<ul style="list-style-type: none"> <li>• Symbol or word message</li> <li>• Background</li> <li>• Symbol, word message, and background (through a translucent material)</li> </ul>
Attached or independently mounted light source designed to direct essentially uniform illumination onto the sign face	<ul style="list-style-type: none"> <li>• Entire sign face</li> </ul>
Light emitting diodes (LEDs)	<ul style="list-style-type: none"> <li>• Border of STOP or warning signs</li> <li>• <del>Symbol or word message</del></li> <li>• <del>Portions of the sign border</del></li> </ul>
Other devices, or treatments that highlight the sign shape, color, or message: Luminous tubing Fiber optics Incandescent light bulbs Luminescent panels	<ul style="list-style-type: none"> <li>• Symbol or word message</li> <li>• Entire sign face</li> </ul>

**Table 2A-2. Retroreflection of Sign Elements**

Means of Retroreflection	Sign Element
Reflector "buttons" or similar units	Symbol Word message Border
A material that has a smooth, sealed outer surface over a microstructure that reflects light	Symbol Word message Border Background

**Table 2A-3. Minimum Maintained Retroreflectivity Levels<sup>1</sup>**

Sign Color	Sheeting Type (ASTM D4956-04)				Additional Criteria
	Beaded Sheeting			Prismatic Sheeting	
	I	II	III	III, IV, VI, VII, VIII, IX, X	
White on Green	W*; G ≥ 7	W*; G ≥ 15	W*; G ≥ 25	W ≥ 250; G ≥ 25	Overhead
	W*; G ≥ 7	W ≥ 120; G ≥ 15			Post-mounted
Black on Yellow or Black on Orange	Y*; O*	Y ≥ 50; O ≥ 50			2
	Y*; O*	Y ≥ 75; O ≥ 75			3
White on Red	W ≥ 35; R ≥ 7				4
Black on White	W ≥ 50				–
<sup>1</sup> The minimum maintained retroreflectivity levels shown in this table are in units of cd/lx/m <sup>2</sup> measured at an observation angle of 0.2° and an entrance angle of -4.0°.					
<sup>2</sup> For text and fine symbol signs measuring at least 48 inches and for all sizes of bold symbol signs					
<sup>3</sup> For text and fine symbol signs measuring less than 48 inches					
<sup>4</sup> Minimum sign contrast ratio ≥ 3:1 (white retroreflectivity ÷ red retroreflectivity)					
<sup>*</sup> This sheeting type shall not be used for this application.					
<b>Bold Symbol Signs</b>					
<ul style="list-style-type: none"> <li>• W1-1,2 – Turn and Curve</li> <li>• W1-3,4 – Reverse Turn and Curve</li> <li>• W1-5 – Winding Road</li> <li>• W1-6,7 – Large Arrow</li> <li>• W1-8 – Chevron</li> <li>• W1-10 – Intersection in Curve</li> <li>• W1-11 – Hairpin Curve</li> <li>• W1-15 – 270 Degree Loop</li> <li>• W2-1 – Cross Road</li> <li>• W2-2,3 – Side Road</li> <li>• W2-4,5 – T and Y Intersection</li> <li>• W2-6 – Circular Intersection</li> <li>• W2-7,8 – Double Side Roads</li> </ul>		<ul style="list-style-type: none"> <li>• W3-1 – Stop Ahead</li> <li>• W3-2 – Yield Ahead</li> <li>• W3-3 – Signal Ahead</li> <li>• W4-1 – Merge</li> <li>• W4-2 – Lane Ends</li> <li>• W4-3 – Added Lane</li> <li>• W4-5 – Entering Roadway Merge</li> <li>• W4-6 – Entering Roadway Added Lane</li> <li>• W6-1,2 – Divided Highway Begins and Ends</li> <li>• W6-3 – Two-Way Traffic</li> <li>• W10-1,2,3,4,11,12 – Grade Crossing Advance Warning</li> </ul>		<ul style="list-style-type: none"> <li>• W11-2 – Pedestrian Crossing</li> <li>• W11-3,4,16-22 – Large Animals</li> <li>• W11-5 – Farm Equipment</li> <li>• W11-6 – Snowmobile Crossing</li> <li>• W11-7 – Equestrian Crossing</li> <li>• W11-8 – Fire Station</li> <li>• W11-10 – Truck Crossing</li> <li>• W12-1 – Double Arrow</li> <li>• W16-5P,6P,7P – Pointing Arrow Plaques</li> <li>• W20-7 – Flagger</li> <li>• W21-1 – Worker</li> </ul>	
<b>Fine Symbol Signs (symbol signs not listed as bold symbol signs)</b>					
<b>Special Cases</b>					
<ul style="list-style-type: none"> <li>• W3-1 – Stop Ahead: Red retroreflectivity ≥ 7</li> <li>• W3-2 – Yield Ahead: Red retroreflectivity ≥ 7; White retroreflectivity ≥ 35</li> <li>• W3-3 – Signal Ahead: Red retroreflectivity ≥ 7; Green retroreflectivity ≥ 7</li> <li>• W3-5 – Speed Reduction: White retroreflectivity ≥ 50</li> <li>• For non-diamond shaped signs, such as W14-3 (No Passing Zone), W4-4P (Cross Traffic Does Not Stop), or W13-1P,2,3,6,7 (Speed Advisory Plaques), use the largest sign dimension to determine the proper minimum retroreflectivity level.</li> </ul>					

**Table 2A-4. Use of Sign Shapes**

Shape	Signs
Octagon	Stop*
Equilateral Triangle (1 point down)	Yield*
Circle	Grade Crossing Advance Warning*
Pennant Shape/Isosceles Triangle (longer axis horizontal)	No Passing*
Pentagon (pointed up)	School Advance Warning Sign (squared bottom corners)* County Route Sign (tapered bottom corners)*
Crossbuck (two rectangles in an "X" configuration)	Grade Crossing*
Diamond	Warning Series
Rectangle (including square)	Regulatory Series Guide Series** Warning Series
Trapezoid	Recreational and Cultural Interest Area Series National Forest Route Sign

\* This sign shall be exclusively the shape shown.

\*\* Guide series includes general service, specific service, tourist-oriented directional, general information, recreational and cultural interest area, and emergency management signs.

**Table 2A-5. Common Uses of Sign Colors**

Type of Sign	Legend								Background										
	Black	Green	Red	White	Yellow	Orange	Fluorescent Yellow-Green	Fluorescent Pink	Black	Blue	Brown	Green	Orange*	Red*	White	Yellow*	Purple	Fluorescent Yellow-Green	Fluorescent Pink
Regulatory	X		X	X					X					X	X				
Prohibitive			X	X										X	X				
Permissive		X													X				
Warning	X															X			
Pedestrian	X															X		X	
Bicycle	X															X		X	
Guide				X							X								
Interstate Route				X						X				X					
State Route	X														X				
U.S. Route	X														X				
County Route					X					X									
Forest Route				X						X									
Street Name				X								X							
Destination				X								X							
Reference Location				X								X							
Information				X						X		X							
Evacuation Route				X						X									
Road User Service				X						X									
Recreational				X							X	X							
Temporary Traffic Control	X											X							
Incident Management	X											X							X
School	X																		X
ETC-Account Only	X																X****		
Changeable Message Signs																			
Regulatory			X***	X						X									
Warning					X					X									
Temporary Traffic Control					X	X				X									
Guide				X						X		X**							
Motorist Services				X						X	X**								
Incident Management					X			X		X									
School, Pedestrian, Bicycle					X		X			X									

\* Fluorescent versions of these background colors may also be used.  
 \*\* These alternative background colors would be provided by blue or green lighted pixels such that the entire CMS would be lighted, not just the legend.  
 \*\*\* Red is used only for the circle and slash or other red elements of a similar static regulatory sign.  
 \*\*\*\* The use of the color purple on signs is restricted per the provisions of Paragraph 1 of Section 2F.03.

**Table 2A-5 (CA). Common Uses of sign Colors**

Items shown in gray are unique to California standards. All other items are adopted per FHWA 2009 MUTCD.

Type of Sign	Legend										Background													
	Black	Green	Red	White	Yellow	Brown	Orange	Fluorescent Yellow-Green	Fluorescent Pink	Black	Blue	Brown	Green	Orange	Red	White	Yellow	Fluorescent Yellow-Green	Fluorescent Pink	Cream	Teal	Light Blue	Purple	
<b>Regulatory</b>	x		x	x						x					x	x								
Prohibitive			x	x											x	x								
Permissive		x		x							x					x								
<b>Warning</b>	x																x							
Pedestrian	x																x	x						
Bicycle	x																x	x						
Playground	x																x	x						
School	x																	x						
<b>Guide</b>				x									x											
Interstate Route				x							x				x									
Interstate Business Route				x										x										
State Route				x										x										
US Route	x															x								
County Route					x						x													
Forest Route				x								x												
Scenic Route				x																			x	
Bicycle route				x										x										
Historic Route	x											x				x								
Reference Location				x										x										
<b>Information</b>				x							x	x	x											
Milepost				x										x										
Evacuation route				x							x													
Road User Service				x							x													
Recreational				x								x												
Street Name				x										x										
Destination				x										x										
Boundary				x										x										
State Boundary	x				x																		x	
Place Name				x										x										
Structure Identification	x															x								
Historical Landmark						x														x				
Memorial				x										x										
Call Box				x							x													
Victims Memorial				x							x													
Adopt-A-Highway				x																		x		
Temporary Traffic Control	x													xx										
Incident Management	x																		x					
ETC-Account Only	x																							x
Changeable Message Signs*					x	x				x														

\* Reverse colors or fluorescent yellow-green pixels may also be used on changeable message signs.



## CHAPTER 2B. REGULATORY SIGNS, BARRICADES, AND GATES

### Section 2B.01 Application of Regulatory Signs

**Standard:**

**01 Regulatory signs shall be used to inform road users of selected traffic laws or regulations and indicate the applicability of the legal requirements.**

**02 Regulatory signs shall be installed at or near where the regulations apply. The signs shall clearly indicate the requirements imposed by the regulations and shall be designed and installed to provide adequate visibility and legibility in order to obtain compliance.**

**03 Regulatory signs shall be retroreflective or illuminated (see Section 2A.07) to show the same shape and similar color by both day and night, unless specifically stated otherwise in the text discussion in this Manual for a particular sign or group of signs.**

**04 The requirements for sign illumination shall not be considered to be satisfied by street or highway lighting.**

**Support:**

**05 Section 1A.09 contains information regarding the assistance that is available to jurisdictions that do not have engineers on their staffs who are trained and/or experienced in traffic control devices.**

**Standard:**

**06 Orders, ordinances and resolutions by local authorities which affect State highways shall be approved by Department of Transportation.**

**Support:**

**07 Signs required for enforcement are normally placed by, and at the expense of, the authority establishing the regulation.**

**08 Refer to CVC 21461 for failure to obey a regulatory sign.**

### Section 2B.02 Design of Regulatory Signs

**Standard:**

**01 Regulatory signs shall be rectangular unless specifically designated otherwise. Regulatory signs shall be designed in accordance with the sizes, shapes, colors, and legends contained in the “Standard Highway Signs and Markings” book and Department of Transportation’s California Sign Specifications (see Section 1A.11).**

**Option:**

**02 Regulatory word message signs other than those classified and specified in this Manual and the “Standard Highway Signs and Markings” book (see Section 1A.11) may be developed to aid the enforcement of other laws or regulations.**

**03 Except for symbols on regulatory signs, minor modifications may be made to the design provided that the essential appearance characteristics are met.**

**Support:**

**04 The use of educational plaques to supplement symbol signs is described in Section 2A.12.**

**Guidance:**

**05 Changeable message signs displaying a regulatory message incorporating a prohibitory message that includes a red circle and slash on a static sign should display a red symbol that approximates the same red circle and slash as closely as possible.**

### Section 2B.03 Size of Regulatory Signs

**Standard:**

**01 Except as provided in Section 2A.11, the sizes for regulatory signs shall be as shown in Table 2B-1 and 2B-1(CA).**

**Support:**

**02 Section 2A.11 contains information regarding the applicability of the various columns in Table 2B-1 and 2B-1(CA).**

**Standard:**

**03 Except as provided in Paragraphs 4 and 5, the minimum sizes for regulatory signs facing traffic on multi-lane conventional roads shall be as shown in the Multi-lane column of Table 2B-1 and 2B-1(CA).**

**Option:**

**04** Where the posted speed limit is 35 mph or less on a multi-lane highway or street, other than for a STOP sign, the minimum size shown in the Single Lane column in Table 2B-1 and 2B-1(CA) may be used.

**05** Where a regulatory sign, other than a STOP sign, is placed on the left-hand side of a multi-lane roadway in addition to the installation of the same regulatory sign on the right-hand side or the roadway, the size shown in the Single Lane column in Table 2B-1 and 2B-1(CA) may be used for both the sign on the right-hand side and the sign on the left-hand side of the roadway.

**Standard:**

**06 A minimum size of 36 x 36 inches shall be used for STOP signs that face multi-lane approaches.**

**07 Where side roads intersect a multi-lane street or highway that has a speed limit of 45 mph or higher, the minimum size of the STOP signs facing the side road approaches, even if the side road only has one approach lane, shall be 36 x 36 inches.**

**08 Where side roads intersect a multi-lane street or highway that has a speed limit of 40 MPH or lower, the minimum size of the STOP signs facing the side road approaches shall be as shown in the Single Lane or Multi-lane columns of Table 2B-1 and 2B-1(CA) based on the number of approach lanes on the side street approach.**

**Guidance:**

**09** *The minimum sizes for regulatory signs facing traffic on exit and entrance ramps should be as shown in the column of Table 2B-1 and 2B-1(CA) that corresponds to the mainline roadway classification (Expressway or Freeway). If a minimum size is not provided in the Freeway column, the minimum size in the Expressway column should be used. If a minimum size is not provided in the Freeway or Expressway Column, the size in the Oversized column should be used.*

**Section 2B.04 Right-of-Way at Intersections**

**Support:**

**01** State or local laws written in accordance with the “Uniform Vehicle Code” (see Section 1A.11) establish the right-of-way rule at intersections having no regulatory traffic control signs such that the driver of a vehicle approaching an intersection must yield the right-of-way to any vehicle or pedestrian already in the intersection. When two vehicles approach an intersection from different streets or highways at approximately the same time, the right-of-way rule requires the driver of the vehicle on the left to yield the right-of-way to the vehicle on the right. The right-of-way can be modified at through streets or highways by placing YIELD (R1-2) signs (see Sections 2B.08 and 2B.09) or STOP (R1-1) signs (see Sections 2B.05 through 2B.07) on one or more approaches.

**Guidance:**

**02** *Engineering judgment should be used to establish intersection control. The following factors should be considered:*

- A. *Vehicular, bicycle, and pedestrian traffic volumes on all approaches;*
- B. *Number and angle of approaches;*
- C. *Approach speeds;*
- D. *Sight distance available on each approach; and*
- E. *Reported crash experience.*

**03** *YIELD or STOP signs should be used at an intersection if one or more of the following conditions exist:*

- A. *An intersection of a less important road with a main road where application of the normal right-of-way rule would not be expected to provide reasonable compliance with the law;*
- B. *A street entering a designated through highway or street; and/or*
- C. *An unsignalized intersection in a signalized area.*

*04 In addition, the use of YIELD or STOP signs should be considered at the intersection of two minor streets or local roads where the intersection has more than three approaches and where one or more of the following conditions exist:*

- A. The combined vehicular, bicycle, and pedestrian volume entering the intersection from all approaches averages more than 2,000 units per day;*
- B. The ability to see conflicting traffic on an approach is not sufficient to allow a road user to stop or yield in compliance with the normal right-of-way rule if such stopping or yielding is necessary; and/or*
- C. Crash records indicate that five or more crashes that involve the failure to yield the right-of-way at the intersection under the normal right-of-way rule have been reported within a 3-year period, or that three or more such crashes have been reported within a 2-year period.*

*05 YIELD or STOP signs should not be used for speed control.*

**Support:**

*06 Section 2B.07 contains provisions regarding the application of multi-way STOP control at an intersection.*

**Guidance:**

*07 Once the decision has been made to control an intersection, the decision regarding the appropriate roadway to control should be based on engineering judgment. In most cases, the roadway carrying the lowest volume of traffic should be controlled.*

*08 A YIELD or STOP sign should not be installed on the higher volume roadway unless justified by an engineering study.*

**Support:**

*09 The following are considerations that might influence the decision regarding the appropriate roadway upon which to install a YIELD or STOP sign where two roadways with relatively equal volumes and/or characteristics intersect:*

- A. Controlling the direction that conflicts the most with established pedestrian crossing activity or school walking routes;*
- B. Controlling the direction that has obscured vision, dips, or bumps that already require drivers to use lower operating speeds; and*
- C. Controlling the direction that has the best sight distance from a controlled position to observe conflicting traffic.*

**Standard:**

**10 Because the potential for conflicting commands could create driver confusion, YIELD or STOP signs shall not be used in conjunction with any traffic control signal operation, except in the following cases:**

- A. If the signal indication for an approach is a flashing red at all times;**
- B. If a minor street or driveway is located within or adjacent to the area controlled by the traffic control signal, but does not require separate traffic signal control because an extremely low potential for conflict exists; or**
- C. If a channelized turn lane is separated from the adjacent travel lanes by an island and the channelized turn lane is not controlled by a traffic control signal.**

**10a STOP signs shall not be erected at any entrance to an intersection controlled by traffic signals. Refer to CVC 21355(a).**

**11 Except as provided in Section 2B.09, STOP signs and YIELD signs shall not be installed on different approaches to the same unsignalized intersection if those approaches conflict with or oppose each other.**

**12 Portable or part-time STOP or YIELD signs shall not be used except for emergency and temporary traffic control zone purposes.**

**13 A portable or part-time (folding) STOP sign that is manually placed into view and manually removed from view shall not be used during a power outage to control a signalized approach unless the maintaining agency establishes that the signal indication that will first be displayed to that approach upon restoration of power is a flashing red signal indication and that the portable STOP sign will be manually removed from view prior to stop-and-go operation of the traffic control signal.**

**Option:**

**14 A portable or part-time (folding) STOP sign that is electrically or mechanically operated such that it only displays the STOP message during a power outage and ceases to display the STOP message upon restoration of power may be used during a power outage to control a signalized approach.**

Support:

<sup>15</sup> Section 9B.03 contains provisions regarding the assignment of priority at a shared-use path/ roadway intersection.

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

**Standard:**

<sup>01</sup> **When it is determined that a full stop is always required on an approach to an intersection, a STOP (R1-1) sign (see Figure 2B-1) shall be used.**

<sup>02</sup> **The STOP sign shall be an octagon with a white legend and border on a red background.**

<sup>03</sup> **Secondary legends shall not be used on STOP sign faces.**

<sup>04</sup> **At intersections where all approaches are controlled by STOP signs (see Section 2B.07), an ALL WAY supplemental plaque (R1-3P) shall be mounted below each STOP sign. The ALL WAY plaque (see Figure 2B-1) shall have a white legend and border on a red background.**

<sup>05</sup> **The ALL WAY plaque shall only be used if all intersection approaches are controlled by STOP signs.**

<sup>06</sup> **Supplemental plaques with legends such as 2-WAY, 3-WAY, 4-WAY, or other numbers of ways shall not be used with STOP signs.**

Support:

<sup>07</sup> The use of the CROSS TRAFFIC DOES NOT STOP (W4-4P) plaque (and other plaques with variations of this word message) is described in Section 2C.59.

Guidance:

<sup>08</sup> *Plaques with the appropriate alternative messages of TRAFFIC FROM LEFT (RIGHT) DOES NOT STOP (W4-4aP) or ONCOMING TRAFFIC DOES NOT STOP (W4-4bP) should be used at intersections where STOP signs control all but one approach to the intersection, unless the only non-stopped approach is from a one-way street.*

Option:

<sup>09</sup> An EXCEPT RIGHT TURN (R1-10P) plaque (see Figure 2B-1) may be mounted below the STOP sign if an engineering study determines that a special combination of geometry and traffic volumes is present that makes it possible for right-turning traffic on the approach to be permitted to enter the intersection without stopping.

Support:

<sup>10</sup> The design and application of Stop Beacons are described in Section 4L.05.

<sup>11</sup> A STOP (R1-1) sign is not a "cure-all" and is not a substitute for other traffic control devices. Often, the need for a STOP (R1-1) sign can be eliminated if the sight distance is increased by removing obstructions.

**Through Highways**

Option:

<sup>12</sup> STOP (R1-1) signs may be installed either at or near the entrance to a State highway, except at signalized intersections, or at any location so as to control traffic within an intersection. Refer to CVC 21352 and 21355. See Section 1A.11 for information regarding this publication.

Support:

<sup>13</sup> When STOP (R1-1) signs or traffic control signals have been erected at all entrances, a highway constitutes a through highway. Refer to CVC 600.

<sup>14</sup> Authority to place STOP (R1-1) signs facing State highway traffic is delegated to the Department of Transportation's District Directors.

Option:

<sup>15</sup> Local authorities may designate any highway under their jurisdiction as a through highway and install STOP (R1-1) signs in a like manner. Refer to CVC 21354.

**Standard:**

<sup>16</sup> **No local authority shall erect or maintain any STOP (R1-1) sign or other traffic control device requiring a stop, on any State highway, except by permission of the Department of Transportation. Refer to CVC 21353.**

Support:

<sup>17</sup> The Department of Transportation will grant such permission only when an investigation indicates that the STOP (R1-1) sign will benefit traffic.

## **Section 2B.06 STOP Sign Applications**

### *Guidance:*

01 *At intersections where a full stop is not necessary at all times, consideration should first be given to using less restrictive measures such as YIELD signs (see Sections 2B.08 and 2B.09).*

02 *The use of STOP signs on the minor-street approaches should be considered if engineering judgment indicates that a stop is always required because of one or more of the following conditions:*

- A. The vehicular traffic volumes on the through street or highway exceed 6,000 vehicles per day;*
- B. A restricted view exists that requires road users to stop in order to adequately observe conflicting traffic on the through street or highway; and/or*
- C. Crash records indicate that three or more crashes that are susceptible to correction by the installation of a STOP sign have been reported within a 12-month period, or that five or more such crashes have been reported within a 2-year period. Such crashes include right-angle collisions involving road users on the minor-street approach failing to yield the right-of-way to traffic on the through street or highway.*

### *Support:*

03 *The use of STOP signs at grade crossings is described in Sections 8B.04 and 8B.05.*

## **Section 2B.07 Multi-Way Stop Applications**

### *Support:*

01 *Multi-way stop control can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multi-way stops include pedestrians, bicyclists, and all road users expecting other road users to stop. Multi-way stop control is used where the volume of traffic on the intersecting roads is approximately equal.*

02 *The restrictions on the use of STOP signs described in Section 2B.04 also apply to multi-way stop applications.*

### *Guidance:*

03 *The decision to install multi-way stop control should be based on an engineering study.*

04 *The following criteria should be considered in the engineering study for a multi-way STOP sign installation:*

- A. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.*
- B. Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.*
- C. Minimum volumes:*
  - 1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and*
  - 2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but*
  - 3. If the 85<sup>th</sup>-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.*
- D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.*

### *Option:*

05 *Other criteria that may be considered in an engineering study include:*

- A. The need to control left-turn conflicts;*
- B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;*
- C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop; and*
- D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.*

### **Section 2B.08 YIELD Sign (R1-2)**

**Standard:**

01 **The YIELD (R1-2) sign (see Figure 2B-1) shall be a downward-pointing equilateral triangle with a wide red border and the legend YIELD in red on a white background.**

**Support:**

02 The YIELD sign assigns right-of-way to traffic on certain approaches to an intersection. Vehicles controlled by a YIELD sign need to slow down to a speed that is reasonable for the existing conditions or stop when necessary to avoid interfering with conflicting traffic.

### **Section 2B.09 YIELD Sign Applications**

**Option:**

01 YIELD signs may be installed:

- A. On the approaches to a through street or highway where conditions are such that a full stop is not always required.
- B. At the second crossroad of a divided highway, where the median width at the intersection is 30 feet or greater. In this case, a STOP or YIELD sign may be installed at the entrance to the first roadway of a divided highway, and a YIELD sign may be installed at the entrance to the second roadway.
- C. For a channelized turn lane that is separated from the adjacent travel lanes by an island, even if the adjacent lanes at the intersection are controlled by a highway traffic control signal or by a STOP sign.
- D. At an intersection where a special problem exists and where engineering judgment indicates the problem to be susceptible to correction by the use of the YIELD sign.
- E. Facing the entering roadway for a merge-type movement if engineering judgment indicates that control is needed because acceleration geometry and/or sight distance is not adequate for merging traffic operation.

**Standard:**

02 **A YIELD (R1-2) sign shall be used to assign right-of-way at the entrance to a roundabout. YIELD signs at roundabouts shall be used to control the approach roadways and shall not be used to control the circulatory roadway.**

03 **Other than for all of the approaches to a roundabout, YIELD signs shall not be placed on all of the approaches to an intersection.**

### **Section 2B.10 STOP Sign or YIELD Sign Placement**

**Standard:**

01 **The STOP or YIELD sign shall be installed on the near side of the intersection on the right-hand side of the approach to which it applies. When the STOP or YIELD sign is installed at this required location and the sign visibility is restricted, a Stop Ahead sign (see Section 2C.36) shall be installed in advance of the STOP sign or a Yield Ahead sign (see Section 2C.36) shall be installed in advance of the YIELD sign.**

02 **The STOP or YIELD sign shall be located as close as practical to the intersection it regulates, while optimizing its visibility to the road user it is intended to regulate.**

02a **YIELD signs shall not be erected upon the approaches to more than one of the intersecting streets. Refer to CVC 21356.**

03 **STOP signs and YIELD signs shall not be mounted on the same post.**

04 **No items other than inventory stickers, sign installation dates, and bar codes shall be affixed to the fronts of STOP or YIELD signs, and the placement of these items shall be in the border of the sign.**

05 **No items other than official traffic control signs, inventory stickers, sign installation dates, anti-vandalism stickers, and bar codes shall be mounted on the backs of STOP or YIELD signs.**

06 **No items other than retroreflective strips (see Section 2A.21) or official traffic control signs shall be mounted on the fronts or backs of STOP or YIELD signs supports.**

06a **If other signs are grouped with a STOP sign, except for ONE WAY (R6-1 & R6-2) signs and Street Name (D3-1 or G7-1(CA)) signs (see Sections 2B.40 & 2D.43), they shall be installed below the STOP sign.**

**Guidance:**

07 *STOP or YIELD signs should not be placed farther than 50 feet from the edge of the pavement of the intersected roadway (see Drawing F in Figure 2A-3).*

*08 A sign that is mounted back-to-back with a STOP or YIELD sign should stay within the edges of the STOP or YIELD sign. If necessary, the size of the STOP or YIELD sign should be increased so that any other sign installed back-to-back with a STOP or YIELD sign remains within the edges of the STOP or YIELD sign.*

**Standard:**

**08a When a required stop is to apply at the entrance to an intersection from a one-way street with a roadway of 30 feet or more in width, stop signs shall be erected both on the left and the right sides of the one-way street at or near the entrance to the intersection. Refer to CVC 21355.**

**Option:**

*09 Where drivers proceeding straight ahead must yield to traffic approaching from the opposite direction, such as at a one-lane bridge, a TO ONCOMING TRAFFIC (R1-2aP) plaque may be mounted below the YIELD sign.*

**Standard:**

**09a The TO ONCOMING TRAFFIC (R1-2a) sign when used, shall be mounted on the same post and immediately below a YIELD (R1-2) sign.**

**Guidance:**

*09b The width of the R1-2a sign should be equal to the width of the YIELD (R1-2) sign.*

**Support:**

*10 Figure 2A-3 shows examples of some typical placements of STOP signs and YIELD signs. 11 Section 2A.16 contains additional information about separate and combined mounting of other signs with STOP or YIELD signs.*

**Guidance:**

*12 Stop lines that are used to supplement a STOP sign should be located as described in Section 3B.16. Yield lines that are used to supplement a YIELD sign should be located as described in Section 3B.16.*

*13 Where there is a marked crosswalk at the intersection, the STOP sign should be installed in advance of the crosswalk line nearest to the approaching traffic.*

*14 Except at roundabouts, where there is a marked crosswalk at the intersection, the YIELD sign should be installed in advance of the crosswalk line nearest to the approaching traffic.*

*15 Where two roads intersect at an acute angle, the STOP or YIELD sign should be positioned at an angle, or shielded, so that the legend is out of view of traffic to which it does not apply.*

*16 If a raised splitter island is available on the left-hand side of a multi-lane roundabout approach, an additional YIELD sign should be placed on the left-hand side of the approach.*

**Option:**

*17 If a raised splitter island is available on the left-hand side of a single lane roundabout approach, an additional YIELD sign may be placed on the left-hand side of the approach.*

*18 At wide-throat intersections or where two or more approach lanes of traffic exist on the signed approach, observance of the right-of-way control may be improved by the installation of an additional STOP or YIELD sign on the left-hand side of the road and/or the use of a stop or yield line. At channelized intersections or at divided roadways separated by a median, the additional STOP or YIELD sign may be placed on a channelizing island or in the median. An additional STOP or YIELD sign may also be placed overhead facing the approach at the intersection to improve observance of the right-of-way control.*

**Standard:**

**19 More than one STOP sign or more than one YIELD sign shall not be placed on the same support facing in the same direction.**

**Option:**

*20 For a yield-controlled channelized right-turn movement onto a roadway without an acceleration lane and for an entrance ramp onto a freeway or expressway without an acceleration lane, a NO MERGE AREA (W4-5P) supplemental plaque (see Section 2C.40) may be mounted below a Yield Ahead (W3-2) sign and/or below a YIELD (R1-2) sign when engineering judgment indicates that road users would expect an acceleration lane to be present.*

## **Section 2B.11 Yield Here To Pedestrians Signs and Stop Here For Pedestrians Signs (R1-5 Series)**

### **Standard:**

<sup>01</sup> ~~Yield Here To (Stop Here For) Pedestrians (R1-5, R1-5a, R1-5b, or R1-5e) signs~~ (see Figure 2B-2) shall be used if yield (stop) lines are used in advance of a marked crosswalk that crosses an uncontrolled multi-lane approach. ~~The Stop Here for Pedestrians signs shall only be used where the law specifically requires that a driver must stop for a pedestrian in a crosswalk.~~ The legend STATE LAW may be displayed at the top of the R1-5, R1-5a, R1-5b, and R1-5e signs, if applicable.

### **Support:**

<sup>01a</sup> The Stop Here for Pedestrian signs (R1-5b and R1-5c) are deleted as a stop is not required in California per CVC 21950.

### **Guidance:**

<sup>02</sup> If yield (stop) lines and Yield Here To ~~(Stop Here For) Pedestrians~~ signs are used in advance of a crosswalk that crosses an uncontrolled multi-lane approach, they should be placed 20 to 50 feet in advance of the nearest crosswalk line (see Section 3B.16 and Figure 3B-17), and parking should be prohibited in the area between the yield (stop) line and the crosswalk.

<sup>03</sup> Yield (stop) lines and Yield Here To ~~(Stop Here For) Pedestrians~~ signs should not be used in advance of crosswalks that cross an approach to or departure from a roundabout.

### **Option:**

<sup>04</sup> Yield Here To ~~(Stop Here For) Pedestrians~~ signs may be used in advance of a crosswalk that crosses an uncontrolled multi-lane approach to indicate to road users where to yield ~~(stop)~~ even if yield (stop) lines are not used.

<sup>05</sup> A Pedestrian Crossing (W11-2) warning sign may be placed overhead or may be post-mounted with a diagonal downward pointing arrow (W16-7P) plaque at the crosswalk location where Yield Here To ~~(Stop Here For) Pedestrians~~ signs have been installed in advance of the crosswalk.

### **Standard:**

<sup>06</sup> If a W11-2 sign has been post-mounted at the crosswalk location where a Yield Here To ~~(Stop Here For) Pedestrians~~ sign is used on the approach, the Yield Here To ~~(Stop Here For) Pedestrians~~ sign shall not be placed on the same post as or block the road user's view of the W11-2 sign.

### **Option:**

<sup>07</sup> An advance Pedestrian Crossing (W11-2) warning sign with an AHEAD or a distance supplemental plaque may be used in conjunction with a Yield Here To ~~(Stop Here For) Pedestrians~~ sign on the approach to the same crosswalk.

<sup>08</sup> In-Street Pedestrian Crossing signs and Yield Here To ~~(Stop Here For) Pedestrians~~ signs may be used together at the same crosswalk.

## **Section 2B.12 In-Street and Overhead Pedestrian Crossing Signs (R1-6, R1-6a, R1-9, and R1-9a)**

### **Option:**

<sup>01</sup> The In-Street Pedestrian Crossing (R1-6 ~~or R1-6a~~) sign (see Figure 2B-2) or the Overhead Pedestrian Crossing (R1-9 ~~or R1-9a~~) sign (see Figure 2B-2) may be used to remind road users of laws regarding right-of-way at an unsignalized pedestrian crosswalk. The legend STATE LAW may be displayed at the top of the R1-6, R1-6a, R1-9, and R1-9a signs, if applicable. On the R1-6 and R1-6a signs, the legends STOP or YIELD may be used instead of the appropriate STOP sign or YIELD sign symbol.

<sup>02</sup> Highway agencies may develop and apply criteria for determining the applicability of In-Street Pedestrian Crossing signs.

### **Support:**

<sup>02a</sup> The In-Street Pedestrian crossing (R1-6a) and Overhead Pedestrian Crossing (R1-9a) signs are deleted as a stop is not required in California per CVC 21950.

### **Standard:**

<sup>03</sup> If used, the In-Street Pedestrian Crossing sign shall be placed in the roadway at the crosswalk location on the center line, on a lane line, or on a median island. The In-Street Pedestrian Crossing sign shall not be post-mounted on the left-hand or right-hand side of the roadway.

**04 If used, the Overhead Pedestrian Crossing sign shall be placed over the roadway at the crosswalk location.**

**05 An In-Street or Overhead Pedestrian Crossing sign shall not be placed in advance of the crosswalk to educate road users about the State law prior to reaching the crosswalk, nor shall it be installed as an educational display that is not near any crosswalk.**

*Guidance:*

*06 If an island (see Chapter 3I) is available, the In-Street Pedestrian Crossing sign, if used, should be placed on the island.*

*Option:*

*07 If a Pedestrian Crossing (W11-2) warning sign is used in combination with an In-Street or an Overhead Pedestrian Crossing sign, the W11-2 sign with a diagonal downward pointing arrow (W16-7P) plaque may be post-mounted on the right-hand side of the roadway at the crosswalk location.*

**Standard:**

**08 The In-Street Pedestrian Crossing sign and the Overhead Pedestrian Crossing sign shall not be used at signalized locations.**

**09 The STOP FOR legend shall only be used in States where the State law specifically requires that a driver must stop for a pedestrian in a crosswalk.**

**10 The In-Street Pedestrian Crossing sign shall have a black legend (except for the red STOP or YIELD sign symbols) and border on a white background, surrounded by an outer yellow or fluorescent yellow-green background area (see Figure 2B-2). The Overhead Pedestrian Crossing sign shall have a black legend and border on a yellow or fluorescent yellow-green background at the top of the sign and a black legend and border on a white background at the bottom of the sign (see Figure 2B-2).**

**11 Unless the In-Street Pedestrian Crossing sign is placed on a physical island, the sign support shall be designed to bend over and then bounce back to its normal vertical position when struck by a vehicle.**

*Support:*

*12 The Provisions of Section 2A.18 concerning mounting height are not applicable for the In-Street Pedestrian Crossing sign.*

**Standard:**

**13 The top of an In-Street Pedestrian Crossing sign shall be a maximum of 4 feet above the pavement surface. The top of an In-Street Pedestrian Crossing sign placed in an island shall be a maximum of 4 feet above the island surface.**

*Option:*

*14 The In-Street Pedestrian Crossing sign may be used seasonably seasonally to prevent damage in winter because of plowing operations, and may be removed at night if the pedestrian activity at night is minimal.*

*15 In-Street Pedestrian Crossing signs, Overhead Pedestrian Crossing signs, and Yield Here To (Stop Here For) Pedestrians signs may be used together at the same crosswalk.*

## **Section 2B.13 Speed Limit Sign (R2-1)**

*Support:*

*00 The setting of speed limits can be controversial and requires a rational and defensible determination to maintain public confidence. Speed limits are normally set near the 85th-percentile speed that statistically represents one standard deviation above the average speed and establishes the upper limit of what is considered reasonable and prudent. As with most laws, speed limits need to depend on the voluntary compliance of the greater majority of motorists. Speed limits cannot be set arbitrarily low, as this would create violators of the majority of drivers and would not command the respect of the public.*

**Standard:**

**01 Speed zones (other than statutory speed limits) shall only be established on the basis of an engineering and traffic survey (E&TS) study that has been performed in accordance with traffic engineering practices. The engineering study shall include an analysis of the current speed distribution of free-flowing vehicles.**

**02 The Speed Limit (R2-1) sign (see Figure 2B-3) shall display the limit established by law, ordinance, regulation, or as adopted by the authorized agency based on the engineering study. The speed limits displayed shall be in multiples of 5 mph.**

**03 Speed Limit (R2-1) signs, indicating speed limits for which posting is required by law, shall be located at the points of change from one speed limit to another.**

**04 At the downstream end of the section to which a speed limit applies, a Speed Limit sign showing the next speed limit shall be installed. Additional Speed Limit signs shall be installed beyond major intersections and at other locations where it is necessary to remind road users of the speed limit that is applicable.**

**05 Speed Limit signs indicating the statutory speed limits shall be installed at entrances to the State and, where appropriate, at jurisdictional boundaries in urban areas.**

Support:

06 In general, the maximum speed limits applicable to rural and urban roads are established:

- A. Statutorily – a maximum speed limit applicable to a particular class of road, such as freeways or city streets, that is established by State law; or
- B. As altered speed zones – based on engineering studies.

07 State statutory limits might restrict the maximum speed limit that can be established on a particular road, notwithstanding what an engineering study might indicate.

Option:

~~08 If a jurisdiction has a policy of installing Speed Limit signs in accordance with statutory requirements only on the streets that enter a city, neighborhood, or residential area to indicate the speed limit that is applicable to the entire city, neighborhood, or residential area unless otherwise posted, a CITYWIDE (R2-5aP), NEIGHBORHOOD (R2-5bP), or RESIDENTIAL (R2-5cP) plaque may be mounted above the Speed Limit sign and an UNLESS OTHERWISE POSTED (R2-5P) plaque may be mounted below the Speed Limit sign (see Figure 2B-3).~~

Guidance:

09 *A Reduced Speed Limit Ahead (W3-5 or W3-5a) sign (see Section 2C.38) should be used to inform road users of a reduced speed zone where the speed limit is being reduced by more than 10 mph, or where engineering judgment indicates the need for advance notice to comply with the posted speed limit ahead.*

10 *States and local agencies should conduct engineering studies at least once every 5, 7 or 10 years, in compliance with CVC Section 40802 to reevaluate non-statutory speed limits on segments of their roadways that have undergone significant changes since the last review, such as the addition or elimination of parking or driveways, changes in the number of travel lanes, changes in the configuration of bicycle lanes, changes in traffic control signal coordination, or significant changes in traffic volumes.*

11 *No more than three speed limits should be displayed on any one Speed Limit sign or assembly.*

12 ~~*When a speed limit within a speed zone is posted, it should be within 5 mph of the 85<sup>th</sup> percentile speed of free flowing traffic.*~~

**Standard:**

**12a When a speed limit is to be posted, it shall be established at the nearest 5 mph increment of the 85th-percentile speed of free-flowing traffic, except as shown in the two Options below.**

Option:

1. The posted speed may be reduced by 5 mph from the nearest 5 mph increment of the 85th-percentile speed, in compliance with CVC Sections 627 and 22358.5. See Standard below for documentation requirements.
2. For cases in which the nearest 5 mph increment of the 85th-percentile speed would require a rounding up, then the speed limit may be rounded down to the nearest 5 mph increment below the 85th percentile speed, if no further reduction is used. Refer to CVC Section 21400(f).

**Standard:**

**12b If the speed limit to be posted has had the 5 mph reduction applied, then an E&TS shall document in writing the conditions and justification for the lower speed limit and be approved by a registered Civil or Traffic Engineer. The reasons for the lower speed limit shall be in compliance with CVC Sections 627 and 22358.5.**

Support:

12c The following examples are provided to explain the application of these speed limit criteria:

- A. Using Option 1 above and first step is to round down: If the 85<sup>th</sup> percentile speed in a speed survey for a location was 37 mph, then the speed limit would be established at 35 mph since it is the closest 5 mph increment to the 37 mph speed. As indicated by the option, this 35 mph established speed limit could be reduced by 5 mph to 30 mph if the

conditions and justification for using this lower speed limit are documented in the E&TS and approved by a registered Civil or Traffic Engineer.

- B. Using Option 1 above and first step is to round up: If the 85<sup>th</sup> percentile speed in a speed survey for a location was 33 mph, then the speed limit would be established at 35 mph since it is the closest 5 mph increment to the 33 mph speed. As indicated by the option, this 35 mph speed limit could be reduced by 5 mph to 30 mph if the conditions and justification for using this lower speed limit are documented in the E&TS and approved by a registered Civil or Traffic Engineer.
- C. Using Option 2 above and first step is to round up: If the 85<sup>th</sup> percentile speed in a speed survey for a location was 33 mph, instead of rounding up to 35mph, the speed limit can be established at 30mph, but no further reductions can be applied (which is allowed in the two examples above).

**Standard:**

<sup>12d</sup> **Examples 1 and 2 for establishing posted speed limits shall apply to engineering and traffic surveys (E&TS) performed on or after July 1, 2009 in accordance with the Department's Traffic Operations Policy Directive Number 09-04 dated June 29, 2009.**

**Option:**

<sup>12e</sup> After January 1, 2012, Example 3 may be used to establish speed limits. Refer to CVC 21400(f).

**Support:**

<sup>12f</sup> Any existing E&TS that was performed before July 1, 2009 in accordance with previous traffic control device standards is not required to comply with the new criteria until it is due for reevaluation per the 5, 7 or 10 year criteria.

<sup>13</sup> *Speed studies for signalized intersection approaches should be taken outside the influence area of the traffic control signal, which is generally considered to be approximately 1/2 mile, to avoid obtaining skewed results for the 85<sup>th</sup>-percentile speed.*

**Support:**

<sup>14</sup> Advance warning signs and other traffic control devices to attract the motorist's attention to a signalized intersection are usually more effective than a reduced speed limit zone.

**Guidance:**

<sup>15</sup> *An advisory speed plaque (see Section 2C.08) mounted below a warning sign should be used to warn road users of an advisory speed for a roadway condition. A Speed Limit sign should not be used for this situation.*

**Option:**

<sup>16</sup> Other factors that may be considered when establishing or reevaluating speed limits are the following:

- A. Road characteristics, shoulder condition, grade, alignment, and sight distance;
- B. The pace;
- C. Roadside development and environment;
- D. Parking practices and pedestrian activity; and
- E. Reported crash experience for at least a 12-month period.

<sup>17</sup> Two types of Speed Limit signs may be used: one to designate passenger car speeds, including any nighttime information or minimum speed limit that might apply; and the other to show any special speed limits for trucks and other vehicles.

<sup>18</sup> A changeable message sign that changes the speed limit for traffic and ambient conditions may be installed provided that the appropriate speed limit is displayed at the proper times.

<sup>19</sup> A changeable message sign that displays to approaching drivers the speed at which they are traveling may be installed in conjunction with a Speed Limit sign.

**Guidance:**

<sup>20</sup> *If a changeable message sign displaying approach speeds is installed, the legend YOUR SPEED XX MPH or such similar legend should be displayed. The color of the changeable message legend should be a yellow legend on a black background or the reverse of these colors.*

**Support:**

<sup>21</sup> Advisory Speed signs and plaques are discussed in Sections 2C.08 and 2C.14. Temporary Traffic Control Zone Speed signs are discussed in Part 6. The WORK ZONE (G20-5aP) plaque intended for installation above a Speed Limit sign is discussed in Section 6F.12. School Speed Limit signs are discussed in Section 7B.15.

<sup>22</sup> Speed limits in California are governed by the California Vehicle Code (CVC), Sections 22348 through 22413; also, pertinent sections are found in Sections 627 and 40802 and others referenced in this section. See Section 1A.11 for information regarding this publication.

<sup>23</sup> Refer to Part 6, Section 6C.01 for speed limit signs in temporary traffic control zones. Refer to Part 7 for speed limit signs in school areas.

### **Engineering and Traffic Survey (E&TS)**

Support:

<sup>24</sup> CVC Section 627 defines the term "Engineering and traffic survey" and lists its requirements.

**Standard:**

<sup>25</sup> **An engineering and traffic survey (E&TS) shall include, among other requirements deemed necessary by the department, consideration of all of the following:**

- A. Prevailing speeds as determined by traffic engineering measurements.**
- B. Collision records.**
- C. Highway, traffic, and roadside conditions not readily apparent to the driver.**

Guidance:

<sup>26</sup> *The E&TS should contain sufficient information to document that the required three items of CVC Section 627 are provided and that other conditions not readily apparent to a driver are properly identified.*

<sup>27</sup> *Prevailing speeds are determined by a speed zone survey. A speed zone survey should include:*

- A. The intent of the speed measurements is to determine the actual speed of unimpeded traffic. The speed of traffic should not be altered by concentrated law enforcement, or other means, just prior to, or while taking the speed measurements.*
- B. Only one person is required for the field work. Speeds should be read directly from a radar or other electronic speed measuring devices; or,*
- C. Devices, other than radar, capable of accurately distinguishing and measuring the unimpeded speed of free flowing vehicles may be used.*
- D. A location should be selected where prevailing speeds are representative of the entire speed zone section. If speeds vary on a given route, more than one speed zone section may be required, with separate measurements for each section. Locations for measurements should be chosen so as to minimize the effects of traffic signals or stop signs.*
- E. Speed measurements should be taken during off-peak hours between peak traffic periods on weekdays. If there is difficulty in obtaining the desired quantity, speed measurements may be taken during any period with free flowing traffic.*
- F. The weather should be fair (dry pavement) with no unusual conditions prevailing.*
- G. The surveyor and equipment should not affect the traffic speeds. For this reason, an unmarked car is recommended, and the radar speed meter located as inconspicuously as possible.*
- H. In order for the sample to be representative of the actual traffic flow, the minimum sample should be 100 vehicles in each survey. In no case should the sample contain less than 50 vehicles.*
- I. Short speed zones of less than 0.5 mile should be avoided, except in transition areas.*
- J. Speed zone changes should be coordinated with changes in roadway conditions or roadside development.*
- K. Speed zoning should be in 10 mph increments except in urban areas where 5 mph increments are preferable.*
- L. Speed zoning should be coordinated with adjacent jurisdictions.*

Support:

<sup>28</sup> Physical conditions such as width, curvature, grade and surface conditions, or any other condition readily apparent to the driver, in the absence of other factors, would not require special downward speed zoning. Refer to CVC 22358.5.

Option:

<sup>29</sup> When qualifying an appropriate speed limit, local authorities may also consider all of the following findings:

- A. Residential density, if any of the following conditions exist on the particular portion of highway and the property contiguous thereto, other than a business district:**
  - 1. Upon one side of the highway, within 0.25 mile, the contiguous property fronting thereon is occupied by 13 or more separate dwelling houses or business structures.**

2. Upon both sides of the highway, collectively, within a distance of 0.25 mile the contiguous property fronting thereon is occupied by 16 or more separate dwelling houses or business structures.
  3. The portion of highway is larger than 0.25 mile but has the ratio of separate dwelling houses or business structures to the length of the highway described in either subparagraph a or b.
- B. Pedestrian and bicyclist safety.
- <sup>30</sup> The following two methods of conducting E&TS may be used to establish speed limits:
1. State Highways - The E&TS for State highways is made under the direction of the Department of Transportation's District Traffic Engineer. The data includes:
    - a. One copy of the Example of Speed Zone Survey Sheet (See Figure 2B-101(CA)) showing:
      - A north arrow
      - Engineer's station or post mileage
      - Limits of the proposed zones
      - Appropriate notations showing type of roadside development, such as "scattered business," "solid residential," etc. Schools adjacent to the highway are shown, but other buildings need not be plotted unless they are a factor in the speed recommendation or the point of termination of a speed zone.
      - Collision rates for the zones involved
      - Average daily traffic volume
      - Location of traffic signals, signs and markings
      - If the highway is divided, the limits of zones for each direction of travel
      - Plotted 85<sup>th</sup> percentile and pace speeds at location taken showing speed profile
    - b. A report to the District Director that includes:
      - The reason for the initiation of speed zone survey.
      - Recommendations and supporting reasons.
      - The enforcement jurisdictions involved and the recommendations and opinions of those officials.
      - The stationing or reference post in mileage at the beginning and ending of each proposed zone and any intermediate equations. Location ties must be given to readily identifiable physical features.
  2. City and County Through Highways, Arterials, Collector Roads and Local Streets.
    - a. The short method of speed zoning is based on the premise that a reasonable speed limit is one that conforms to the actual behavior of the majority of motorists, and that by measuring motorists' speeds, one will be able to select a speed limit that is both reasonable and effective. Other factors that need to be considered include but are not limited to: the most recent two-year collision record, roadway design speed, safe stopping sight distance, superelevation, shoulder conditions, profile conditions, intersection spacing and offsets, commercial driveway characteristics, and pedestrian traffic in the roadway without sidewalks.
    - b. Determination of Existing Speed Limits - Figures 2B-103(CA) & 2B-104(CA) show examples of data sheets which may be used to record speed observations. Specific types of vehicles may be tallied by use of letter symbols in appropriate squares.

<sup>31</sup> In most situations, the short form for local streets and roads will be adequate; however, the procedure used on State highways may be used at the option of the local agency.

*Guidance:*

<sup>32</sup> *The factors justifying a reduction below the 85<sup>th</sup> percentile speed for the posted speed limit are the same factors mentioned above. Whenever such factors are considered to establish the speed limit, they should be documented on the speed zone survey or the accompanying engineering report.*

<sup>33</sup> *The establishment of a speed limit of more than 5 mph below the 85<sup>th</sup> percentile speed should be done with great care as studies have shown that establishing a speed limit at less than the 85<sup>th</sup> percentile generally results in an increase in collision rates; in addition, this may make violators of a disproportionate number of the reasonable majority of drivers.*

*Support:*

<sup>34</sup> Generally, the most decisive evidence of conditions not readily apparent to the driver surface in collision histories.

<sup>35</sup> Speed limits are established at or near the 85<sup>th</sup> percentile speed, which is defined as that speed at or below which 85<sup>th</sup> percent of the traffic is moving. The 85<sup>th</sup> percentile speed is often referred to as the critical speed. Pace speed is defined as the 10 mph increment of speed containing the largest number of vehicles (See Figure 2B-102(CA)). The lower limit of the

pace is plotted on the Speed Zone Survey Sheets as an aid in determining the proper zone limits. Speed limits higher than the 85<sup>th</sup> percentile are not generally considered reasonable and prudent. Speed limits below the 85<sup>th</sup> percentile do not ordinarily facilitate the orderly movement of traffic and require constant enforcement to maintain compliance. Speed limits established on the basis of the 85<sup>th</sup> percentile conform to the consensus of those who drive highways as to what speed is reasonable and prudent, and are not dependent on the judgment of one or a few individuals.

<sup>36</sup> The majority of drivers comply with the basic speed law. Speed limits set at or near the 85<sup>th</sup> percentile speed provide law enforcement officers with a limit to cite drivers who will not conform to what the majority considers reasonable and prudent. Further studies show that establishing a speed limit at less than the 85<sup>th</sup> percentile (Critical Speed) generally results in an increase in collision rates.

Option:

<sup>37</sup> When roadside development results in traffic conflicts and unusual conditions which are not readily apparent to drivers, as indicated in collision records, speed limits somewhat below the 85<sup>th</sup> percentile may be justified. Concurrence and support of enforcement officials are necessary for the successful operation of a restricted speed zone.

*Guidance:*

<sup>38</sup> *Speed zones of less than 0.5 mile and short transition zones should be avoided.*

### **Signs**

#### **Standard:**

<sup>39</sup> **The Speed Limit (R2-1) sign shall be used to give notice of a prima facie or maximum speed limit except as provided under Prima Facie Speed Limits in CVC 22352.**

<sup>40</sup> **When used, the TRUCKS, 3 AXLES OR MORE 55 MAXIMUM (R6-3(CA)) sign shall be installed approximately 750 feet following each R2-1 sign.**

<sup>41</sup> **The ALL VEHICLES WHEN TOWING 55 MAXIMUM (R6-4(CA)) sign shall be installed approximately 750 feet following the R6-3(CA) sign.**

*Guidance:*

<sup>42</sup> *The R6-3(CA) and R6-4(CA) signs should be placed on highway segments where speeds in excess of 55 mph are permitted.*

Option:

<sup>43</sup> The existing AUTOS WITH TRAILERS, TRUCKS 55 MAXIMUM (R6-1(CA)) sign may remain in place until it is knocked down, damaged, stolen, vandalized, or otherwise reaches the end of its useful life.

<sup>44</sup> The local California Highway Patrol office may be consulted to identify highway segments where enforcement is an issue. On these segments early replacement of existing R6-1(CA) signs may be necessary.

Support:

<sup>45</sup> Refer to CVC Section 22406 for types of vehicles subject to the 55 mph maximum speed limit.

Option:

<sup>46</sup> The Speed Zone Ahead (R2-4(CA)) sign (see Figure 2B-3(CA)) may be used to inform the motorist of a reduced speed zone.

#### **Standard:**

<sup>47</sup> **The R2-4(CA) sign shall always be followed by a Speed Limit (R2-1) sign installed at the beginning of the zone where the reduced speed limit applies.**

<sup>48</sup> **The End Speed Limit (R3(CA)) sign shall only be used to mark the end of a speed zone.**

<sup>49</sup> **The R3(CA) sign shall not be used at a transition into a change in speed limits within a reduced zone.**

Option:

<sup>50</sup> The R3(CA) sign (see Figure 2B-3(CA)) may be used with the TRUCK (M4-4) plaque to mark the end of truck speed zones on descending grades.

#### **Standard:**

<sup>51</sup> **Speed limit signs shall be placed at the beginning of all restricted speed zones.**

Option:

<sup>52</sup> Where speed zones are longer than 1 mile, intermediate signs may be placed at approximate 1 mile intervals. For three or more lanes in each direction, dual installation may be used.

**Standard:**

<sup>53</sup> **The Speed Limit (R2-1) and End Speed Limit (R3(CA)) signs, as appropriate shall be placed at the end of all restricted speed zones.**

<sup>54</sup> **Freeways with 65 mph and those segments where a speed limit of 70 mph has been approved by the Department of Transportation, with approval by the California Highway Patrol, shall be posted as follows:**

- **At the segment entrance, R2-1 signs shall be installed right of traffic off of the right shoulder.**
- **R2-1 signs shall also be installed off of the right shoulder only, throughout the segment, at a maximum of 25 mile intervals.**

**Option:**

- **The 25 mile interval may be modified to include locations following entrance ramps.**

**Standard:**

- **The R6-3(CA) sign (see Figure 2B-3(CA)) shall be installed approximately 750 feet following each R2-1 sign, both at the beginning and throughout each 60, 65 or 70 mph segment.**
- **The R6-4(CA) sign (see Figure 2B-3(CA)) shall be installed approximately 750 feet following each R6-3(CA) sign.**

**Option:**

- **The SLOWER TRAFFIC KEEP RIGHT (R4-3) signs may be installed at locations where there is a tendency of the motorists to drive in the left-hand lane(s) below the normal speed of traffic.**

**Standard:**

- **Signs shall be placed in protected locations.**
- **At the end of the 70/65 mph segment, R2-1 signs shall be installed off of the right shoulder.**

<sup>55</sup> **Freeway segments where a 55 mph speed limit has been approved by the Department of Transportation, with the approval of the California Highway Patrol, shall be posted as follows:**

- **The beginning of the segment shall be posted with an R2-1 sign installed on the right shoulder and left shoulder where the median is of sufficient width to permit sign maintenance without lane closures.**

**Guidance:**

- *Subsequent signs should then be posted on the right shoulder, on approximate 3 mile intervals, with no more than 3 interchanges between signs.*
- *At the end of the segment, an R2-1 sign with the appropriate number for the next speed limit should be posted on the right shoulder.*

<sup>56</sup> *Conventional highways with 55 mph speed limits should be posted as follows:*

**Standard:**

- **The beginning of the segment shall be posted with an R2-1 sign installed on the right shoulder.**

**Guidance:**

- *Subsequent signs should then be posted on approximate 5 to 10 mile intervals and immediately after locations where significant volumes of traffic enter the segment.*
- *At the end of the segment, an R2-1 sign with the appropriate number for the next speed limit should be posted on the right shoulder.*

*Conventional highways with 65 mph speed limits should be posted as follows:*

- *The beginning of the segment should be posted with an R2-1 sign installed on the right shoulder.*
- *Subsequent signs should then be posted at 5 to 10 mile intervals and after locations where significant volumes of traffic enter the segment.*
- *At the end of the segment, an R2-1 sign with the appropriate number for the next speed limit should be posted on the right shoulder.*

**Option:**

<sup>57</sup> *Pavement markings with appropriate numerals (see Section 3B.21) may be used to supplement speed limit signs.*

**Standard:**

<sup>58</sup> **The R2-1 and R6-3(CA) and R6-4(CA) signs giving maximum statewide speed limits for various types of vehicles shall be installed on all State highways near the points of entrance into California.**

*Guidance:*

<sup>59</sup> *The R2-1 and R6-3(CA) and R6-4(CA) signs should be placed in a location to be most effectively viewed by the approaching motorists.*

**Standard:**

<sup>60</sup> **Speed Limit (R2-1) signs shall be installed throughout segments of freeway with posted speed limits of 65 mph or 70 mph at a maximum of 25 mile intervals.**

*Option:*

<sup>61</sup> The 25 mile interval may be modified to include locations following entrance ramps.

**Standard:**

<sup>62</sup> **Speed Limit (R2-1) signs shall be installed throughout segments of conventional highways with a posted speed limit of 65 mph at 5 mile to 10 mile intervals.**

<sup>63</sup> **Speed Limit (R2-1) signs shall be installed throughout segments of freeway with a posted speed limit of 55 mph at approximately 3 mile intervals with no more than 3 interchanges between signs.**

<sup>64</sup> **Speed Limit (R2-1) signs shall be installed throughout segments of conventional highways with a posted speed limit of 55 mph at 5 mile to 10 mile intervals.**

**Speed Enforced Signs**

*Option:*

<sup>65</sup> The SPEED ENFORCED BY RADAR (R48(CA)) sign (see Figure 2B-3(CA)) may be used where the California Highway Patrol has received authority to use radar and requests such signs.

*Guidance:*

<sup>66</sup> *One sign should be used in each direction at the beginning of the segment of roadway, and at intervening major route intersections, where radar enforcement is in effect.*

*Support:*

<sup>67</sup> The R48(CA) sign is a stand-alone sign intended to alert motorists that speed is enforced by radar on a particular segment of roadway.

*Option:*

<sup>68</sup> The RADAR ENFORCED (R48-1(CA)) sign (see Figure 2B-3(CA)) may be used in combination with the Speed Limit (R2-1) sign on any roadway where law enforcement has the authority to use radar.

*Guidance:*

<sup>69</sup> *When used, the R48-1(CA) sign should be placed below the R2-1 sign, at the beginning of the segment of roadway and at intervening major intersections, where radar enforcement is in effect.*

*Option:*

<sup>70</sup> The SPEED ENFORCED BY AIRCRAFT (R48-2(CA)) sign (see Figure 2B-3(CA)) may be placed, when requested by the California Highway Patrol, on sections of highway regularly patrolled by aircraft.

**Standard:**

<sup>71</sup> **The R48-2(CA) sign shall be used for both directions of travel.**

*Guidance:*

<sup>72</sup> *The R48-2(CA) sign should be placed at the beginning of the section and spaced at 25 mile intervals. See Figure 3B-105(CA).*

**Vehicle Speed Feedback Signs**

*Option:*

<sup>73</sup> A Vehicle Speed Feedback sign that displays to approaching drivers the speed at which they are traveling may be installed in conjunction with a Speed Limit (R2-1) sign.

**Standard:**

<sup>74</sup> **If a Vehicle Speed Feedback sign displaying approach speeds is installed, the legend shall be YOUR SPEED XX. The numerals displaying the speed shall be white, yellow, yellow-green or amber color on black background. When activated, lights shall be steady-burn conforming to the provisions of CVC Sections 21466 and 21466.5. Vehicle Speed Feedback signs shall not alternatively be operated as variable speed limit signs.**

*Guidance:*

<sup>75</sup> To the degree practical, numerals for displaying approach speeds should be similar font and size as numerals on the corresponding Speed Limit (R2-1) sign.

*Option:*

<sup>76</sup> When used, the Vehicle Speed Feedback sign may be mounted on either a separate support or on the same support as the Speed Limit (R2-1) sign.

<sup>77</sup> In lieu of lights, legend may be retroreflective film for flip-disk systems.

<sup>78</sup> The legend YOUR SPEED may be white on black plaque located above the changeable speed display.

*Support:*

<sup>79</sup> Driver comprehension may improve when the Vehicle Speed Feedback Sign is mounted on the same support below the Speed Limit (R2-1) sign.

<sup>80</sup> Vehicle Speed Feedback Signs are appropriate for use with advisory speed signs and with temporary signs in temporary traffic control zones.

**Basic Speed Law and Prima Facie Speed Limits – See CVC 22350 & 22352**

*Support:*

<sup>81</sup> The basic speed law states “No person shall drive a vehicle upon a highway at a speed greater than is reasonable or prudent having due regard for weather, visibility, the traffic on, and the surface and width of, the highway, and in no event at a speed which endangers the safety of persons or property.”

**Standard:**

<sup>82</sup> **Prima facie speed limits are specific limits and shall apply unless changed based upon an engineering and traffic survey (E&TS) and signs are posted that display the new speed limit.**

*Option:*

<sup>83</sup> Prima facie speed limits may be preempted by the basic speed law, when roadway, traffic or weather conditions warrant a lower speed.

**Use of Metric System Designations – See CVC 21351.3**

*Option:*

<sup>84</sup> Dual units for speed limits on signs may be placed on local streets and roads in both Metric and English units.

*Guidance:*

<sup>85</sup> If used, dual unit speed limits should be rounded to the nearest 10 km/h for Metric and 5 mph for English units for posting on signs on local streets and roads.

*Support:*

<sup>86</sup> Refer to AASHTO's Traffic Engineering Metric Conversion Factors. See Section 1A.11 for information regarding this publication.

**Standard:**

<sup>87</sup> **Metric speed limits shall not be placed on State highways. For use in this California MUTCD, 70 mph shall be shown as a metric equivalent of 110 km/h, neither of which shall be used on any local street or road.**

**Legal Authority for Establishing Speed Limits**

*Support:*

<sup>88</sup> Delegation of legal authority to set speed limits on State highways is given to Department of Transportation's District Directors. The District Director of each transportation district is authorized to issue orders regulating the speed of traffic, up to 65 mph on State highways. The Director of the Department of Transportation retains the authority to approve variable, minimum, and maximum speeds up to 70 mph on State freeways.

**Standard:**

<sup>89</sup> **The speed limits shown in Table 2B-101(CA) shall apply, unless changed upon the basis of an engineering and traffic survey (E&TS).**

*Option:*

<sup>90</sup> The speed limits shown in Table 2B-102(CA) may apply, unless changed upon E&TS.

### **Variable Speed Limits on Freeways - See CVC 22355**

#### Option:

<sup>91</sup> The following speed limits may apply:

- Whenever the Department of Transportation determines based upon an engineering and traffic survey (E&TS) that the safe and orderly movement of traffic upon any freeway segment will be facilitated by the establishment of variable speed limits.
- The Department may erect, regulate, and control signs upon the state highway which is a freeway, or any portion thereof, which, if used, signs shall be designed to permit display of different speeds at various times of the day or night.
- Such signs need not conform to the standards & specifications per CVC 21400, but if used, shall be of sufficient size and clarity to give adequate notice of the applicable speed limit.

### **Minimum Speed Limits on State Highways - See CVC 22400**

#### Option:

<sup>92</sup> The following speed limits may apply:

- Whenever the Department of Transportation determines based upon an engineering and traffic survey (E&TS) that slow speeds on any part of a state highway consistently impede the normal and reasonable movement of traffic, the Department may determine and declare a minimum speed limit. Appropriate signs giving notice shall then be installed on that segment.
- A motorist can be cited for stopping or impeding the normal and reasonable movement of traffic unless the stop is necessary for safe operation and in compliance with the law.

### **Speed Traps**

#### Support:

<sup>93</sup> Refer to CVC 40802 for Speed Traps.

#### Standard:

<sup>94</sup> A speed trap shall not apply to a local street, road, or school zone.

<sup>95</sup> A section of highway shall be defined as a speed trap if the prima facie speed limit is not justified by an engineering and traffic survey (E&TS) within five years, and the enforcement of the speed limit involves the use of radar or any other electronic device that measures the speed of moving objects.

<sup>96</sup> This time provision shall be extended to seven years when using radar and all of the following criteria are met:

- The arresting officer has successfully completed a minimum of 24 hours of certified radar operator course training.
- The radar used to measure the speed meets or exceeds the minimal operational standards of the National Traffic Highway Safety Administration, and has been calibrated within three years of the alleged violation.

<sup>97</sup> This time provision shall be extended to seven years when using laser or other electronic device (other than radar) and all of the following criteria are met:

- The arresting officer has successfully completed a minimum of 24 hours of certified radar operator course training.
- The arresting officer has successfully completed a minimum of 2 hours of additional approved certified training.
- The radar used to measure the speed meets or exceeds the minimal operational standards of the National Traffic Highway Safety Administration, and has been calibrated within three years of the alleged violation.

#### Option:

<sup>98</sup> This time provision for an E&TS may be extended to ten years when all of the above conditions are met and no significant changes in roadway or traffic conditions have occurred, including changes in adjoining property or land use, roadway width, or traffic volume as determined by a registered engineer.

### **Truck Speed Zone on Descending Grades**

#### Guidance:

<sup>99</sup> Highway descending grades, if used for posting TRUCK Speed Limit signs (R2-1 and M4-4) for trucks travelling downhill, should have recorded incident history of runaway commercial vehicles. Descending grades shorter than 1 mile should be avoided for posting signs because deceleration of vehicles due to braking action can generally provide sufficient control on descending grades of less than 1 mile.

Support:

<sup>100</sup> To establish a downhill truck speed limit, a physical profile showing length and gradient and a downhill speed profile for three or more axle commercial vehicles with a gross rating of 10,000 lbs. or more will be provided.

**Standard:**

<sup>101</sup> **Speed profiles for truck speed limits shall be prepared on the same form as other speed surveys. An analysis of collisions involving trucks shall be prepared.**

*Guidance:*

<sup>102</sup> *Posted speeds should be on the low side of the scale, generally within the pace of loaded commercial vehicles.*

**Standard:**

<sup>103</sup> **If warranted, the Department of Transportation's District Director shall issue a standard speed zone order.**

Support:

<sup>104</sup> Posting of the regulation will be by placement of a standard 36 x 45 inch Speed Limit (R2-1) sign with a TRUCK (M4-4) plate above.

**Standard:**

<sup>105</sup> **A standard End Speed Limit (R3(CA)) sign with TRUCK (M4-4) plate shall be posted at the end of the truck zone when appropriate.**

**Speed Zones in Temporary Traffic Control Areas**

Support:

<sup>106</sup> For signing and establishing speed zones in temporary traffic control areas, refer to Section 6C.01 in Part 6.

**Section 2B.14 Truck Speed Limit Plaque (R2-2P)**

**Standard:**

<sup>01</sup> **Where a special speed limit applies to trucks or other vehicles, the legend TRUCKS XX or such similar legend shall be displayed below the legend Speed Limit XX on the same sign ~~or on a separate R2-2P plaque (see Figure 2B-3) below the standard legend.~~**

<sup>02</sup> **The Truck Speed Limit (R2-2) sign shall not be used in California. The TRUCK (M4-4) plaque placed above the Speed Limit (R2-1) sign shall be used instead.**

<sup>03</sup> **The TRUCK (M4-4) plaque shall be placed above the Speed Limit (R2-1) sign to indicate the truck speed limit. It shall also be placed above the End Speed Limit (R3(CA)) sign to mark the end of truck speed limits.**

Support:

<sup>04</sup> Refer to Section 2B.13 for more details.

**Section 2B.15 Night Speed Limit Plaque (R2-3P)**

**Standard:**

<sup>01</sup> **Where different speed limits are prescribed for day and night, both limits shall be posted.**

*Guidance:*

<sup>02</sup> *A Night Speed Limit (R2-3P) plaque (see Figure 2B-3) should be reversed using a white retroreflectorized legend and border on a black background.*

*Option:*

<sup>03</sup> A Night Speed Limit plaque may be combined with or installed below the standard Speed Limit (R2-1) sign.

Support:

<sup>04</sup> Refer to CVC 22355.

**Section 2B.16 Minimum Speed Limit Plaque (R2-4P)**

**Standard:**

<sup>01</sup> **A Minimum Speed Limit (R2-4P) plaque (see Figure 2B-3) shall be displayed only in combination with a Speed Limit sign.**

*Option:*

<sup>02</sup> Where engineering judgment determines that slow speeds on a highway might impede the normal and reasonable movement of traffic, the Minimum Speed Limit plaque may be installed below a Speed Limit (R2-1)

sign to indicate the minimum legal speed. If desired, the Speed Limit sign and the Minimum Speed Limit plaque may be combined on the R2-4a sign (see Figure 2B-3).

Support:

<sup>03</sup> Refer to CVC 22400.

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

Standard:

<sup>01</sup> If increased fines are imposed for traffic violations within a designated zone of a roadway, a **BEGIN HIGHER DOUBLE FINES ZONE (R2-10)** sign (see Figure 2B-3) or a **FINES HIGHER DOUBLE (R2-6P)** plaque (see Figure 2B-3) shall be used to provide notice to road users. If used, the **FINES HIGHER DOUBLE** plaque shall be mounted below an applicable regulatory or warning sign in a temporary traffic control zone, a school zone, or other applicable designated zone.

<sup>02</sup> If an **R2-10** sign or an **R2-6P** plaque is posted to provide notice of increased fines for traffic violations, an **END HIGHER DOUBLE FINES ZONE (R2-11)** sign (see Figure 2B-3) shall be installed at the downstream end of the zone to provide notice to road users of the termination of the increased fines zone.

Guidance:

<sup>03</sup> If used, the **BEGIN HIGHER DOUBLE FINES ZONE** sign or **FINES HIGHER DOUBLE** plaque should be located at the beginning of the temporary traffic control zone, school zone, or other applicable designated zone and just beyond any interchanges, major intersections, or other major traffic generators.

Standard:

<sup>04</sup> The **Higher Double Fines** signs and plaque shall have a black legend and border on a white rectangular background. All supplemental plaques mounted below the **Higher Double Fines** signs and plaque shall have a black legend and border on a white rectangular background.

Guidance:

<sup>05</sup> Agencies should limit the use of the **Higher Double Fines** signs and plaque to locations where work is actually underway, or to locations where the roadway, shoulder, or other conditions, including the presence of a school zone and/or a reduced school speed limit zone, require a speed reduction or extra caution on the part of the road user.

Option:

<sup>06</sup> Alternate legends such as **BEGIN (or END) DOUBLE FINES ZONE** may also be used for the **R2-10** and **R2-11** signs.

<sup>07</sup> The legend **FINES HIGHER** on the **R2-6P** plaque may be replaced by **FINES DOUBLE (R2-6aP)**, **\$XX FINE (R2-6bP)**, or another legend appropriate to the specific regulation (see Figure 2B-3).

<sup>08</sup> The following may be mounted below an **R2-10** sign or **R2-6P** plaque:

A. A supplemental plaque specifying the times that the higher fines are in effect (similar to the **S4-1P** plaque shown in Figure 7B-1), or

B. A supplemental plaque **WHEN CHILDREN (WORKERS) ARE PRESENT**, or

C. A supplemental plaque **WHEN FLASHING** (similar to the **S4-4P** plaque shown in Figure 7B-1) if used in conjunction with a yellow flashing beacon.

Support:

<sup>09</sup> Section 6F.12 contains information regarding other signs and plaques associated with increased fines for traffic violations in temporary traffic control zones. ~~Section 7B.10 contains information regarding other signs and plaques associated with increased fines for traffic violations in designated school zones.~~

<sup>10</sup> In California, as per CVC only doubling of the fines is allowed, not higher fines of other denominations. Refer to Section 6F.12 and CVC 42009 for fines for offenses committed in highway construction or maintenance area.

Standard:

<sup>11</sup> The **SPECIAL DRIVING ZONE BEGINS HERE – DOUBLE FINE ZONE (SR53(CA))** sign (see Figure 2B-3(CA)) shall be placed at the beginning of those portions of highways designated and identified as **Safety Enhancement – Double Fine Zones** per CVC 42010.

<sup>12</sup> The **SPECIAL DRIVING ZONE ENDS HERE (SR55(CA))** sign (see Figure 2B-3(CA)) shall be placed at the end of those portions of highways designated and identified as **Safety Enhancement – Double Fine Zones** per CVC 42010.

*Guidance:*

*13 The DOUBLE FINE ZONE (SR54(CA)) sign (see Figure 2B-3(CA)) should be placed at major intersections to those portions of highways designated and identified as Safety Enhancement – Double Fine Zone, per CVC 42010, to advise motorists upon entering the highway that they are in a double fine zone.*

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

**Standard:**

**01 Except as provided in Paragraphs 11 and 13, where specific movements are prohibited, Movement Prohibition signs shall be installed.**

*Guidance:*

*02 Movement Prohibition signs should be placed where they will be most easily seen by road users who might be intending to make the movement.*

*03 If No Right Turn (R3-1) signs (see Figure 2B-4) are used, at least one should be placed either over the roadway or at a right hand corner of the intersection.*

*04 If No Left Turn (R3-2) signs (see Figure 2B-4) are used, at least one should be placed over the roadway, at the far left hand corner of the intersection, on a median, or in conjunction with the STOP sign or YIELD sign located on the near right hand corner.*

*05 Except as provided in Item C of Paragraph 9 for signalized locations, if NO TURNS (R3-3) signs (see Figure 2B-4) are used, two signs should be used, one at a location specified for a No Right Turn sign and one at a location specified for a No Left Turn sign.*

*06 If No U Turn (R3-4) signs (see Figure 2B-4) or combination No U Turn/No Left Turn (R3-18) signs (see Figure 2B-4) are used, at least one should be used at a location specified for No Left Turn signs.*

**Option:**

*07 If both left turns and U turns are prohibited, the combination No U Turn/No Left Turn (R3-18) sign (see Figure 2B-4) may be used instead of separate R3-2 and R3-4 signs.*

*Guidance:*

*08 If No Straight Through (R3-27) signs (see Figure 2B-4) are used, at least one should be placed either over the roadway or at a location where it can be seen by road users who might be intending to travel straight through the intersection.*

*09 If turn prohibition signs are installed in conjunction with traffic control signals:*

*A. The No Right Turn sign should be installed adjacent to a signal face viewed by road users in the right hand lane.*

*B. The No Left Turn (or No U Turn or combination No U Turn/No Left Turn) sign should be installed adjacent to a signal face viewed by road users in the left hand lane.*

*C. A NO TURNS sign should be placed adjacent to a signal face viewed by all road users on that approach, or two signs should be used.*

**Option:**

*10 If turn prohibition signs are installed in conjunction with traffic control signals, an additional Movement Prohibition sign may be post-mounted to supplement the sign mounted overhead.*

*11 Where ONE WAY signs are used (see Section 2B.40), No Left Turn and No Right Turn signs may be omitted.*

*12 When the movement restriction applies during certain time periods only, the following Movement Prohibition signing alternatives may be used and are listed in order of preference:*

*A. Changeable message signs, especially at signalized intersections.*

*B. Permanently mounted signs incorporating a supplementary legend showing the hours and days during which the prohibition is applicable.*

*C. Portable signs, installed by proper authority, located off the roadway at each corner of the intersection. The portable signs are only to be used during the time that the movement prohibition is applicable.*

*13 Movement Prohibition signs may be omitted at a ramp entrance to an expressway or a channelized intersection where the design is such as to indicate clearly the one-way traffic movement on the ramp or turning lane.*

Support:

<sup>13a</sup> Motorists can make a semicircular or U-turn on a green signal or green arrow except where such turn is prohibited by signs. Refer to CVC 21451 and 21454.

Option:

<sup>13b</sup> Local authorities, by ordinance, may prohibit the making of any turning movement by any vehicle at any intersection or between any designated intersections. Refer to CVC 22113.

<sup>13c</sup> The symbolic No Right Turn (R3-1), No Left Turn (R3-2), No U-Turn (R3-4), No U-Turn/No Left Turn (R3-18) and No Straight Through (R3-27) signs (see Figure 2B-4), may be used as Activated Blank-Out signs as Shown in Figure 2B-4(CA) for this purpose.

**Standard:**

<sup>13d</sup> **No such ordinance shall be effective with respect to a State highway until approved by the Department of Transportation.**

Option:

<sup>13e</sup> The Department of Transportation may restrict turning movements on State highways. Refer to CVC 21352.

Support:

<sup>13f</sup> A thorough investigation is necessary to determine whether or not the prohibited movements can be satisfactorily made at other locations without undue circuitry of travel.

<sup>13g</sup> Refer to CVC 22101 for Turn Prohibition signs.

**Standard:**

<sup>13h</sup> **The NO TURNS (R3-3) sign shall be used in advance of an intersection to indicate that turns are prohibited.**

*Guidance:*

<sup>13i</sup> *On a two-way street, one sign should be used at the near right corner and one sign at the far right corner, facing approaching traffic. On a one-way street, signs should be placed on the near left and right corners facing approaching traffic.*

**Standard:**

<sup>13j</sup> **The No Right/Left Turn (R3-1/R3-2) sign shall be placed at an intersection to indicate that a right/left turn is prohibited.**

*Guidance:*

<sup>13k</sup> *Turn Prohibition signs should be placed where they will be most easily seen by drivers intending to turn.*

**Standard:**

<sup>13l</sup> **The No Right Turn (R3-1) sign shall be placed at the near right corner of the intersection or overhead.**

Option:

<sup>13m</sup> If signals are present, the R3-1 sign may be installed adjacent to a signal face viewed by motorists in the right lane.

**Standard:**

<sup>13n</sup> **On one-way roads, the No Left Turn (R3-2) sign shall be placed at the near left corner facing traffic approaching the intersection.**

Option:

<sup>13o</sup> If signals are present, the R3-2 sign may be placed adjacent to a signal face viewed by motorists in the left lane.

**Standard:**

<sup>13p</sup> **On two-way two lane roads (one lane each direction), the No Left Turn (R3-2) sign shall be placed on the near right corner and far left corner facing traffic approaching the intersection.**

Option:

<sup>13q</sup> If signals are present, the R3-2 sign may be installed adjacent to the signal face viewed by motorists.

*Guidance:*

<sup>13r</sup> *On two-way multi-lane roads, the No Left Turn (R3-2) sign should preferably be placed overhead over the left lanes, in the median adjacent to the left lanes, or at the far left corner facing approaching traffic where they will be most easily seen by drivers intending to turn.*

**Option:**

<sup>13s</sup> When the movement restriction applies during certain time periods only, the following Turn Prohibition signing alternatives may be used and are listed in order of preference:

- A. Changeable message signs or internally illuminated signs that are lighted and made legible only during the restricted hours.
- B. A supplemental plate stating the applicable hours and days prohibited, mounted below the sign. The No Left Turn Specific Hours (R33(CA) and R33A(CA)) signs (see Figure 2B-4(CA)) may be used if left turns are prohibited during certain time periods.

**Standard:**

<sup>13t</sup> **The No U-Turn (R3-4) sign shall be used where U turns are prohibited except when Intersection Lane Control signs (R73(CA) Series) signs are used at signalized intersections with separate left turn phases.**

<sup>13u</sup> **The No U-Turn/No Left Turn (R3-18) sign shall be used where both, left turns and U turns are prohibited.**

**Guidance:**

<sup>13v</sup> *The appropriate R3-4 or R3-18 sign should be placed as follows:*

- A. *On undivided roads without traffic signals, place on the near right and far left corners of the intersection.*
- B. *On undivided roads with traffic signals, place on the far right and far left corners of the intersection, or on the signal mast arm.*
- C. *On divided roads at both signalized and unsignalized intersections, place in the median on the near and far side of the intersection, and on the signal mast arm at signalized intersections.*

**Standard:**

<sup>14</sup> **The No Left Turn (R3-2) sign, the No U-Turn (R3-4) sign, and the combination No U-Turn/No Left Turn (R3-18) sign shall not be used at approaches to roundabouts to prohibit drivers from turning left onto the circulatory roadway of a roundabout.**

**Support:**

<sup>15</sup> At roundabouts, the use of R3-2, R3-4, or R3-18 signs to prohibit left turns onto the circulatory roadway might confuse drivers about the possible legal turning movements around the roundabout. Roundabout Directional Arrow (R6-4 series) signs (see Section 2B.43) and/or ONE WAY (R6-1R or R6-2R) signs are the appropriate signs to indicate the travel direction within a roundabout.

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

**Standard:**

<sup>01</sup> **Intersection Lane Control signs, if used, shall require road users in certain lanes to turn, shall permit turns from a lane where such turns would otherwise not be permitted, shall require a road user to stay in the same lane and proceed straight through an intersection, or shall indicate permitted movements from a lane.**

<sup>02</sup> **Intersection Lane Control signs (see Figure 2B-4) shall have three applications:**

- A. Mandatory Movement Lane Control (R3-5, R3-5a, and R3-7) signs,**
- B. Optional Movement Lane Control (R3-6) sign, and**
- C. Advance Intersection Lane Control (R3-8 series) signs.**

**Guidance:**

<sup>03</sup> *When Intersection Lane Control signs are mounted overhead, each sign should be placed over the lane or a projection of the lane to which it applies.*

<sup>04</sup> *On signalized approaches where through lanes that become mandatory turn lanes, multiple-lane turns that include shared lanes for through and turning movements, or other lane-use regulations are present that would be unexpected by unfamiliar road users, overhead lane control signs should be installed at the signalized location over the appropriate lanes or projections thereof and in advance of the intersection over the appropriate lanes.*

<sup>05</sup> *Where overhead mounting on the approach is impractical for the advance and/or intersection lane-use signs, one of the following alternatives should be employed:*

- A. *At locations where through lanes become mandatory turn lanes, a mandatory movement lane control (R3-7) sign should be post-mounted on the left-hand side of the roadway where a through lane is becoming a*

*mandatory left-turn lane on a one-way street or where a median of sufficient width for the signs is available, or on the right-hand side of the roadway where a through lane is becoming a mandatory right-turn lane.*

- B. *At locations where a through lane is becoming a mandatory left-turn lane on a two-way street where a median of sufficient width for the signs is not available, and at locations where multiple-lane turns that include shared lanes for through and turning movements are present, an Advance Intersection Lane Control (R3-8 series) sign should be post-mounted in a prominent location in advance of the intersection, and consideration should be given to the use of an oversized version in accordance with Table 2B-1 and 2B-1(CA).*

**Standard:**

**06 Use of an overhead sign for one approach lane shall not require installation of overhead signs for the other lanes of that approach.**

**Option:**

07 Where the number of through lanes on an approach is two or less, the Intersection Lane Control signs (R3-5, R3-6, or R3-8) may be overhead or post-mounted.

08 Intersection Lane Control signs may be omitted where:

- A. A turn bay has been provided by physical construction or pavement markings, and
- B. Only the road users using such turn bays are permitted to make a turn in that direction.

09 At roundabouts, Intersection Lane Control (R3-5, R3-6, and R3-8 series) signs may display any of the arrow symbol options shown in Figure 2B-5.

10 Where all approach lanes are required to turn in the same direction, the Mandatory Movement Lane Control (R3-5, R3-5a) signs may be ground mounted.

11 Where there is only one approach lane, the Optional Movement Lane Control (R3-6) signs may be ground mounted.

12 The Advance Intersection Lane Control (R3-8) signs may be overhead or ground mounted.

**Guidance:**

13 *The Intersection Lane Control (R3-5 through R3-8) signs should be used to indicate the movements for specific lanes at an intersection. The arrows should be selected according to lane requirements.*

**Option:**

14 The Intersection Lane Control (R61(CA) Series and R73(CA) Series) signs (see Figure 2B-4(CA)) may be used to indicate the types of movements permitted at intersections. The R73(CA) Series signs may also be used in lieu of the No U-Turn (R3-4) sign to indicate that U-turns are prohibited, when they are prohibited, at signalized intersections with separate left turn phases.

15 Advance Intersection Lane Control (R3-8, R3-8a, and R3-8b) signs may be installed at the intersection.

**Support:**

16 The R73-1(CA) through R73-4(CA) and R73-8(CA) signs (see Figures 2B-4(CA) and 2B-105(CA)) are typical for overhead mounting either on an overhead mast arm or on lightweight structures. The R73-5(CA) and R73-6(CA) signs are typical for overhead mounting on an overhead mast arm; they can be used for ground mounted installations.

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

**Standard:**

01 **If used, the Mandatory Movement Lane Control (R3-5, R3-5a, and R3-7) sign (see Figure 2B-4) shall indicate only the single vehicle movement that is required from the lane. If used, the Mandatory Movement Lane Control sign shall be located in advance of the intersection, such as near the upstream end of the mandatory movement lane, and/or at the intersection where the regulation applies. When the mandatory movement applies to lanes exclusively designated for HOV traffic, the R3-5cP supplemental plaque shall be used. When the mandatory movement applies to lanes that are not HOV facilities, but are lanes exclusively designated for buses and/or taxis, the word message R3-5dP and/or R3-5gP supplemental plaques shall be used.**

02 **The Mandatory Movement Lane Control (R3-7) sign shall include the legend RIGHT (LEFT) LANE MUST TURN RIGHT (LEFT). The Mandatory Movement Lane Control (R3-5 and R3-5a) symbol signs shall include the legend ONLY.**

03 **The R3-7 word message sign shall be for post-mounting only.**

~~04 Where the number of lanes available to through traffic on an approach is three or more, Mandatory Movement Lane Control (R3-5 and R3-5a) symbol signs, if used, shall be mounted overhead over the specific lanes to which they apply (see Section 2B.19).~~

**04a If used, the Mandatory Movement Lane Control (R3-5 and R3-5a) signs shall be mounted overhead over the specific lanes to which they apply, unless all approach lanes are required to turn in the same direction (see Section 2B.19).**

*Guidance:*

*05 If the R3-5 or R3-5a sign is post-mounted on an approach with two or fewer through lanes, a supplemental plaque (see Figure 2B-4), such as LEFT LANE (R3-5bP), HOV 2+ (R3-5cP), TAXI LANE (R3-5dP), CENTER LANE (R3-5eP), RIGHT LANE (R3-5fP), BUS LANE (R3-5gP), or BOTH LANES, should be added above the sign to indicate the specific lane to which the mandatory movement applies. If Mandatory Lane Movement Control (R3-5) symbol signs with supplemental R3-5bP or R3-5fP plaques are used, they should be mounted adjacent to and along only the full width portion of the turn lane.*

*06 The use of the Mandatory Movement Lane Control (R3-7) word message sign should be limited to only locations that are adjacent to the full-width portion of a mandatory turn lane. The R3-7 sign should not be installed adjacent to a through lane in advance of a turn bay taper or adjacent to a turn bay taper.*

*07 Mandatory Movement Lane Control signs should be accompanied by lane-use arrow markings, especially where traffic volumes are high, where there is a high percentage of commercial vehicles, or where other distractions exist.*

*Option:*

*08 The Straight Through Only (R3-5a) sign may be used to require a road user in a particular lane to proceed straight through an intersection.*

*09 When the Mandatory Movement Lane Control sign for a left-turn lane is installed back-to-back with a Keep Right (R4-7) sign, the dimensions of the Mandatory Movement Lane Control (R3-5) sign may be the same as the Keep Right sign.*

*10 The diamond symbol may be used instead of the word message HOV on the R3-5cP supplemental plaque.*

*11 The BEGIN RIGHT TURN LANE (R3-20R) sign (see Figure 2B-4) may 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. The BEGIN LEFT TURN LANE (R3-20L) sign (see Figure 2B-4) 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.*

*Support:*

*12 Refer to CVC 22101 for Mandatory Movement Lane Control signs.*

*Option:*

*13 The Mandatory Movement Lane Control (R3-5) sign may be used to indicate the type of movement permitted at a major intersection where ground mounted signing is not adequate.*

**Standard:**

**14 The RIGHT (LEFT) LANE MUST TURN RIGHT (LEFT) (R3-7) sign shall be used when a turning movement is required, except when a clearly marked additional lane is provided for the mandatory turn. When the additional lane is provided, a pavement arrow marking shall be placed at the beginning of the additional lane.**

*Guidance:*

*15 Signs or markings should be repeated in advance of mandatory turn lanes when necessary to prevent entrapment and to help motorists select the appropriate lane before reaching the end of the line of waiting vehicles.*

*16 The R3-7 sign should be erected on the appropriate side of the road, 150 to 300 feet in advance of the turn.*

*Option:*

*17 The THRU TRAFFIC MERGE LEFT (RIGHT) (W74(CA)) sign may be used in advance of the R3-7 sign.*

**Standard:**

**18 The RIGHT (LEFT) LANE MUST EXIT (R18A(CA)) sign (see Figure 2B-4(CA)) shall be used to indicate a freeway lane drop. The R18A(CA) sign shall be placed at the beginning of the 8 inch solid white line approaching the exit ramp. The R18A(CA) signs shall not be used at freeway to freeway connectors. See Figure 3B-10(CA) in Part 3 for details.**

*Guidance:*

*<sup>19</sup> The RIGHT (LEFT) LANE FREEWAY ONLY (R18B(CA)) sign (see Figure 2B-4(CA)) should be used on non-freeway facilities to indicate that a particular lane only leads to a freeway entrance and on to the freeway. The sign should be used in conjunction with, and at the beginning of, the 8 inch solid white lines indicating that traffic in that lane has a mandatory movement leading to a freeway.*

**Section 2B.21 Optional Movement Lane Control Sign (R3-6)**

**Standard:**

**<sup>01</sup> If used, the Optional Movement Lane Control (R3-6) sign (see Figure 2B-4) shall be used for two or more movements from a specific lane or to emphasize permitted movements. If used, the Optional Movement Lane Control sign shall be located in advance of the intersection, such as near the upstream end of an adjacent mandatory movement lane, and/or at the intersection where the regulation applies.**

**<sup>02</sup> If used, the Optional Movement Lane Control sign shall indicate all permissible movements from specific lanes.**

**<sup>03</sup> Optional Movement Lane Control signs shall be used for two or more movements from a specific lane where a movement, not normally allowed, is permitted.**

**<sup>04</sup> The Optional Movement Lane Control sign shall not be used alone to effect a turn prohibition.**

**<sup>05</sup> ~~Where the number of lanes available to through traffic on an approach is three or more, an Optional Movement Lane Control (R3-6) sign, if used, shall be mounted overhead over the specific lane to which it applies (see Section 2B.19).~~**

**<sup>05a</sup> If used, the Optional Movement Lane Control (R3-6) sign shall be mounted overhead over the specific lane to which it applies, unless all approach lanes are required to turn in the same direction (see Section 2B.19).**

*Guidance:*

*<sup>06</sup> If the Optional Movement Lane Control sign is post-mounted on an approach with two or fewer through lanes, a supplemental plaque (see Figure 2B-4), such as LEFT LANE (R3-5bP), HOV 2+ (R3-5cP), TAXI LANE (R3-5dP), CENTER LANE (R3-5eP), RIGHT LANE (R3-5fP), or BUS LANE (R3-5gP), should be added above the R3-6 sign to indicate the specific lane from which the optional movements can be made.*

**Option:**

**<sup>07</sup> The word message OK may be used within the border in combination with the arrow symbols of the R3-6 sign.**

**Standard:**

**<sup>08</sup> Because more than one movement is permitted from the lane, the word message ONLY shall not be used on an Optional Movement Lane Control sign.**

**Option:**

**<sup>09</sup> The Optional Movement Lane Control (R3-6 and R60B(CA)) signs (see Figures 2B-4 and 2B-4(CA)) may be used to indicate the type of movement permitted at a major intersection where ground mounted signing is not adequate.**

*Guidance:*

*<sup>10</sup> The R3-6 signs should not be used at signalized intersections with separate left turn phases. The R3-6 signs should be installed on pole mounted mast-arms over the lane to which they apply.*

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

**Option:**

**<sup>01</sup> ~~Advance Intersection Lane Control (R3-8, R3-8a, and R3-8b) signs (see Figure 2B-4) may be used to indicate the configuration of all lanes ahead.~~**

*Guidance:*

*<sup>01a</sup> Advance Intersection Lane Control (R3-8, R3-8a, and R3-8b) signs (see Figure 2B-4) should be used to indicate the configuration of all lanes ahead where there are optional lanes, mandatory turn lanes without turning bays or unshadowed turn lanes,*

**Option:**

**<sup>02</sup> The word messages ONLY, OK, THRU, ALL, or HOV 2+ may be used within the border in combination with the arrow symbols of the R3-8 sign series. The HOV 2+ (R3-5cP) supplemental plaque may be installed at**

the top outside border of the R3-8 sign over the applicable lane designation on the sign. The diamond symbol may be used instead of the word message HOV. The minimum allowable vehicle occupancy requirement may vary based on the level established for a particular facility.

**Guidance:**

03 *If used, an Advance Intersection Lane Control sign should be placed at an adequate distance in advance of the intersection so that road users can select the appropriate lane (see Figure 2A-4). If used, the Advance Intersection Lane Control sign should be installed either in advance of the tapers or at the beginning of the turn lane.*

**Option:**

03a Advance Intersection Lane Control (R3-8, R3-8a, and R3-8b) signs may be installed at the intersection.

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

**Standard:**

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

**Section 2B.23 RIGHT (LEFT) LANE MUST EXIT Sign (R3-33)**

**Option:**

01 A RIGHT (LEFT) LANE MUST EXIT (R3-33) sign (see Figure 2B-4) may be used to supplement an overhead EXIT ONLY guide sign to inform road users that traffic in the right-hand (left-hand) lane of a roadway that is approaching a grade-separated interchange is required to depart the roadway on the exit ramp at the next interchange.

**Support:**

02 Section 2C.43 contains information regarding a warning sign that can be used in advance of lane drops at grade-separated interchanges.

**Section 2B.24 Two-Way Left Turn Only Signs (R3-9a, R3-9b)**

**Guidance:**

**Option:**

01 Two-Way Left Turn Only (R3-9a or R3-9b) signs (see Figure 2B-6) ~~should~~ **may** be used in conjunction with the required pavement markings where a non-reversible lane is reserved for the exclusive use of left-turning vehicles in either direction and is not used for passing, overtaking, or through travel.

**Option:**

02 The post-mounted R3-9b sign may be used as an alternate to or a supplement to the overhead R3-9a sign. The legend BEGIN or END may be used within the border of the main sign itself, or on an R3-9cP or R3-9dP plaque (see Figure 2B-6) mounted immediately above it.

**Support:**

03 Signing is especially helpful to drivers in areas where the two-way left turn only maneuver is new, in areas subject to environmental conditions that frequently obscure the pavement markings, and on peripheral streets with two-way left turn only lanes leading to an extensive system of routes with two-way left turn only lanes.

**Option:**

04 The Two-Way Left Turn Only (R3-9a or R3-9b) signs (see Figure 2B-6) may be installed in locations to indicate that a lane near the center of the highway is set aside for use by vehicles making left turns in both directions from or into the highway.

**Support:**

05 See Figures 3A-108(CA) and 3B-7 (CA) for pavement marking applications for Two-Way Left Turn Lanes.

**Section 2B.25 BEGIN and END Plaques (R3-9cP, R3-9dP)**

**Option:**

01 The BEGIN (R3-9cP) or END (R3-9dP) plaque (see Figure 2B-6) may be used to supplement a regulatory sign to inform road users of the location where a regulatory condition begins or ends.

**Standard:**

**02 If used, the BEGIN or END plaque shall be mounted directly above a regulatory sign.**

**Section 2B.26 Reversible Lane Control Signs (R3-9e through R3-9i)**

**Option:**

**01** A reversible lane may be used for through traffic (with left turns either permitted or prohibited) in alternating directions during different periods of the day, and the lane may be used for exclusive left turns in one or both directions during other periods of the day as well. Reversible Lane Control (R3-9e through R3-9i) signs (see Figure 2B-6) may be either static type or changeable message type. These signs may be either post-mounted or overhead.

**Standard:**

**02 Post-mounted Reversible Lane Control signs shall be used only as a supplement to overhead signs or signals. Post-mounted signs shall be identical in design to the overhead signs and an additional legend such as CENTER LANE shall be added to the sign (R3-9f) to indicate which lane is controlled. For both word messages and symbols, this legend shall be at the top of the sign.**

**03 Where it is determined by an engineering study that lane-use control signals or physical barriers are not necessary, the lane shall be controlled by overhead Reversible Lane Control signs (see Figure 2B-7).**

**Option:**

**04** Reversing traffic flow may be controlled with pavement markings and Reversible Lane Control signs (without the use of lane control signals), when all of the following conditions are met:

- A. Only one lane is being reversed,
- B. An engineering study indicates that the use of Reversible Lane Control signs alone would result in an acceptable level of safety and efficiency, and
- C. There are no unusual or complex operations in the reversible lane pattern.

**Standard:**

**05 Reversible Lane Control signs shall contain the legend or symbols designating the allowable uses of the lane and the time periods such uses are allowed. Where symbols and legends are used, their meanings shall be as shown in Table 2B-2.**

**06 Reversible Lane Control signs shall consist of a white background with a black legend and border, except for the ~~R3-9d~~ R3-9e sign, where the color red is used.**

**07 Symbol signs, such as the ~~R3-9d~~ R3-9e sign, shall consist of the appropriate symbol in the upper portion of the sign with the appropriate times of the day and days of the week below it. All times of the day and days of the week shall be accounted for on the sign to eliminate confusion to the road user.**

**08 In situations where more than one message is conveyed to the road user, such as on the ~~R3-9d~~ R3-9e sign, the sign legend shall be arranged as follows:**

- A. The prohibition or restriction message is the primary legend and shall be on the top for word message signs and to the far left for symbol signs,
- B. The permissive use message shall be displayed as the second legend, and
- C. The OTHER TIMES message shall be displayed at the bottom for word message signs and to the far right for symbol signs.

**Option:**

**09** The symbol signs may also include a downward pointing arrow with the legend THIS LANE. The term OTHER TIMES may be used for either the symbol or word message sign.

**Standard:**

**10 A Reversible Lane Control sign shall be mounted over the center of the lane that is being reversed and shall be perpendicular to the roadway alignment.**

**11 If the vertical or horizontal alignment is curved to the degree that a driver would be unable to see at least one sign, and preferably two signs, then additional overhead signs shall be installed. The placement of the signs shall be such that the driver will have a definite indication of the lanes specifically reserved for use at any given time. Special consideration shall be given to major generators introducing traffic between the normal sign placement.**

**12 Transitions at the entry to and exit from a section of roadway with reversible lanes shall be carefully reviewed, and advance signs shall be installed to notify or warn drivers of the boundaries of the reversible lane controls. The R3-9g or R3-9h signs shall be used for this purpose.**

Option:

**13** More than one sign may be used at the termination of the reversible lane to emphasize the importance of the message (R3-9i).

**Standard:**

**14** Flashing beacons, if used to accentuate the overhead Reversible Lane Control signs, shall comply with the applicable requirements for flashing beacons in Chapter 4L.

**15** When used in conjunction with Reversible Lane Control signs, the Turn Prohibition signs (R3-1 to R3-4, R3-18) shall be mounted overhead and separate from the Reversible Lane Control signs. The Turn Prohibition signs shall be designed and installed in accordance with Section 2B.18.

*Guidance:*

*16* For additional emphasis, a supplemental plaque stating the distance of the prohibition, such as NEXT 1 MILE, should be added to the Turn Prohibition signs that are used in conjunction with Reversible Lane Control signs.

*17* If used, overhead signs should be located at intervals not greater than 1/4 mile. The bottom of the overhead Reversible Lane Control signs should not be more than 19 feet above the pavement grade.

*18* Where more than one sign is used at the termination of a reversible lane, they should be at least 250 feet apart. Longer distances between signs are appropriate for streets with speeds over 35 mph, but the separation should not exceed 1,000 feet.

*19* Because left-turning vehicles have a significant impact on the safety and efficiency of a reversible lane operation, if an exclusive left-turn lane or two-way left-turn lane cannot be incorporated into the lane-use pattern for a particular peak or off-peak period, consideration should be given to prohibiting left turns and U-turns during that time period.

## **Section 2B.27 Jughandle Signs (R3-23, R3-24, R3-25, and R3-26 Series)**

Support:

**01** A jughandle turn is a left-turn or U-turn that because of special geometry is made by initially making a right turn. This type of turn can increase the operational efficiency of a roadway by eliminating the need for exclusive left-turn lanes and can increase the operational efficiency of a traffic control signal by eliminating the need for protected left-turn phases. A jughandle turn can also provide an opportunity for trucks and commercial vehicles to make a U-turn where the median and roadway are not of sufficient width to accommodate a traditional U-turn by these vehicles.

**02** Figure 2B-8 shows the various signs that can be used for signing jughandle turns. Figure 2B-9 shows examples of regulatory and destination guide signing for various types of jughandle turns.

**Standard:**

**03** On multi-lane roadways, since road users generally anticipate that they need to be in the left-hand lane when approaching a location where they desire to turn left or make a U-turn, an ALL TURNS FROM RIGHT LANE (R3-23) or a U TURN FROM RIGHT LANE (R3-23a) sign (see Figure 2B-9) shall be installed in advance of the location to inform drivers that left turns and/or U-turns will be made from the right-hand lane.

Option:

**04** Where a median of sufficient width is available, supplemental regulatory or guide signs may also be placed on the left-hand side of the roadway.

**Standard:**

**05** An R3-24 series sign with an upward diagonal arrow pointing to the right if the jughandle entrance is designed as an exit ramp (see Drawings A and B of Figure 2B-9) or an R3-25 series sign with a horizontal arrow pointing to the right if the jughandle entrance is designed as an intersection shall be installed on the right-hand side of the roadway at the entrance to the jughandle. The legend on the sign shall be ALL TURNS, U TURN, or U AND LEFT TURNS, as appropriate.

**06 If the jughandle is designed such that the jughandle entrance is downstream of the location where the turn would normally have been made (see Drawing C of Figure 2B-9), an R3-26 series sign with an arrow pointing straight upward shall be installed on the right-hand side of the roadway at the intersection to inform road users that they need to proceed straight through the intersection in order to make a left turn or U-turn. The legend on the sign shall be U TURN or U AND LEFT TURNS, as appropriate.**

Support:

- 07 The R3-24, R3-25, and R3-26 series of signs are designed to be mounted below conventional guide signs.
- 08 Section 2C.14 contains information regarding the use of advisory exit and ramp speed signs for exit ramps.
- 09 Section 2D.39 contains information regarding the use of guide signs for jughandles.

### **Section 2B.28 Do Not Pass Sign (R4-1)**

Option:

01 The Do Not Pass (R4-1) sign (see Figure 2B-10) may be used in addition to pavement markings (see Section 3B.02) to emphasize the restriction on passing.

**Standard:**

02 **When used, The Do Not Pass sign may shall be used at the beginning of, and at intervals within, a zone through which sight distance is restricted or where other conditions make overtaking and passing inappropriate.**

Option:

02 If signing is needed on the left-hand side of the roadway for additional emphasis, NO PASSING ZONE (W14-3) signs may be used (see Section 2C.45).

Support:

03 Standards for determining the location and extent of no-passing zone pavement markings are set forth in Section 3B.02.

Support:

- 04 Typical examples of where the R4-1 sign could be applied are shown in Figures 3B-14(CA) and 3B-106(CA).

Option:

- 05 The R4-1 sign may be used in conjunction with temporary traffic control signs.

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

Guidance:

01 *The PASS WITH CARE (R4-2) sign (see Figure 2B-10) should be installed at the downstream end of a no-passing zone if a Do Not Pass sign has been installed at the upstream end of the zone.*

### **Section 2B.30 KEEP RIGHT EXCEPT TO PASS Sign (R4-16) and SLOWER TRAFFIC KEEP RIGHT Sign (R4-3)**

Option:

01 The KEEP RIGHT EXCEPT TO PASS (R4-16) sign (see Figure 2B-10) may be used on multi-lane roadways to direct drivers to stay in the right-hand lane except when they are passing another vehicle. [Refer to CVC 21659.](#)

Guidance:

02 *If used, the KEEP RIGHT EXCEPT TO PASS sign should be installed just beyond the beginning of a multi-lane roadway and at selected locations along multi-lane roadways for additional emphasis.*

Option:

03 The SLOWER TRAFFIC KEEP RIGHT (R4-3) sign (see Figure 2B-10) may be used on multi-lane roadways to reduce unnecessary lane changing.

Guidance:

04 *If used, the SLOWER TRAFFIC KEEP RIGHT sign should be installed just beyond the beginning of a multi-lane pavement, and at selected locations where there is a tendency on the part of some road users to drive in the left-hand lane (or lanes) below the normal speed of traffic. This sign should not be used on the approach to an interchange or through an interchange area.*

## **Section 2B.31 TRUCKS USE RIGHT LANE Sign (R4-5)**

### *Guidance:*

*01 If an extra lane has been provided for trucks and other slow-moving traffic, a SLOWER TRAFFIC KEEP RIGHT (R4-3) sign (see Figure 2B-10), TRUCKS USE RIGHT LANE (R4-5) sign (see Figure 2B-10), or other appropriate sign should be installed at the beginning of the lane.*

### *Option:*

*01a The TRUCKS OK (R70(CA)) sign (see Figure 2B-10(CA)) may be used to allow trucks to legally use other than the right lane or lanes, such as in advance of freeway branch connections, lane drop, etc.*

### *Support:*

*01b Refer to CVC 21655. Erect overhead with the arrow directly over the appropriate lane.*

### *Option:*

*02 The SLOWER TRAFFIC KEEP RIGHT sign may be used as a supplement or as an alternative to the TRUCKS USE RIGHT LANE sign. Both signs may be used on multi-lane roadways to improve capacity and reduce lane changing.*

*03 The TRUCKS USE RIGHT LANE (R4-5) sign may be used on multi-lane roadways to reduce unnecessary lane changing.*

### *Guidance:*

*04 If an extra lane has been provided for trucks and other slow-moving traffic, a Lane Ends sign (see Section 2C.42) should be installed in advance of the point where the extra lane ends. Appropriate pavement markings should be installed at both the upstream and downstream ends of the extra lane (see Section 3B.09 and Figure 3B-13).*

### *Support:*

*05 Section 2D.51 contains information regarding advance information signs for extra lanes that have been provided for trucks and other slow-moving traffic.*

### *Option:*

*06 The TRUCKS 3 AXLES OR MORE RIGHT 2 LANES ONLY (R6-3A(CA)) sign (see Figure 2B-10(CA)) may be used on divided highways having four or more lanes for traffic in one direction where this type of vehicle, unless designated, is restricted to the two right lanes. See CVC 21655 and 22348(c).*

*07 The ALL VEHICLES WHEN TOWING RIGHT 2 LANES ONLY (R6-4A(CA)) sign (see Figure 2B-10(CA)) may be used on divided highways having four or more lanes for traffic in one direction where this type of vehicle, unless designated, is restricted to the two right lanes. See CVC 21655 and 22348(c).*

### **Standard:**

**08 The END TRUCK LANE (R53A(CA)) sign (see Figure 2B-10(CA)) shall be placed at the end of a truck lane.**

**09 The END TRUCK LANE CONTROL (R53E(CA)) sign (see Figure 2B-10(CA)) shall be placed at the end of a segment of roadway in which trucks are restricted to a particular lane.**

**10 The TRUCKS RIGHT LANE ONLY (R53B(CA)) sign (see Figure 2B-10(CA)) shall be used when a climbing lane is provided and it is necessary to prohibit trucks from passing slower moving vehicles. Signs shall be placed at the beginning of the restriction and at approximately 0.25 mile intervals. When the restriction is necessary during certain hours, the Specific Hours/Day (R82A(CA)) Plaque (see Figure 2B-10(CA)) shall be placed below the R53B(CA) sign.**

**11 A TRUCK LANE (R4-6) sign shall be placed in advance of the truck lane. An END TRUCK LANE (R53A(CA)) sign shall be placed at the end of the restriction. See Figure 3B-14(CA) for signing and marking the end of an extra lane.**

### *Option:*

*12 The TRUCKS USE RIGHT LANE (R4-5) sign may be placed to advise trucks that they must use the right lane except to pass slow moving vehicles as provided in CVC 21654.*

### **Standard:**

**13 The YIELD TO UPHILL TRAFFIC (R55(CA)) sign (see Figure 2B-10(CA)) shall be used facing downhill traffic where a climbing lane has been provided and where a one-direction no passing marking has been placed to allow downhill traffic to pass. Refer to CVC 21661. See Section 3B.01 for further details.**

**14 The SLOWER TRAFFIC KEEP RIGHT (R4-3) sign shall be used at the beginning of passing lanes. Refer to CVC 21654. See Figure 3B-14(CA) for application of signing and markings for lane reductions.**

### **Section 2B.32 Keep Right and Keep Left Signs (R4-7, R4-8)**

**Option:**

01 The Keep Right (R4-7) sign (see Figure 2B-10) may be used at locations where it is necessary for traffic to pass only to the right-hand side of a roadway feature or obstruction. The Keep Left (R4-8) sign (see Figure 2B-10) may be used at locations where it is necessary for traffic to pass only to the left-hand side of a roadway feature or obstruction.

**Guidance:**

02 *At locations where it is not readily apparent that traffic is required to keep to the right, a Keep Right sign should be used.*

03 *If used, the Keep Right sign should be installed as close as practical to approach ends of raised medians, parkways, islands, and underpass piers. The sign should be mounted on the face of or just in front of a pier or other obstruction separating opposite directions of traffic in the center of the highway such that traffic will have to pass to the right-hand side of the sign.*

**Standard:**

04 **The Keep Right sign shall not be installed on the right-hand side of the roadway in a position where traffic must pass to the left-hand side of the sign.**

**At an intersection with a divided highway that has a median width at the intersection itself of less than 30 feet, Keep Right (R4-7) signs shall be installed (see Figures 2B-16 and 2B-17).**

**Option:**

05 ~~The Keep Right sign may be omitted at intermediate ends of divisional islands and medians.~~

06 Word message KEEP RIGHT (LEFT) with an arrow (R4-7a or R4-7b) signs (see Figure 2B-10) may be used instead of the R4-7 or R4-8 symbol signs.

07 Where the obstruction obscures the Keep Right sign, the minimum placement height may be increased for better sign visibility.

08 A narrow Keep Right (R4-7c) sign (see Figure 2B-10) may be installed on the approach end of a median island that is less than 4 feet wide at the point where the sign is to be located.

**Standard:**

09 **A narrow Keep Right (R4-7c) sign shall not be installed on a median island that has a width of 4 feet or more at the point where the sign is to be located.**

**Guidance:**

10 *At intersections where the left-turn lane treatment results in channelized offset left-turn lanes (e.g., a parallel or tapered left-turn lane between two medians), the size of the Keep Right (R4-7) sign, if used, should be of the next higher roadway classification, if feasible, as shown in Table 2B-1, to reduce the potential for wrong-way maneuvers by drivers turning left from a stop-controlled, intersecting minor roadway.*

11 *Hence, per this offset left-turn lanes scenario, if the type of roadway is a conventional road, the R4-7 sign size used, if feasible, should be from the expressway column as 36 x 48 inch, not the 24 x 30 inch size in the conventional road column.*

### **Section 2B.33 STAY IN LANE Sign (R4-9)**

**Option:**

01 A STAY IN LANE (R4-9) sign (see Figure 2B-10) may be used on multi-lane highways to direct road users to stay in their lane until conditions permit shifting to another lane.

**Guidance:**

02 *If a STAY IN LANE sign is used, it should be accompanied by a double solid white lane line(s) to prohibit lane changing.*

### **Section 2B.34 RUNAWAY VEHICLES ONLY Sign (R4-10)**

**Guidance:**

**Standard:**

01 **A RUNAWAY VEHICLES ONLY (R4-10) sign (see Figure 2B-10) should shall be installed near a truck escape (or runaway truck) ramp entrance to discourage other road users from entering the ramp.**

02 **The NO STOPPING ANY TIME (R26A(S)(CA)) signs (see Figure 2B-24(CA)) shall be placed as required to keep motorists from stopping in the path of runaway trucks.**

### **Section 2B.35 Slow Vehicle Turn-Out Signs (R4-12, R4-13, and R4-14)**

**Support:**

01 On two-lane highways in areas where traffic volumes and/or vertical or horizontal curvature make passing difficult, turn-out areas are sometimes provided for the purpose of giving a group of faster vehicles an opportunity to pass a slow-moving vehicle.

**Option:**

**Standard:**

02 **A SLOW VEHICLES WITH ~~XX~~ 5 OR MORE FOLLOWING VEHICLES MUST USE TURN-OUT (R4-12) sign (see Figure 2B-10) ~~may~~ shall be installed in advance of a the first turn-out area to inform drivers who are driving so slow that they have accumulated a specific number of vehicles behind them that they are required by the traffic laws of that State to use the turn-out to allow the vehicles following them to pass. Refer to CVC 21656.**

**Support:**

03 The specific number of vehicles displayed on the R4-12 sign provides law enforcement personnel with the information they need to enforce this regulation.

03a Refer to CVC 21656 for Turning out of Slow-Moving Vehicles.

03b The R4-12 sign is not intended to be used in advance of each individual turnout.

03c See Section 3B.101(CA) for more details.

**Option:**

04 If an R4-12 sign has been installed in advance of a turn-out area, a SLOW VEHICLES MUST USE TURN-OUT AHEAD (R4-13) sign (see Figure 2B-10) may also be installed downstream from the R4-12 sign, but upstream from the turn-out area, to remind slow drivers that they are required to use a turn-out that is a short distance ahead.

**Standard:**

05 **If an R4-12 sign has been installed in advance of a turn-out area, a SLOW VEHICLES MUST TURN OUT (with arrow) (R4-14) sign (see Figure 2B-10) shall be installed at the entry point of the turn-out area.**

**Support:**

06 Section 2D.52 contains information regarding advance information signs for slow vehicle turn-out areas.

### **Section 2B.36 DO NOT DRIVE ON SHOULDER Sign (R4-17) and DO NOT PASS ON SHOULDER Sign (R4-18)**

**Option:**

01 The DO NOT DRIVE ON SHOULDER (R4-17) sign (see Figure 2B-10) may be installed to inform road users that using the shoulder of a roadway as a travel lane is prohibited.

02 The DO NOT PASS ON SHOULDER (R4-18) sign (see Figure 2B-10) may be installed to inform road users that using the shoulder of a roadway to pass other vehicles is prohibited.

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

**Standard:**

01 ~~The DO NOT ENTER (R5-1) sign (see Figure 2B-11) shall be used where traffic is prohibited from entering a restricted roadway.~~

**Guidance:**

02 ~~The DO NOT ENTER sign, if used, should be placed directly in view of a road user at the point where a road user could wrongly enter a divided highway, one way roadway, or ramp (see Figure 2B-12). The sign should be mounted on the right hand side of the roadway, facing traffic that might enter the roadway or ramp in the wrong direction.~~

03 ~~If the DO NOT ENTER sign would be visible to traffic to which it does not apply, the sign should be turned away from, or shielded from, the view of that traffic.~~

**Option:**

04 ~~The DO NOT ENTER sign may be installed where it is necessary to emphasize the one-way traffic movement on a ramp or turning lane.~~

~~05 A second DO NOT ENTER sign on the left hand side of the roadway may be used, particularly where traffic approaches from an intersecting roadway (see Figure 2B-12).~~

Support:

06 Section 2B.41 contains information regarding an optional lower mounting height for DO NOT ENTER signs that are located along an exit ramp facing a road user who is traveling in the wrong direction.

**Standard:**

07 **The DO NOT ENTER (R5-1) sign and WRONG WAY (R5-1a) sign shall be used at the exit end of a one-way road or ramp to inform motorists that an entrance thereto is prohibited.**

08 **The R5-1 and the R5-1a signs shall be placed in the head-on position to a wrong-way movement.**

Option:

09 The DO NOT ENTER (R5-1) and WRONG WAY (R5-1a) signs (see Figure 2B-11), may be used as Activated Blank-Out signs (see Figure 2B-11(CA)) for controlling reversible lanes and for prohibiting turns into reversible lanes.

10 The R5-1 and R5-1a Activated Blank-Out signs may also be used to supplement static R5-1 and R5-1a signs.

**Standard:**

11 **If used for controlling reversible lanes and for prohibiting turns into reversible lanes, the R5-1 and R5-1a Activated Blank-Out signs shall be used in two sets.**

Guidance:

12 *At least one set of R5-1 and R5-1a signs should be visible from each decision point on each likely wrong-way approach.*

Support:

13 See section 2E.53 for wrong-way traffic control at interchange ramps and Figures 2B-12(CA) and 3B-14(CA) for examples of signs and lane reduction markings.

Guidance:

14 *On multilane roadways, a minimum size of 36 x 36 inch should be used for the DO NOT ENTER (R5-1) sign.*

15 *At intersections where the left-turn lane treatment results in channelized offset left-turn lanes (e.g., a parallel or tapered left-turn lane between two medians), the size of the DO NOT ENTER (R5-1) sign or WRONG WAY (R5-1a) sign, if used, should be of the next higher roadway classification, if feasible, as shown in Table 2B-1, to reduce the potential for wrong-way maneuvers by drivers turning left from a stop-controlled, intersecting minor roadway.*

16 *Hence, per this offset left-turn lanes scenario, if the type of roadway is a conventional road, the R5-1 sign size used, if feasible, should be from the expressway column as 36 x 36 inch, not the 30 x 30 inch size in the conventional road column.*

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

Option:

01 ~~The WRONG WAY (R5-1a) sign (see Figure 2B-11) may be used as a supplement to the DO NOT ENTER sign where an exit ramp intersects a crossroad or a crossroad intersects a one-way roadway in a manner that does not physically discourage or prevent wrong way entry (see Figure 2B-12).~~

Guidance:

02 ~~If used, the WRONG WAY sign should be placed at a location along the exit ramp or the one-way roadway farther from the crossroad than the DO NOT ENTER sign (see Section 2B.41).~~

Support:

03 Section 2B.41 contains information regarding an optional lower mounting height for WRONG WAY signs that are located along an exit ramp facing a road user who is traveling in the wrong direction.

Support:

04 Refer to Section 2B.37 for the WRONG WAY (R5-1a) sign.

### **Section 2B.39 Selective Exclusion Signs**

Support:

01 Selective Exclusion signs (see Figure 2B-11) give notice to road users that State or local statutes or ordinances exclude designated types of traffic from using particular roadways or facilities.

**Standard:**

02 **If used, Selective Exclusion signs shall clearly indicate the type of traffic that is excluded.**

**Support:**

<sup>03</sup> Typical exclusion messages include:

- A. No Trucks (R5-2),
- B. NO MOTOR VEHICLES (R5-3),
- C. NO COMMERCIAL VEHICLES (R5-4),
- D. NO TRUCKS (VEHICLES) WITH LUGS (R5-5),
- E. No Bicycles (R5-6),
- F. NO NON-MOTORIZED TRAFFIC (R5-7),
- G. NO MOTOR-DRIVEN CYCLES (R5-8),
- H. No Pedestrians (R9-3),
- I. No Skaters (R9-13),
- J. No Equestrians (R9-14), and
- K. ~~No Hazardous Material (R14-3)~~ (see Section 2B.62).

**Option:**

<sup>04</sup> Appropriate combinations or groupings of these legends into a single sign, such as NO PEDESTRIANS BICYCLES MOTOR-DRIVEN CYCLES (R5-10a), or NO PEDESTRIANS OR BICYCLES (R5-10b) may be used.

**Guidance:**

<sup>05</sup> *If an exclusion is governed by vehicle weight, a Weight Limit sign (see Section 2B.59) should be used instead of a Selective Exclusion sign.*

<sup>06</sup> *If used on a freeway or expressway ramp, the NO PEDESTRIANS OR BICYCLES (R5-10b) sign should be installed in a location where it is clearly visible to any pedestrian or bicyclist attempting to enter the limited access facility from a street intersecting the exit ramp.*

<sup>07</sup> *The Selective Exclusion sign should be placed on the right-hand side of the roadway at an appropriate distance from the intersection so as to be clearly visible to all road users turning into the roadway that has the exclusion. The NO PEDESTRIANS (R5-10c) or No Pedestrian Crossing (R9-3) sign (see Section 2B.51) should be installed so as to be clearly visible to pedestrians who are at a location where an alternative route is available.*

**Option:**

<sup>08</sup> The NO PEDESTRIANS (R5-10c) or No Pedestrian Crossing (R9-3) sign may also be used at underpasses or elsewhere where pedestrian facilities are not provided.

<sup>09</sup> The NO TRUCKS (R5-2a) word message sign may be used as an alternate to the No Trucks (R5-2) symbol sign.

<sup>10</sup> The AUTHORIZED VEHICLES ONLY (R5-11) sign may be used at median openings and other locations to prohibit vehicles from using the median opening or facility unless they have special permission (such as law enforcement vehicles or emergency vehicles) or are performing official business (such as highway agency vehicles).

**Support:**

<sup>11</sup> Refer to CVC 21101 through 21104, 22402 through 22405 and 35650 through 35755 for Truck Exclusion signs.

<sup>12</sup> The No Trucks (R5-2) sign is used together with a Truck Exclusion (R20D(CA) Series) plaque (see Figure 2B-11(CA)) to specify the maximum width or other restrictions in effect.

**Guidance:**

<sup>13</sup> *An alternative route should be evaluated for height, weight and size restrictions. Appropriate signs should be posted along the route to advise motorists of any restrictions.*

**Option:**

<sup>14</sup> Advance signs may be necessary to give trucks an opportunity to turn around and retrace their path or select another route.

**Standard:**

<sup>15</sup> **The R5-2 signs shall be placed at each end of the affected portion of a highway section. They shall be placed at a distance of not more than 500 feet from the ends of an affected bridge or structure.**

**16 The Bridge Speed and Weight Limit (R21(CA)) sign (see Figure 2B-11(CA)) shall be used to specify the maximum speed permitted on a bridge or structure for vehicles over a specified weight. The R21(CA) sign shall not be erected more than 500 feet in advance of the bridge or structure.**

Option:

17 The R21(CA) sign, when used with the Weight Limit (R12-5) sign, may be placed on the same post.

18 The Truck Length Limit (R20H(CA)) sign may be used at locations where a semi-truck over 65 feet in length and a semi-truck with trailer over 75 feet in length is prohibited.

19 The No Trucks Variable Message (R20-1(CA)) sign (see Figure 2B-11(CA)) may be used with an advance guide sign where there is a truck restriction.

**Standard:**

**20 The NEXT RIGHT (R20-1A(CA)) Plaque (see Figure 2B-11(CA)) shall be used below the R20-1(CA) sign when no advance guide sign is available.**

Option:

21 The AUTOS WITH TRAILERS - TRUCKS – PROHIBITED (R53D(CA)) sign (see Figure 2B-11(CA)) may be used at locations where these vehicles are prohibited from using the roadway.

### **Restrictions on Use of Freeways**

Support:

22 CVC Section 21960 authorizes the Department of Transportation and local authorities, with respect to freeways under their respective jurisdictions, to prohibit or restrict the use of freeways by pedestrians, bicycles or other non-motorized traffic or by any person operating a motor-driven cycle or a motorized bicycle.

**Standard:**

**23 Restrictions on use of a freeway shall be by the order of Department of Transportation, District Director.**

**24 No ordinance or resolution of local authorities shall apply to any State highway until the proposed ordinance or resolution has been presented to, and approved in writing by, the Department of Transportation.**

Support:

25 The District Directors have been delegated the authority to issue orders restricting the use of freeways. They are also authorized to approve orders, ordinances or resolutions of local authorities, which would restrict the use of State highways.

26 It is the Department's policy to restrict the use of freeways when a satisfactory alternate route is available.

**Standard:**

**27 The NO PEDESTRIANS BICYCLES MOTOR-DRIVEN CYCLES (R5-10a) sign shall be used on a freeway at or near the beginning of the section of freeway to which the prohibition applies and on the right side of freeway entrance ramps.**

Guidance:

28 *Prior to placement of the R5-10a sign on State highways, an order signed by the Department of Transportation's District Director should be on file.*

29 *At the end of freeway sections where both bicycles and pedestrians have been allowed, and on the continuing freeway where such traffic is prohibited, the R5-10a sign should be placed beyond the exit ramp gore.*

Option:

30 The R5-10a sign may be modified by deleting the word BICYCLES at locations where bicycles are permitted on freeway shoulders.

**Standard:**

**31 The NO PEDESTRIANS (R5-10c) sign shall be used at all freeways exit ramps to inform the public that pedestrians are prohibited.**

Guidance:

32 *The R5-10c sign should be placed on the left facing pedestrian traffic, which might enter a freeway exit ramp. The sign should be placed up the ramp to avoid conflict with the ramp terminal signs.*

Option:

33 Dual installations may be used where pedestrian problems exist.

Support:

34 See 2E.53 for additional details.

Option:

<sup>35</sup> The FREEWAY – ACCESS RIGHTS RESTRICTED ON THIS SECTION OF HIGHWAY (S3-1(CA)) sign may be used to identify a right-of-way fence that has been placed to control access.

## Section 2B.40 ONE WAY Signs (R6-1, R6-2)

### Standard:

<sup>01</sup> Except as provided in Paragraph 6, the ONE WAY (R6-1 or R6-2) sign (see Figure 2B-13) shall be used to indicate streets or roadways upon which vehicular traffic is allowed to travel in one direction only.

<sup>02</sup> ONE WAY signs shall be placed parallel to the one-way street at all alleys and roadways that intersect one-way roadways as shown in Figure 2B-14.

<sup>03</sup> At an intersection with a divided highway that has a median width at the intersection itself of 30 feet or more, ONE WAY signs shall be placed, visible to each crossroad approach, on the near right and far left corners of each intersection with the directional roadways (see Figure 2B-15).

~~<sup>04</sup> At an intersection with a divided highway that has a median width at the intersection itself of less than 30 feet, Keep Right (R4-7) signs and/or ONE WAY signs shall be installed (see Figures 2B-16 and 2B-17). If Keep Right signs are installed, they shall be placed as close as practical to the approach ends of the medians and shall be visible to traffic on the divided highway and each crossroad approach. If ONE WAY signs are installed, they shall be placed on the near right and far left corners of the intersection and shall be visible to each crossroad approach.~~

<sup>04a</sup> The ONE WAY (R6-1) sign shall be used on one-way streets, divided highways, ramp terminals and other similar locations to indicate streets or roadways upon which vehicular traffic is required in one direction only.

<sup>04b</sup> When grouped with STOP (R1-1) sign or with another regulatory sign, the ONE WAY sign shall be placed at the top.

### Option:

<sup>04c</sup> The R6-1 signs may be placed on the far right and in the median on the left side of traffic entering the highway where the median is more than 30 feet wide as shown in Figure 2B-15.

<sup>05</sup> At an intersection with a divided highway that has a median width at the intersection itself of less than 30 feet, ONE WAY signs may also be placed on the far right corner of the intersection as shown in Figures 2B-16 and 2B-17.

<sup>05a</sup> At an intersection with a divided highway that has a median width at the intersection itself of less than 30 feet, ONE WAY signs may be installed on the near right and far left corners of the intersection. They may also be placed on the far right corners of intersections for added emphasis. See Figures 2B-16 and 2B-17.

<sup>06</sup> ONE WAY signs may be omitted on the one-way roadways of divided highways, where the design of interchanges indicates the direction of traffic on the separate roadways.

### Standard:

<sup>07</sup> If used at unsignalized intersections with one-way streets, ONE WAY signs shall be placed on the near right and the far left corners of the intersection facing traffic entering or crossing the one-way street (see Figure 2B-14).

<sup>08</sup> If used at signalized intersections with one-way streets, ONE WAY signs shall be placed near the appropriate signal faces, on the poles holding the traffic signals, on the mast arm or span wire holding the signals, or at the locations specified for unsignalized intersections.

<sup>09</sup> At unsignalized T-intersections where the roadway at the top of the T-intersection is a one-way roadway, ONE WAY signs shall be placed on the near right and the far side of the intersection facing traffic on the stem approach (see Figure 2B-14).

<sup>10</sup> At signalized T-intersections where the roadway at the top of the T-intersection is a one-way roadway, ONE WAY signs shall be placed near the appropriate signal faces, on the poles holding the traffic signals, on the mast arm or span wire holding the signals, or at the locations specified for unsignalized intersections.

### Option:

<sup>11</sup> Where the central island of a roundabout allows for the installation of signs, ONE WAY signs may be used instead of or in addition to Roundabout Directional Arrow (R6-4 series) signs (see Section 2B.43) to direct traffic counter-clockwise around the central island.

*Guidance:*

*12 Where used on the central island of a roundabout, the mounting height of a ONE WAY sign should be at least 4 feet, measured vertically from the bottom of the sign to the elevation of the near edge of the traveled way.*

**Support:**

13 Using ONE WAY signs on the central island of a roundabout might result in some drivers incorrectly concluding that the cross street is a one-way street. Using Roundabout Directional Arrow signs might reduce this confusion. However, using ONE WAY signs might be necessary in States that have defined a roundabout as a series of T-intersections.

**Option:**

14 The BEGIN ONE WAY (R6-6) sign (see Figure 2B-13) may be used to notify road users of the beginning point of a one direction of travel restriction on the street or roadway. The END ONE WAY (R6-7) sign (see Figure 2B-13) may be used to notify road users of the ending point of a one direction of travel restriction on the street or roadway.

**Option:**

15 Authorities in charge of any highway may designate, by ordinance or resolution, any roadway, part of a roadway, or specific lanes for one-way traffic. Refer to CVC 21657.

**Standard:**

**16 No such ordinance shall be effective with respect to a State highway until approved by the Department of Transportation.**

**Option:**

17 If, by local ordinance, a State highway through a city has been made one of a pair of one-way streets, the Commission may adopt the additional street into the State Highway System. Refer to Streets and Highways Code Section 111.5. See Section 1A.11 for information regarding this publication.

18 On streets and highways under local jurisdiction where medians are less than 30 feet wide, raised or unpaved, the R6-1 signs may be placed in the median.

*Guidance:*

*19 The appropriate height of the R6-1 signs when placed in the median should be 1.5 feet.*

*20 The R6-1 signs should also be placed parallel to the one-way street at the appropriate far corner to a wrong-way turn. They should also be placed opposite the exits from alleys and other public ways.*

**Standard:**

**21 At intersections and ramps, the R6-1 signs shall be placed as provided in Section 2E.53.**

**Option:**

22 The ONE WAY (R6-2) sign may be used as an alternative to the R6-1 sign where space is limited and the R6-2 sign is more appropriate.

*Guidance:*

*23 At intersections where the left-turn lane treatment results in channelized offset left-turn lanes (e.g., a parallel or tapered left-turn lane between two medians), the size of the ONE WAY (R6-1, R6-2) signs, if used, should be of the next higher roadway classification, if feasible, as shown in Table 2B-1, to reduce the potential for wrong-way maneuvers by drivers turning left from a stop-controlled, intersecting minor roadway.*

*24 Hence, per this offset left-turn lanes scenario, if the type of roadway is a conventional road, the R6-1 sign size used, if feasible, should be from the expressway column as 54 x 18 inch, not the 36 x 12 inch size in the conventional road column.*

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

**Standard:**

**01 At interchange exit ramp terminals where the ramp intersects a crossroad in such a manner that wrong-way entry could inadvertently be made, the following signs shall be used (see Figure 2B-18):**

**A. At least one ONE WAY sign for each direction of travel on the crossroad shall be placed where the exit ramp intersects the crossroad.**

**~~B. At least one DO NOT ENTER sign shall be conspicuously placed near the downstream end of the exit ramp in positions appropriate for full view of a road user starting to enter wrongly from the crossroad.~~**

**~~C. At least one WRONG WAY sign shall be placed on the exit ramp facing a road user traveling in the wrong direction.~~**

*Guidance:*

*<sup>02</sup> In addition, the following pavement markings should be used (see Figure 2B-18):*

- A. On two-lane paved crossroads at interchanges, double solid yellow lines should be used as a center line for an adequate distance on both sides approaching the ramp intersections.*
- B. Where crossroad channelization or ramp geometrics do not make wrong-way movements difficult, a lane-use arrow should be placed in each lane of an exit ramp near the crossroad terminal where it will be clearly visible to a potential wrong-way road user.*

*Option:*

<sup>03</sup> The following traffic control devices may be used to supplement the signs and pavement markings described in Paragraphs 1 and 2:

- A. Additional ONE WAY signs may be placed, especially on two-lane rural crossroads, appropriately in advance of the ramp intersection to supplement the required ONE WAY sign(s).
- B. Additional WRONG WAY signs may be used.
- C. Slender, elongated wrong-way arrow pavement markings (see Figure ~~3B-24~~ 3B-24(CA)) intended primarily to warn wrong-way road users that they are traveling in the wrong direction may be placed upstream from the ramp terminus (see Figure 2B-18) to indicate the correct direction of traffic flow. Wrong-way arrow pavement markings may also be placed on the exit ramp at appropriate locations near the crossroad junction to indicate wrong-way movement. The wrong-way arrow markings may consist of pavement markings or bidirectional red-and-white raised pavement markers or other units that show red to wrong-way road users and white to other road users (see Figure ~~3B-24~~ 3B-24(CA)).
- D. Lane-use arrow pavement markings may be placed on the exit ramp and crossroad near their intersection to indicate the permissive direction of flow.
- E. Freeway entrance signs (see Section 2D.46) may be used.

*Guidance:*

~~*<sup>04</sup> On interchange entrance ramps where the ramp merges with the through roadway and the design of the interchange does not clearly make evident the direction of traffic on the separate roadways or ramps, a ONE WAY sign visible to traffic on the entrance ramp and through roadway should be placed on each side of the through roadway near the entrance ramp merging point as illustrated in Figure 2B-19.*~~

*Option:*

<sup>05</sup> At locations where engineering judgment determines that a special need exists, other standard warning or prohibitive methods and devices may be used as a deterrent to the wrong-way movement.

<sup>06</sup> Where there are no parked cars, pedestrian activity or other obstructions such as snow or vegetation, and if an engineering study indicates that a lower mounting height would address wrong-way movements on freeway or expressway exit ramps, a DO NOT ENTER sign(s) and/or a WRONG WAY sign(s) that is located along the exit ramp facing a road user who is traveling in the wrong direction may be installed at a minimum mounting height of 3 feet, measured vertically from the bottom of the sign to the elevation of the near edge of the pavement.

*Support:*

<sup>07</sup> Section ~~2B.41~~ 2B.42 contains further information on signing to avoid wrong-way movements at at-grade intersections on expressways.

**Standard:**

<sup>08</sup> **The DO NOT ENTER (R5-1) sign and WRONG WAY (R5-1a) sign shall be used at the exit end of a one-way road, ramp or other similar locations to inform motorists that an entrance thereto is prohibited.**

<sup>09</sup> **The R5-1 and the R5-1a signs shall be placed in the head-on position to a wrong-way movement.**

*Option:*

<sup>10</sup> The DO NOT ENTER (R5-1) and WRONG WAY (R5-1a) signs (see Figure 2B-11), may be used as Activated Blank-Out signs (see Figure 2B-11(CA)) for controlling reversible lanes and for prohibiting turns into reversible lanes.

<sup>11</sup> The R5-1 and R5-1a Activated Blank-Out signs may also be used to supplement static R5-1 and R5-1a signs.

**Standard:**

<sup>12</sup> **If used for controlling reversible lanes and for prohibiting turns into reversible lanes, the R5-1 and R5-1a Activated Blank-Out signs shall be used in two sets.**

*Guidance:*

*13 At least one set of R5-1 and R5-1a signs should be visible from each decision point on each likely wrong-way approach.*

*Support:*

*14 See section 2E.53 for wrong-way traffic control at interchange ramps and Figures 2B-12(CA) and 3B-14(CA) for examples of signs and lane reduction markings.*

*Guidance:*

*15 On multilane roadways, a minimum size of 36 x 36 inch should be used for the DO NOT ENTER (R5-1) sign.*

*16 At intersections where the left-turn lane treatment results in channelized offset left-turn lanes (e.g., a parallel or tapered left-turn lane between two medians), the size of the DO NOT ENTER (R5-1) sign or WRONG WAY (R5-1a) sign, if used, should be of the next higher roadway classification, if feasible, as shown in Table 2B-1, to reduce the potential for wrong-way maneuvers by drivers turning left from a stop-controlled, intersecting minor roadway.*

*17 Hence, per this offset left-turn lanes scenario, if the type of roadway is a conventional road, the R5-1 sign size used, if feasible, should be from the expressway column as 36 x 36 inch, not the 30 x 30 inch size in the conventional road (single lane) column.*

*Support:*

*18 Ramp terminal signing serves two important functions:*

- 1. A link in the guidance system for traffic moving from the conventional roadway to the freeway.*
- 2. Information to prevent a driver from getting into a wrong-way driving situation.*

*19 Freeway Entrance package is a vertical arrangement of FREEWAY ENTRANCE (G92(CA)) sign, route shield, cardinal direction, and arrow signs on a single post in which the G92(CA) sign is on top and the arrow is on the bottom.*

*20 Do Not Enter package is a DO NOT ENTER (R5-1) sign with a WRONG WAY (R5-1a) sign directly beneath it on a single post.*

*Guidance:*

*21 Ramp terminal signs should be placed within the area normally illuminated by automobile headlights. Ambient lighting in the vicinity of the signs should also be considered.*

*22 In order to be most responsive to headlights, the Do Not Enter and Freeway Entrance packages should be mounted with the bottom of the lower sign 2 feet above the edge of the pavement. The ONE WAY (R6-1) signs should be mounted at 1.5 feet above the edge of pavement.*

*Support:*

*23 This will generally ensure that these arrows are low enough that they will not be a sight restriction to the right-way traffic.*

**Standard:**

**24 Standard mounting height for all other signs in the ramp terminal area shall remain at 5 feet.**

*Option:*

*25 In locations subject to deep snow, sign heights may be adjusted in accordance with engineering judgment.*

*Guidance:*

*26 If installed, the pedestrian prohibition (R5-10a and R5-10c) signs should be placed far enough up the ramp to avoid conflict with signs near the terminal.*

*Support:*

*27 The sign locations shown in Figure 2B-18(CA) are approximate.*

*Guidance:*

*28 All ramp terminals should be reviewed under both day and night conditions by experienced signing personnel to determine exact locations.*

**Standard:**

**29 At least two large painted pavement arrows shall be placed and maintained in the center of each lane of each exit ramp. At least one Type I arrow, not less than 18 feet in length, shall be positioned in the center of each freeway entrance ramp. Refer to Section 3B.20.**

**On-Ramp Terminal Signing**

*Support:*

*30 Lead-in signing directing motorists to on-ramps is important. Care should be taken to ensure that arrows on direction signs couldn't be interpreted as pointing into inappropriate roadways, especially off-ramp terminals.*

<sup>31</sup> Partial interchanges may need special attention with respect to lead-in signing. Trailblazing a route from a partial interchange to another interchange may be necessary to ensure proper traffic movements.

*Guidance:*

<sup>32</sup> *Freeway Entrance packages should be placed as near the diverge point between the on-ramp and the intersecting roadway as practicable. The down diagonal arrow should always point toward the onramp pavement.*

<sup>33</sup> *Large Freeway Entrance signs should be used with the Freeway Entrance package unless proper placement requires the smaller Freeway Entrance signs.*

### **Off-Ramp Terminal Signing**

**Standard:**

<sup>34</sup> **The Turn Prohibition signs (See Section 2B.18) shall be placed in suitable locations on the crossing street in advance of the off-ramp.**

*Guidance:*

<sup>35</sup> *The Do Not Enter packages should be placed at off-ramp terminals to meet the following criteria:*

- A. *At least one package should be visible to a driver (within the scope of his headlights) at his decision point on each potential approach.*
- B. *At least one package should be in the head-on position for the driver turning into the off-ramp from each potential approach.*

<sup>36</sup> *A field decision should be made on whether to use three Do Not Enter packages or four if the off-ramp is split by a traffic island.*

*Support:*

<sup>37</sup> *Generally, curbed islands larger than 1000 feet<sup>2</sup> in area indicate the use of four packages. Painted islands can be somewhat larger and still be adequately signed with three packages. Refer to Figure 2B-18(CA) Sheets 3, 4 and 5.*

*Guidance:*

<sup>38</sup> *The ONE WAY (R6-1) signs should be placed as close to the crossing street as possible. If there are sidewalks immediately adjacent to the cross street, these signs should be located behind the sidewalk to avoid conflicting with pedestrians.*

*Support:*

<sup>39</sup> *A less desirable alternate is relocating the signs above the pedestrian level.*

*Guidance:*

<sup>40</sup> *At skewed ramp intersections, where the angle approaches 90°, a second ONE WAY (R6-1) sign should be added on the obtuse side when it would be visible to approaching traffic. Refer to Figure 2B-18(CA) Sheet 1.*

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

**Standard:**

<sup>01</sup> **On unsignalized minor-street approaches from which both left turns and right turns are permitted onto a divided highway that has a median width at the intersection itself of 30 feet or more, except as provided in Paragraph 2, a Divided Highway Crossing (R6-3 or R6-3a) sign (see Figure 2B-13) shall be used to advise road users that they are approaching an intersection with a divided highway (see Figure 2B-15).**

*Option:*

<sup>02</sup> *If the divided highway that has a median width at the intersection itself of 30 feet or more has a traffic volume of less than 400 AADT and a speed limit of 25 mph or less, the Divided Highway Crossing signs facing the unsignalized minor-street approaches may be omitted.*

<sup>03</sup> *A Divided Highway Crossing sign may be used on signalized minor-street approaches from which both left turns and right turns are permitted onto a divided highway to advise road users that they are approaching an intersection with a divided highway.*

**Standard:**

<sup>04</sup> **If a Divided Highway Crossing sign is used at a four-legged intersection, the R6-3 sign shall be used. If used at a T-intersection, the R6-3a sign shall be used.**

<sup>05</sup> **The Divided Highway Crossing sign shall be located on the near right corner of the intersection, mounted beneath a STOP or YIELD sign or on a separate support.**

**Option:**

<sup>06</sup> An additional Divided Highway Crossing sign may be installed on the left-hand side of the approach to supplement the Divided Highway Crossing sign on the near right corner of the intersection.

**Guidance:**

<sup>07</sup> *At intersections where the left-turn lane treatment results in channelized offset left-turn lanes (e.g., a parallel or tapered left-turn lane between two medians), the size of the Divided Highway Crossing (R6-3, R6-3a) signs, if used, should be of the next higher roadway classification, if feasible, as shown in Table 2B-1, to reduce the potential for wrong-way maneuvers by drivers turning left from a stop-controlled, intersecting minor roadway.*

<sup>08</sup> *Hence, per this offset left-turn lanes scenario, if the type of roadway is a conventional road, the R6-3 sign size used, if feasible, should be from the expressway column as 36 x 30 inch, not the 30 x 24 inch size in the conventional road column.*

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

**Guidance:**

<sup>01</sup> *Where the central island of a roundabout allows for the installation of signs, Roundabout Directional Arrow (R6-4 series) signs (see Figure 2B-20) should be used in the central island to direct traffic counter-clockwise around the central island, except as provided in Paragraph 11 in Section 2B.40.*

**Standard:**

<sup>02</sup> **The R6-4 sign shall be a horizontal rectangle with two black chevron symbols pointing to the right on a white background. The R6-4a sign shall be a horizontal rectangle with three black chevron symbols pointing to the right on a white background. The R6-4b sign shall be a horizontal rectangle with four black chevron symbols pointing to the right on a white background. No border shall be used on the Roundabout Directional Arrow signs.**

<sup>03</sup> **Roundabout Directional Arrow signs shall be used only at roundabouts and other circular intersections.**

**Guidance:**

<sup>04</sup> *When used on the central island of a roundabout, the mounting height of a Roundabout Directional Arrow sign should be at least 4 feet, measured vertically from the bottom of the sign to the elevation of the near edge of the traveled way.*

**Option:**

<sup>05</sup> More than one Roundabout Directional Arrow sign and/or R6-4a or R6-4b signs may be used facing high-speed approaches, facing approaches with limited visibility, or in other circumstances as determined by engineering judgment where increased sign visibility would be appropriate.

**Section 2B.44 Roundabout Circulation Plaque (R6-5P)**

**Guidance:**

<sup>01</sup> *Where the central island of a roundabout does not provide a reasonable place to install a sign, Roundabout Circulation (R6-5P) plaques (see Figure 2B-20) should be placed below the YIELD signs on each approach.*

**Option:**

<sup>02</sup> At roundabouts where Roundabout Directional Arrow signs and/or ONE WAY signs have been installed in the central island, Roundabout Circulation plaques may be placed below the YIELD signs on approaches to roundabouts to supplement the central island signs.

<sup>03</sup> The Roundabout Circulation plaque may be used at any type of circular intersection.

**Section 2B.45 Examples of Roundabout Signing**

**Support:**

<sup>01</sup> Figures 2B-21 through 2B-23 illustrate examples of regulatory and warning signing for roundabouts of various configurations.

<sup>02</sup> Section 2D.38 contains information regarding guide signing at roundabouts and Chapter 3C contains information regarding pavement markings at roundabouts.

## **Section 2B.46 Parking, Standing, and Stopping Signs (R7 and R8 Series)**

### Support:

<sup>01</sup> Signs governing the parking, stopping, and standing of vehicles cover a wide variety of regulations, and only general guidance can be provided here. The word “standing” when used on the R7 and R8 series of signs refers to the practice of a driver keeping the vehicle in a stationary position while continuing to occupy the vehicle. CVC Section 463 defines “parking”, which involves the standing of a vehicle, whether occupied or not. However, the temporary loading or unloading of merchandise or passengers is not considered parking. CVC Section 587 defines “stopping”, which involves the cessation of vehicle movement. Typical examples of parking, stopping, and standing loading signs and plaques (see are shown in Figures 2B-24, 2B-24(CA) and 2B-25.) are as follows:

- ~~1. NO PARKING ANY TIME (R7-1);~~
- ~~2. NO PARKING X:XX AM TO X:XX PM (R7-2, R7-2a);~~
- ~~3. NO PARKING EXCEPT SUNDAYS AND HOLIDAYS (R7-3);~~
- ~~4. NO STANDING ANY TIME (R7-4);~~
- ~~5. XX HOUR PARKING X:XX AM — X:XX PM (R7-5);~~
- ~~6. NO PARKING LOADING ZONE (R7-6);~~
7. NO PARKING BUS STOP (R7-7, R7-107, R7-107a);
- ~~8. RESERVED PARKING for persons with disabilities (R7-8);~~
- ~~9. VAN ACCESSIBLE (R7-8P);~~
10. Pay Station (R7-20);
- ~~11. Pay Parking (R7-21, R7-21a, R7-22);~~
- ~~12. Parking Permitted X:XX AM TO X:XX PM (R7-23);~~
- ~~13. Parking Permitted XX HOUR(S) XX AM — XX PM (R7-23a);~~
14. XX HR PARKING X:XX AM TO X:XX PM (R7-108);
- ~~15. NO PARKING ANYTIME/XX HOUR PARKING X:XX AM — X:XX PM (R7-200, R7-200a);~~
- ~~16. TOW AWAY ZONE (R7-201P, R7-201aP);~~
- ~~17. THIS SIDE OF SIGN (R7-202P);~~
18. EMERGENCY SNOW ROUTE NO PARKING IF OVER XX INCHES (R7-203);
- ~~19. NO PARKING ON PAVEMENT (R8-1);~~
- ~~20. NO PARKING EXCEPT ON SHOULDER (R8-2);~~
- ~~21. No Parking (R8-3, R8-3a);~~
- ~~22. EXCEPT SUNDAYS AND HOLIDAYS (R8-3bP);~~
- ~~23. ON PAVEMENT (R8-3cP);~~
- ~~24. ON BRIDGE (R8-3dP);~~
- ~~25. ON TRACKS (R8-3eP);~~
- ~~26. EXCEPT ON SHOULDER (R8-3fP);~~
- ~~27. LOADING ZONE (R8-3gP);~~
- ~~28. X:XX AM TO X:XX PM (R8-3hP);~~
29. EMERGENCY PARKING ONLY (R8-4);
30. NO STOPPING ON PAVEMENT (R8-5);
31. NO STOPPING EXCEPT ON SHOULDER (R8-6); and
32. EMERGENCY STOPPING ONLY (R8-7).

<sup>02</sup> Refer to CVC 21112 through 22658 regarding the authorities for the various parking, stopping and loading signs.

### **Parking Regulations**

#### Option:

<sup>03</sup> Parking on freeway which have full control of access and no crossing at grade may be prohibited under CVC 21960.

<sup>04</sup> Parking on other State highways may be restricted or prohibited under CVC 22505 and 22506.

#### Support:

<sup>05</sup> The Department of Transportation's District Director is authorized to issue orders prohibiting or restricting the parking of vehicles on State highways. The District Director is also authorized to approve ordinances or resolutions of local authorities prohibiting or restricting parking on State highways.

<sup>06</sup> The delegation of maintenance activities to local authorities is usually exercised under the authority of Streets and Highways Code Section 130. Under a proposal to delegate maintenance and parking regulation authority under CVC Section

22506, the Department retains the authority to regulate parking under the three conditions specified in CVC Section 22505(a). The District Director of Transportation is authorized to make this delegation of authority.

### **Policy on Parking Restrictions**

#### **Guidance:**

*07 No Stopping Any Time – Stopping should be prohibited at locations where the prohibition would reduce the risk of collisions or where parking would unduly interfere with the movement of traffic.*

*08 No Parking Anytime – Parking should be prohibited at locations where the prohibition is necessary to accommodate other activities and objectives, such as street sweeping, snow removal, public safety or preferential parking.*

#### **Option:**

09 Major factors that may be considered for No Stopping Anytime include:

- Narrow roadway width.
- Restricted visibility at intersections for pedestrian and vehicular traffic.
- Narrow shoulder width.
- Conversion of a parking lane to a through lane or right-turn lane.

#### **Support:**

10 Limited Time Parking - The Department of Transportation does not issue orders for limited time parking.

#### **Option:**

11 On State highways, limited time parking restrictions may be initiated by local authorities and approved by the Department. Parking prohibitions between certain hours may also be initiated by local authorities.

#### **Standard:**

12 **Before time limit parking regulations are approved in rural areas, law enforcement agency shall be consulted.**

### **Special Signs**

#### **Option:**

13 The OK TO PARK ON BRIDGE (R22(CA)) sign may be used to inform motorists that parking is permitted on a bridge. Refer to CVC 22500(k).

#### **Guidance:**

*14 The PARK PARALLEL (R24(CA)) sign should only be used where diagonal parking is prevalent, in violation of CVC 22502.*

#### **Standard:**

15 **The SCHOOL BUS ONLY w/ Double Arrow (R24A(CA)), TAXICAB ONLY w/ Double Arrow (R24B(CA)) and TOUR BUS ONLY w/ Double Arrow (R24C(CA)) signs shall be used to inform motorists of location of stands for use by school buses, taxicabs and tour buses, respectively. Refer to CVC 21112.**

16 **The MAIL DEPOSIT ONLY w/ Double Arrow (R24D(CA)) sign shall be used to inform motorists of curb restrictions at locations for depositing mail in an adjacent mailbox. Refer to CVC 21458(a)(3)(B).**

17 **The BLOCK WHEELS TO CURB (R24E(CA)) sign shall be used to inform motorists when parking on a hill to block the wheels of the vehicle by turning them against the curb, or by other means, when leaving it to stand unattended upon any grade exceeding 3 percent. Refer to CVC 22509.**

#### **Option:**

18 The PARK OFF PAVEMENT (R25(CA)) sign may be used where it is likely that vehicles may stop on the traveled way and interfere with through traffic. It may also be used as a temporary sign in snow areas where parking is permitted.

#### **Standard:**

19 **The LOADING ONLY 7AM TO 6PM EXCEPT SUNDAY 30 MINUTE LIMIT w/ Double Arrow (R25A(CA)) sign shall be used to inform motorists of curb restrictions at locations for loading or unloading passengers or freight for the time as specified by local ordinance. Refer to CVC 21458(a)(2).**

20 **The following signs shall be used to inform motorists of curb restrictions at locations for loading or unloading of passengers for the time as specified by local ordinance. Refer to CVC 21458(a)(3)(A).**

- **Passenger Loading ONLY 5 MINUTE LIMIT w/ Double Arrow (R25B(CA)) sign**
- **PASSENGER LOADING ONLY 5 MINUTE LIMIT w/ Double Arrow (R25C(CA)) sign**
- **School Passenger Loading ONLY 7AM TO 4PM SCHOOL DAYS 5 MINUTE LIMIT w/ Double Arrow (R25D(CA)) sign**
- **PASSENGER LOADING ONLY 7AM TO 4PM SCHOOL DAYS 5 MINUTE LIMIT w/ Double Arrow (R25E(CA)) sign**

- **School Bus Passenger Loading ONLY w/ Double Arrow (R25F(CA)) sign**
- **Tour Bus Passenger Loading ONLY w/ Double Arrow (R25H(CA)) sign**

**21 The CAR SHARE PARKING ONLY PERMIT REQUIRED w/ Double Arrow (R25J(CA)) sign shall be used to designate certain streets or portions of streets for the exclusive parking privilege of vehicles participating in a car share vehicle program or ridesharing program. Refer to CVC 22507.1.**

Option:

**22 The NO PARKING ANY TIME with arrow (R28(CA)) or without arrow (R26(CA)) signs may be used to inform motorists of a parking prohibition at a specific location. The NO PARKING ANY TIME with arrow (R28A(CA)) or without arrow (R26A(CA)) signs may be used where a larger size is desirable.**

**23 CVC Section 21718 prohibits the stopping, parking or leaving of any vehicle upon a freeway. Large NO PARKING ANY TIME (R26(CA)) or EMERGENCY PARKING ONLY (R8-4) signs may be installed on freeways which have full control of access and no crossing at grade to inform traffic that stopping, parking or leaving of any vehicle upon a freeway is prohibited.**

**24 The Tow-Away No Parking (R26K(CA)) sign may be used to inform motorists of a parking prohibition and tow-away zone at a specific location.**

**25 The NO STOPPING FIRE LANE (R26F(CA)) sign may be used to inform motorists of a designated fire lane. Refer to CVC 22500.1.**

**Standard:**

**26 The NO STOPPING ANY TIME (R26(S)(CA)) sign or Tow-Away NO STOPPING ANY TIME (R26L(CA)) sign shall be used to inform motorists of a No Stopping Zone at a specific location where red curb marking is not used.**

**27 The Tow-Away NO STOPPING 4 TO 6 PM (R107(CA)) sign in a tow-away zone shall be used to inform motorists of a stopping restriction at a specific location during specific hours.**

**28 In zones where vehicles can be towed for violating the posted prohibition restriction, the "Tow-Away" message or symbol shall be used. Where the "Tow-Away" symbol is used in a 12-inch width format, it shall be as shown in the R26K(CA) sign. When it is used in an 18-inch width format, it shall be shown in the R107(CA) sign.**

Option:

**29 The NO STOPPING ANY TIME (R26A(S) (CA)) sign may be used where a larger size is desirable.**

**30 The NO PARKING ON BRIDGE (R27(CA)) sign may be used only where parking is prevalent in violation of CVC 22500(k). The NO PARKING ON BRIDGE (R27A(CA)) sign may be used where a larger size is desirable.**

**31 The NO STOPPING ANY TIME with arrow (R28(S)(CA)) sign may be used to inform motorists of no stopping zones. Use only where the beginning and ending points of the prohibition are not otherwise indicated. The NO STOPPING ANY TIME with arrow (R28A(S)(CA)) sign may be used where a larger size is desirable.**

**Standard:**

**32 The NO STOPPING BUS ONLY w/ Arrow (R28C(CA)) sign shall be used to inform motorists of no stopping zones at bus stops.**

**33 On State highways, the NO PARKING VEHICLES OVER 6' HIGH w/ Double Arrow (R28D(CA)) or NO STOPPING VEHICLES OVER 6' HIGH w/ Double Arrow (R28D(S)(CA)) sign shall be used to inform motorists of a parking or stopping prohibition, which applies only to vehicles 6 feet or more in height. Refer to CVC 22505.**

Option:

**34 The R28D(CA) or R28D(S)(CA)) sign may be installed within 100 feet of an intersection to improve the visibility of the motorists in accordance with CVC 22507, except where parking would obstruct the applicable sight distance as determined by a qualified engineer.**

**Standard:**

**35 The NO PUBLIC PARKING SUBJECT TO CITATION AND REMOVAL AT OWNER'S EXPENSE (R28E(CA)) sign shall be used to inform motorists of a parking prohibition on private property. Refer to CVC 22658.**

**36 The No Parking VEHICLES OVER 5 TONS (R28F(CA)) sign shall be used to inform motorists of a parking prohibition in a residential district for commercial vehicles having a manufacturer's gross vehicle weight rating of 5 tons or more. Refer to CVC 22507.5.**

**37 The No Stopping/No Parking Specific Hours (R29(CA)) sign shall be used to inform motorists of a stopping and parking prohibition during certain hours at a specific location.**

**38 The No Parking Specific Hours (R30(CA) and R30A(CA)) signs shall be used to inform motorists of a parking restriction during certain hours at a specific location.**

**39 The No Parking 10AM TO 12 PM WEDNESDAY STREET SWEEPING (R30B(CA)) sign shall be used to inform motorists of a parking prohibition for the purpose of street sweeping. Refer to CVC 22507.6.**

**40 The No Parking 2AM TO 6AM EXCEPT BY PERMIT (R30C(CA)) or No Parking 2AM TO 6 AM CITYWIDE EXCEPT BY PERMIT (R30D(CA)) sign shall be used to inform motorists of a parking prohibition between the hours of 2 a.m. and 6 a.m. Refer to CVC 22507.5.**

*Guidance:*

*41 When used, the R30D(CA) sign should be posted below the City Limit (G9-5(CA)) sign or downstream from a freeway off-ramp. Refer to CVC 22507.5.*

**Standard:**

**42 The No Parking w/Double Arrow (R30E(CA)) sign shall be used to inform motorists of a parking restriction at a specific location.**

**43 The No Stopping Specific Hours School Days (R30F(CA)) sign shall be used to inform motorists of a stopping prohibition during certain hours at a specific location in a school zone area.**

*Option:*

*44 The No Parking/Parking Specific Hours (R31(CA) and R32B(CA)) and No Stopping/Parking Specific Hours (R31(S)(CA)) signs may be used to inform motorists of a stopping/parking prohibition during certain hours and a parking time limit during other hours at a specific location. The R31(S)(CA) sign is used for stopping prohibitions, generally during peak traffic hours.*

*45 The Limited Hour/Minute Parking Specific Hours (R32(CA)) sign may be used to inform motorists of a parking time limit with specific hours and/or minutes during certain hours at a specific location.*

**Standard:**

**46 The 2 HOUR PARKING 8AM TO 6 PM DISTRICT 7 PERMITS EXEMPT (R32C(CA)) sign or 30 MINUTE PARKING 2AM TO 6 AM DISTRICT 3 PERMITS EXEMPT (R32D(CA)) sign shall be used to inform motorists of a parking time limit designation of certain streets upon which preferential parking privileges are given to residents and merchants adjacent to the streets for their use, under which the residents and merchants can be issued a permit or permits that exempt them from the prohibition or restriction. Refer to CVC 22507.**

**47 A combined 2 HOUR PARKING 8AM TO 4 PM – PASSENGER LOADING ONLY 4PM TO MIDNIGHT 5 MINUTE LIMIT w/ Double Arrow (R32E(CA)) sign shall be used to inform motorists of a parking time limit with specific hours and of curb restrictions at locations for loading or unloading of passengers for the time as specified by local ordinance. Refer to CVC 21458(a)(3)(A).**

**48 The 2 HOUR PARKING 8AM TO 6 PM MOTORCYCLE PARKING ONLY w/ Double Arrow (R32F(CA)) sign shall be used to inform motorists of a parking time limit with specific hours for motorcycles. Refer to CVC 22503.5.**

*Option:*

*49 The Tow-Away No Stopping/No Parking Specific Hours (R37(CA)) sign may be used to inform motorists of no stopping and parking prohibitions and tow-away zone at a specific location.*

*50 The Tow-Away No Parking/Limited Hour Parking Specific Hours (R38(CA)) sign may be used to inform motorists of a parking restriction and tow-away zone at a specific location.*

*51 The Tow-Away No Stopping/Limited Hour Parking Specific Hours (R38(S)(CA)) sign may be used for stopping prohibitions, generally during peak hours.*

**Support**

*52 Local agencies are allowed to adopt, by resolution or ordinance, the restriction of parking and the impounding of vehicles for sale, subject to the requirements of CVC Section 22651.9. Under these requirements, a vehicle can be impounded if a parking violation was received within the last 30 days and a warning was issued.*

*Option:*

*53 The No Parking of Vehicles for Sale (R108(CA)) signs may be posted to inform motorists that the parking of vehicles for sale is prohibited and that vehicles may be impounded, as prescribed in CVC Section 22651.9, and as authorized by a local ordinance or resolution.*

*Guidance:*

<sup>54</sup> If used, the applicable municipal code or county code should be shown on the R108(CA) signs to assist enforcement personnel in identifying the appropriate parking infraction, due to the special requirements prescribed in CVC Section 22651.9.

**Standard:**

<sup>55</sup> **The combined TOW-AWAY NO STOPPING 7AM TO 9 AM - PASSENGER LOADING ONLY ALL OTHER TIMES 5 MINUTE LIMIT w/ Double Arrow (R38A(CA)) sign shall be used to inform motorists of no stopping and parking prohibitions and tow-away zone at a specific location during specific hours and of curb restrictions at locations for loading or unloading of passengers for the time as specified by local ordinance. Refer to CVC 21458(a)(3)(A).**

*Option:*

<sup>56</sup> The NO PARKING OF COMMERCIAL VEHICLES EXCEPT BY PERMIT (R39(CA)) sign may be used on any roadway in which local ordinance or resolution per CVC Section 22505 and 22507 has been established to prohibit parking of commercial vehicles.

**Standard:**

<sup>57</sup> **If used, the R39(CA) sign shall be used to identify only those street or highway locations, either State or local, upon which parking of commercial vehicles is prohibited, except by permit, as established by the local ordinance or resolution.**

<sup>58</sup> **The NO DOUBLE PARKING ANYTIME COMMERCIAL VEHICLES INCLUDED (R39-1(CA) or R39-2(CA)) sign shall be used to inform motorists of a parking prohibition in a business district for commercial vehicles where a local agency has adopted an ordinance per CVC 22502(c).**

*Option:*

<sup>59</sup> The NO IDLING COMMERCIAL VEHICLES AND ALL BUSES SR62(CA) or NO IDLING All Buses and Commercial Vehicles SR63(CA) symbol sign may be placed to remind commercial vehicle operators that idling is prohibited for commercial vehicles and all buses for a duration greater than 5 minutes.

*Support:*

<sup>60</sup> Refer to California Code of Regulations, Title 13, Division 3, Chapter 10, Article 1, Sections 2480 and 2485 which prohibits unnecessary idling of commercial vehicles and all buses.

**Standard:**

<sup>61</sup> **If used, the NO IDLING COMMERCIAL VEHICLES AND ALL BUSES (SR62(CA)) sign or NO IDLING All Buses and Commercial Vehicles (SR63(CA)) symbol sign shall be placed in areas where idling commonly occurs.**

**Support:**

<sup>62</sup> **CCR Title 13, Sections 2480 and 2485, of the California Code of Regulations prohibit unnecessary idling of commercial vehicles and all buses for a duration greater than 5 minutes. The sign locations will be determined by Air Resources Board representatives and officials of the law enforcement agency responsible for enforcement and the jurisdiction who owns the roadway will install the signs.**

<sup>63</sup> **The Accessible Parking Only (R99(CA)) sign in combination with MINIMUM FINE \$250 (R99B(CA)) plaque; or, Accessible Parking Only Minimum Fine \$250 (R99C(CA)) sign shall be used in on-street and off-street parking facilities to designate stalls for vehicles with a special identification license plate or a distinguishing placard for persons with disabilities.**

*Support:*

<sup>64</sup> The R99(CA) sign in combination with the R99B(CA) plaque; or, R99C(CA) sign, blue pavement markings and International Symbol of Accessibility Marking, are required for enforcement of these parking areas. Refer to CVC 22511.7 and 22511.8.

**Standard:**

<sup>65</sup> **The VAN ACCESSIBLE (R7-8b) sign shall be mounted below the Accessible Parking Only (R99(CA)) sign in combination with MINIMUM FINE \$250 (R99B(CA)) plaque; or, Accessible Parking Only Minimum Fine \$250 (R99C(CA)) sign of the parking space for persons with disabilities designated as the van accessible space as provided in the California Building Code Section 1129B.**

Option:

<sup>66</sup> The TOW-AWAY SPECIAL PLACARD OR LICENSE PLATE REQUIRED (R100A(CA)) sign may be used with the R99(CA) sign in combination with the R99B(CA) plaque; or, R99C(CA) sign to inform motorists that their vehicle will be towed away if they do not have a special identification license plate or a distinguishing placard for persons with disabilities.

**Standard:**

<sup>67</sup> **The Disabled Tow-Away (R100B(CA)) sign shall be placed immediately adjacent to, and visible from, the stall or space, or at each entrance to an off street parking facility to inform motorists that their vehicle will be towed away if they park in designated stalls or spaces without a special identification license plate or a distinguishing placard for persons with disabilities. The sign shall include the address where the towed vehicle can be reclaimed and the telephone number of the local traffic law enforcement agency. Refer to CVC 22511.8 and 22511.9.**

Option:

<sup>68</sup> The DISPLAY OF VEHICLES FOR SALE PROHIBITED (SR26(CA)) sign may be used on any roadway in which local ordinance or resolution per Streets and Highway Code, Section 731 has been established to prohibit the display of vehicles for sale.

**Standard:**

<sup>69</sup> **If used, the SR26 (CA) sign shall be used to identify only those street or highway locations, either State or local, upon which display of vehicles for sale is prohibited, as established by the local ordinance or resolution.**

Option:

<sup>70</sup> The TOW-AWAY NO PARKING WHEN SNOW REMOVAL CONDITIONS EXIST (SR49(CA)) sign may be used to prohibit or restrict the parking or standing of vehicles on designated streets or highways, or portions thereof, for the purpose of snow removal. Refer to CVC 22510.

*Guidance:*

<sup>71</sup> *The SNOW NOT REMOVED BEYOND HERE (SR20-1(CA)) sign should be erected at the beginning of the snow season and removed in the spring when the road is opened. The SR20-1(CA) sign should be placed at a location that will provide a motorist the opportunity to turn around.*

Option:

<sup>72</sup> The CHAIN INSTALLATION ONLY (R74(CA)) sign may be erected where parked vehicles interfere with normal winter operations.

*Guidance:*

<sup>73</sup> *The R74(CA) sign should be turned or covered at the end of the chain requirement season.*

**Standard:**

<sup>74</sup> **The CHAINS REQUIRED (X MILE (X MILES)) AHEAD (R75(CA)) sign shall be used to give advance notice that chains are required ahead.**

<sup>75</sup> **The CHAINS REQUIRED (R76(CA)) sign shall be used at the beginning of chain control areas and intermittently as needed.**

Support:

<sup>76</sup> The R76(CA) sign is installed in combination with the Speed Limit (R2-1), R79(CA) and R80(CA) signs.

Option:

<sup>77</sup> The ON SINGLE AXLE DRIVE VEHICLE WITH TRAILER (R76-1(CA)) sign may be used when road conditions are such that only single drive vehicles with trailers need chains.

**Standard:**

<sup>78</sup> **When used, the R76-1(CA) sign shall be mounted below the CHAINS REQUIRED (R76(CA)) sign.**

<sup>79</sup> **The NO EXCEPTIONS (R77(CA)) sign shall be used with the Speed Limit (R2-1) and CHAINS REQUIRED (R76(CA)) signs when chains are required with no exceptions.**

<sup>80</sup> **The END CHAIN CONTROL (R78(CA)) sign shall be used to advise the motorist that the chain control area has ended.**

<sup>81</sup> **The AUTOS & PICKUPS SNOW TIRES OK – CARRY CHAINS (R79(CA)) sign shall be used with the Speed Limit (R2-1) and CHAINS REQUIRED (R76(CA)) signs when chains are required but autos and pickups with snow tires are excepted from using chains.**

**82 The 4-W DRIVE WITH SNOW TIRES OK – CARRY CHAINS (R80-1(CA)) sign shall be used with the Speed Limit (R2-1) and CHAINS REQUIRED (R76(CA)) signs when chains are required.**

Support:

**83 Vehicles with four wheel drive and snow tires on all four wheels are exempt from using chains.**

## **Section 2B.47 Design of Parking, Standing, and Stopping Signs**

Support:

**01 Discussions of parking signs and parking regulations in this Section apply not only to parking, but also to ~~standing~~ loading and stopping.**

**Standard:**

**02 The legend on parking signs shall state applicable regulations. Parking signs (see Figures 2B-24 and 2B-25) shall comply with the standards of shape, color, and location.**

**03 The colors in parking signs shall conform to their associated curb zone colors. Where parking is prohibited at all times or at specific times, the basic design for parking signs shall have a red legend and border on a white background (Parking Prohibition signs), except that the R8-4 and R8-7 signs and the alternate design for the ~~R7-201aP~~ R7-201P plaque shall have a black legend and border on a white background, ~~and the R8-3 sign shall have a black legend and border and a red circle and slash on a white background.~~ Where an exclusive zone is established for passenger loading or mail deposit, the signs shall have a black legend on a white background. Where an exclusive zone is established for freight or passenger loading, the signs shall have a black legend on a yellow background. Where an exclusive zone is established for disabled persons, the signs shall have a white legend on a blue background, as shown on the R99(CA) sign.**

**04 Where only limited-time parking or parking in a particular manner are permitted, the signs shall have a green legend and border on a white background (Permissive Parking signs).**

Guidance:

**05 Parking signs should display the following information from top to bottom of the sign, in the order listed:**

**A. Any tow-away message or symbol.**

~~A.~~ **B. The restriction or prohibition;**

~~B.~~ **C. The times of the day that it is applicable, if not at all hours; and**

~~C.~~ **D. The days of the week that it is applicable, if not every day.**

**E. Qualifying or supplementary information.**

**F. Exemptions to the restriction or prohibition.**

**G. The appropriate municipal or county code on selected signs, when deemed necessary in order to aid enforcement personnel in identifying the appropriate infraction.**

**H. The phone number to call to recover an impounded or towed vehicle.**

**06 If the parking restriction applies to a limited area or zone, the limits of the restriction should be shown by arrows ~~or supplemental plaques~~. If arrows are used and if the sign is at the end of a parking zone, there should be either no arrows or a single-headed arrow pointing in the direction that the regulation is in effect. If the sign is at an intermediate point in a zone, there should be a double-headed arrow pointing both ways. When a single sign is used at the transition point between two parking zones, it should display a right and left arrow pointing in the direction that the respective restrictions apply.**

**07 Where special parking restrictions are imposed during heavy snowfall, Emergency Snow Route (R7-203) signs (see Figure 2B-24) should be installed. The legend will vary according to the regulations, but the signs should be vertical rectangles, having a white background with the upper part of the plate a red background.**

**Standard:**

**08 Where parking spaces that are reserved for persons with disabilities are designated to accommodate wheelchair vans, a VAN ACCESSIBLE (~~R7-8P~~ R7-8b) plaque shall be mounted below the ~~R7-8~~ R99(CA) sign. The ~~R7-8~~ R99(CA) sign (see Figure ~~2B-24~~ 2B-24(CA)) shall have a ~~green~~ blue legend and border and a white wheelchair symbol on a blue square, all on a white background. The ~~R7-8P~~ R7-8b plaque (see Figure ~~2B-24~~ 2B-24(CA)) shall have a ~~green~~ blue legend and border on a white background. Refer to California Code of Regulations Title 24, Section 1129B.4.**

Option:

09 To minimize the number of parking signs, blanket regulations that apply to a given district may, if legal, be posted at district boundary lines.

~~10 As an alternate to the use of arrows to show designated restriction zones, word messages such as BEGIN, END, HERE TO CORNER, HERE TO ALLEY, THIS SIDE OF SIGN, or BETWEEN SIGNS may be used.~~

11 Where parking is prohibited during certain hours and time-limited parking or parking in a particular manner is permitted during certain other time periods, the red Parking Prohibition and green Permissive Parking signs may be designed as follows:

A. Two 12 x 18-inch parking signs may be used with the red Parking Prohibition sign installed above or to the left of the green Permissive Parking sign; or

~~B. The red Parking Prohibition sign and the green Permissive Parking sign may be combined (see Figure 2B-24) to form an R7-200 sign on a single 24 x 18-inch sign, or an R7-200a sign on a single 12 x 30-inch sign.~~

12 At the transition point between two parking zones, a single sign or two signs mounted side by side may be used.

12a On any sign, the words "Tow-Away" may be used interchangeably with the Tow-Away symbol.

13 On any sign, the words NO PARKING may be used as an alternative to the No Parking symbol. The supplemental educational plaque, NO PARKING, with a red legend and border on a white background, may be used above signs incorporating the No Parking symbol.

14 Alternate designs for the R7-107 sign may be developed such as the R7-107a sign (see Figure 2B-24). Alternate designs may include, on a single sign, a transit logo, an approved bus symbol, a parking prohibition, the words BUS STOP, and an arrow. The preferred bus symbol color is black, but other dark colors may be used. Additionally, the transit logo may be displayed on the bus face in the appropriate colors instead of placing the logo separately. The reverse side of the sign may contain bus routing information.

~~15 To make the parking regulations more effective and to improve public relations by giving a definite warning, a TOW AWAY ZONE (R7-201P) plaque (see Figure 2B-24) may be appended to, or incorporated in, any parking prohibition sign. The Tow Away Zone (R7-201aP) symbol plaque may be used instead of the R7-201P word message plaque. The R7-201aP plaque may have either a black or red legend and border on a white background.~~

Guidance:

16 If a fee is charged for parking and a midblock pay station is used instead of individual parking meters for each parking space, pay parking signs should be used. ~~Pay Parking (R7-22) signs~~ The R7-108 and PAY AT STATION (R109(CA)) Plaque (see Figure 2B-24) should be used to define the area where the pay station parking applies. Pay Station (R7-20) signs (see Figure 2B-24) should be used at the pay station or to direct road users to the pay station.

Standard:

17 If the pay parking is subject to a maximum time limit, the appropriate time limit (number of hours or minutes) shall be displayed on the ~~Pay Parking (R7-21 or R7-21a) and Pay Station (R7-20) signs.~~

Option:

~~18 In rural areas (see Figure 2B-25), the legends NO PARKING ON PAVEMENT (R8-1) or NO STOPPING ON PAVEMENT (R8-5) are generally suitable and may be used. If a roadway has paved shoulders, the NO PARKING EXCEPT ON SHOULDER sign (R8-2) or the NO STOPPING EXCEPT ON SHOULDER sign (R8-6) may be used as these signs would be less likely to cause confusion. The R8-3 symbol sign or the word message NO PARKING (R8-3a) sign may be used to prohibit any parking along a given highway. Word message supplemental plaques may be mounted below the R8-3 or R8-3a sign. These word message supplemental plaques may include legends such as EXCEPT SUNDAYS AND HOLIDAYS (R8-3bP), ON PAVEMENT (R8-3cP), ON BRIDGE (R8-3dP), ON TRACKS (R8-3eP), EXCEPT ON SHOULDERS (R8-3fP), LOADING ZONE (with arrow) (R8-3gP), and X:XX AM TO X:XX PM (with arrow) (R8-3hP).~~

19 Colors that are in compliance with the provisions of Section 2A.10 may be used for color coding of parking time limits.

Guidance:

20 If colors are used for color coding of parking time limits, the colors green, red, and black should be the only colors that are used.

## **Section 2B.48 Placement of Parking, Stopping, and Standing Signs**

### *Guidance:*

- 01 *When signs with arrows are used to indicate the extent of the restricted zones, the signs should be set at an angle of not less than 30 degrees or more than 45 degrees with the line of traffic flow in order to be visible to approaching traffic.*
- 02 *Spacing of signs should be based on legibility (see Section 2A.13) and sign orientation (see Section 2A.20).*
- 03 *If the zone is unusually long, signs showing a double arrow should be used at intermediate points within the zone.*

### **Standard:**

- 04 **If the signs are mounted at an angle of 90 degrees to the curb line, two signs shall be mounted back to back at the transition point between two parking zones, ~~each with an appended THIS SIDE OF SIGN (R7-202P) supplemental plaque.~~**

### *Guidance:*

- 05 *If the signs are mounted at an angle of 90 degrees to the curb line, signs without any arrows or appended plaques should be used at intermediate points within a parking zone, facing in the direction of approaching traffic. Otherwise the standards of placement should be the same as for signs using directional arrows.*

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

### **Option:**

- 01 The EMERGENCY PARKING ONLY (R8-4) sign (see Figure 2B-25) or the EMERGENCY STOPPING ONLY (R8-7) sign (see Figure 2B-25) may be used to discourage or prohibit shoulder parking, particularly where scenic or other attractions create a tendency for road users to stop temporarily.

### *Guidance:*

- 02 *The DO NOT STOP ON TRACKS (R8-8) sign (see Figure 8B-1) ~~may~~ should be used to discourage or prohibit parking or stopping on railroad or light rail transit tracks (see Section 8B.09).*

### **Standard:**

- 03 **Emergency Restriction signs shall be rectangular and shall have a red or black legend and border on a white background.**
- 04 **The EMERGENCY PARKING ONLY (R8-4) sign shall be used at the beginning of freeways below the BEGIN FREEWAY (R57(CA)) sign. Refer to CVC 21960.**
- 05 **The BEGIN FREEWAY (R57(CA)) sign (see Figure 2B-255(CA)) shall be used to mark the beginning of a section of freeway on which parking is prohibited.**

### **Support:**

- 06 Position the R57(CA) sign above the EMERGENCY PARKING ONLY (R8-4) sign. Refer to CVC 21960.

### **Standard:**

- 07 **The END FREEWAY (R58(CA)) sign (see Figure 2B-255(CA)) shall be used to mark the end of a freeway.**

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

### **Option:**

- 01 The WALK ON LEFT FACING TRAFFIC (R9-1) sign (see Figure 2B-26) may be used on highways where no sidewalks are provided.

### **Standard:**

- 02 **If used, the WALK ON LEFT FACING TRAFFIC sign shall be installed on the right-hand side of the road where pedestrians walk on the pavement or shoulder in the absence of pedestrian pathways or sidewalks.**

### **Option:**

- 03 The No Hitchhiking (R9-4) sign (see Figure 2B-26) may be used to prohibit standing in or adjacent to the roadway for the purpose of soliciting a ride. The R9-4a word message sign (see Figure 2B-26) may be used as an alternate to the R9-4 symbol sign.

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

**Option:**

01 Pedestrian Crossing signs (see Figure 2B-26) may be used to limit pedestrian crossing to specific locations.

**Standard:**

02 **If used, Pedestrian Crossing signs shall be installed to face pedestrian approaches.**

**Option:**

03 Where crosswalks are clearly defined, the CROSS ONLY AT CROSSWALKS (R9-2) sign may be used to prohibit pedestrians from crossing at locations away from crosswalks.

04 The No Pedestrian Crossing (R9-3) sign may be used to prohibit pedestrians from crossing a roadway at an undesirable location or in front of a school or other public building where a crossing is not designated.

05 The NO PEDESTRIAN CROSSING (R9-3a) word message sign may be used as an alternate to the R9-3 symbol sign. The USE CROSSWALK (R9-3bP) supplemental plaque, along with an arrow, may be installed below either sign to designate the direction of the crossing. [The NO PED CROSSING - USE CROSSWALK \(R49\(CA\)\) Sign may be used as an alternate to the combined R9-3 and R9-3b signs.](#)

**Support:**

06 One of the most frequent uses of the Pedestrian Crossing signs is at signalized intersections that have three crossings that can be used and one leg that cannot be crossed.

**Guidance:**

07 *The R9-3bP plaque should not be installed in combination with educational plaques.*

**Support:**

08 [Refer to CVC 21106.](#)

### **Section 2B.52 Traffic Signal Pedestrian and Bicycle Actuation Signs (R10-1 through R10-4, and R10-24 through R10-26)**

**Standard:**

01 **Traffic Signal signs applicable to pedestrian actuation (see Figure 2B-26) or bicyclist actuation (see Figure 9B-2) shall be mounted immediately above or incorporated into the pushbutton detector units (see Section 4E.08).**

**Support:**

02 Traffic Signal signs applicable to pedestrians include:

- A. CROSS ONLY ON GREEN (symbolic circular green) (R10-1);
- B. CROSS ONLY ON (symbolic walk indication) SIGNAL (R10-2);
- C. Push Button for Walk Signal (R10-3 series); and
- D. Push Button for Green Signal (R10-4 series).

**Option:**

03 The following signs may be used as an alternate for the R10-3 and R10-4 signs:

- A. Push Button to Cross Street Wait for Walk Signal (R10-3a); or
- B. Push Button to Cross Street Wait for Green Signal (R10-4a).

04 The name of the street to be crossed may be substituted for the word STREET in the legends on the R10-3a and R10-4a signs.

**Guidance:**

05 *The finger in the pushbutton symbol on the R10-3, R10-3a, R10-4, and R10-4a signs should point in the same direction as the arrow on the sign.*

**Option:**

06 Where symbol-type pedestrian signal indications are used, an educational sign (R10-3b) may be used instead of the R10-3 sign to improve pedestrian understanding of pedestrian indications at signalized intersections. Where word-type pedestrian signal indications are being retained for the remainder of their useful service life, the legends WALK/ DONT WALK may be substituted for the symbols on the educational sign R10-3b, thus creating educational sign R10-3c. The R10-3d educational sign may be used to inform pedestrians that the pedestrian clearance time is sufficient only for the pedestrian to cross to the median at locations where pedestrians cross in two stages using a median refuge island. The R10-3e educational sign may be used where countdown pedestrian signals have been provided. In order to assist the pedestrian in understanding which pushbutton to push, the R10-

3f to R10-3i educational signs that provide the name of the street to be crossed may be used instead of the R10-3b to R10-3e educational signs.

**Support**

<sup>06a</sup> Pedestrian pushbuttons are used to actuate pedestrian signal timing, to activate accessible pedestrian signals or both. See Section 4E.09 regarding the application of accessible pedestrian signals and detectors.

**Standard**

<sup>06b</sup> **The bottom panels of signs R10-3b through R10-3i shall be eliminated where the pedestrian signal timing is non-actuated and the pedestrian push button is used solely to activate accessible pedestrian signals.**

<sup>07</sup> The R10-24 or R10-26 sign (see Section 9B.11) may be used where a pushbutton detector has been installed exclusively to actuate a green phase for bicyclists.

<sup>08</sup> The R10-25 sign (see Figure 2B-26) may be used where a pushbutton detector has been installed for pedestrians to activate In-Roadway Warning Lights (see Chapter 4N) or flashing beacons that have been added to the pedestrian warning signs.

**Support:**

<sup>09</sup> Section 4E.08 contains information regarding the application of the R10-32P plaque.

**Standard:**

<sup>10</sup> **The PUSH BUTTON FOR PEDESTRIAN WARNING LIGHTS – CROSS WITH CAUTION (R62E(CA)) sign (see Figure 2B-26(CA)) shall be mounted immediately above or incorporated in the pedestrian push button unit where In Roadway Warning Lights are installed and a pedestrian actuated system is used.**

**Section 2B.53 Traffic Signal Signs (R10-5 through R10-30)**

**Option:**

<sup>01</sup> To supplement traffic signal control, Traffic Signal signs R10-5 through R10-30 may be used to regulate road users.

<sup>02</sup> Traffic Signal signs (see Figure 2B-27) may be installed at certain locations to clarify signal control. Among the legends that may be used for this purpose are LEFT ON GREEN ARROW ONLY (R10-5), STOP HERE ON RED (R10-6 ~~or R10-6a~~) for observance of stop lines, DO NOT BLOCK INTERSECTION (R10-7) for avoidance of traffic obstructions, USE LANE(S) WITH GREEN ARROW (R10-8) for obedience to lane-use control signals (see Chapter 4M), LEFT TURN YIELD ON GREEN (symbolic circular green) (R10-12), ~~and LEFT TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27).~~

**Support:**

<sup>02a</sup> Refer to CVC 22526 for the DO NOT BLOCK INTERSECTION (R10-7) sign.

**Option:**

<sup>02b</sup> Where practical, an additional LEFT TURN YIELD ON GREEN (symbolic green ball) (R10-12) sign ((i.e., in addition to the R10-12 sign adjacent to the signal face) along with an AT SIGNAL (R73-9(CA)) supplemental plaque may be used on the approach to the signalized intersection.

**Guidance:**

<sup>02c</sup> *If used, the location of this additional R10-12 sign should be in the raised median at the beginning of the left-turn lane, or be based upon Table 2C-4, or as per engineering judgment.*

<sup>03</sup> *If used, the LEFT ON GREEN ARROW ONLY (R10-5) sign, the LEFT TURN YIELD ON GREEN (symbolic circular green) (R10-12) sign, ~~or the LEFT TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27) sign~~ should be located adjacent to the left-turn signal face.*

**Option:**

<sup>04</sup> If needed for additional emphasis, an additional LEFT TURN YIELD ON GREEN (symbolic circular green) (R10-12) sign with an AT SIGNAL (R10-31P) supplemental plaque (see Figure 2B-27) may be installed in advance of the intersection.

<sup>04a</sup> The LEFT TURN ON GREEN ARROW ONLY – NO U TURN (SR39A(CA)) sign (see Figure 2B-27(CA)) may be used at signalized intersections with separate left turn phases to inform traffic that left turns can only be made on a green arrow in accordance with CVC 21454 and "U" turns are prohibited.

<sup>04b</sup> The LEFT OR U TURN ON GREEN ARROW ONLY (SR39A(U)(CA)) sign (see Figure 2B-27(CA)) may be used at signalized intersections with separate left turn phases to inform traffic that left turns and "U" turns can only be made on a green arrow in accordance with CVC 21454.

05 In situations where traffic control signals are coordinated for progressive timing, the Traffic Signal Speed (I1-1) sign may be used (see Section 2H.03).

**Standard:**

06 **The CROSSWALK STOP ON RED (symbolic circular red) (R10-23) sign (see Figure 2B-27) shall only be used in conjunction with pedestrian hybrid beacons (see Section 4F.02).**

07 **The EMERGENCY SIGNAL (R10-13) sign (see Figure 2B-27) shall be used in conjunction with emergency-vehicle traffic control signals (see Section 4G.02).**

08 **The EMERGENCY SIGNAL—STOP ON FLASHING RED (R10-14 or R10-14a) sign (see Figure 2B-27) shall be used in conjunction with emergency-vehicle hybrid beacons (see Section 4G.04).**

**Option:**

09 In order to remind drivers who are making turns to yield to pedestrians, a Turning Vehicles Yield to Pedestrians (R10-15) sign (see Figure 2B-27) may be used.

~~10 A U-TURN YIELD TO RIGHT TURN (R10-16) sign (see Figure 2B-27) may be installed near the left turn signal face if U-turns are allowed on a protected left turn movement on an approach from which a right turn GREEN ARROW signal indication is simultaneously being displayed to drivers making a right turn from the conflicting approach to their left.~~

**Guidance:**

~~11 The U-TURN YIELD TO RIGHT TURN (R10-16) sign is deleted as this condition should not be practiced. The actual movement conflict should be eliminated rather than try to correct it with this sign.~~

**Section 2B.54 No Turn on Red Signs (R10-11 Series, R10-17a, and R10-30)**

**Standard:**

01 **Where a right turn on red (or a left turn on red from a one-way street to a one-way street) is to be prohibited, a symbolic NO TURN ON RED (symbolic circular red) (R10-11) sign (see Figure 2B-27) or No Right Turn on Red (R13A(CA)) or No Left Turn on Red (R13B(CA)) signs (see Figure 2B-27(CA)) a ~~NO TURN ON RED (R10-11a, R10-11b) word message sign (see Figure 2B-27)~~ shall be used.**

**Support:**

01a Refer to CVC 22101 for the No Turn on Red (R10-11 Series and R13A(CA) and R13B(CA)) signs.

**Guidance:**

02 *If used, the No Turn on Red (R10-11, R13A(CA) or R13B(CA)) sign should be installed near the appropriate signal head.*

03 *A No Turn on Red (R10-11, R13A(CA) or R13B(CA)) sign should be considered when an engineering study finds that one or more of the following conditions exists:*

- A. Inadequate sight distance to vehicles approaching from the left (or right, if applicable);*
- B. Geometrics or operational characteristics of the intersection that might result in unexpected conflicts;*
- C. An exclusive pedestrian phase;*
- D. An unacceptable number of pedestrian conflicts with right-turn-on-red maneuvers, especially involving children, older pedestrians, or persons with disabilities;*
- E. ~~More than three right turn on red accidents reported in a 12-month period for the particular approach; or~~*
- F. The skew angle of the intersecting roadways creates difficulty for drivers to see traffic approaching from their left.*

03a *No Right Turn on Red (R13A(CA)) sign or No Left Turn on Red (R13B(CA)) sign (see Figure 2B-27(CA)) should be used on the near right of skewed intersections where the adjacent approach leg to the left intersects the driver's approach leg at an angle of less than 75 degrees.*

**Option:**

03b *No Right Turn on Red (R13A(CA)) sign or No Left Turn on Red (R13B(CA)) sign (see Figure 2B-27(CA)) may be used on the near right of extremely wide intersections.*

**Guidance:**

03c *When used, the No Right Turn on Red (R13A(CA)) sign should be placed where it will most easily be seen by the driver intending to turn. At least one should be placed overhead, or at a right-hand corner facing approaching traffic.*

*03d When used, the No Left Turn on Red (R13B(CA)) sign should be placed where it will most easily be seen by the driver intending to turn. At least one should be placed overhead, or at a left-hand corner facing approaching traffic.*

Option:

*04 A supplemental R10-20aP plaque (see Figure 2B-27) showing times of day (similar to the S4-1P plaque shown in Figure 7B-1) with a black legend and border on a white background may be mounted below a No Turn on Red (R10-11, R13A(CA) or R13B(CA)) sign to indicate that the restriction is in place only during certain times.*

*05 Alternatively, a blank-out sign may be used instead of a static NO TURN ON RED (symbolic circular red) (R10-11) sign, to display either the NO TURN ON RED legend or the No Right Turn symbol or word message, as appropriate, only at certain times during the day or during one or more portion(s) of a particular cycle of the traffic signal.*

*06 On signalized approaches with more than one right-turn lane, a NO TURN ON RED EXCEPT FROM RIGHT LANE (R10-11c) sign (see Figure 2B-27) may be post-mounted at the intersection or a NO TURN ON RED FROM THIS LANE (with down arrow) (R10-11d) sign (see Figure 2B-27) may be mounted directly over the center of the lane from which turns on red are prohibited.*

Guidance:

*07 Where turns on red are permitted and the signal indication is a steady RED ARROW, the RIGHT (LEFT) ON RED ARROW AFTER STOP (R10-17a) sign (see Figure 2B-27) should be installed adjacent to the RED ARROW signal indication.*

*07a The RIGHT (LEFT) ON RED ARROW AFTER STOP (R10-17a) sign is deleted as it compromises the meaning of the right red arrow. A circular red signal face should be used, instead of correcting the condition with this sign.*

Option:

*08 A RIGHT TURN ON RED MUST YIELD TO U-TURN (R10-30) sign (see Figure 2B-27) may be installed to remind road users that they must yield to conflicting u-turn traffic on the street or highway onto which they are turning right on a red signal after stopping.*

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

**Standard:**

*00 Except as provided in Paragraph 1 below, Traffic Signal PHOTO ENFORCED (SR56(CA)) sign shall be placed at all traffic signals where an automated traffic enforcement system is used.*

Option:

*01 A ~~TRAFFIC LAWS PHOTO ENFORCED (R10-18)~~ or Traffic Signal PHOTO ENFORCED (SR56(CA)) sign (see Figure ~~2B-3~~ 2B-3(CA)) may be installed at a jurisdictional boundary, including all major entrances (at a minimum, freeways, bridges, and state highway routes) to advise road users that some of the traffic regulations within that jurisdiction are being enforced by photographic equipment.*

*01a The RED LIGHT VIOLATION \$ \_\_\_ FINE (SR58(CA)) sign (see Figure 2B-3(CA)) may be used in advance of signalized intersections where a local agency has adopted an ordinance setting a specific fine amount for red light violations within its jurisdiction. The SR58(CA) sign may be placed on State highways when requested by the local agency.*

*02 A ~~Photo Enforced (R10-19P) plaque or a PHOTO ENFORCED (R10-19aP) word message plaque (see Figure 2B-3)~~ may be mounted below a regulatory sign to advise road users that the regulation is being enforced by photographic equipment.*

**Standard:**

*03 ~~If used below a regulatory sign, the Photo Enforced (R10-19P or R10-19aP) plaque shall be a rectangle with a black legend and border on a white background.~~*

Support:

*04 Refer to CVC 21455.5 for Traffic Signal Automated Enforcement: Photographic Records.*

## **Section 2B.56 Ramp Metering Signs (R10-28 and R10-29)**

Support:

*00a For State highways, see Department of Transportation's Ramp Metering Design Manual. See Section 1A.11 for information regarding this publication.*

*00b Refer to Section 2G.102(CA) for regulatory signs for HOV lanes at metered ramps.*

Option:

01 When ramp control signals (see Chapter 4I) are used to meter traffic on a freeway or expressway entrance ramp, regulatory signs with legends appropriate to the control may be installed adjacent to the ramp control signal faces.

~~02 For entrance ramps with only one controlled lane, an XX VEHICLE(S) PER GREEN (R10-28) sign (see Figure 2B-28) may be used to inform road users of the number of vehicles that are permitted to proceed during each short display of the green signal indication. For entrance ramps with more than one controlled lane, an XX VEHICLE(S) PER GREEN Each Lane (R10-29) (see Figure 2B-28) sign may be used to inform road users of the number of vehicles that are permitted to proceed from each lane during each short display of the green signal indication.~~

Option:

03 The 1 CAR (2 CARS) PER GREEN (R89(CA)) or 1 CAR (2 CARS) PER GREEN EACH LANE (R89-1(CA)) or 1 CAR (2 CARS) PER GREEN THIS LANE (R89-2(CA)) sign may be used under the lower signal head at freeway ramp meter locations, to indicate the number of vehicle(s) permitted to proceed during each short display of the green signal indication. When used on a signal mast arm, they are respectively placed to the right of the signal head that applies.

04 The RIGHT (LEFT) LANE THIS SIGNAL (R89-3(CA)) sign may be used under the lower signal head at freeway ramp meter locations, where individual signal heads are used for each lane of traffic. When used on a signal mast arm, it is placed to the right of the signal head that applies.

Guidance:

05 *The STOP HERE ON RED (R10-6) sign should be placed on Type 1 standards near the limit line at metered entrance ramps with three or more lanes.*

Option:

06 The R10-6 sign may also be used at other locations.

Support:

07 The R10-6 sign is used to emphasize the required observance of the signal limit line, such as the metering signal controlling traffic on metered freeway entrance ramps.

Guidance:

08 *The ALL VEHICLES STOP ON RED (R90-1(CA)) sign should be placed when converting a non-metered HOV preferential lane to a metered one.*

Option:

09 The R90-1(CA) sign may also be used on new installations where potential for confusion exists.

Support:

10 Refer to Section 2G.102(CA) for signs for HOV lanes at metered ramps.

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

Option:

01 The KEEP OFF MEDIAN (R11-1) sign (see Figure 2B-29) may be used to prohibit driving into or parking on the median.

Guidance:

02 *The KEEP OFF MEDIAN sign should be installed on the left of the roadway within the median at random intervals as needed wherever there is a tendency for encroachment.*

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

Guidance:

01 *The ROAD CLOSED (R11-2) sign should be installed where roads have been closed to all traffic (except authorized vehicles).*

02 *ROAD CLOSED—LOCAL TRAFFIC ONLY (R11-3) or ROAD CLOSED TO THRU TRAFFIC (R11-4) signs should be used where through traffic is not permitted, or for a closure some distance beyond the sign, but where the highway is open for local traffic up to the point of closure.*

**Standard:**

**03 The Road Closed (R11-2, R11-3 series, and R11-4) signs (see Figure 2B-29) shall be designed as horizontal rectangles.**

**Guidance:**

*03a These signs shall be preceded by the applicable Advance Road Closed warning sign with the secondary legend AHEAD and, if applicable, an Advance Detour warning sign (see Section 6F.19).*

**Option:**

*03b The word RAMP may be substituted for ROAD or STREET where applicable.*

*04 An intersecting street name or a well-known destination may be substituted for the XX MILES AHEAD legend in urban areas.*

*05 The word message BRIDGE ~~OUT~~ CLOSED may be substituted for the ROAD CLOSED legend where applicable.*

**Section 2B.59 Weight Limit Signs (R12-1 through R12-5)**

**Option:**

~~01 The Weight Limit (R12-1) sign carrying the legend WEIGHT LIMIT XX TONS may be used to indicate vehicle weight restrictions including load.~~

~~02 Where the restriction applies to axle weight rather than gross load, the legend may be AXLE WEIGHT LIMIT XX TONS or AXLE WEIGHT LIMIT XX LBS (R12-2).~~

~~03 To restrict trucks of certain sizes by reference to empty weight in residential areas, the legend may be NO TRUCKS OVER XX TONS EMPTY WT or NO TRUCKS OVER XX LBS EMPTY WT (R12-3).~~

~~04 In areas where multiple regulations of the type described in Paragraphs 1 through 3 are applicable, a sign combining the necessary messages on a single sign may be used, such as WEIGHT LIMIT XX TONS PER AXLE, XX TONS GROSS (R12-4).~~

~~05 Posting of specific load limits may be accomplished by use of the Weight Limit symbol sign (R12-5). A sign containing the legend WEIGHT LIMIT on the top two lines, and showing three different truck symbols and their respective weight limits for which restrictions apply may be used, with the weight limits displayed to the right of each symbol as XX T. A bottom line of legend stating GROSS WT may be included if needed for enforcement purposes.~~

**Standard:**

~~06 If used, the Weight Limit sign (see Figure 2B-29) shall be located in advance of the applicable section of highway or structure.~~

**Guidance:**

~~07 If used, the Weight Limit sign with an advisory distance ahead legend should be placed at approach road intersections or other points where prohibited vehicles can detour or turn around.~~

**Support:**

*08 Refer to CVC 21101 through 21104 and 35650 through 35755 for Weight Limit signs.*

*09 Also refer to Section 2B.39.*

**Standard:**

**10 The Weight Limit (R12-1, R12-5 and R20A(CA)) signs (see Figures 2B-29 and 2B-29(CA)) shall be used to specify restrictions of trucks on a bridge, structure or highway.**

**Support:**

*11 The No Trucks (R5-2) sign is used together with a Truck Exclusion plaque (R20D(CA) Series) (see Figures 2B-11 and 2B-11(CA)) to specify the maximum weight limit in effect.*

**Standard:**

**12 The weight limit signs shall be placed at each end of the affected portion of a highway section. They shall be placed at a distance of not more than 500 feet from the ends of an affected bridge or structure.**

**Option:**

*13 The Black on Yellow Weight Limit signs (W20(CA) and W20A(CA)) may be used in combination with Distance Ahead Plaque (W34A(CA)), far enough in advance to allow the vehicle operator to select an alternate route.*

14 The Commercial Vehicle Weight Exclusion (R36(CA)) sign (see Figure 2B-29(CA)) may be used to indicate vehicles over \_\_\_ tons are prohibited from certain streets and highways.

**Guidance:**

15 An alternative route should be evaluated for height, weight and size restrictions. Appropriate signs should be posted along the route to advise motorists of any restrictions.

**Option:**

16 Advance signs may be necessary to give trucks an opportunity to turn around and retrace their path or select another route.

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

**Guidance:**

~~01 An R13-1 sign with the legend TRUCKS OVER XX TONS MUST ENTER WEIGH STATION NEXT RIGHT (see Figure 2B-30) should be used to direct appropriate traffic into a weigh station.~~

~~02 The R13-1 sign should be supplemented by the D8 series of guide signs (see Section 2D.49).~~

02a An SR57(CA) sign with the legend ALL TRUCKS STOP AT SCALES with NO PICKUPS SG8(CA) mounted below (see Figure 2B-30(CA)) should be used to direct appropriate traffic into a weigh station.

02b The SR57(CA) and SG8(CA) sign combination should be supplemented by the D8 series of guide signs (see Section 2D.49).

**Option:**

03 The reverse color combination, a white legend and border on a black background, may be used for the ~~R13-1~~ SR57(CA) sign.

**Support:**

04 Refer to Figure 2B-30(CA) for Weigh Station Signs.

**Option:**

05 The WAIT HERE UNTIL SCALE CLEAR (SR6-1(CA)) sign may be used at Weigh Stations to provide guidance to trucks entering the scales.

06 The RELEASE BRAKES WHILE ON SCALE (SR7-1(CA)) sign may be used at Weigh Stations to provide guidance to trucks when they are on the scales.

07 The SET PARKING BRAKES (SR8-1(CA)) sign may be used at Weigh Stations to provide guidance to trucks when they are on the scales.

08 The LOADED (SR9-1(CA)) sign may be used at Weigh Stations to designate the lane loaded trucks are to use when passing through the scales.

09 The EMPTY (SR10-1(CA)) sign may be used at Weigh Stations to designate the lane empty trucks are to use when passing through the scales.

10 The EMPTY 5 MPH (SR11-1(CA)) sign may be used at Weigh Stations to control the speed of empty trucks when passing through scales.

11 The LOADED 3 MPH (SR12-1(CA)) sign may be used at Weigh Stations to control the speed of loaded trucks when passing through scales.

12 The Theft CHP Plaque (SR13-1(CA)) may be used at Weigh Stations to advise scale users that removing any property from the Weigh Station without authorization from the California Highway Patrol is a violation of the Penal Code.

**Guidance:**

13 The TRUCKS NOT GIVEN BYPASS SIGNAL MUST ENTER OPEN SCALES (SR17(CA)) sign should be used in advance of a truck weigh station that is equipped with a mainline bypass system and weigh-in-motion scales to electronically weigh and verify compliance of commercial trucks as they approach the weigh station.

14 The Width Limit (SR40(CA)) sign (see Figure 2B-29(CA)) should be placed at truck weigh stations to direct over width vehicles around the station, if the weigh station lacks adequate width. The California Highway Patrol should be contacted to determine where these signs are needed. Refer to CVC 35790.

**Standard:**

15 The ALL BUSES STOP AT SCALES (SR41(CA)) and ALL BUSES with Arrow (SR42(CA)) signs shall be used as a temporary sign for Critical Item Bus Inspections on state highways.

Option:

<sup>16</sup> The Weigh Station Repair Service Plaque (S21(CA)) sign may be installed at commercial vehicle inspection facilities on State highways where needed at the request of the California Highway Patrol.

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

*Guidance:*

<sup>01</sup> The TRUCK ROUTE (R14-1) sign (see Figure 2B-30) should be used to mark a route that has been designated to allow truck traffic.

Option:

<sup>02</sup> On a numbered highway, the TRUCK (M4-4) auxiliary sign may be used (see Section 2D.20).

Support:

<sup>03</sup> Refer to CVC 21101 through 21104 and 35701 through 35715.

<sup>04</sup> Generally, the Department of Transportation is not unilaterally authorized to prohibit truck travel on State highways. Various sections in the California Vehicle Code allow cities and counties to restrict, by ordinance, commercial vehicles subject to the specific conditions in those sections.

**Standard:**

<sup>05</sup> **Generally, no such local ordinance shall be effective with respect to any State highway until the ordinance has been approved by the Department of Transportation. This approval shall be made by the Director, Department of Transportation.**

<sup>06</sup> **The proposed local ordinance shall designate an unrestricted alternate route, or routes, for use by the prohibited vehicles. Such proposed local ordinances shall not be approved unless the alternate route, or routes, are considered suitable by the Department of Transportation.**

<sup>07</sup> **An investigation of designated alternate routes shall be made with special attention being given to the following features:**

1. Geometrics.
2. Increase in distance of travel and comparisons in time of travel.
3. Railroad grade crossings.
4. Present traffic and practical capacity of proposed alternates.
5. Structural adequacy of pavement for heavy truck traffic.
6. Heavy grades.
7. Proximity to schools or school routes.
8. Developed residential areas.

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

Option:

<sup>01</sup> ~~The Hazardous Material Route (R14-2) sign (see Figure 2B-30) may be used to identify routes that have been designated by proper authority for vehicles transporting hazardous material.~~

<sup>02</sup> ~~On routes where the transporting of hazardous material is prohibited, the Hazardous Material Prohibition (R14-3) sign (see Figure 2B-30) may be used.~~

*Guidance:*

<sup>03</sup> *If used, the Hazardous Material Prohibition sign should be installed on a street or roadway at a point where vehicles transporting hazardous material have the opportunity to take an alternate route.*

Support:

<sup>04</sup> Refer to Figure 2B-30(CA) for Hazardous Waste/Material signs.

**Standard:**

<sup>05</sup> **The Hazardous Waste Prohibited (R102(CA)) sign shall be used to identify those routes, either State or local, upon which the transportation of hazardous waste has been prohibited, as provided in CVC 31303 and 31304.**

Option:

<sup>06</sup> On those highways where hazardous waste is permitted, the R102(CA) signs may be placed in advance of their intersection or interchange with the prohibited route.

*Guidance:*

*07 The R102(CA) signs should be placed on the prohibited route for both directions of travel after entry from the above intersection or interchange.*

**Standard:**

**08 The HAZARDOUS WASTE PROHIBITED (R102A(CA)) sign shall be positioned below the R102(CA) sign.**

*Guidance:*

*09 The R102A(CA) sign should be of equal width to the R102(CA) sign.*

**Option:**

10 The Hazardous Waste Permitted (R103(CA)) sign may be used to guide drivers around routes where the transportation of hazardous waste is permitted.

**Standard:**

**11 The HAZARDOUS WASTE PERMITTED (R103A(CA)) sign shall be positioned below the R103(CA) symbol sign.**

*Guidance:*

*12 The R103A(CA) sign should be of equal width to the R103(CA) sign.*

**Option:**

13 The Hazardous Material Prohibited (R104(CA)) sign may be used to identify those routes, either State or local, upon which the transportation of Hazardous Material has been prohibited. On those highways where Hazardous Material is prohibited, the R105(CA) signs may be placed in advance of their intersection or interchange with the prohibited route.

*Guidance:*

*14 The R104(CA) signs should be placed on the prohibited route for both directions of travel after entry from the above intersection or interchange.*

**Standard:**

**15 The R104(CA) sign shall be used to identify those routes upon which the transportation of Hazardous Materials has been prohibited, as provided in CVC 31303 and 31304.**

**16 The HAZARDOUS MATERIAL PROHIBITED (R104A(CA)) sign shall be positioned below the R104(CA) sign.**

*Guidance:*

*17 The R104A(CA) sign should be of equal width to the R104(CA) sign.*

**Option:**

18 The Hazardous Material Permitted (R105(CA)) sign may be used to guide drivers around routes where the transportation of Hazardous Material is prohibited.

**Standard:**

**19 The HAZARDOUS MATERIAL PERMITTED (R105A(CA)) sign shall be positioned below the R105 (CA) sign.**

*Guidance:*

*20 The R105A(CA) sign should be of equal width to the R105(CA) sign.*

*21 The NO EXPLOSIVES OR FLAMMABLES (SR18(CA)) sign should be placed on highways, structures, tunnels, etc. where vehicles transporting explosives or flammable materials are prohibited. The SR18(CA) sign should be placed at a location that will provide a motorist the opportunity to turn around.*

*22 The EXPLOSIVES AND CORROSIVES PROHIBITED WITHOUT PERMIT (SR19-1(CA)) sign should be placed on highways, structures, tunnels, etc. where vehicles transporting explosives or corrosive materials are prohibited without a permit. The SR18(CA) sign should be placed at a location that will provide a motorist the opportunity to turn around.*

**Option:**

23 The TRANSPORTING ILLEGAL FIREWORKS PROHIBITED (SR25(CA)) sign may be used on any roadway upon which the transportation of illegal fireworks have been prohibited by a local ordinance or resolution per California Health & Safety Code Division 11, Part 2, Sections 12500 through 12726.

**Standard:**

**24 If used, the SR25(CA) sign shall be used to identify only those street or highway locations, either State or local, upon which the transportation of illegal fireworks is prohibited, as established by the local ordinance or resolution.**

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

**Support:**

01 The signing of the National Network routes for trucking is optional. See Chapter 2I.

**Standard:**

~~02 When a National Network route is signed, the National Network (R14-4) sign (see Figure 2B-30) shall be used.~~

**Option:**

~~03 The National Network Prohibition (R14-5) sign (see Figure 2B-30) may be used to identify routes, portions of routes, and ramps where trucks are prohibited. The R14-5 sign may also be used to mark the ends of designated routes.~~

### **Section 2B.64 Headlight Use Signs (R16-5 through R16-11)**

**Support:**

01 Some States require road users to turn on their vehicle headlights under certain weather conditions, as a safety improvement measure on roadways experiencing high crash rates, or in special situations such as when driving through a tunnel.

01a Refer to CVC 24400.

02 Figure 2B-31 shows the various signs that can be used for informing motorists of these requirements.

**Option:**

03 A LIGHTS ON WHEN USING WIPERS (R16-5) sign or a LIGHTS ON WHEN RAINING (R16-6) sign may be installed to inform road users of State laws regarding headlight use. Although these signs are typically installed facing traffic entering the State just inside the State border, they also may be installed at other locations within the State.

**Guidance:**

04 *If a particular section of roadway has been designated as a safety improvement zone within which headlight use is required, a TURN ON HEADLIGHTS NEXT XX MILES (R16-7) sign or a BEGIN DAYTIME HEADLIGHT SECTION (R16-10) sign should be installed at the upstream end of the section, and a END DAYTIME HEADLIGHT SECTION (R16-11) sign should be installed at the downstream end of the section.*

**Option:**

05 A TURN ON HEADLIGHTS (R16-8) sign may be installed to require road users to turn on their headlights in special situations such as when driving through a tunnel. A CHECK HEADLIGHTS (R16-9) sign may be installed downstream from the special situation to inform drivers that the using their headlights is no longer required.

**Option:**

06 Daylight Headlight (S30(CA)) Series signs may be used after a traffic investigation and consultation with the local CHP office and/or law enforcement as a traffic safety improvement measure in high accident locations on two lane highways where there is a potential for head-on collisions.

**Support:**

07 Refer to CVC 21461 for enforcement of S30(CA) Series signs.

**Guidance:**

08 *When used, the DAYLIGHT HEADLIGHT SECTION (S30-1(CA)) sign should be placed approximately 500 feet in advance of a daylight headlight section.*

09 *When used, the TURN ON HEADLIGHTS NEXT X MILES (S30-2(CA)) sign should be placed at the beginning of a daylight headlight section.*

10 *When used, the END DAYLIGHT HEADLIGHT SECTION (S30-3(CA)) sign should be placed at the end of a daylight headlight section.*

11 *When used, the TURN ON HEADLIGHTS (S30-4(CA)) sign should be placed at the entrances from major side roads to a daylight headlight section.*

12 *When used, the CHECK HEADLIGHTS (S30-5(CA)) sign should be placed approximately 500 feet beyond the end of a daylight headlight section.*

Support:

<sup>13</sup> See Figure 2B-106(CA) for S30(CA) Series signs.

**Safety Corridor Sign (S33(CA))**

Option:

<sup>14</sup> The Safety Corridor (S33(CA)) sign (see Figure 2B-106(CA)) may be installed at the written request of an official Corridor Safety Task Force on any roadway segment that is designated as a Safety Awareness Zone under the authority of California Streets and Highways Code Section 97.1.

Support:

<sup>15</sup> More information on Highway Safety Corridors and Task Forces is available at:

<http://www.chp.ca.gov/highways/corridor.html>

**Standard:**

<sup>16</sup> **The S33(CA) sign shall not be installed on freeways.**

**Guidance:**

<sup>17</sup> *When used, one S33(CA) sign should be posted at each end of the corridor. The S33(CA) sign specifications should be as follows:*

1. *Size no larger than 8 feet wide and 4 feet high.*
2. *White background with black text having a primary safety message.*

**Standard:**

<sup>18</sup> **A logo and any secondary message (along with colors) shall be agreed upon by the Task Force. The logo and secondary message shall not cover more than 25 percent of the sign's surface area.**

<sup>19</sup> **The Department of Transportation shall purchase and install the S33(CA) sign.**

**Guidance:**

<sup>20</sup> *The Task Force is to advise the Department of Transportation, in writing, as to how long the signs are to remain on the highway, but this time period should not exceed three years.*

**Section 2B.65 FENDER BENDER Sign (R16-4)**

Option:

<sup>01</sup> ~~A FENDER BENDER MOVE VEHICLES FROM TRAVEL LANES (R16-4)~~ **MINOR CRASH NO INJURIES – SAFELY MOVE VEHICLES FROM TRAVEL LANES (SR61(CA))** sign (see Figure ~~2B-32~~ 2B-32(CA)) may be installed to require motorists to move their vehicle out of the travel lanes if they have been involved in a non-injury crash.

**Section 2B.66 Seat Belt Symbol**

**Standard:**

<sup>01</sup> **When a seat belt symbol is used, the symbol shown in Figure 2B-32 shall be used.**

**Guidance:**

<sup>02</sup> *The seat belt symbol should not be used alone. If used, the seat belt symbol should be incorporated into regulatory sign messages for mandatory seat belt use.*

<sup>03</sup> *The Seat Belt (SR15(CA)) sign (see Figure 2B-32(CA)) should be placed in each direction on all freeways and other major state routes at approximate 50 mile intervals.*

**Standard:**

<sup>04</sup> **The SAFETY BELT LAW ENFORCED (SR15A(CA)) sign (see Figure 2B-32(CA)) shall be placed below each installation of the Seat Belt (SR15(CA)) sign.**

Option:

<sup>05</sup> The Seat Belt (SR15(CA)) and SAFETY BELT LAW ENFORCED (SR15A(CA)) sign combination may also be used on local arterials.

**Section 2B.67 Barricades**

Option:

<sup>01</sup> Barricades may be used to mark any of the following conditions:

- A. A roadway ends,

- B. A ramp or lane closed for operational purposes, or
- C. The permanent or semi-permanent closure or termination of a roadway.

**Standard:**

**02 When used to warn and alert road users of the terminus of a roadway in other than temporary traffic control zones, barricades shall meet the design criteria of Section 6F.68 for a Type 3 Barricade, except that the colors of the stripes shall be retroreflective white and retroreflective red.**

**Option:**

- 03 An end-of-roadway marker or markers may be used as described in Section 2C.66.

**Guidance:**

- 04 *Appropriate advance warning signs (see Chapter 2C) should be used.*

## **Section 2B.68 Gates**

**Support:**

01 Gates described in this section used for weather or other emergency conditions are typically permanently installed to enable the gate to be immediately deployed as needed to prohibit the entry of traffic to the highway segment(s).

02 A gate typically features a gate arm that is moved from a vertical to a horizontal position or is rotated in a horizontal plane from parallel to traffic to perpendicular to traffic. Traffic is obstructed and required to stop when the gate arm is placed in a horizontal position perpendicular to traffic. Another type of gate consists of a segment of fence (usually on rollers) that swings open and closed, or that is retracted to open and then extended to close.

03 Gates are sometimes used to enforce a required stop. Some examples of such uses are the following:

- A. Parking facility entrances and exits,
- B. Private community entrances and exits,
- C. Military base entrances and exits,
- D. Toll plaza lanes,
- E. Movable bridges (see Chapter 4J),
- F. Automated Flagger Assistance Devices (see Chapter 6E), and
- G. Grade crossings (see Part 8).

04 Gates are sometimes used to periodically close a roadway or a ramp. Some examples of such uses are the following:

- A. Closing ramps to implement counter-flow operations for evacuations,
- B. Closing ramps that lead to reversible lanes, and
- C. Closing roadways for weather events such as snow, ice, or flooding, or for other emergencies.

**Standard:**

**05 Except as provided in Paragraph 6, gate arms, if used, shall be fully retroreflectorized on both sides, have vertical stripes alternately red and white at 16-inch intervals measured horizontally as shown in Figure 8C-1.**

**Option:**

06 If used on a one-way roadway or ramp, the retroreflectorization may be omitted on the side of the gate facing away from approaching traffic.

07 Where gate arms are used to block off ramps into reversible lanes or to redirect approaching traffic, the red and white striping may be angled such that the stripes slope downward at an angle of 45 degrees toward the side of the gate arm on which traffic is to pass.

**Standard:**

**08 The gate arm shall extend across the approaching lane or lanes of traffic to effectively block motor vehicle and/or pedestrian travel as appropriate.**

**09 When gate arms are in the vertical position or rotated to an open position, the closest part of the gate arm and support shall have a lateral offset of at least 2 feet from the face of the curb or the edge of the traveled way.**

**10 When gate arms that are located in the median or on an island are in the horizontal position or rotated to a closed position, the closest part of the counterweight or its supports shall have a lateral offset of at**

**least 2 feet from the face of the curb or the edge of the traveled way of the open roadway on the opposite side of the median or island.**

*Guidance:*

<sup>11</sup> *When a gate that is rotated in a horizontal plane is in the position where it is parallel to traffic (indicating that the roadway is open), the outer end of the gate arm should be rotated to the downstream direction (from the perspective of traffic in the lane adjacent to the gate support) to prevent spearing if the gate is struck by an errant vehicle.*

<sup>12</sup> *If a pedestrian route is present and if it is not intended that pedestrian traffic be controlled by the gate, a minimum of 2 feet of lateral offset from supports, posts, counterweights, and gate mechanisms should be provided when the gate arm is in the open position and when the gate arm is in the closed position such that pedestrian travel is not impeded.*

*Option:*

<sup>13</sup> Red lights may be attached to traffic gates.

**Standard:**

<sup>14</sup> **If red lights are attached to a traffic gate, the red lights shall be steadily illuminated or flashed only during the period when the gate is in the horizontal or closed position and when the gate is in the process of being opened or closed.**

<sup>15</sup> **Except as provided in Paragraph 16, rolling sections of fence, if used, shall include either a horizontal strip of retroreflectorized sheeting on both sides of the fence with vertical stripes alternately red and white at 16-inch intervals measured horizontally to simulate the appearance of a gate arm in the horizontal position, or one or more Type 4 object markers (see Section 2C.66), or both. If a horizontal strip of retroreflectorized sheeting is used, the bottom of the sheeting shall be located 3.5 to 4.5 feet above the roadway surface.**

*Option:*

<sup>16</sup> If used on a one-way roadway or ramp, the retroreflectorization may be omitted on the side of the fence facing away from approaching traffic.

### **Section 2B.101(CA) NO FISHING (JUMPING) FROM BRIDGE Sign (R23(CA))**

*Option:*

<sup>01</sup> The NO FISHING (JUMPING) FROM BRIDGE sign (R23(CA)) (see Figure 2B-106(CA)) may be used when fishing or jumping from a bridge is prevalent and where investigation has shown that fishing or jumping is unsafe or interferes with the orderly movement of traffic.

### **Section 2B.102(CA) TWO WAY TRAFFIC AHEAD Sign (R40(CA))**

**Standard:**

<sup>01</sup> **The TWO WAY TRAFFIC AHEAD (R40(CA)) sign (see Figure 2B-10(CA)) shall be used to inform motorists that they are leaving a one-way street and entering a two-way street.**

*Guidance:*

<sup>02</sup> *The R40(CA) sign should be placed on both sides of the one-way street approximately 200 feet in advance of the intersection where the two-way traffic begins. Refer to Section 2C.44.*

### **Section 2B.103(CA) \$1000 Fine Signs (R47(CA) and R47A(CA))**

*Option:*

<sup>01</sup> The \$1000 FINE FOR LITTERING (R47(CA)) sign (see Figure 2B-106(CA)) may be used to inform the public that it is unlawful to dispose of litter on the highway.

*Support:*

<sup>02</sup> Refer to Streets and Highway Code Section 101.6 and CVC 23111 through 23113 and 42001.7.

<sup>03</sup> The \$1000 FINE FOR ANIMAL ABANDONMENT (R47A(CA)) sign (see Figure 2B-106(CA)) is used to inform the public that the abandonment or dumping of any animal is a criminal offense.

*Guidance:*

*04 The R47A(CA) sign should be placed on all major state highways, as close as practicable, following the Welcome to California (G10B(CA)) sign.*

**Section 2B.104(CA) PRIVATE ROAD (PRIVATE PROPERTY) VEHICLE CODE ENFORCED Sign (R101(CA))**

**Standard:**

**01 The PRIVATE ROAD VEHICLE CODE ENFORCED (R101(CA)) sign (see Figure 2B-106(CA)) shall be used at the entrance to a privately owned and maintained road when enforcement of vehicle provisions apply, as provided in CVC 21107.7.**

**02 The alternate message PRIVATE PROPERTY shall be used at each entrance to a privately owned and maintained off-street parking facility when enforcement of vehicle code provisions apply, as provided in CVC 21107.8.**

**Section 2B.105(CA) Rest Area Disclaimer Sign (SR2(CA))**

*Guidance:*

*01 The Rest Area Disclaimer (SR2(CA)) sign (see Figure 2B-106(CA)) should be posted in a conspicuous location, as directed by Department of Transportation's District Landscape Architect, at all State Safety Roadside Rest Areas.*

**Section 2B.106(CA) Garbage Prohibition Signs (SR22-1(CA) and SR23-1(CA))**

*Option:*

**01 The DUMPING PROHIBITED (SR22-1(CA)) sign (see Figure 2B-106(CA)) may be placed at State highway facilities where unauthorized dumping of materials or garbage is prevalent.**

**02 The NO HOUSEHOLD GARBAGE (SR23-1(CA)) sign (see Figure 2B-106(CA)) may be placed at State highway facilities where refuse containers provided for motorist convenience are being used to dispose of excessive amounts of household garbage.**

**Section 2B.107(CA) GOLF CARTS OK DAYLIGHT HOURS Sign (SR43(CA))**

**Standard:**

**01 The GOLF CARTS OK DAYLIGHT HOURS (SR43(CA)) sign (see Figure 2B-106(CA)) shall be placed on roadways which local authorities have designated for combined use in accordance with CVC 21115.**

*Option:*

**02 The ordinance number may be included on the sign.**

**Section 2B.108(CA) Bus and Truck Registration Sign (SR44(CA))**

*Guidance:*

*01 The Bus and Truck Registration (SR44(CA)) sign (see Figure 2B-106(CA)) should be placed at all Border Inspections Stations to relay this information to Interstate carriers.*

**Section 2B.109(CA) EMERGENCY ACCESS KEEP CLEAR Sign (SR46(CA))**

*Option:*

**01 The EMERGENCY ACCESS KEEP CLEAR (SR46(CA)) sign (see Figure 2B-106(CA)) may be used where there is traffic back up due to a controlled intersection or cross street that affects access to the driveway of any emergency service facility such as fire, police or ambulance. Refer to CVC 22500(d) and 22526.**

**Standard:**

**02 The SR46(CA) sign shall be used in conjunction with KEEP CLEAR pavement markings (see Section 3B.17) that delineate the limits of the keep clear area.**

*Option:*

**03 The SR46(CA) signs may be placed on both ends of the keep clear area.**

*Guidance:*

**04 However, if only one sign is used, it should be placed on the upstream side.**

### **Section 2B.110(CA) Off Highway Vehicle Signs (SR47(CA) and SR48(CA))**

*Guidance:*

- 01 The OFF HIGHWAY VEHICLE COMBINED USE NEXT (X MILES) (SR47(CA)) sign (see Figure 2B-106(CA)) should be used to inform motorists of the length of an Off Highway Vehicle Combined Use segment of the highway.*
- 02 The NO OFF HIGHWAY VEHICLES BEYOND THIS POINT (SR48(CA)) sign (see Figure 2B-106(CA)) should be placed at the end of an Off Highway Vehicle Combined Use segment of the highway.*

### **Section 2B.111(CA) State Property Signs (S8(CA) and S20(CA))**

*Option:*

- 01 The STATE PROPERTY – NO DUMPING – NO PARKING – NO TRESPASSING (S8(CA)) sign (see Figure 2B-106(CA)) may be used to identify state property where dumping, parking or trespassing is prohibited.*
- 02 The STATE PROPERTY – ANY PERSON REMOVING OR MOLESTING SAME WILL BE PROSECUTED (S20(CA)) sign (see Figure 2B-106(CA)) may be used to identify State owned property and materials placed there for future maintenance or construction purposes.*

**Figure 2B-1. STOP and YIELD Signs and Plaques**



**Figure 2B-2. Unsignalized Pedestrian Crosswalk Signs**

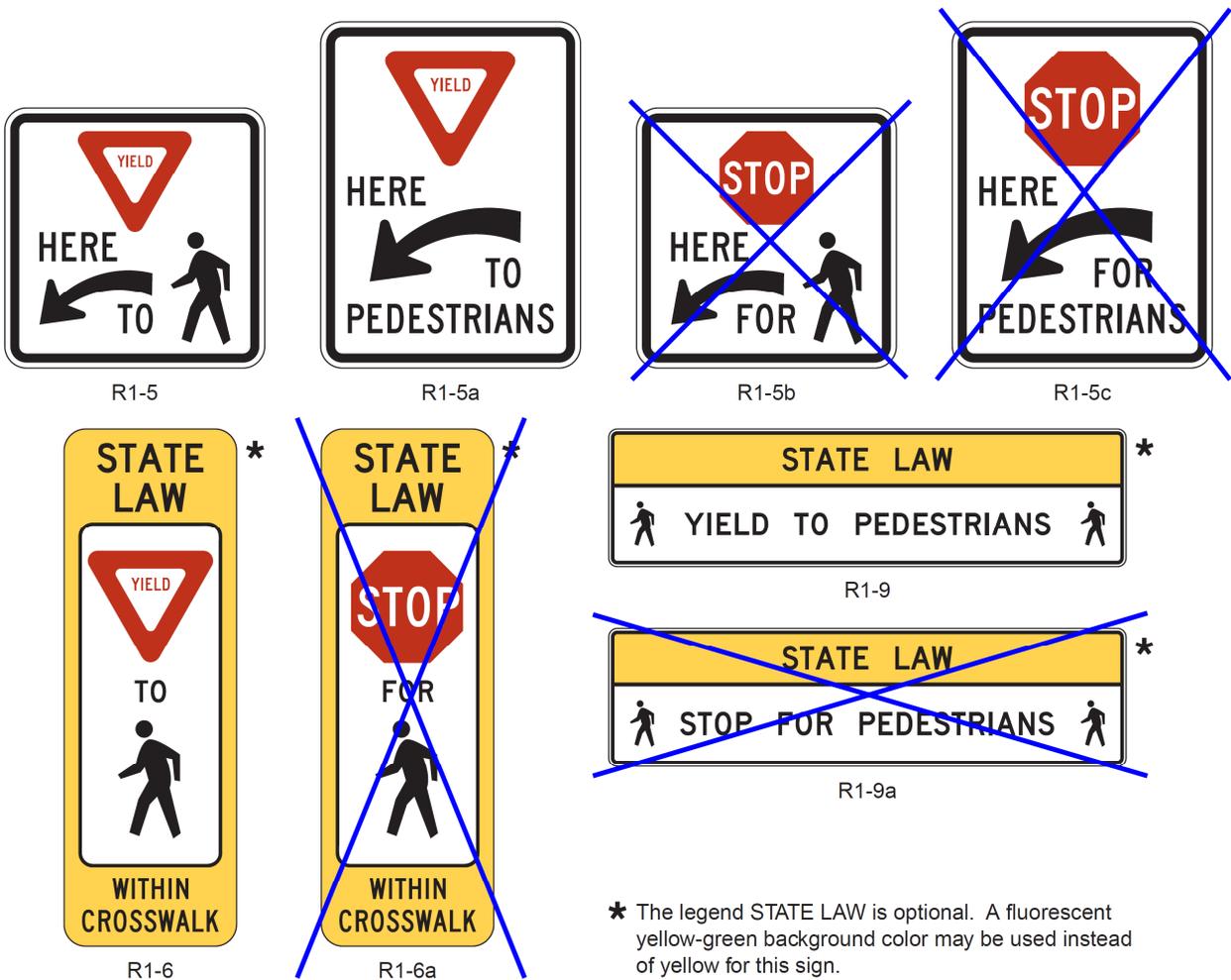
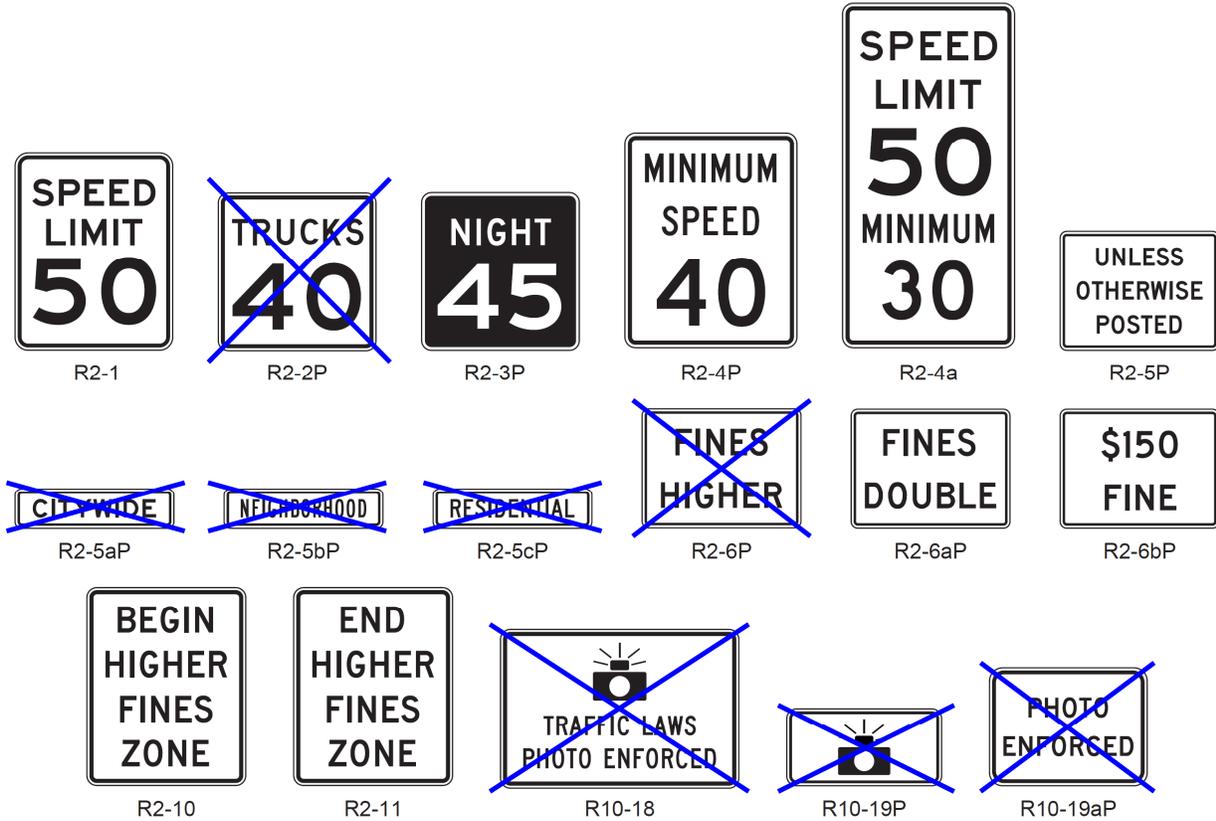


Figure 2B-3. Speed Limit and Photo Enforcement Signs and Plaques



**Figure 2B-3 (CA). Speed Limit and Photo Enforcement Signs and Plaques**



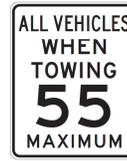
R2-4 (CA)



R3 (CA)



R6-3 (CA)



R6-4 (CA)



R48 (CA)



R48-1 (CA)



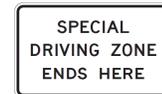
R48-2 (CA)



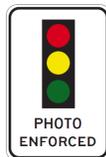
SR53 (CA)



SR54 (CA)



SR55 (CA)

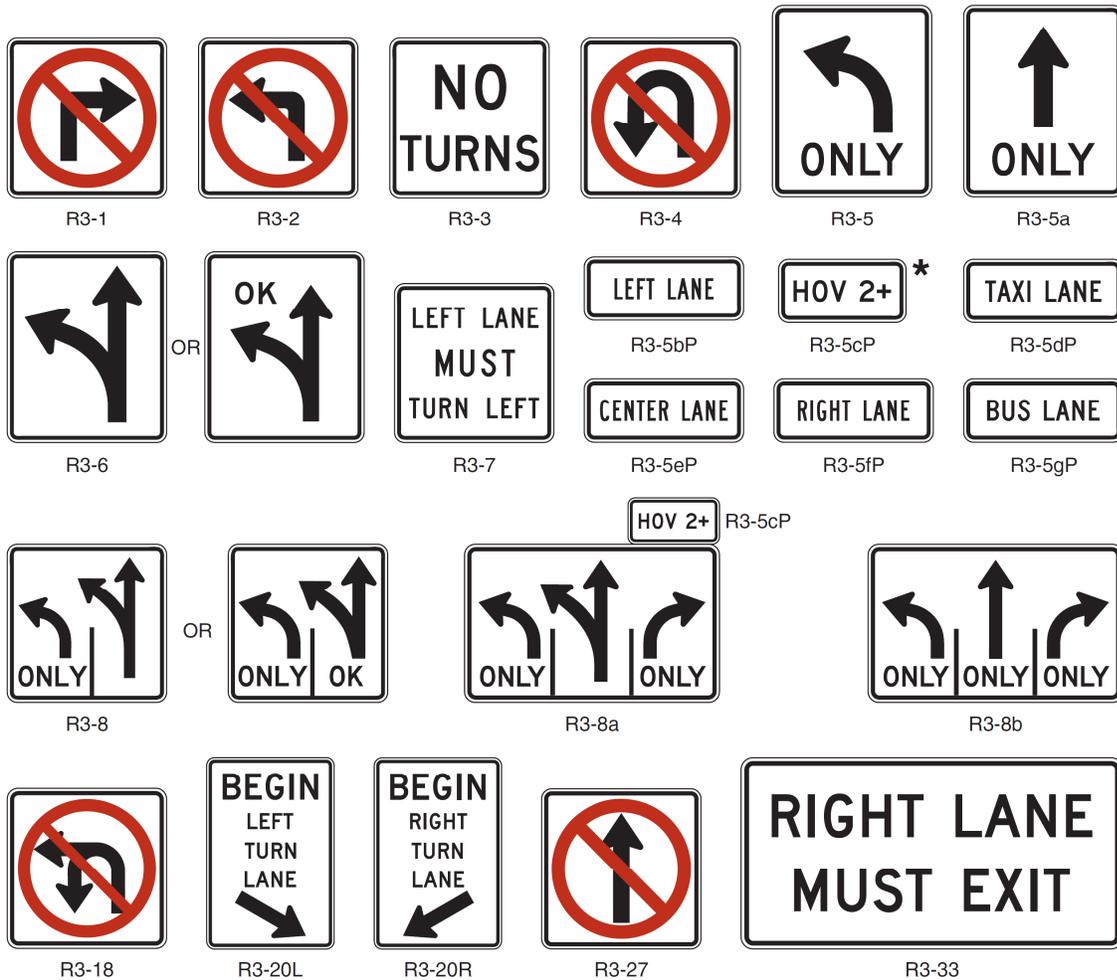


SR56 (CA)



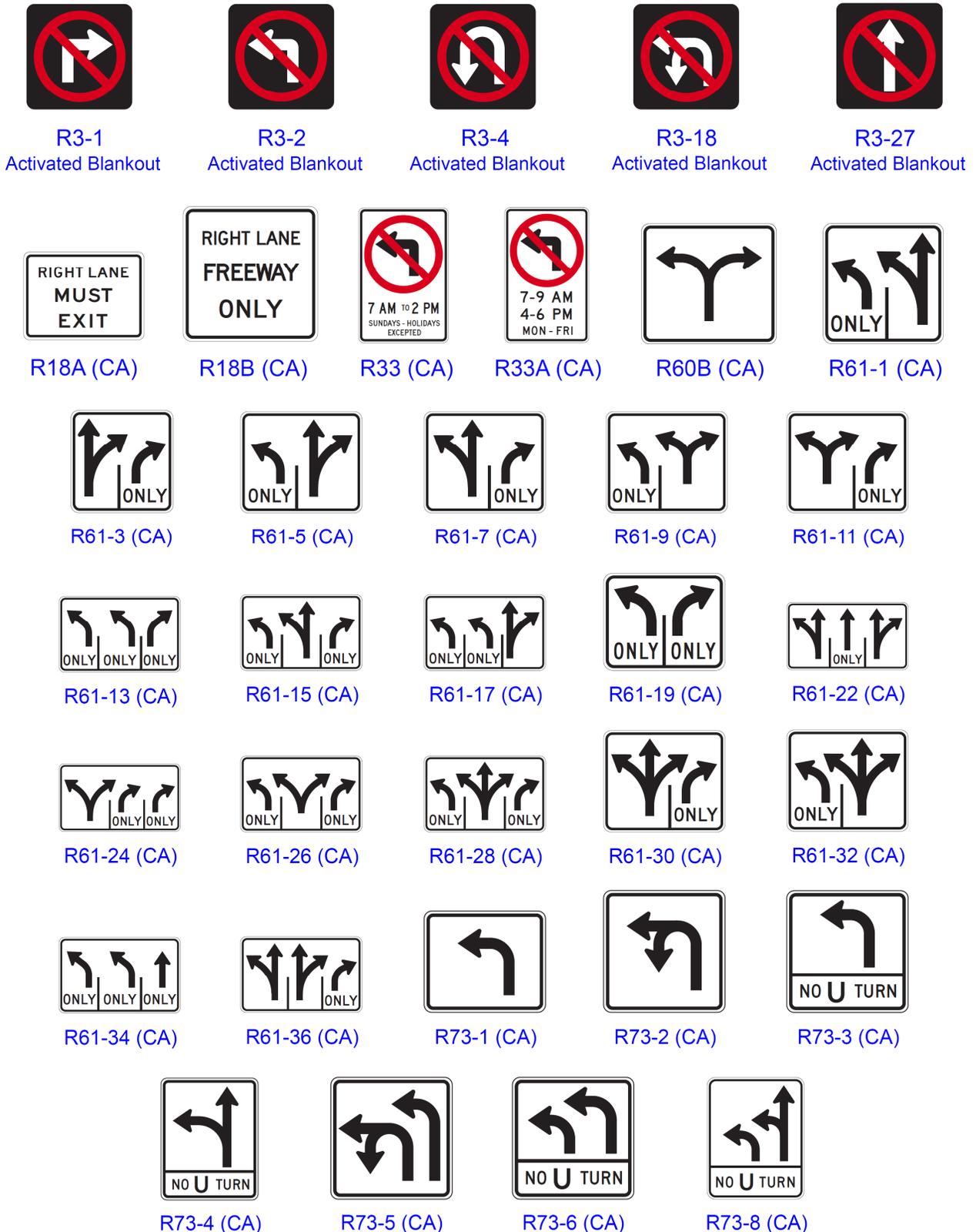
SR58 (CA)

**Figure 2B-4. Movement Prohibition and Lane Control Signs and Plaques**

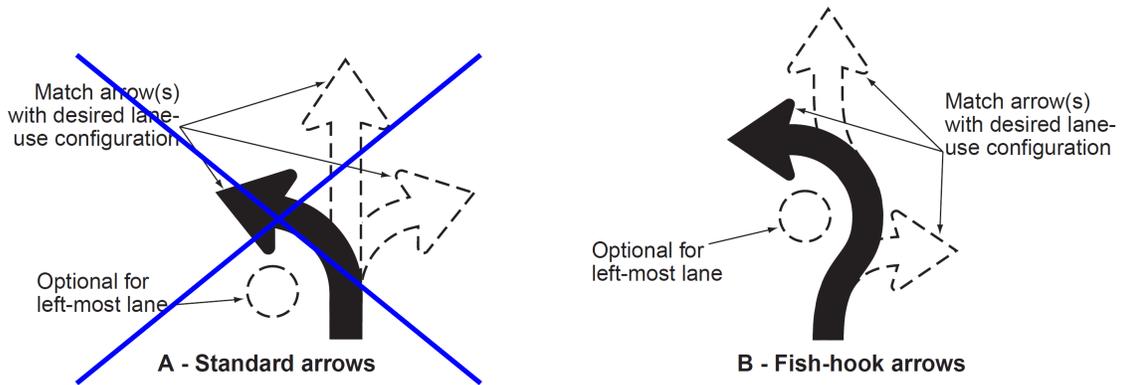


\* The diamond symbol may be used instead of the "HOV" word message. The minimum vehicle occupancy level may vary, such as 2+, 3+, 4+. The words "LANE" or "ONLY" may be used with this sign when appropriate.

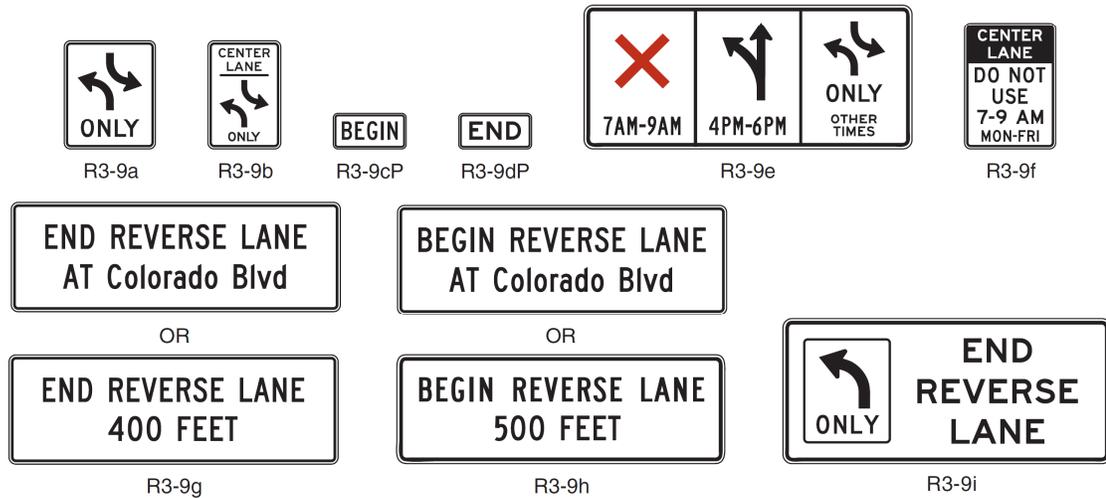
**Figure 2B-4 (CA). Movement Prohibition and Lane Control Signs and Plaques**



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



**Figure 2B-6. Center and Reversible Lane Control Signs and Plaques**



**Figure 2B-7. Location of Reversible Two-Way Left-Turn Signs**

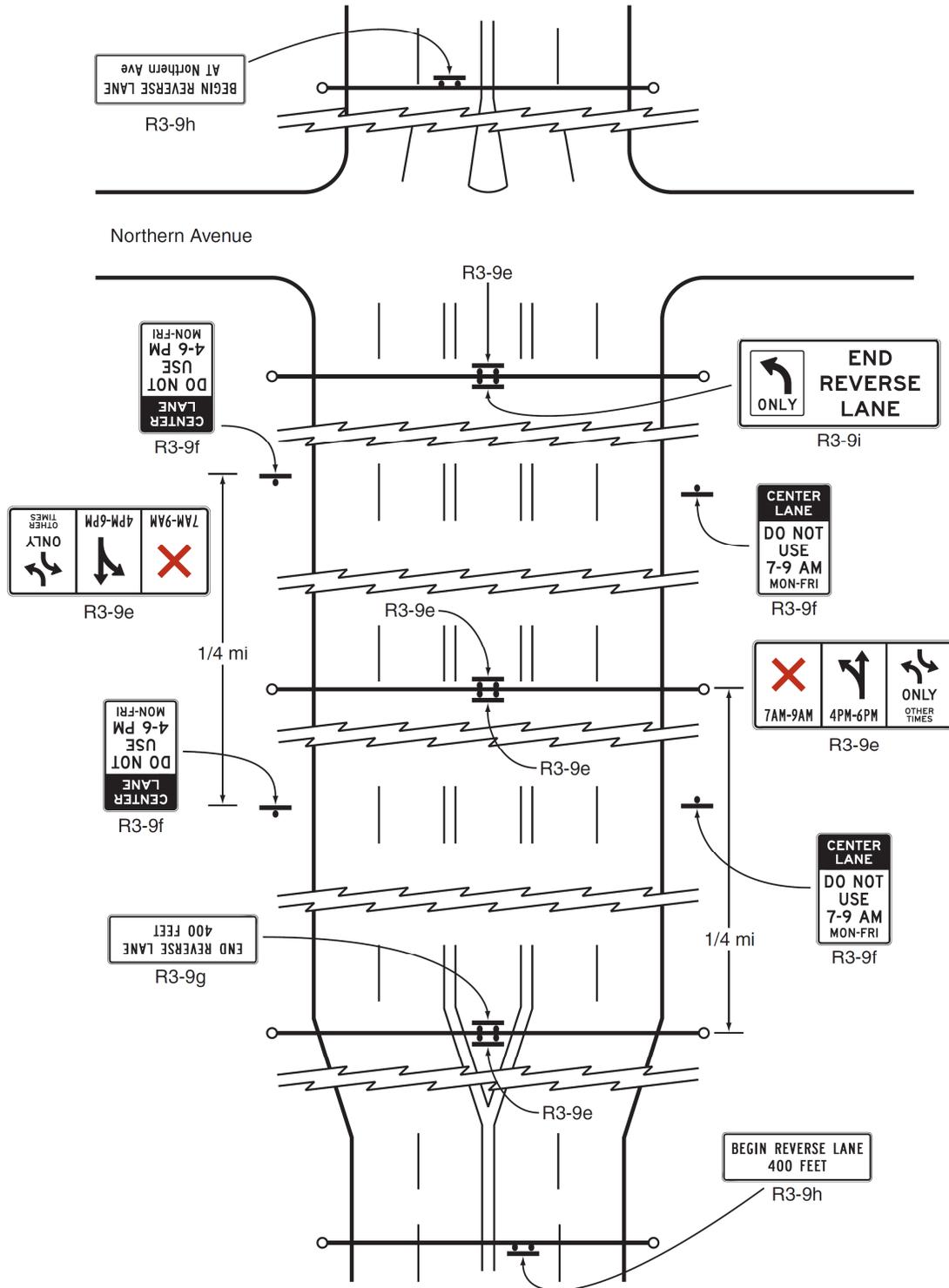
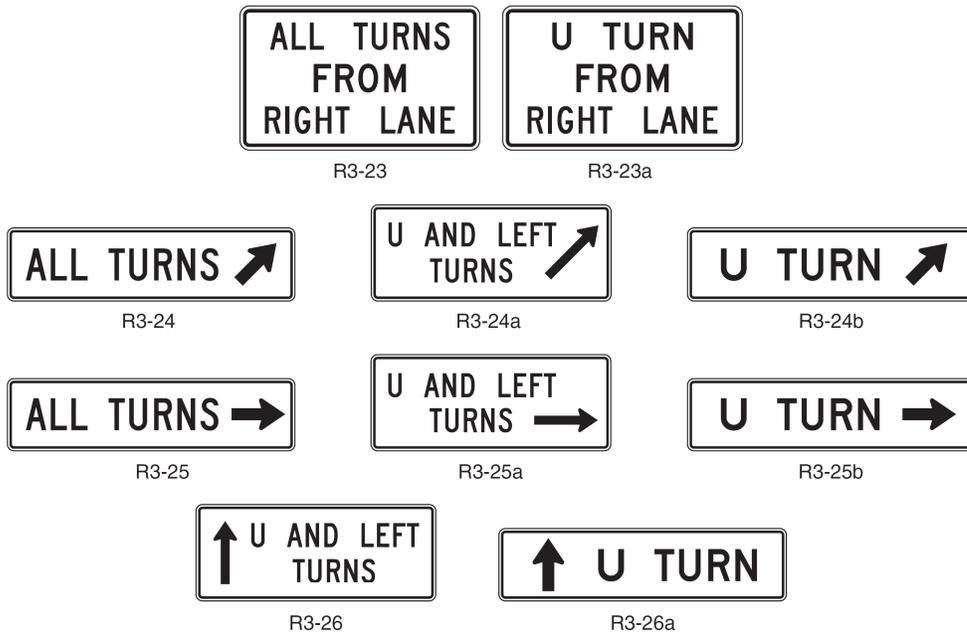
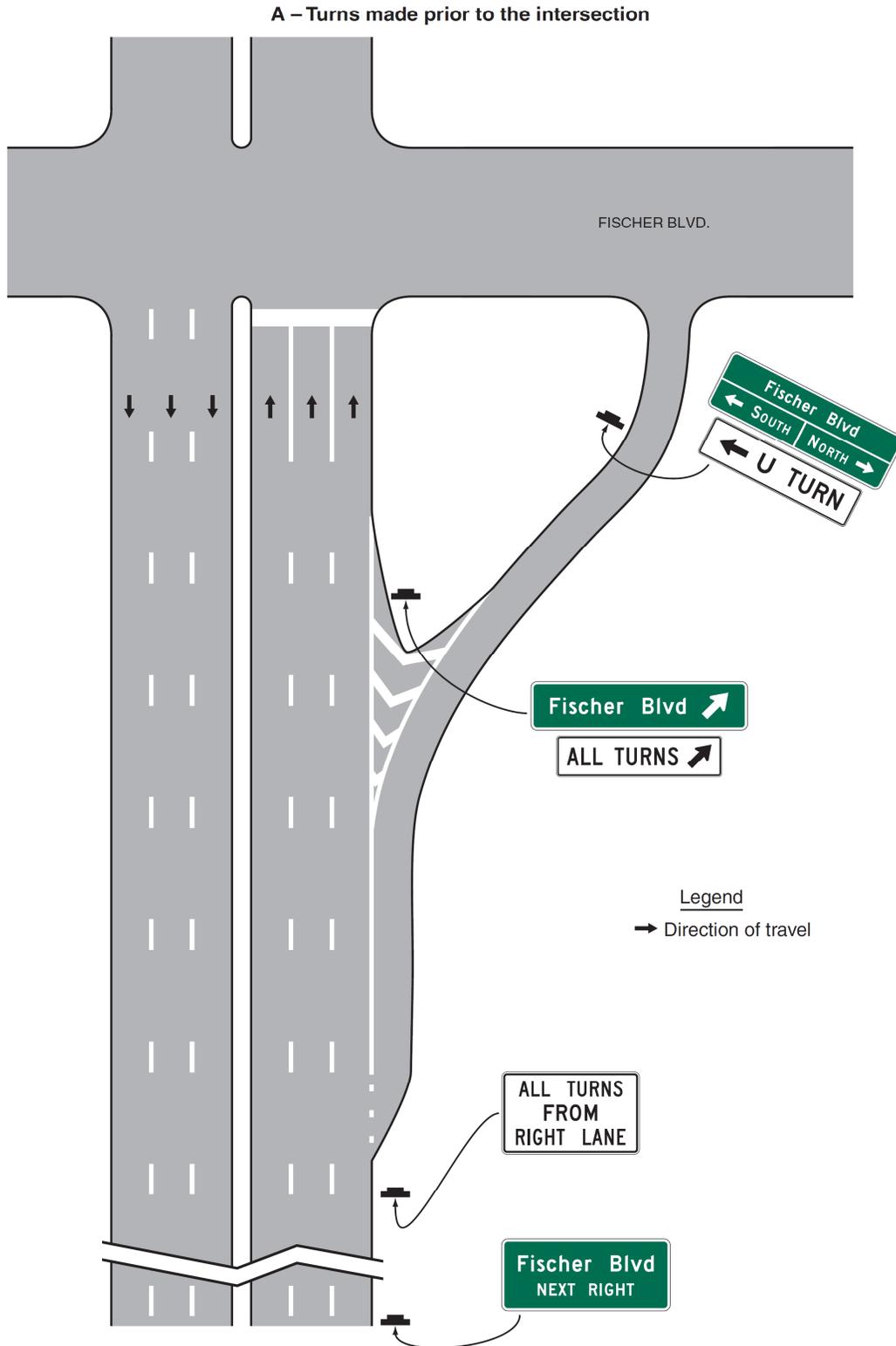


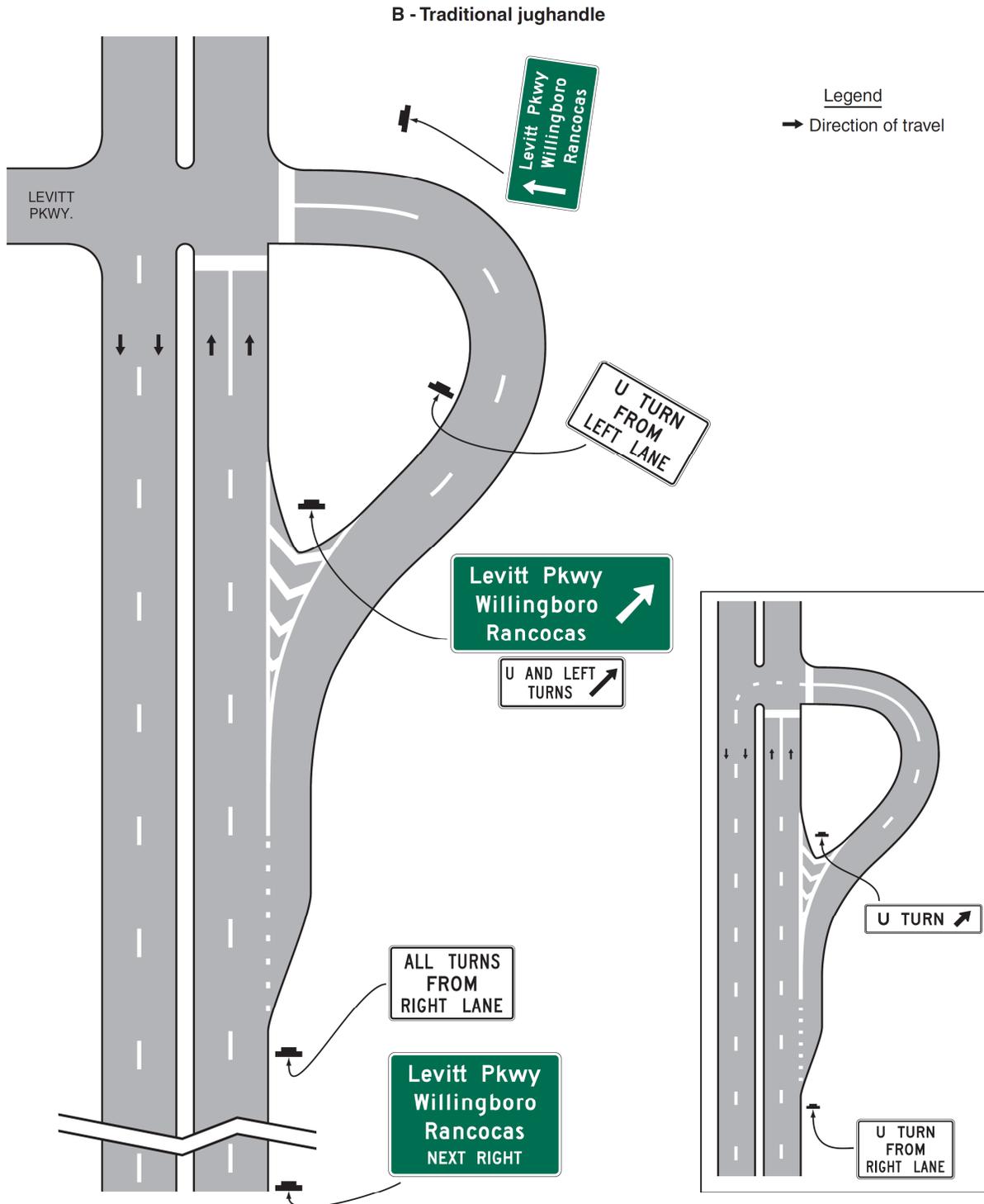
Figure 2B-8. Jughandle Regulatory Signs



**Figure 2B-9. Examples of Applications of Jughandle Regulatory and Guide Signing**  
(Sheet 1 of 3)



**Figure 2B-9. Examples of Applications of Jughandle Regulatory and Guide Signing**  
(Sheet 2 of 3)



**Figure 2B-9. Examples of Applications of Jughandle Regulatory and Guide Signing**  
(Sheet 3 of 3)

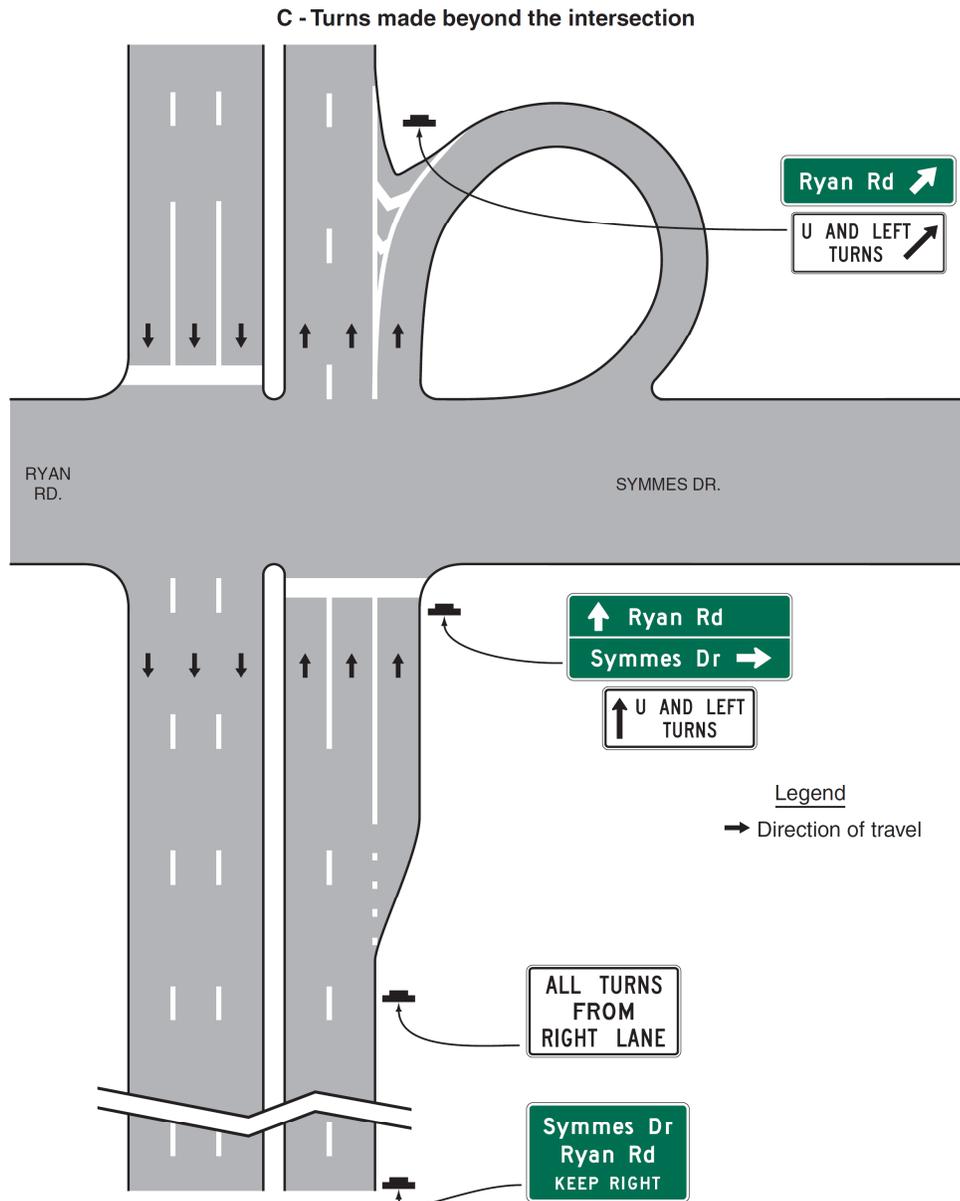


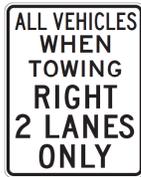
Figure 2B-10. Passing, Keep Right, and Slow Traffic Signs



**Figure 2B-10 (CA). Passing, Keep Right, and Slow Traffic Signs**



R6-3A (CA)



R6-4A (CA)



R40 (CA)



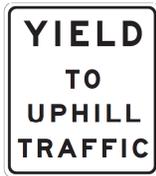
R53A (CA)



R53B (CA)



R53E (CA)



R55 (CA)



R70 (CA)



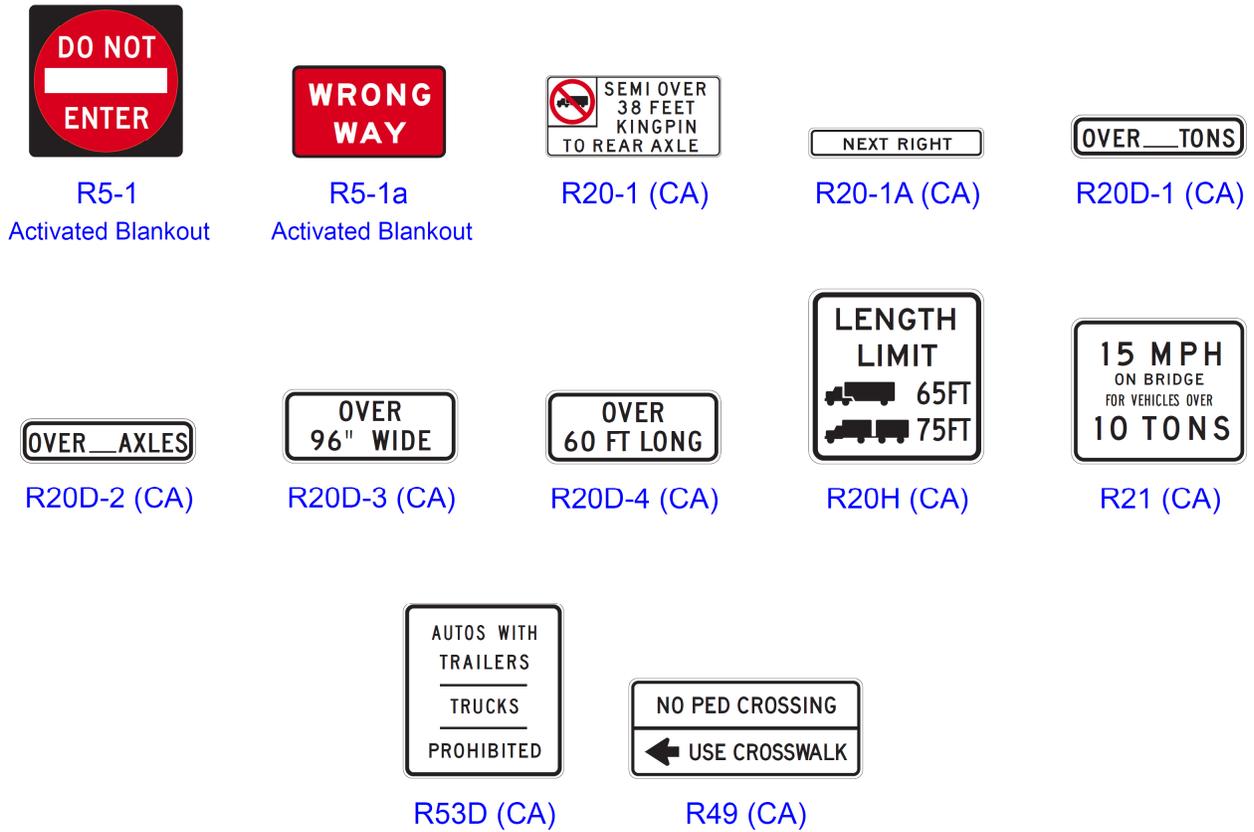
R82A (CA)

Figure 2B-11. Selective Exclusion Signs

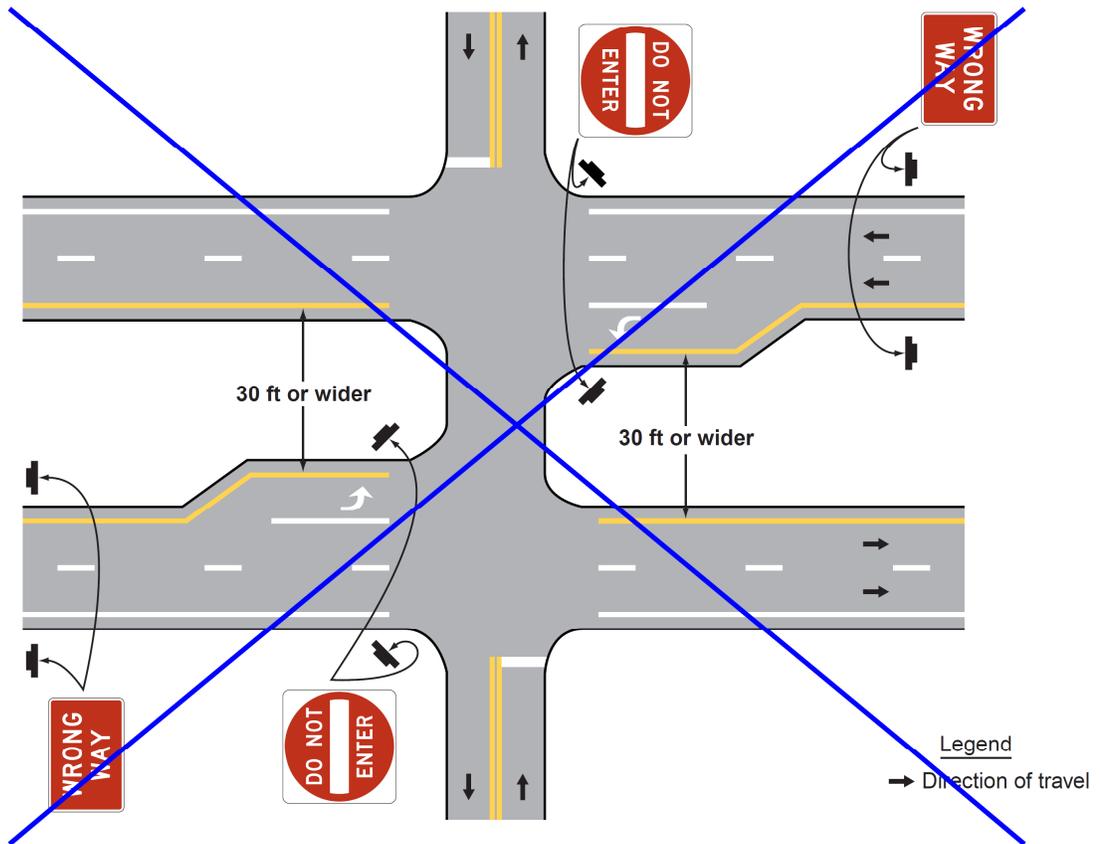


\* An optional word message sign is shown in the "Standard Highway Signs and Markings" book

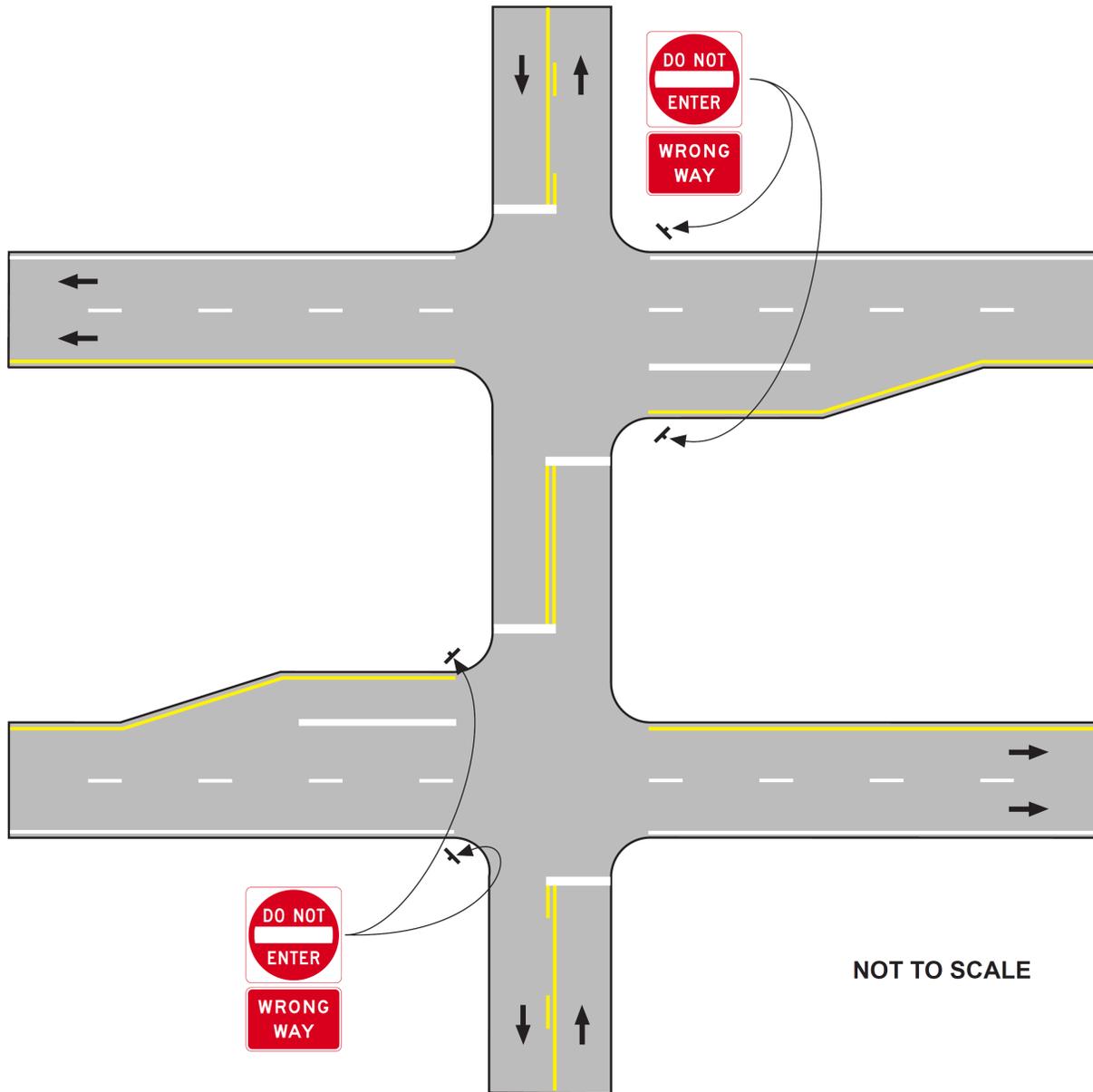
**Figure 2B-11 (CA). Selective Exclusion Signs**



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



**Figure 2B-12 (CA). Location of Wrong-Way Signing for Divided Highways  
A - with Median Widths of 30 Feet or Wider**

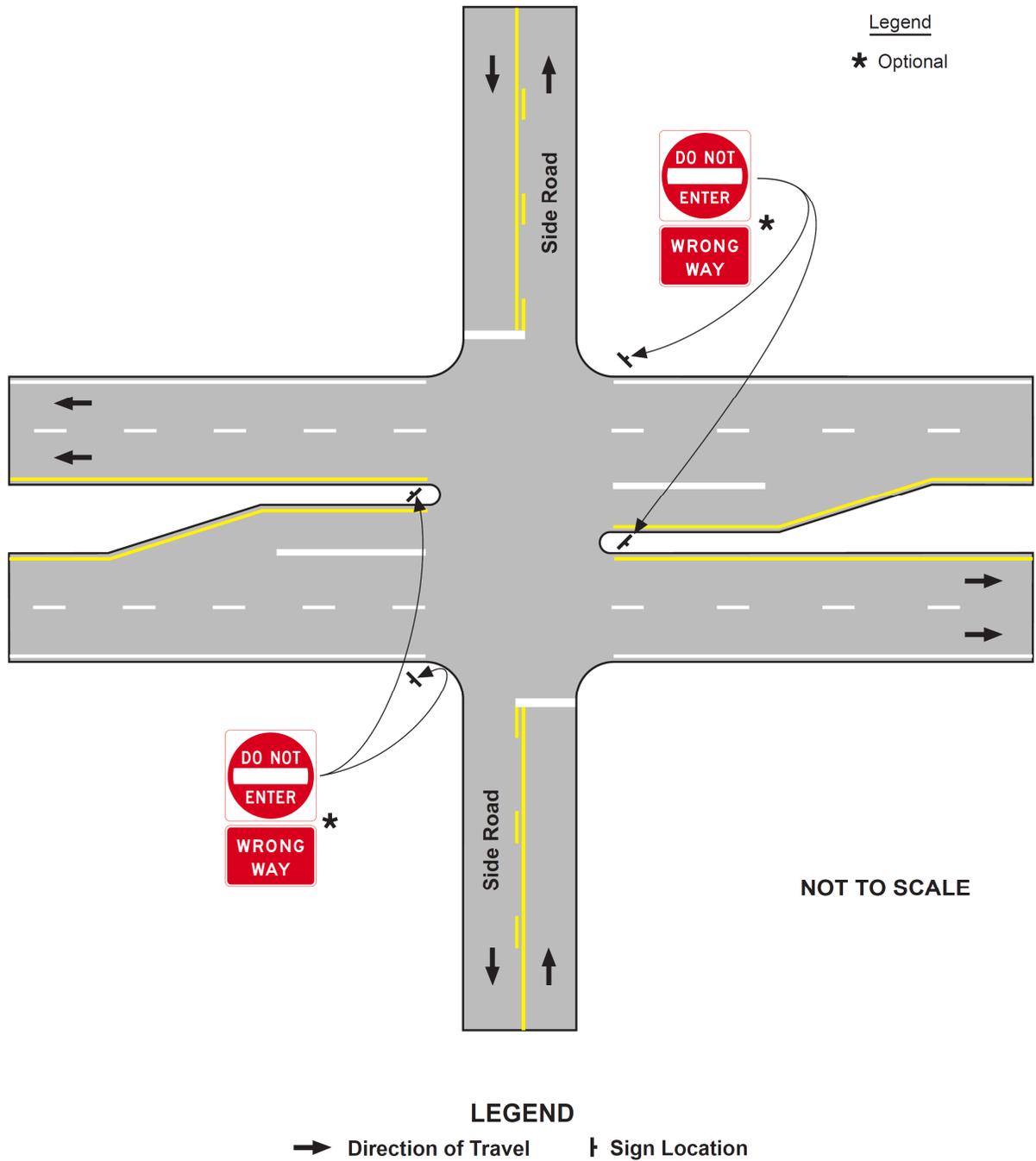


NOT TO SCALE

**LEGEND**

- ➔ Direction of Travel
- ‡ Sign Location

**Figure 2B-12 (CA). Location of Wrong-Way Signing for Divided Highways B - with Median Widths Narrower Than 30 Feet**



**Figure 2B-13. ONE WAY and Divided Highway Crossing Signs**

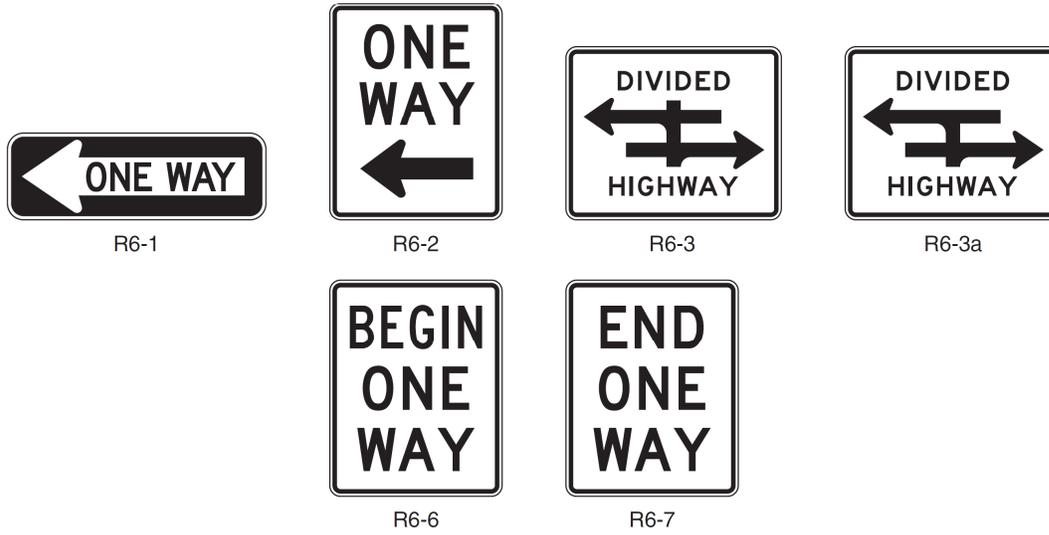
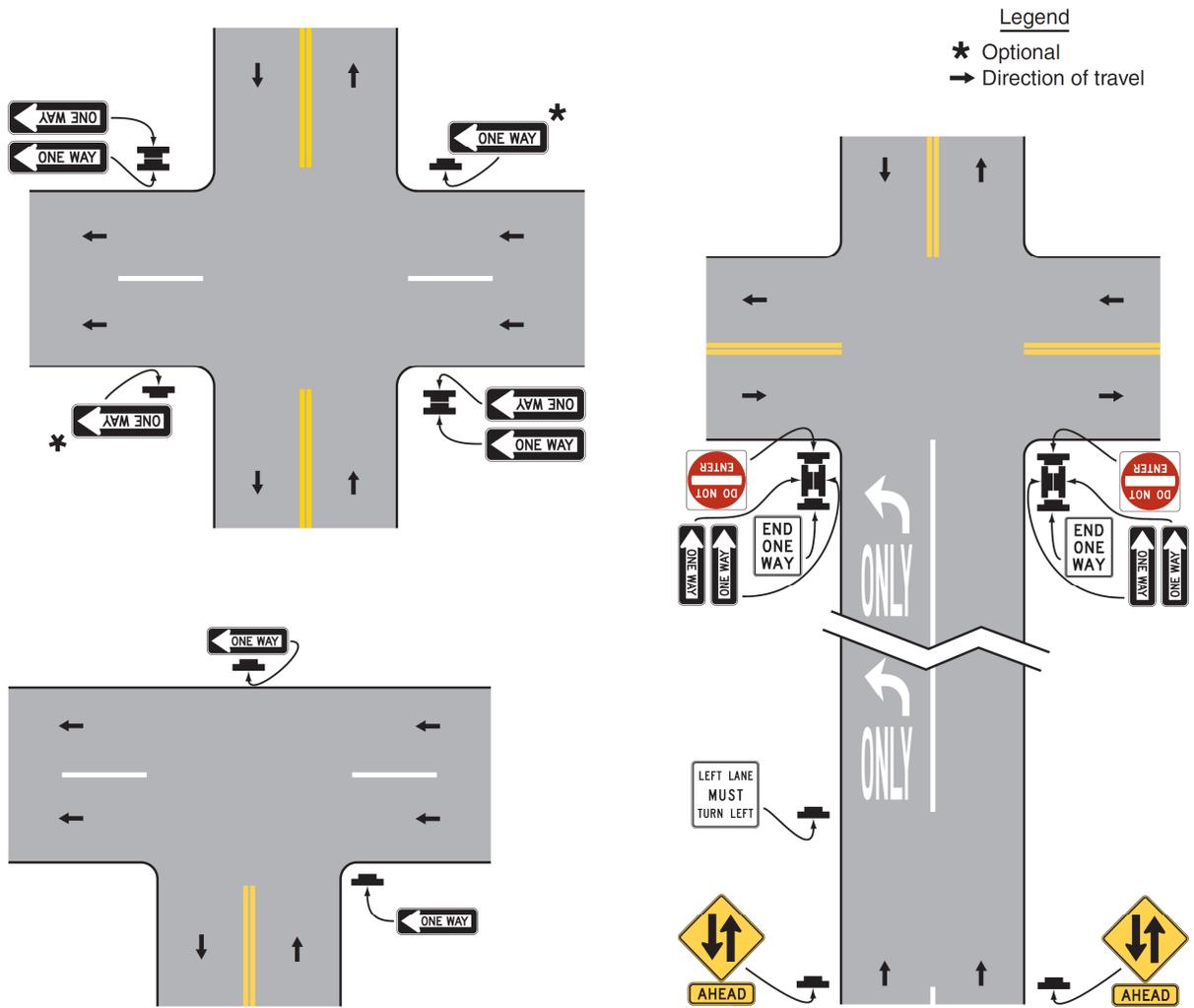
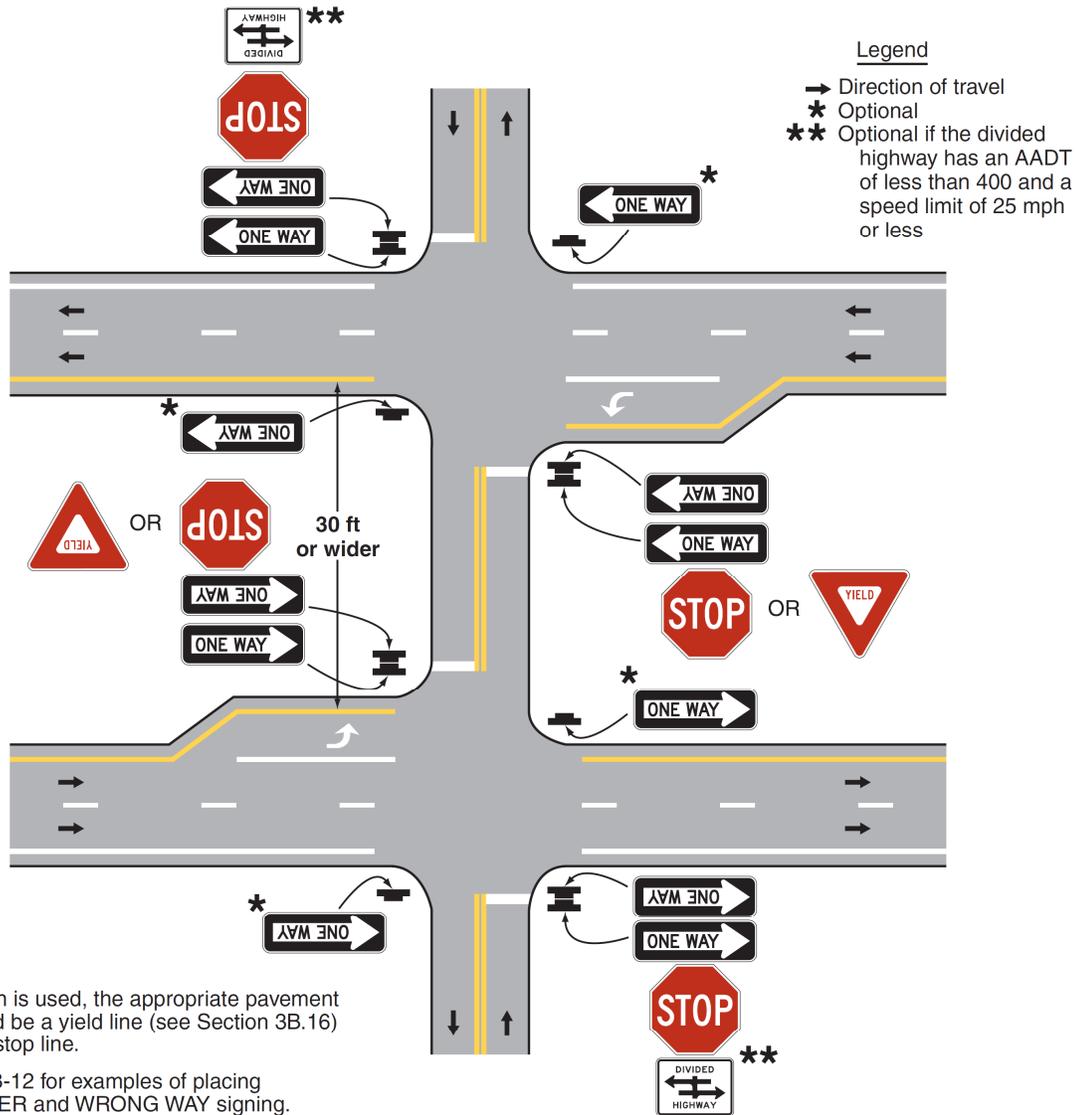


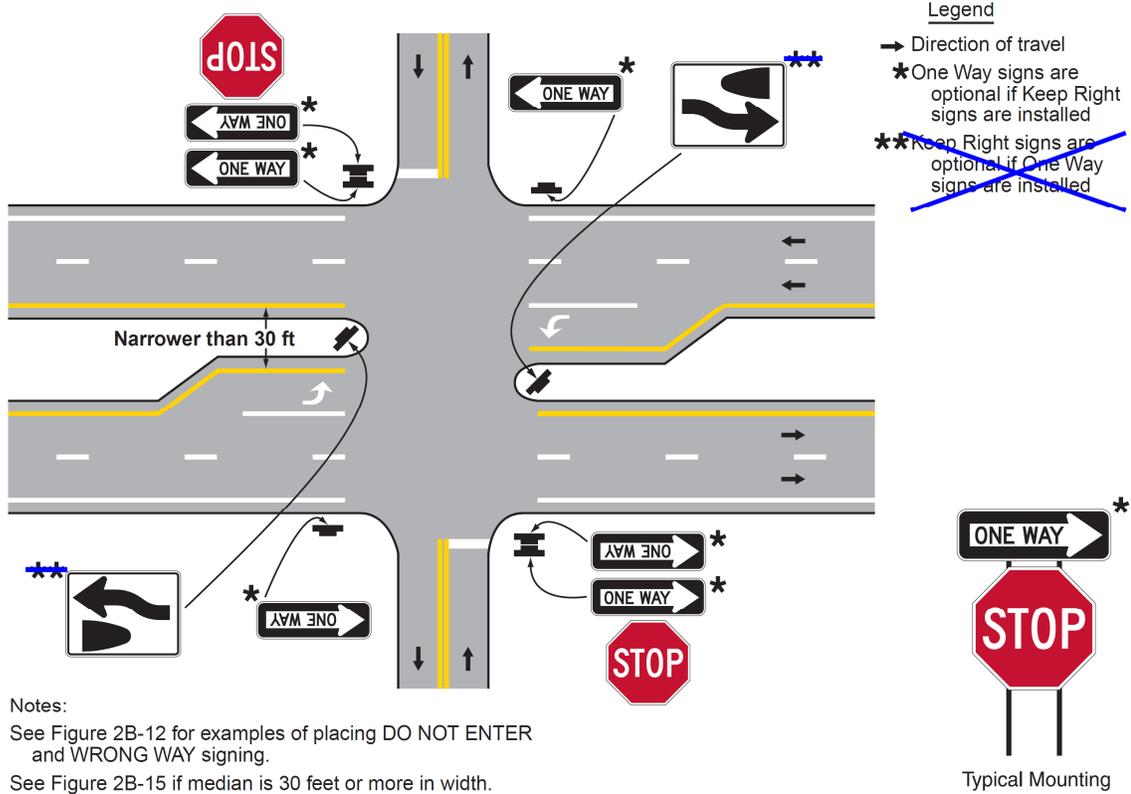
Figure 2B-14. Locations of ONE WAY Signs



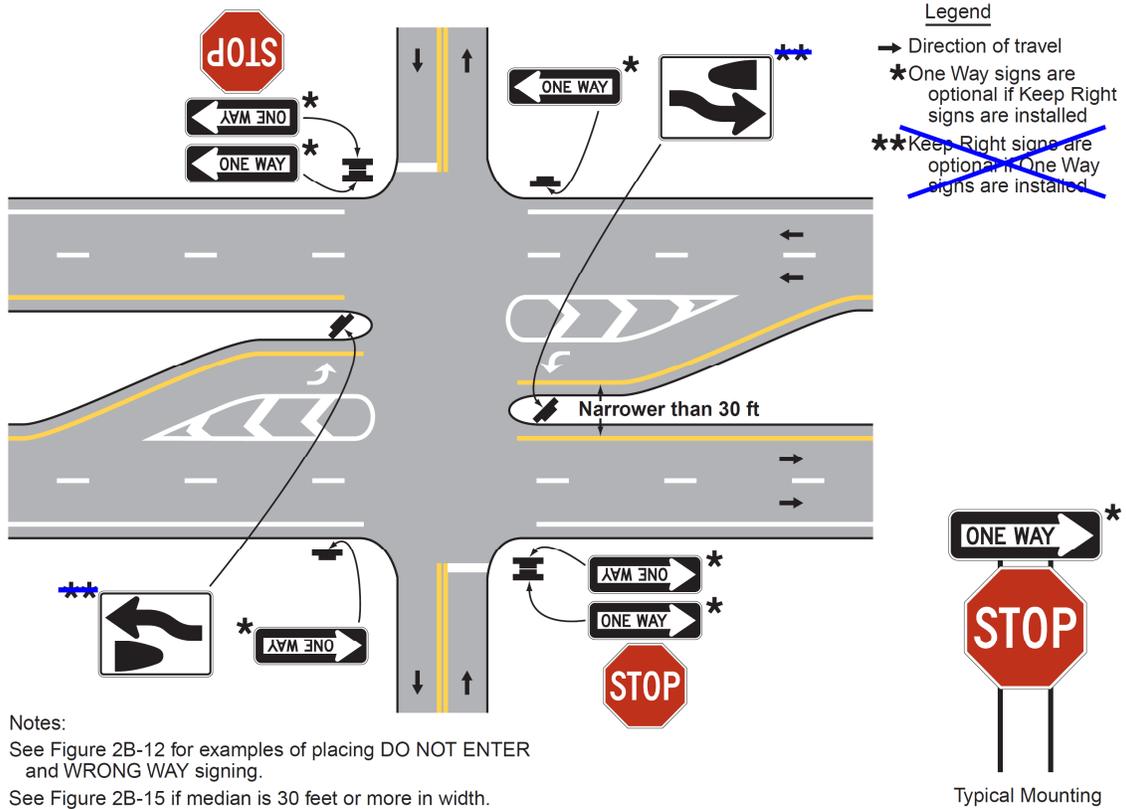
**Figure 2B-15. ONE WAY Signing for Divided Highways with Median Widths of 30 Feet or Wider**



**Figure 2B-16. ONE WAY Signing for Divided Highways with Median Widths Narrower Than 30 Feet**

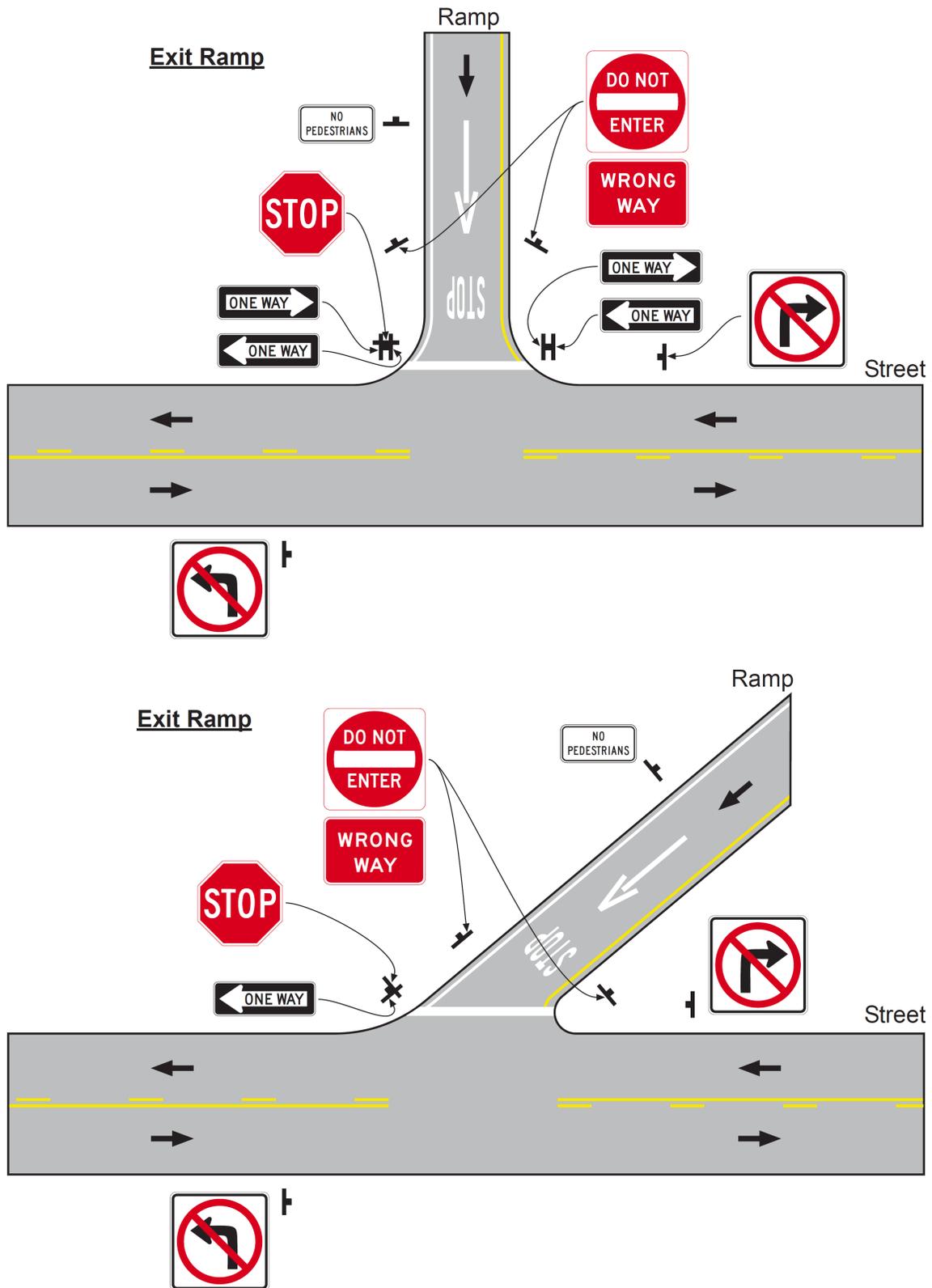


**Figure 2B-17. ONE WAY Sign for Divided Highways with Median Widths Narrower Than 30 Feet and Separated Left-Turn Lanes**

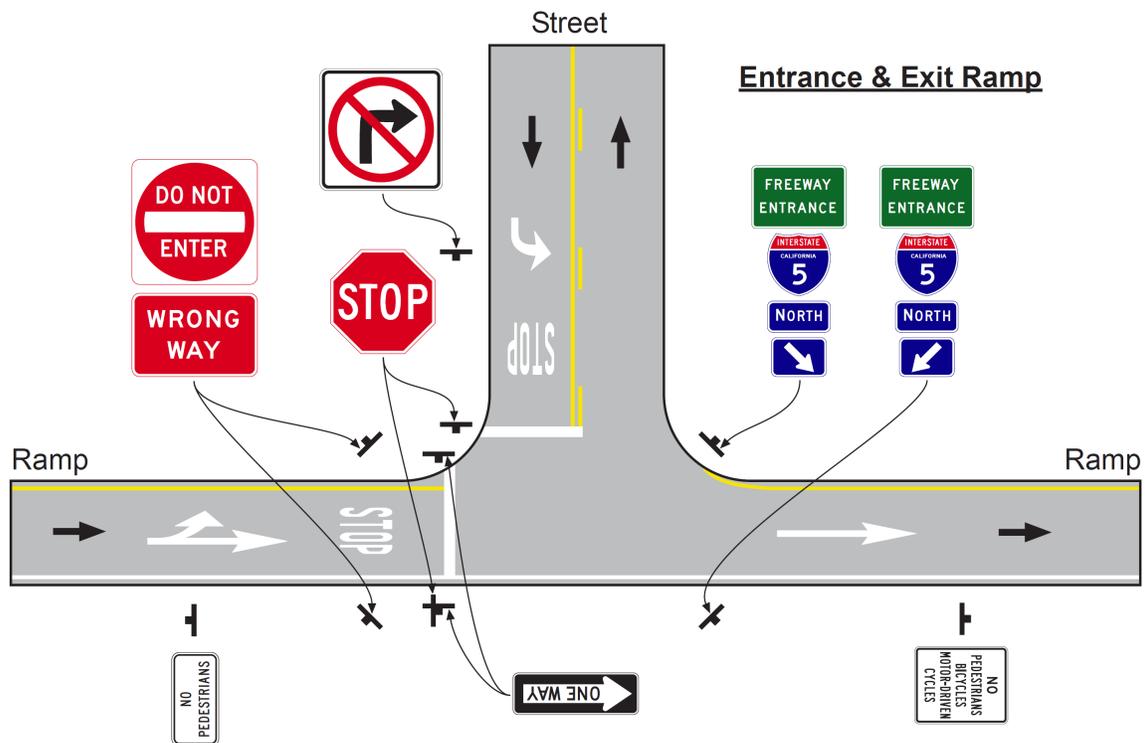
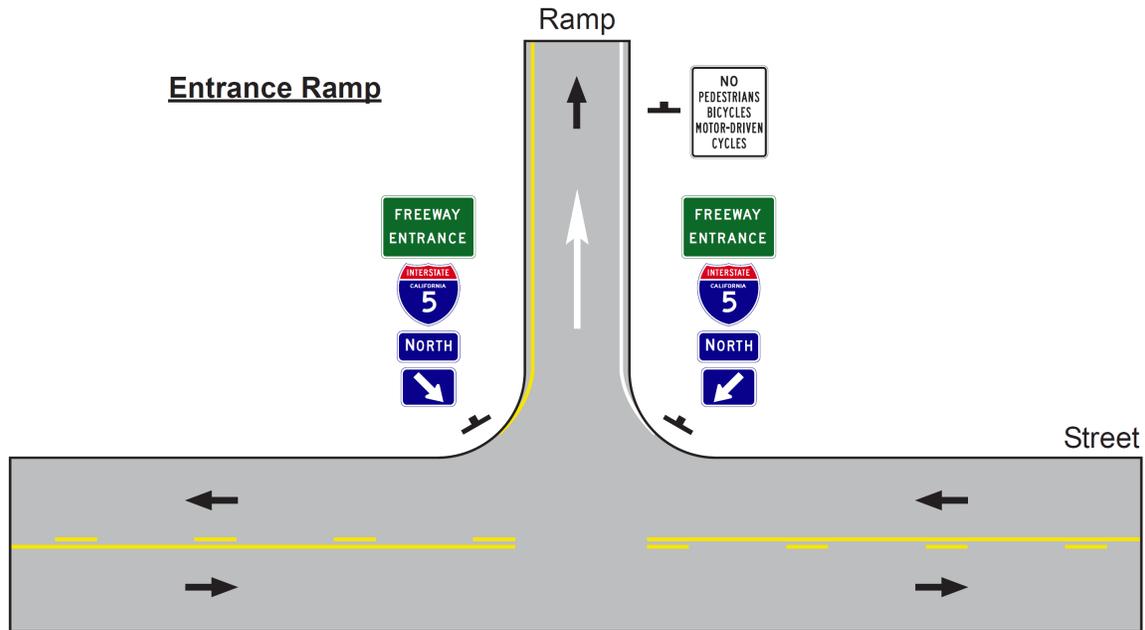




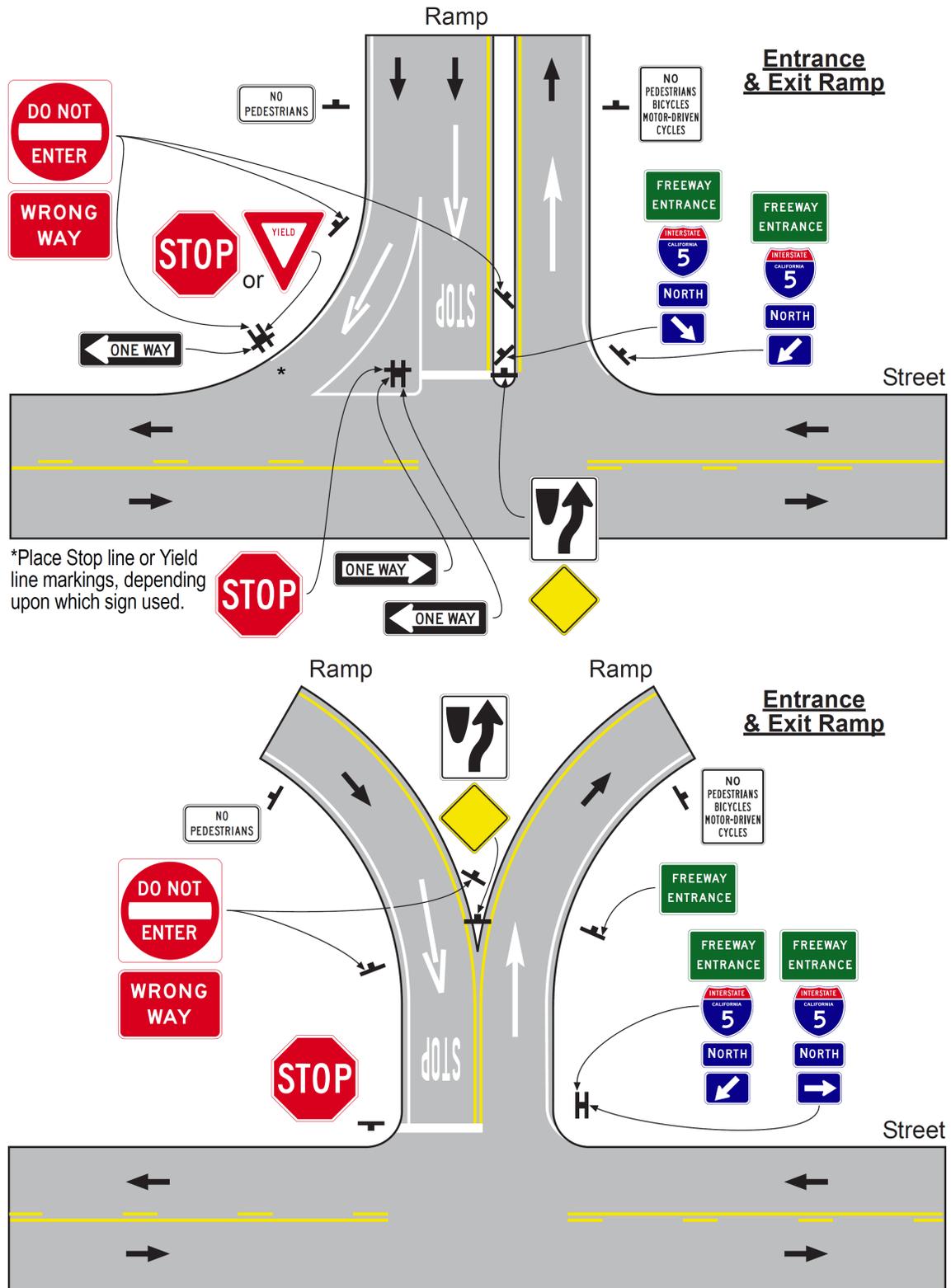
**Figure 2B-18 (CA). Example of Application of Regulatory Signing and Pavement Markings at an Exit Ramp Termination to Deter Wrong-Way Entry (Sheet 1 of 5)**



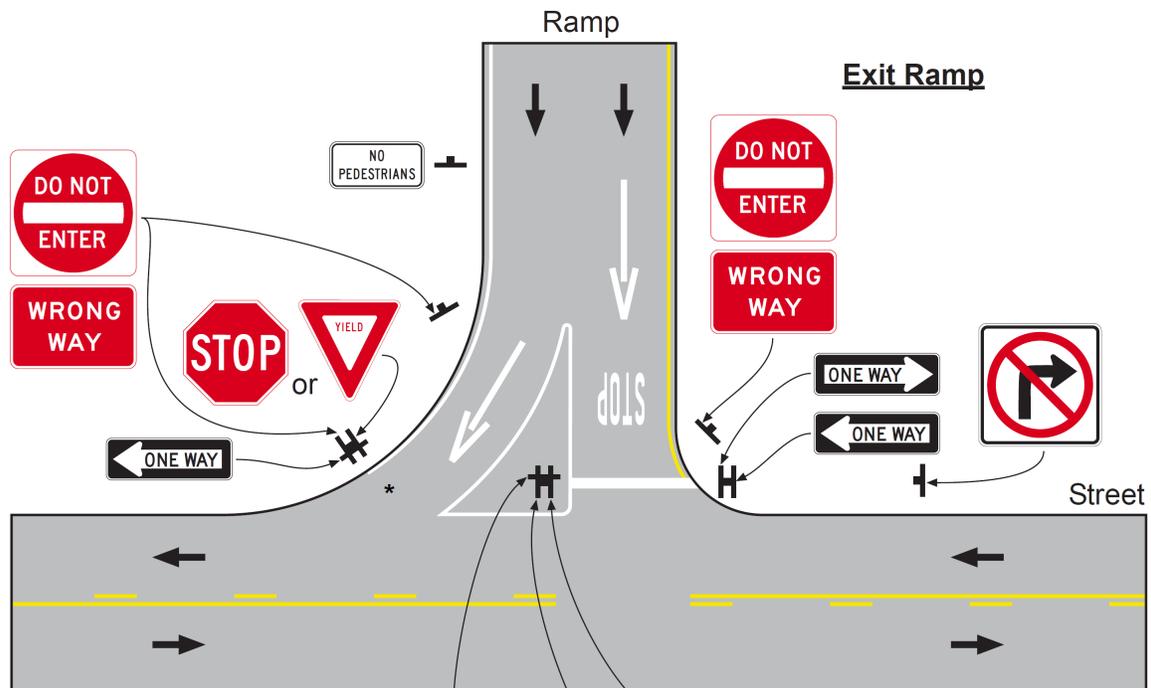
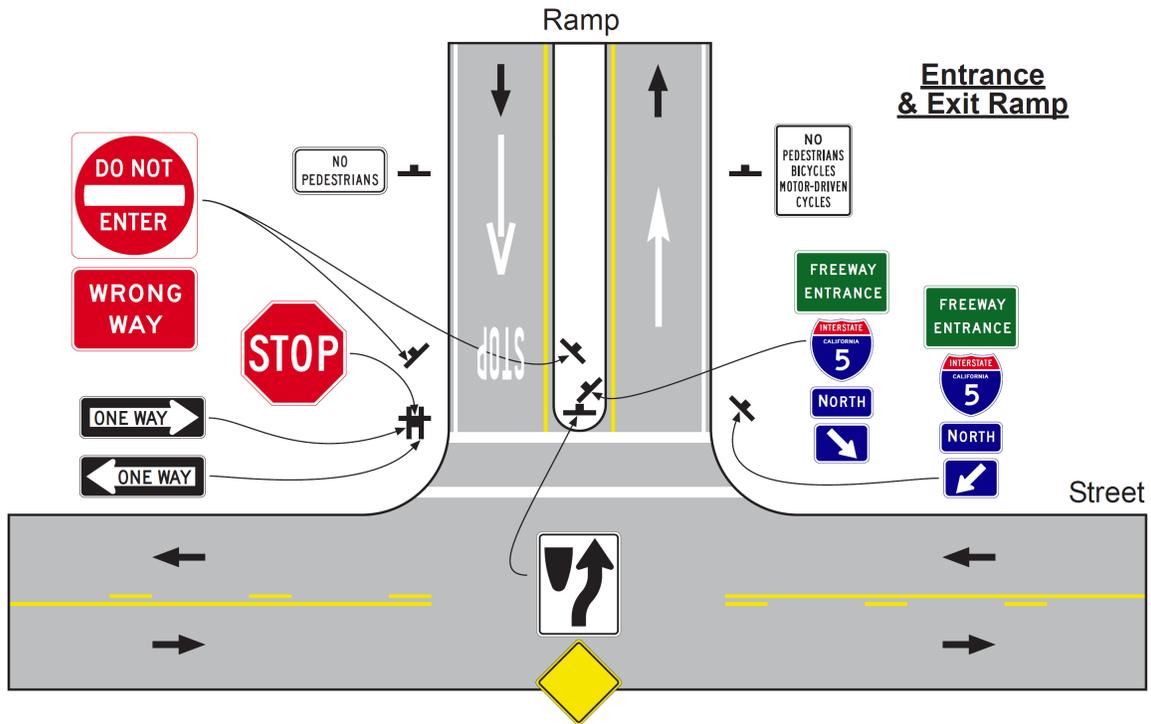
**Figure 2B-18 (CA). Example of Application of Regulatory Signing and Pavement Markings at an Exit Ramp Termination to Deter Wrong-Way Entry (Sheet 2 of 5)**



**Figure 2B-18 (CA). Example of Application of Regulatory Signing and Pavement Markings at an Exit Ramp Termination to Deter Wrong-Way Entry (Sheet 3 of 5)**



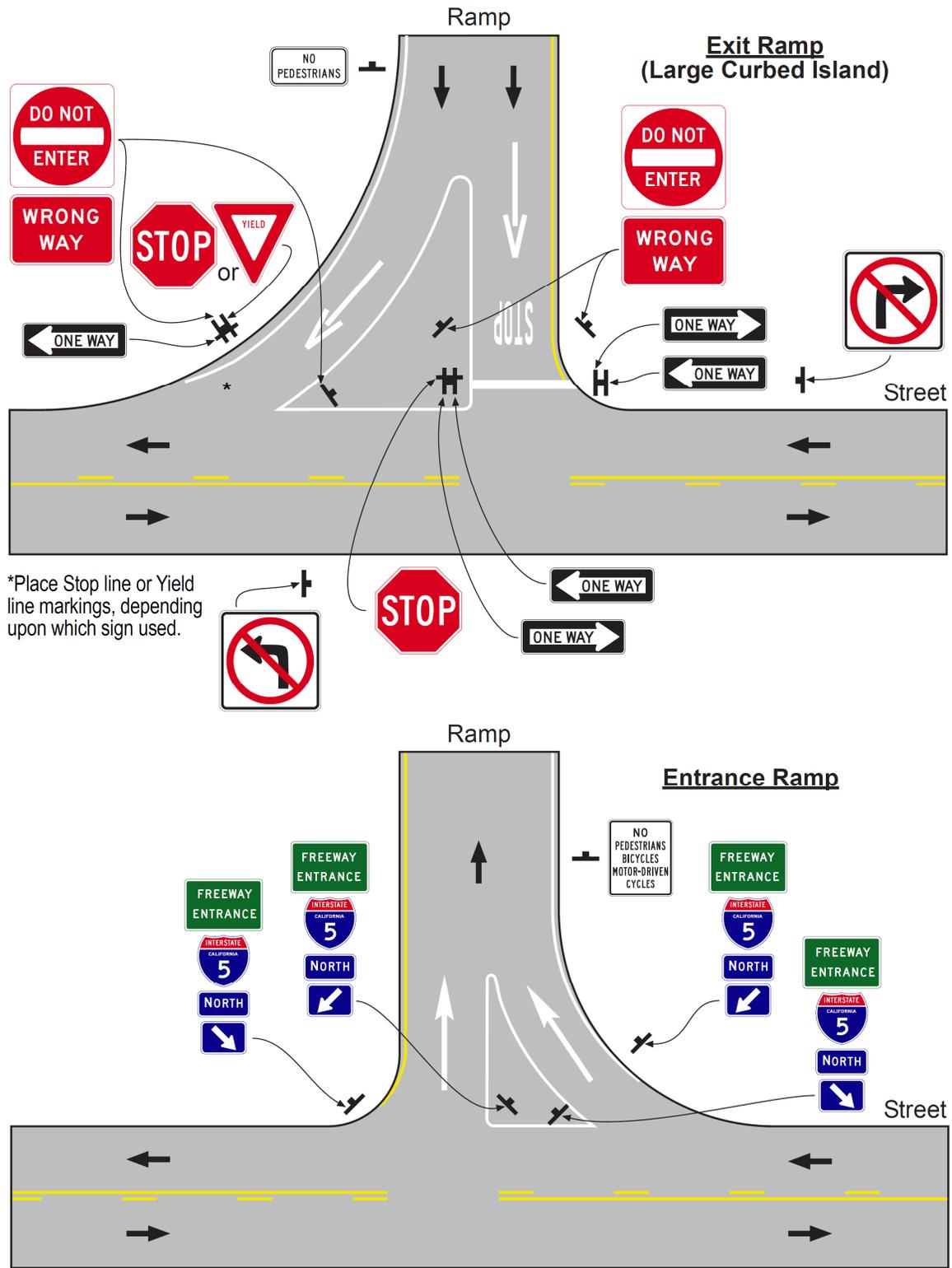
**Figure 2B-18 (CA). Example of Application of Regulatory Signing and Pavement Markings at an Exit Ramp Termination to Deter Wrong-Way Entry (Sheet 4 of 5)**



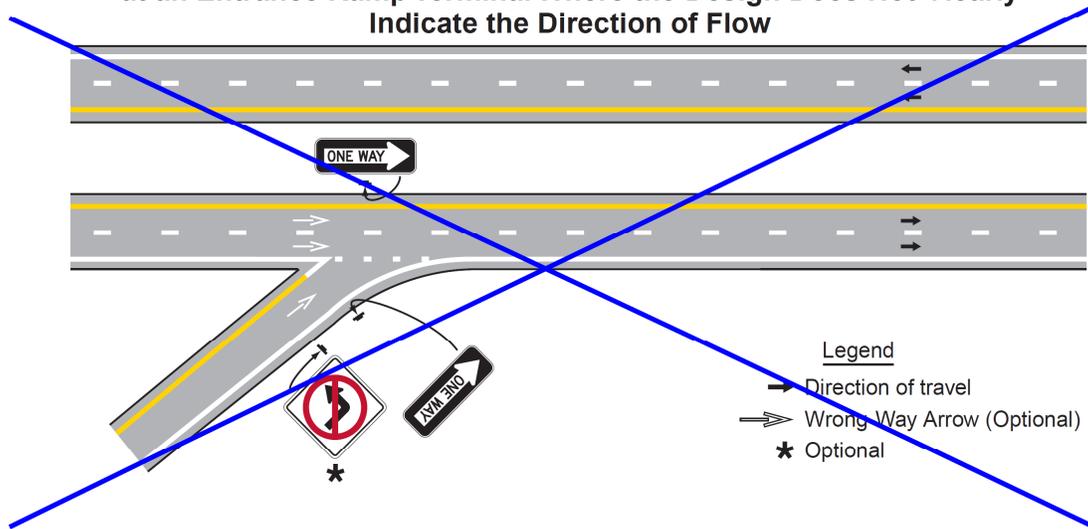
\*Place Stop line or Yield line markings, depending upon which sign used.



**Figure 2B-18 (CA). Example of Application of Regulatory Signing and Pavement Markings at an Exit Ramp Termination to Deter Wrong-Way Entry (Sheet 5 of 5)**



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



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

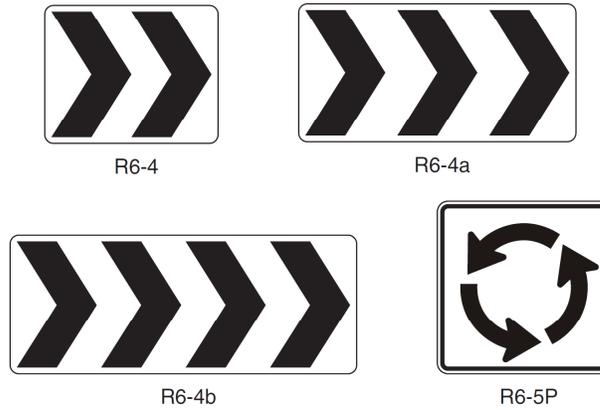
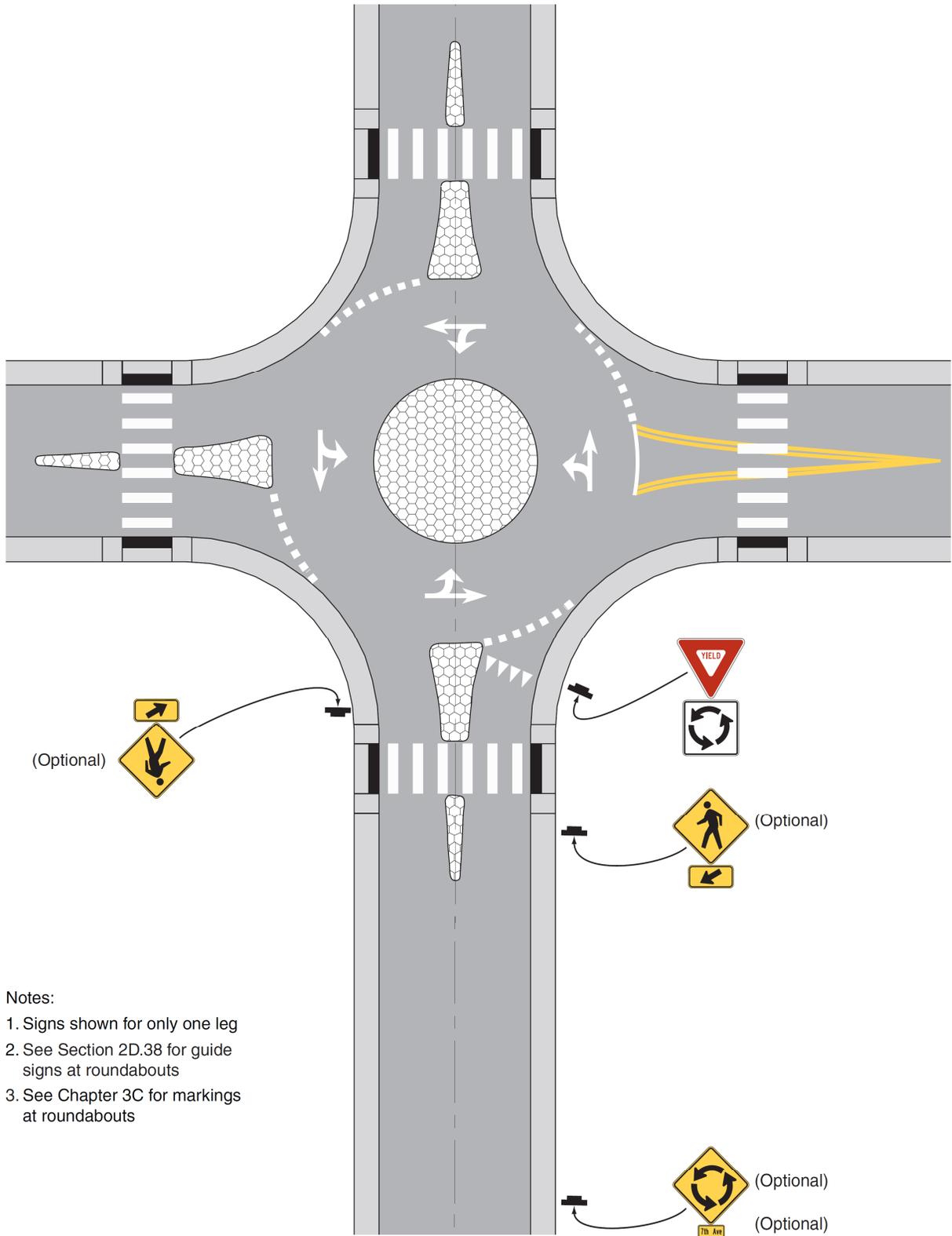
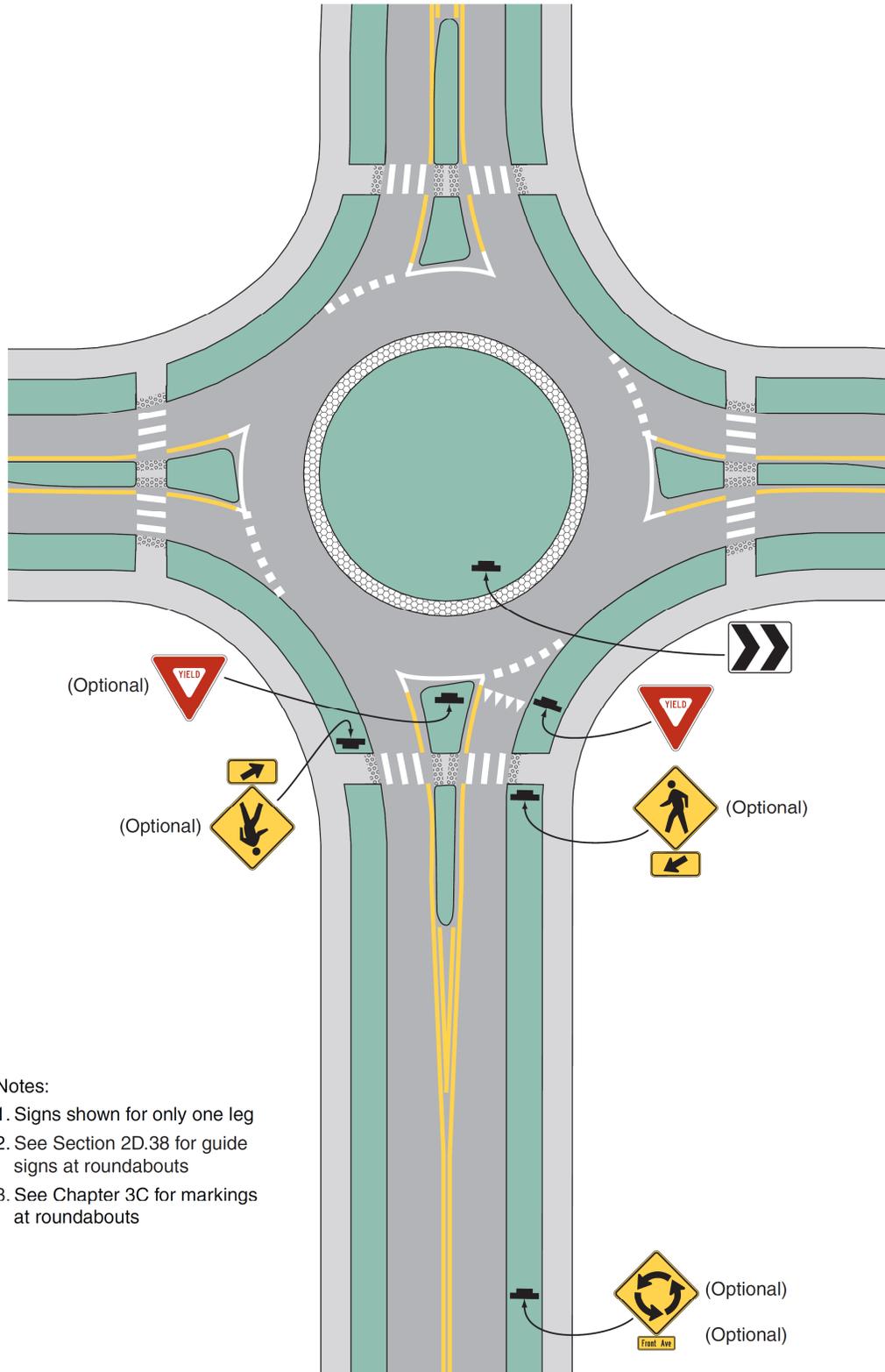


Figure 2B-21. Example of Regulatory and Warning Signs for a Mini-Roundabout



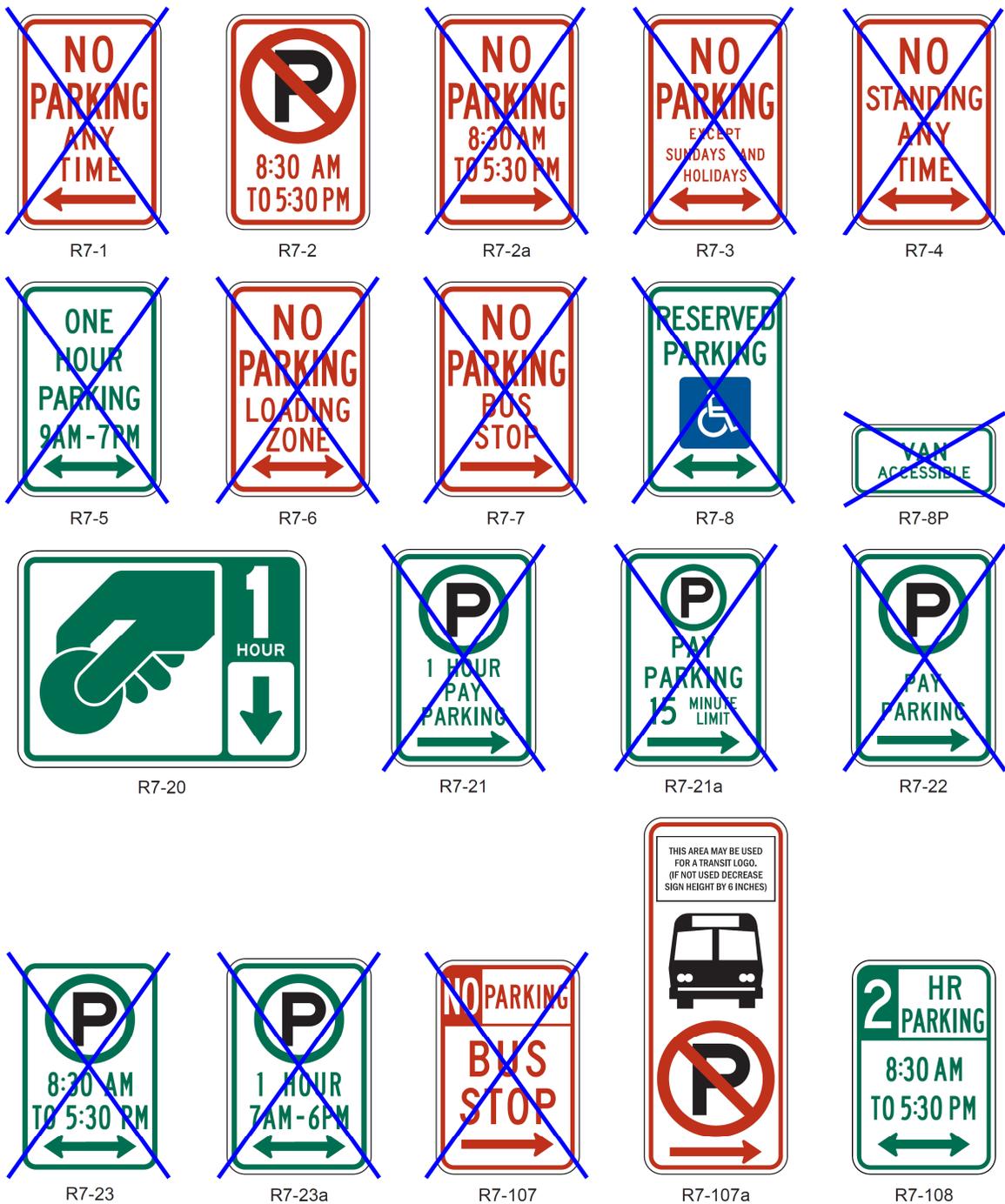
**Figure 2B-22. Example of Regulatory and Warning Signs for a One-Lane Roundabout**



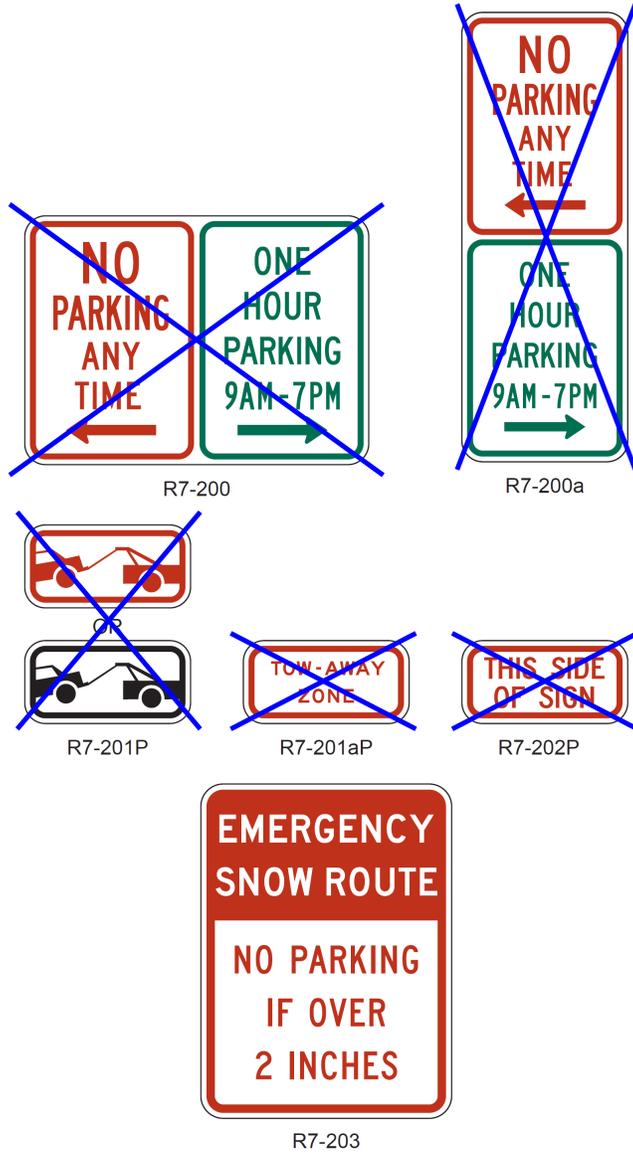
- Notes:
1. Signs shown for only one leg
  2. See Section 2D.38 for guide signs at roundabouts
  3. See Chapter 3C for markings at roundabouts



Figure 2B-24. Parking and Standing Signs and Plaques (R7 Series) (Sheet 1 of 2)



**Figure 2B-24. Parking and Standing Signs and Plaques (R7 Series) (Sheet 2 of 2)**



**Figure 2B-24 (CA). Parking and Standing Signs and Plaques (R7 Series) (Sheet 1 of 3)**



R22 (CA)



R24 (CA)



R24A (CA)



R24B (CA)



R24C (CA)



R24D (CA)



R24E (CA)



R25 (CA)



R25A (CA)



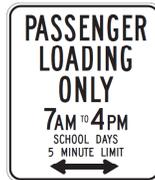
R25B (CA)



R25C (CA)



R25D (CA)



R25E (CA)



R25F (CA)



R25H (CA)



R25J (CA)



R26 (CA)



R26(S) (CA)



R26A (CA)



R26A(S) (CA)



R26F (CA)



R26K (CA)



R26L (CA)



R27 (CA)



R27A (CA)

**Figure 2B-24 (CA). Parking and Standing Signs and Plaques (R7 Series) (Sheet 2 of 3)**



R28 (CA)



R28(S) (CA)



R28A (CA)



R28A(S) (CA)



R28C (CA)



R28D (CA)



R28D(S) (CA)



R28E (CA)



R28F (CA)



R29 (CA)



R30 (CA)



R30A (CA)



R30B (CA)



R30C (CA)



R30D (CA)



R30E (CA)



R30F (CA)



R31 (CA)



R31(S) (CA)



R32 (CA)



R32B (CA)



R32C (CA)



R32D (CA)



R32E (CA)

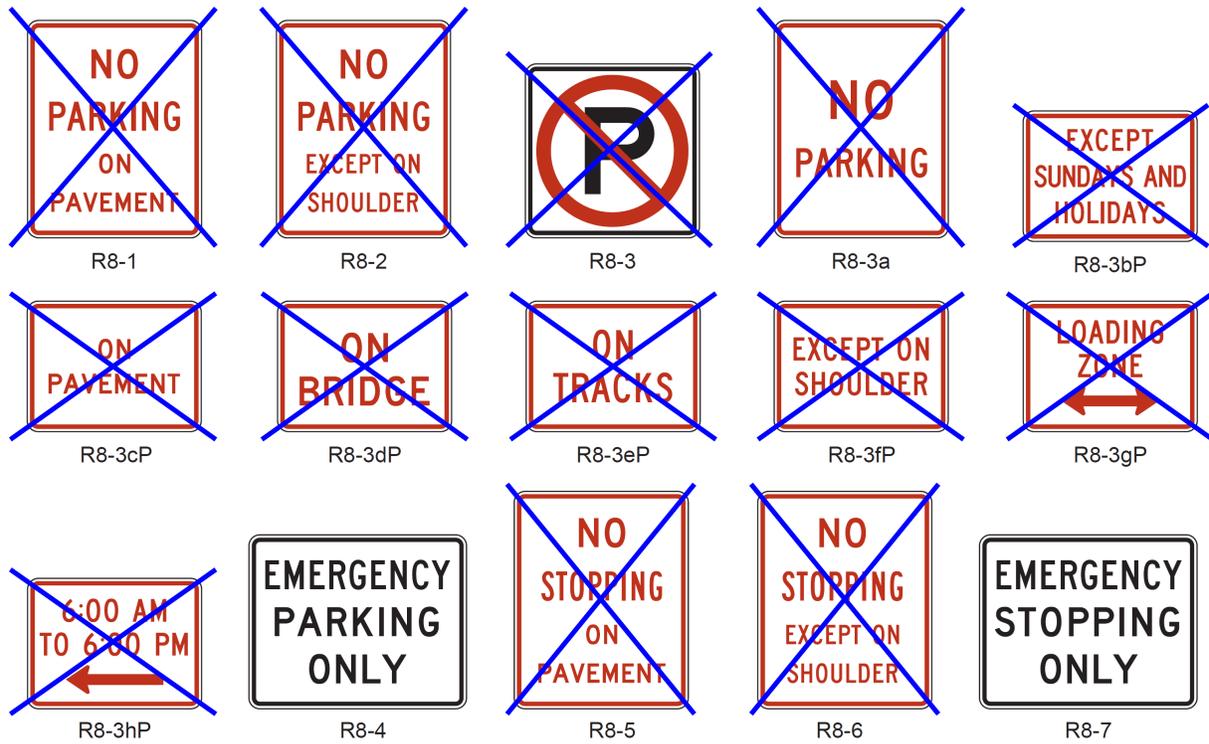


R32F (CA)

**Figure 2B-24 (CA). Parking and Standing Signs and Plaques (R7 Series) (Sheet 3 of 3)**



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



**Figure 2B-25 (CA). Parking and Stopping Signs and Plaques (R8 Series)**



R57 (CA)



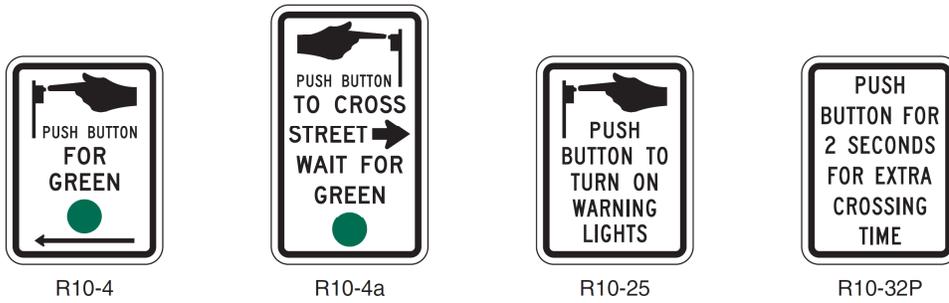
R58 (CA)

Figure 2B-26. Pedestrian Signs and Plaques (Sheet 1 of 2)



\* The bottom panel shall be eliminated where the pedestrian signal timing is non-actuated and the pedestrian push button is used solely to activate accessible pedestrian signals.

**Figure 2B-26. Pedestrian Signs and Plaques** (Sheet 2 of 2)

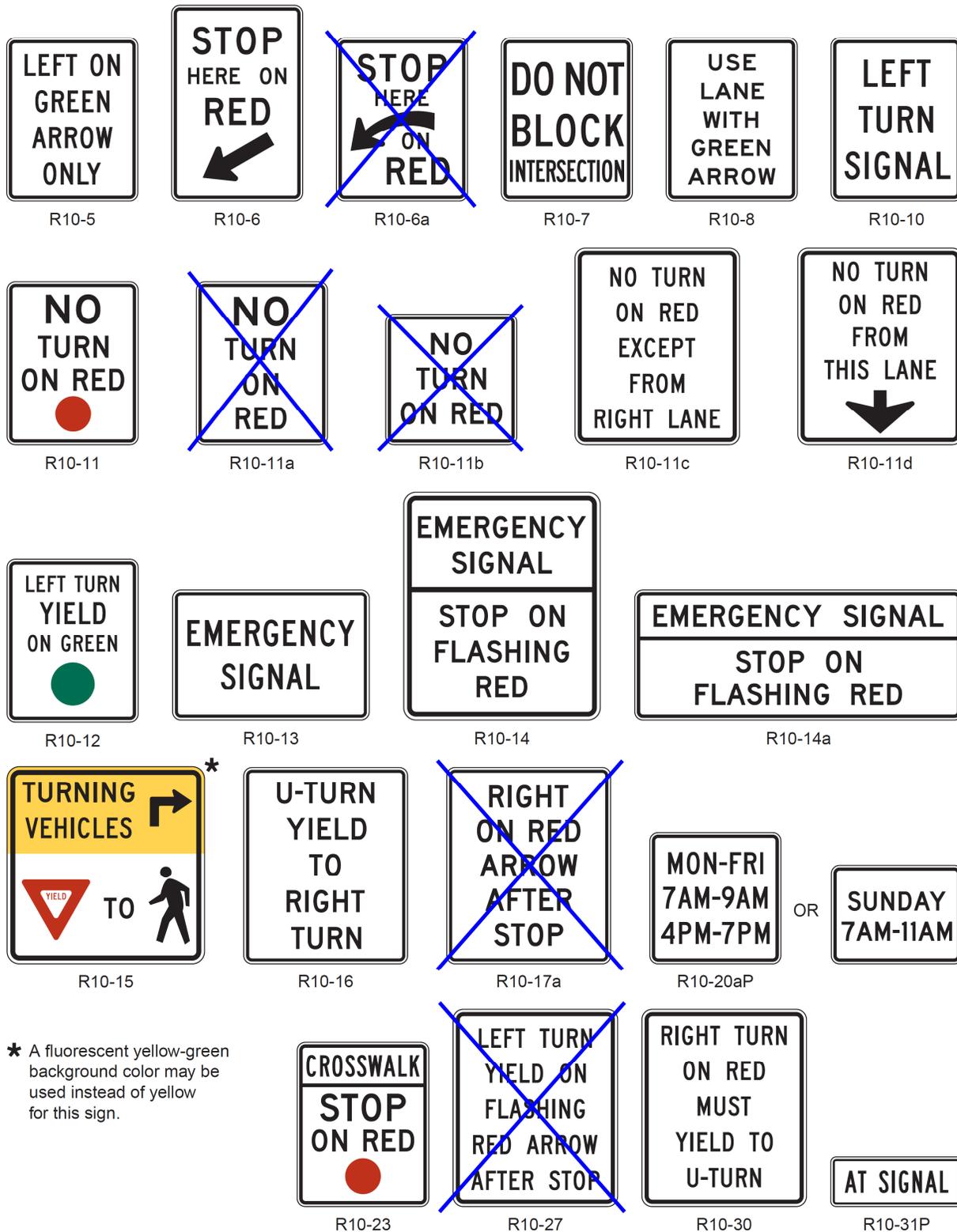


**Figure 2B-26 (CA). Pedestrian Signs and Plaques**



**R62E (CA)**

Figure 2B-27. Traffic Signal Signs and Plaques



\* A fluorescent yellow-green background color may be used instead of yellow for this sign.

**Figure 2B-27 (CA). Traffic Signal Signs and Plaques**



R13A (CA)



R13B (CA)



SR39A (CA)



SR39A(U) (CA)

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



R10-28



R10-29

**Figure 2B-28 (CA). Ramp Metering Signs**



R89 (CA)



R89-1 (CA)

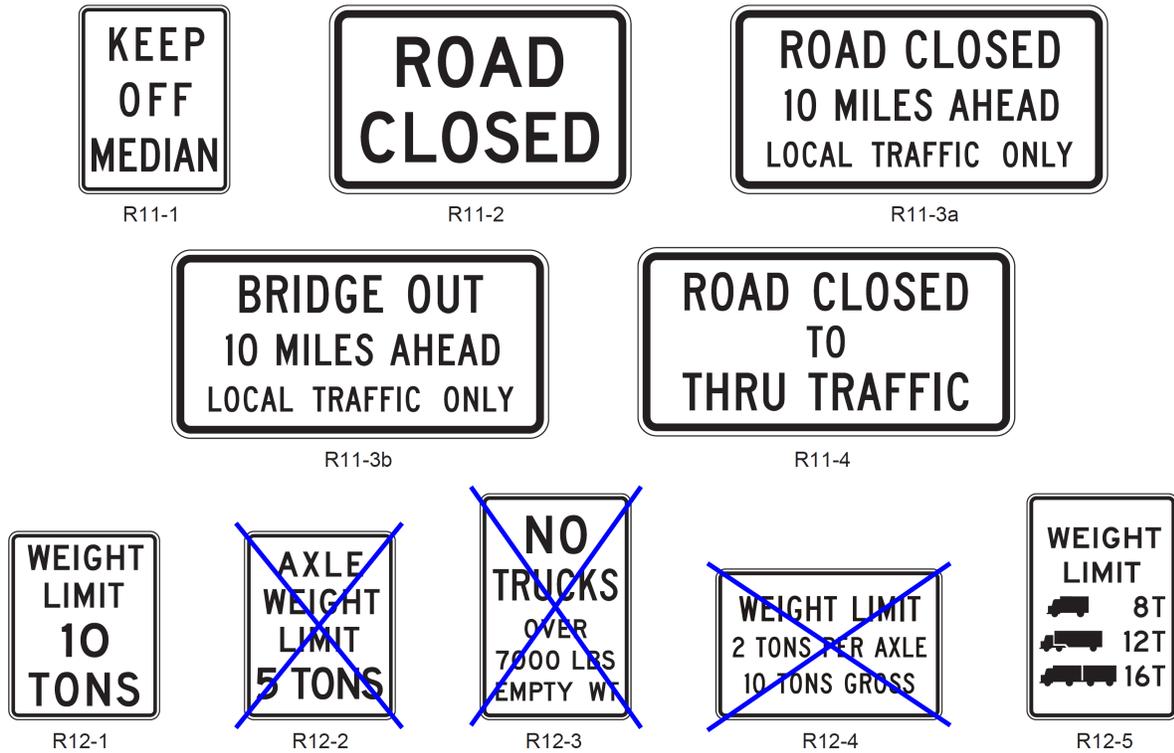


R89-2 (CA)



R89-3 (CA)

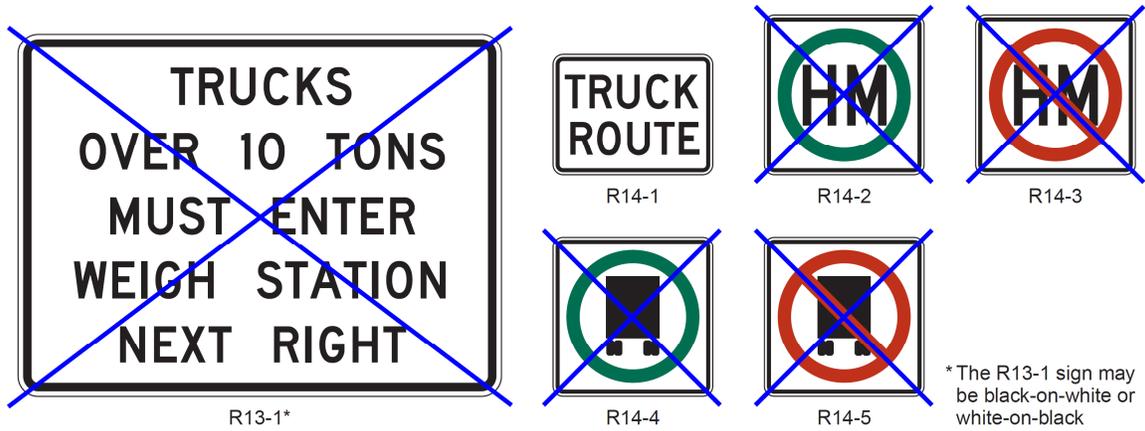
**Figure 2B-29. Road Closed and Weight Limit Signs**



**Figure 2B-29 (CA). Road Closed and Weight Limit Signs**



Figure 2B-30. Truck Signs



\*The R13-1 sign may be black-on-white or white-on-black

**Figure 2B-30 (CA). Truck Signs**



R102 (CA)



R102A (CA)



R103 (CA)



R103A (CA)



R104 (CA)



R104A (CA)



R105 (CA)



R105A (CA)



SR6-1 (CA)



SR7-1 (CA)



SR8-1 (CA)



SR9-1 (CA)



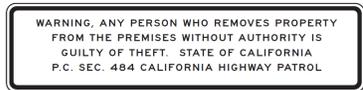
SR10-1 (CA)



SR11-1 (CA)



SR12-1 (CA)



SR13-1 (CA)



SR17 (CA)



SR18 (CA)



SR19-1 (CA)



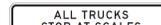
SR25 (CA)



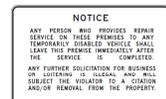
SR41 (CA)



SR42 (CA)

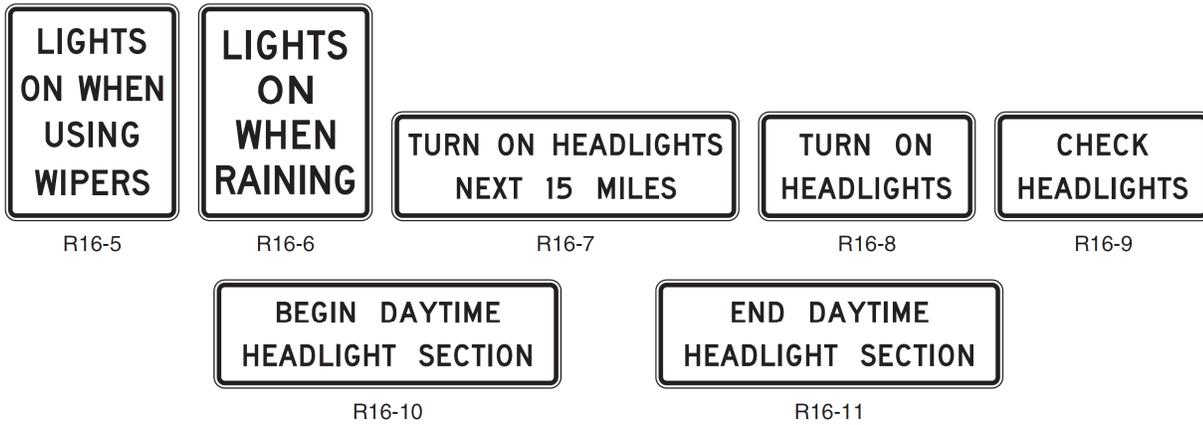


SR57 (CA)



S21 (CA)

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



**Figure 2B-32. Other Regulatory Signs and Symbols**



Seat Belt Symbol

**Figure 2B-32 (CA). Other Regulatory Signs and Symbols**



SR15 (CA)

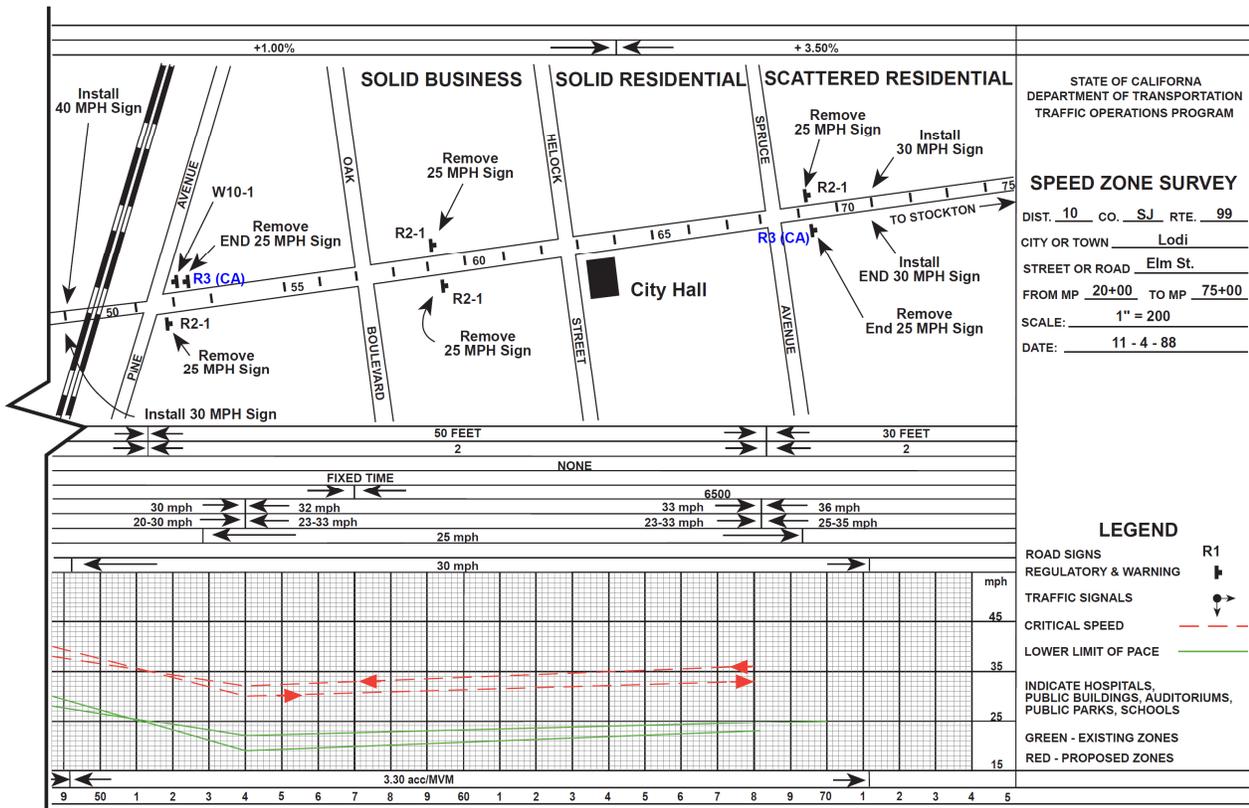
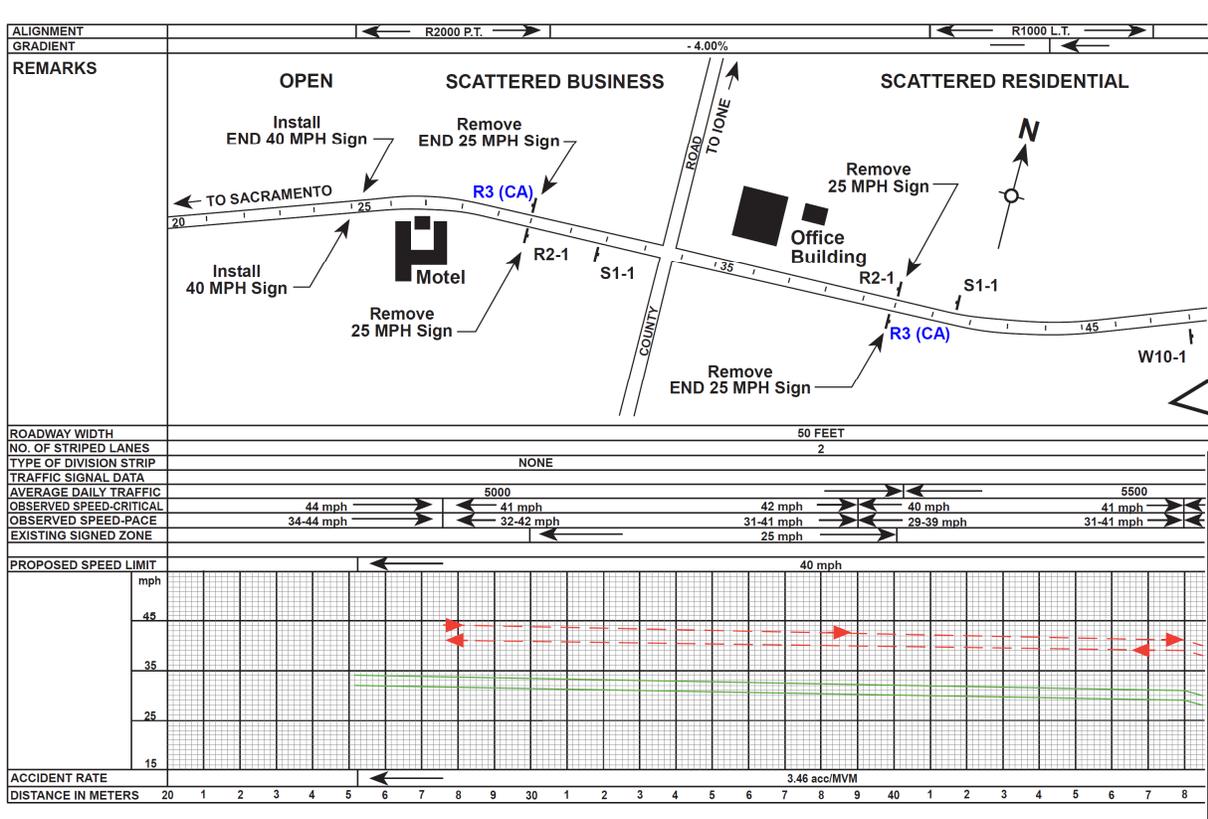


SR15A (CA)



SR61 (CA)

**Figure 2B-101 (CA). Example of Speed Zone Survey Sheet**



STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
 TRAFFIC OPERATIONS PROGRAM

**SPEED ZONE SURVEY**

DIST. 10 CO. SJ RTE. 99  
 CITY OR TOWN Lodi  
 STREET OR ROAD Elm St.  
 FROM MP 20+00 TO MP 75+00  
 SCALE: 1" = 200  
 DATE: 11 - 4 - 88

**LEGEND**

ROAD SIGNS REGULATORY & WARNING R1

TRAFFIC SIGNALS

CRITICAL SPEED

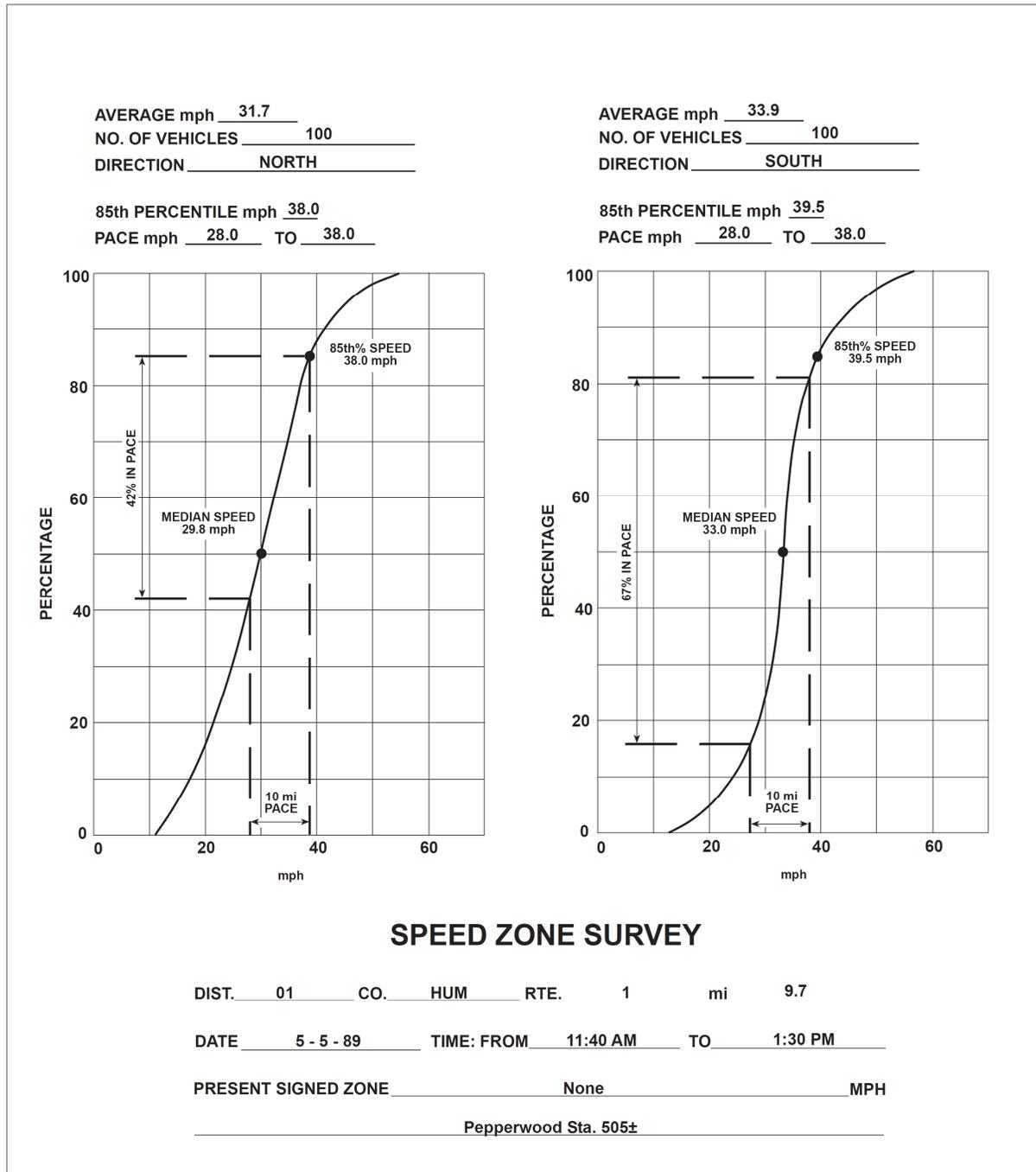
LOWER LIMIT OF PACE

INDICATE HOSPITALS, PUBLIC BUILDINGS, AUDITORIUMS, PUBLIC PARKS, SCHOOLS

GREEN - EXISTING ZONES  
 RED - PROPOSED ZONES

NOTE: This scaled figure represents a 11 in X 36 in size sheet.

**Figure 2B-102 (CA). Example of Cumulative Speed Curve Sheet**



**Figure 2B-103 (CA). Example of Vehicle Speed Survey Sheet for City and County Through Highways, Arterials, and Collector Roads**

Jurisdiction \_\_\_\_\_ Date \_\_\_\_\_  
 Location \_\_\_\_\_ Weather \_\_\_\_\_  
 Recorder \_\_\_\_\_ Begin Time \_\_\_\_\_ End Time \_\_\_\_\_

mph	NUMBER OF VEHICLES						PERCENT OF TOTAL	CUMULATIVE PERCENTAGE
	5	10	15	20	25	30		
65								
60								
55								
50								
45								
40								
35								
30	X						1	100
	X						5	99
	X						4	94
	X						7	91
	X						7	83
	X						12	76
25	X						8	64
	X						8	55
	X						13	47
	X						10	34
	X						7	23
20	X						8	17
	X						1	8
	X						5	7
	X						1	3
	X						1	2
15	X						1	1
<b>TOTAL NUMBER OF VEHICLES =</b> <u>107</u>							<b>100 %</b>	

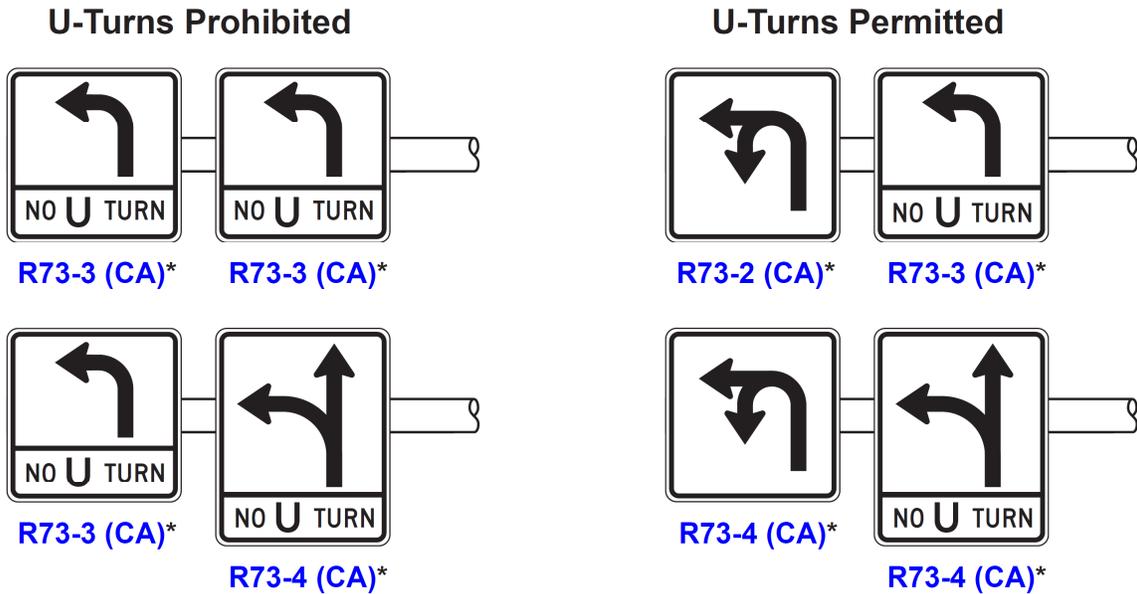
Other Coniderations  
 Accident History :  
 Unusual Conditions :

Signed \_\_\_\_\_ Date \_\_\_\_\_ Title \_\_\_\_\_



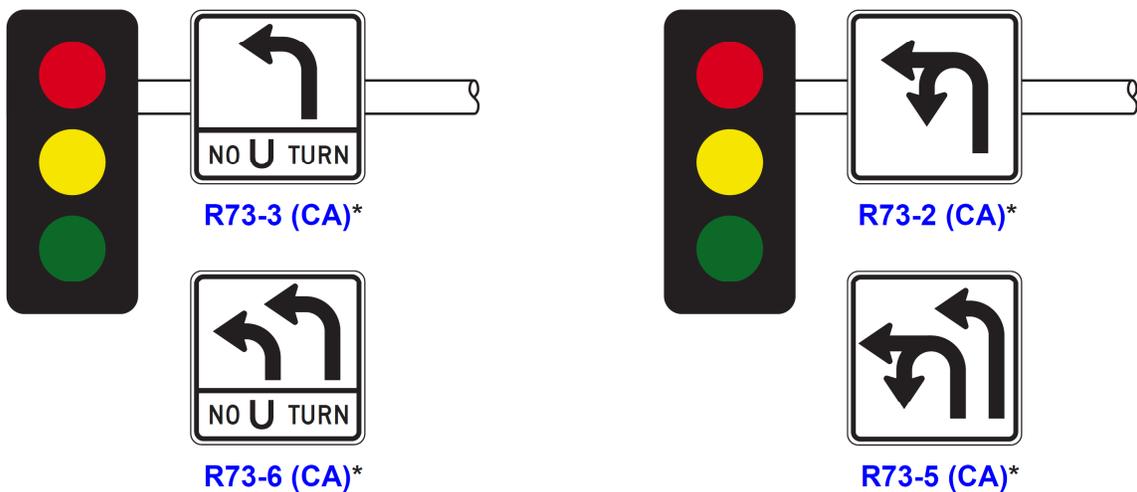
**Figure 2B-105 (CA). U-Turn Signs for Signalized Intersections with Separate Turn Phase**

**TWO LEFT-TURN LANES WITH OVERHEAD U-TURN SIGNS**



See Department of Transportation's Standard Plans for Mounting Details

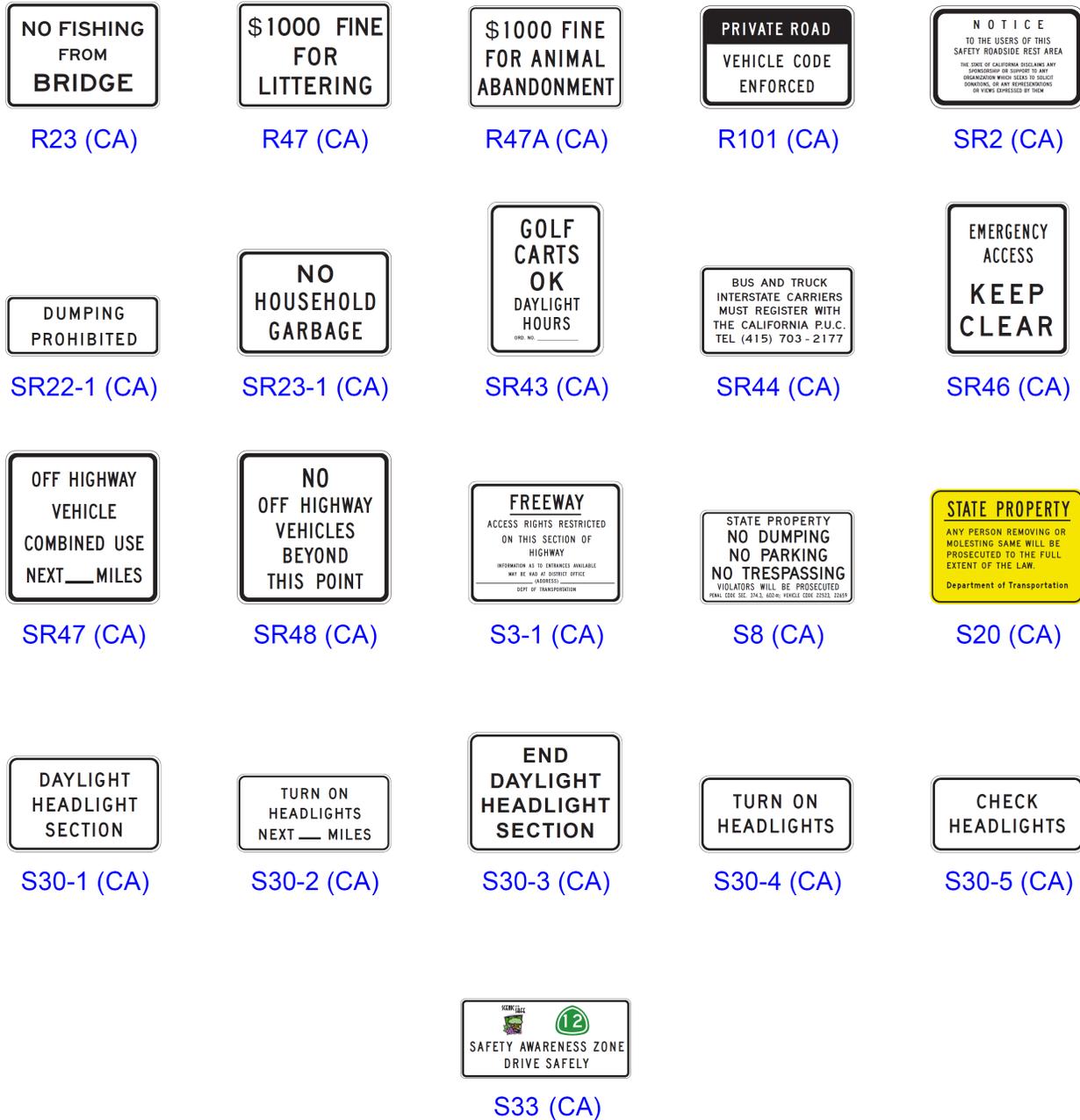
**SIGNAL MASTARM MOUNTED U-TURN SIGNS**



See Department of Transportation's Standard Plans for Mounting Details

**\*R73 (CA) Series Signs**

**Figure 2B-106 (CA). California Miscellaneous Regulatory Signs**



**Table 2B-1. Regulatory Sign and Plaque Sizes (Sheet 1 of 4)**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Stop	R1-1	2B.05	30 x 30*	36 x 36	36 x 36	—	30 x 30*	48 x 48
Yield	R1-2	2B.08	36x36x36*	48x48x48	48x48x48	60x60x60	30x30x30*	—
To Oncoming Traffic (plaque)	R1-2aP	2B.10	24 x 18	24 x 18	36 x 30	48 x 36	24 x 18	—
All Way (plaque)	R1-3P	2B.05	18 x 6	18 x 6	—	—	—	30 x 12
Yield Here to Peds	R1-5	2B.11	—	36 x 36	—	—	—	36 x 36
Yield Here to Pedestrians	R1-5a	2B.11	—	36 x 48	—	—	—	36 x 48
<del>Stop Here for Peds</del>	<del>R1-5b</del>	<del>2B.11</del>	<del>—</del>	<del>36 x 36</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>36 x 36</del>
<del>Stop Here for Pedestrians</del>	<del>R1-5c</del>	<del>2B.11</del>	<del>—</del>	<del>36 x 48</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>36 x 48</del>
In-Street Ped Crossing	R1-6,6a	2B.12	12 x 36	12 x 36	—	—	—	—
Overhead Ped Crossing	R1-9,9a	2B.12	90 x 24	90 x 24	—	—	—	—
Except Right Turn (plaque)	R1-10P	2B.05	24 x 18	24 x 18	—	—	—	—
Speed Limit	R2-1	2B.13	24 x 30*	30 x 36	36 x 48	48 x 60	18 x 24*	30 x 36
<del>Truck Speed Limit (plaque)</del>	<del>R2-2P</del>	<del>2B.14</del>	<del>24 x 24</del>	<del>24 x 24</del>	<del>36 x 36</del>	<del>48 x 48</del>	<del>—</del>	<del>36 x 36</del>
Night Speed Limit (plaque)	R2-3P	2B.15	24 x 24	24 x 24	36 x 36	48 x 48	—	36 x 36
Minimum Speed Limit (plaque)	R2-4P	2B.16	24 x 30	24 x 30	36 x 48	48 x 60	—	36 x 48
Combined Speed Limit	R2-4a	2B.16	24 x 48	24 x 48	36 x 72	48 x 96	—	36 x 72
<del>Unless Otherwise Posted (plaque)</del>	<del>R2-5P</del>	<del>2B.13</del>	<del>24 x 10</del>	<del>24 x 10</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>—</del>
<del>Citywide (plaque)</del>	<del>R2-5aP</del>	<del>2B.13</del>	<del>24 x 6</del>	<del>24 x 6</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>—</del>
<del>Neighborhood (plaque)</del>	<del>R2-5bP</del>	<del>2B.13</del>	<del>24 x 6</del>	<del>24 x 6</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>—</del>
<del>Residential (plaque)</del>	<del>R2-5cP</del>	<del>2B.13</del>	<del>24 x 6</del>	<del>24 x 6</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>—</del>
<del>Fines Higher (plaque)</del>	<del>R2-6P</del>	<del>2B.17</del>	<del>24 x 18</del>	<del>24 x 18</del>	<del>36 x 24</del>	<del>48 x 36</del>	<del>—</del>	<del>36 x 24</del>
Fines Double (plaque)	R2-6aP	2B.17	24 x 18	24 x 18	36 x 24	48 x 36	—	36 x 24
\$XX Fine (plaque)	R2-6bP	2B.17	24 x 18	24 x 18	36 x 24	48 x 36	—	36 x 24
Begin Higher Fines Zone	R2-10	2B.17	24 x 30	24 x 30	36 x 48	48 x 60	—	36 x 48
End Higher Fines Zone	R2-11	2B.17	24 x 30	24 x 30	36 x 48	48 x 60	—	36 x 48
Movement Prohibition	R3-1,2,3,4,18,27	2B.18	24 x 24*	36 x 36	36 x 36	—	—	48 x 48
Mandatory Movement Lane Control	R3-5,5a	2B.20	30 x 36	30 x 36	—	—	—	—
Left Lane (plaque)	R3-5bP	2B.20	30 x 12	30 x 12	—	—	—	—
HOV 2+ (plaque)	R3-5cP	2B.20	24 x 12	24 x 12	—	—	—	—
Taxi Lane (plaque)	R3-5dP	2B.20	30 x 12	30 x 12	—	—	—	—
Center Lane (plaque)	R3-5eP	2B.20	30 x 12	30 x 12	—	—	—	—
Right Lane (plaque)	R3-5fP	2B.20	30 x 12	30 x 12	—	—	—	—
Bus Lane (plaque)	R3-5gP	2B.20	30 x 12	30 x 12	—	—	—	—
Optional Movement Lane Control	R3-6	2B.21	30 x 36	30 x 36	—	—	—	—
Right (Left) Lane Must Turn Right (Left)	R3-7	2B.20	30 x 30*	36 x 36	—	—	—	—
Advance Intersection Lane Control	R3-8,8a,8b	2B.22	Varies x 30	Varies x 30	—	—	—	Varies x 36
Two-Way Left Turn Only (overhead)	R3-9a	2B.24	30 x 36	30 x 36	—	—	—	—
Two-Way Left Turn Only (post-mounted)	R3-9b	2B.24	24 x 36	24 x 36	—	—	—	36 x 48
BEGIN	R3-9cP	2B.25	30 x 12	30 x 12	—	—	—	—
END	R3-9dP	2B.25	30 x 12	30 x 12	—	—	—	—
Reversible Lane Control (symbol)	R3-9e	2B.26	108 x 48	108 x 48	—	—	—	—
Reversible Lane Control (post-mounted)	R3-9f	2B.26	30 x 42*	36 x 54	—	—	—	—
Advance Reversible Lane Control Transition Signing	R3-9g,9h	2B.26	108 x 36	108 x 36	—	—	—	—
End Reverse Lane	R3-9i	2B.26	108 x 48	108 x 48	—	—	—	—
Begin Right (Left) Turn Lane	R3-20	2B.20	24 x 36	24 x 36	—	—	—	—
All Turns (U Turn) from Right Lane	R3-23,23a	2B.27	60 x 36	60 x 36	—	—	—	—
All Turns (U Turn) with arrow	R3-24,24b,25,25b,26a	2B.27	72 x 18	72 x 18	—	—	—	—
U and Left Turns with arrow	R3-24a,25a,26	2B.27	60 x 24	60 x 24	—	—	—	—
Right Lane Must Exit	R3-33	2B.23	—	—	78 x 36	78 x 36	—	—

**Table 2B-1. Regulatory Sign and Plaque Sizes (Sheet 2 of 4)**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Do Not Pass	R4-1	2B.28	24 x 30	24 x 30	36 x 48	48 x 60	18 x 24	36 x 48
Pass With Care	R4-2	2B.29	24 x 30	24 x 30	36 x 48	48 x 60	18 x 24	36 x 48
Slower Traffic Keep Right	R4-3	2B.30	24 x 30	24 x 30	36 x 48	48 x 60	18 x 24	36 x 48
Trucks Use Right Lane	R4-5	2B.31	24 x 30	24 x 30	36 x 48	48 x 60	—	36 x 48
Keep Right	R4-7,7a,7b	2B.32	24 x 30	24 x 30	36 x 48	48 x 60	18 x 24	36 x 48
Narrow Keep Right	R4-7c	2B.32	18 x 30	18 x 30	—	—	—	—
Keep Left	R4-8,8a,8b	2B.32	24 x 30	24 x 30	36 x 48	48 x 60	18 x 24	36 x 48
Narrow Keep Left	R4-8c	2B.32	18 x 30	18 x 30	—	—	—	—
Stay in Lane	R4-9	2B.33	24 x 30	24 x 30	36 x 48	48 x 60	18 x 24	36 x 48
Runaway Vehicles Only	R4-10	2B.34	48 x 48	48 x 48	—	—	—	—
Slow Vehicles with XX or More Following Vehicles Must Use Turn-Out	R4-12	2B.35	42 x 24	42 x 24	—	—	—	—
Slow Vehicles Must Use Turn-Out Ahead	R4-13	2B.35	42 x 24	42 x 24	—	—	—	—
Slow Vehicles Must Turn Out	R4-14	2B.35	30 x 42	30 x 42	—	—	—	—
Keep Right Except to Pass	R4-16	2B.30	24 x 30	24 x 30	36 x 48	48 x 60	18 x 24	36 x 48
Do Not Drive on Shoulder	R4-17	2B.36	24 x 30	24 x 30	36 x 48	48 x 60	18 x 24	36 x 48
Do Not Pass on Shoulder	R4-18	2B.36	24 x 30	24 x 30	36 x 48	48 x 60	18 x 24	36 x 48
Do Not Enter	R5-1	2B.37	30 x 30*	36 x 36	36 x 36	48 x 48	—	36 x 36
Wrong Way	R5-1a	2B.38	36 x 24*	42 x 30	36 x 24*	42 x 30	30 x 18*	42 x 30
No Trucks	R5-2,2a	2B.39	24 x 24	24 x 24	30 x 30	36 x 36	—	36 x 36
No Motor Vehicles	R5-3	2B.39	24 x 24	24 x 24	—	—	24 x 24	—
No Commercial Vehicles	R5-4	2B.39	24 x 30	24 x 30	36 x 48	36 x 48	—	—
No Vehicles with Lugs	R5-5	2B.39	24 x 30	24 x 30	36 x 48	48 x 60	—	—
No Bicycles	R5-6	2B.39	24 x 24	24 x 24	30 x 30	36 x 36	24 x 24	48 x 48
No Non-Motorized Traffic	R5-7	2B.39	30 x 24	30 x 24	42 x 24	48 x 30	—	42 x 24
No Motor-Driven Cycles	R5-8	2B.39	30 x 24	30 x 24	42 x 24	48 x 30	—	42 x 24
No Pedestrians, Bicycles, Motor-Driven Cycles	R5-10a	2B.39	30 x 36	30 x 36	—	—	—	—
No Pedestrians or Bicycles	R5-10b	2B.39	30 x 18	30 x 18	—	—	—	—
No Pedestrians	R5-10c	2B.39	24 x 12	24 x 12	—	—	—	—
Authorized Vehicles Only	R5-11	2B.39	30 x 24	30 x 24	—	—	—	—
One Way	R6-1	2B.40	36 x 12*	54 x 18	54 x 18	54 x 18	—	54 x 18
One Way	R6-2	2B.40	24 x 30*	30 x 36	36 x 48	48 x 60	18 x 24*	36 x 48
Divided Highway Crossing	R6-3,3a	2B.42	30 x 24	30 x 24	36 x 30	—	—	36 x 30
Roundabout Directional (2 chevrons)	R6-4	2B.43	30 x 24	30 x 24	—	—	—	—
Roundabout Directional (3 chevrons)	R6-4a	2B.43	48 x 24	48 x 24	—	—	—	—
Roundabout Directional (4 chevrons)	R6-4b	2B.43	60 x 24	60 x 24	—	—	—	—
Roundabout Circulation (plaque)	R6-5P	2B.44	30 x 30	30 x 30	—	—	—	—
BEGIN ONE WAY	R6-6	2B.40	24 x 30	30 x 36	—	—	—	—
END ONE WAY	R6-7	2B.40	24 x 30	30 x 36	—	—	—	—
Parking Restrictions	<del>R7-1, 2, 2a, 3, 4, 5, 6, 7, 8, 21, 21a, 22, 23, 23a, 107, 108</del>	2B.46	12 x 18	12 x 18	—	—	—	—
<del>Van Accessible (plaque)</del>	<del>R7-8P</del>	<del>2B.46</del>	<del>18 x 9</del>	<del>18 x 9</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>—</del>
Fee Station	R7-20	2B.46	24 x 18	24 x 18	—	—	—	—
No Parking (with transit logo)	R7-107a	2B.46	12 x 30	12 x 30	—	—	—	—
<del>No Parking/Restricted Parking (combined sign)</del>	<del>R7-200</del>	<del>2B.46</del>	<del>24 x 18</del>	<del>24 x 18</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>—</del>
<del>No Parking/Restricted Parking (combined sign)</del>	<del>R7-200a</del>	<del>2B.46</del>	<del>12 x 30</del>	<del>12 x 30</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>—</del>
<del>Tow Away Zone (plaque)</del>	<del>R7-201P,201aP</del>	<del>2B.46</del>	<del>12 x 6</del>	<del>12 x 6</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>—</del>
<del>This Side of Sign (plaque)</del>	<del>R7-202P</del>	<del>2B.46</del>	<del>12 x 6</del>	<del>12 x 6</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>—</del>

**Table 2B-1. Regulatory Sign and Plaque Sizes (Sheet 3 of 4)**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Emergency Snow Route	R7-203	2B.46	18 x 24	18 x 24	—	—	—	24 x 30
<del>No Parking on Pavement</del>	<del>R8-1</del>	<del>2B.46</del>	<del>24 x 30</del>	<del>24 x 30</del>	<del>36 x 48</del>	<del>48 x 60</del>	<del>—</del>	<del>36 x 48</del>
<del>No Parking Except on Shoulder</del>	<del>R8-2</del>	<del>2B.46</del>	<del>24 x 30</del>	<del>24 x 30</del>	<del>36 x 48</del>	<del>48 x 60</del>	<del>—</del>	<del>36 x 48</del>
<del>No Parking (symbol)</del>	<del>R8-3</del>	<del>2B.46</del>	<del>24 x 24*</del>	<del>30 x 30</del>	<del>36 x 36</del>	<del>48 x 48</del>	<del>12 x 12*</del>	<del>36 x 36</del>
<del>No Parking</del>	<del>R8-3a</del>	<del>2B.46</del>	<del>24 x 30</del>	<del>24 x 30</del>	<del>36 x 36</del>	<del>48 x 48</del>	<del>18 x 24</del>	<del>36 x 36</del>
<del>Except Sundays and Holidays (plaque)</del>	<del>R8-3bP</del>	<del>2B.46</del>	<del>24 x 18</del>	<del>24 x 18</del>	<del>—</del>	<del>—</del>	<del>12 x 0</del>	<del>30 x 24</del>
<del>On Pavement (plaque)</del>	<del>R8-3cP</del>	<del>2B.46</del>	<del>24 x 18</del>	<del>24 x 18</del>	<del>—</del>	<del>—</del>	<del>12 x 0</del>	<del>30 x 24</del>
<del>On Bridge (plaque)</del>	<del>R8-3dP</del>	<del>2B.46</del>	<del>24 x 18</del>	<del>24 x 18</del>	<del>—</del>	<del>—</del>	<del>12 x 0</del>	<del>30 x 24</del>
<del>On Tracks (plaque)</del>	<del>R8-3eP</del>	<del>2B.46</del>	<del>12 x 0</del>	<del>12 x 0</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>30 x 24</del>
<del>Except on Shoulder (plaque)</del>	<del>R8-3fP</del>	<del>2B.46</del>	<del>24 x 18</del>	<del>24 x 18</del>	<del>—</del>	<del>—</del>	<del>12 x 0</del>	<del>30 x 24</del>
<del>Loading Zone (plaque)</del>	<del>R8-3gP</del>	<del>2B.46</del>	<del>24 x 18</del>	<del>24 x 18</del>	<del>—</del>	<del>—</del>	<del>12 x 0</del>	<del>30 x 24</del>
<del>Times of Day (plaque)</del>	<del>R8-3hP</del>	<del>2B.46</del>	<del>24 x 18</del>	<del>24 x 18</del>	<del>—</del>	<del>—</del>	<del>12 x 0</del>	<del>30 x 24</del>
Emergency Parking Only	R8-4	2B.49	30 x 24	30 x 24	30 x 24	48 x 36	—	48 x 36
<del>No Stopping on Pavement</del>	<del>R8-5</del>	<del>2B.46</del>	<del>24 x 30</del>	<del>24 x 30</del>	<del>36 x 48</del>	<del>48 x 60</del>	<del>—</del>	<del>36 x 48</del>
<del>No Stopping Except on Shoulder</del>	<del>R8-6</del>	<del>2B.46</del>	<del>24 x 30</del>	<del>24 x 30</del>	<del>36 x 48</del>	<del>48 x 60</del>	<del>—</del>	<del>36 x 48</del>
Emergency Stopping Only	R8-7	2B.49	30 x 24	30 x 24	48 x 36	48 x 36	—	48 x 36
Walk on Left Facing Traffic	R9-1	2B.50	18 x 24	18 x 24	—	—	—	—
Cross Only at Crosswalks	R9-2	2B.51	12 x 18	12 x 18	—	—	—	—
No Pedestrian Crossing (symbol)	R9-3	2B.51	18 x 18	18 x 18	24 x 24	30 x 30	—	30 x 30
No Pedestrian Crossing	R9-3a	2B.51	12 x 18	12 x 18	—	—	—	—
Use Crosswalk (plaque)	R9-3bP	2B.51	18 x 12	18 x 12	—	—	—	—
No Hitchhiking (symbol)	R9-4	2B.50	18 x 18	18 x 18	—	—	—	24 x 24
No Hitchhiking	R9-4a	2B.50	18 x 24	18 x 24	—	—	12 x 18	—
No Skaters	R9-13	2B.39	18 x 18	18 x 18	24 x 24	30 x 30	—	30 x 30
No Equestrians	R9-14	2B.39	18 x 18	18 x 18	24 x 24	30 x 30	—	30 x 30
Cross Only On Green	R10-1	2B.52	12 x 18	12 x 18	—	—	—	—
Pedestrian Signs and Plaques	R10-2, 3,3b,3c,3d,4	2B.52	9 x 12	9 x 12	—	—	—	—
Pedestrian Signs	R10-3a,3e,3f,3g,3h,3i,4a	2B.52	9 x 15	9 x 15	—	—	—	—
Left on Green Arrow Only	R10-5	2B.53	30 x 36	30 x 36	48 x 60	—	24 x 30	48 x 60
Stop Here on Red	R10-6	2B.53	24 x 36	24 x 36	—	—	—	36 x 48
<del>Stop Here on Red</del>	<del>R10-6a</del>	<del>2B.53</del>	<del>24 x 30</del>	<del>24 x 30</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>36 x 42</del>
Do Not Block Intersection	R10-7	2B.53	24 x 30	24 x 30	—	—	—	—
Use Lane with Green Arrow	R10-8	2B.53	36 x 42	36 x 42	36 x 42	—	—	60 x 72
Left (Right) Turn Signal	R10-10	2B.53	30 x 36	30 x 36	—	—	—	—
<del>No Turn on Red</del>	<del>R10-11</del>	<del>2B.54</del>	<del>24 x 30*</del>	<del>36 x 48</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>36 x 48</del>
<del>No Turn on Red</del>	<del>R10-11a</del>	<del>2B.54</del>	<del>30 x 36*</del>	<del>36 x 48</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>—</del>
<del>No Turn on Red</del>	<del>R10-11b</del>	<del>2B.54</del>	<del>36 x 36</del>	<del>36 x 36</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>—</del>
No Turn on Red Except From Right Lane	R10-11c	2B.54	30 x 42	30 x 42	—	—	—	—
No Turn on Red From This Lane	R10-11d	2B.54	30 x 42	30 x 42	—	—	—	—
Left Turn Yield on Green	R10-12	2B.53	30 x 36	30 x 36	—	—	—	—
Emergency Signal	R10-13	2B.53	42 x 30	42 x 30	—	—	—	—
Emergency Signal - Stop on Flashing Red	R10-14	2B.53	36 x 42	36 x 42	—	—	—	—
Emergency Signal - Stop on Flashing Red (overhead)	R10-14a	2B.53	60 x 24	60 x 24	—	—	—	—
Turning Vehicles Yield to Peds	R10-15	2B.53	30 x 30	30 x 30	—	—	—	—
<del>U Turn Yield to Right Turn</del>	<del>R10-16</del>	<del>2B.53</del>	<del>30 x 36</del>	<del>30 x 36</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>—</del>
<del>Right on Red Arrow After Stop</del>	<del>R10-17a</del>	<del>2B.54</del>	<del>36 x 48</del>	<del>36 x 48</del>	<del>—</del>	<del>—</del>	<del>—</del>	<del>—</del>
Traffic Laws Photo Enforced	R10-18	2B.55	36 x 24	36 x 24	48 x 30	54 x 36	—	54 x 36
Photo Enforced (symbol plaque)	R10-19P	2B.55	24 x 12	24 x 12	36 x 18	48 x 24	—	48 x 24
Photo Enforced (plaque)	R10-19aP	2B.55	24 x 18	24 x 18	36 x 30	48 x 36	—	48 x 36
MON—FRI (and times) (3 lines) (plaque)	R10-20aP	2B.53	24 x 24	24 x 24	—	—	—	—

**Table 2B-1. Regulatory Sign and Plaque Sizes (Sheet 4 of 4)**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
SUNDAY (and times) (2 lines) (plaque)	R10-20aP	2B.53	24 x 18	24 x 18	—	—	—	—
Crosswalk, Stop on Red	R10-23	2B.53	24 x 30	24 x 30	—	—	—	—
Push Button To Turn On Warning Lights	R10-25	2B.52	9 x 12	9 x 12	—	—	—	—
Left Turn Yield on Flashing Red Arrow After Stop	R10-27	2B.53	30 x 36	30 x 36	—	—	—	—
XX Vehicles Per Green	R10-28	2B.56	24 x 30	24 x 30	—	—	—	—
XX Vehicles Per Green Each Lane	R10-29	2B.56	36 x 24	36 x 24	—	—	—	—
Right Turn on Red Must Yield to U-Turn	R10-30	2B.54	30 x 36	30 x 36	—	—	—	—
At Signal (plaque)	R10-31P	2B.53	24 x 9	24 x 9	—	—	—	—
Push Button for 2 Seconds for Extra Crossing Time	R10-32P	2B.52	9 x 12	9 x 12	—	—	—	—
Keep Off Median	R11-1	2B.57	24 x 30	24 x 30	—	—	—	—
Road Closed	R11-2	2B.58	48 x 30	48 x 30	—	—	—	—
Road Closed - Local Traffic Only	R11-3a,3b,4	2B.58	60 x 30	60 x 30	—	—	—	—
Weight Limit	R12-1,2	2B.59	24 x 30	24 x 30	36 x 48	—	—	36 x 48
<del>Weight Limit</del>	<del>R12-3</del>	<del>2B.59</del>	<del>24 x 36</del>	<del>24 x 36</del>				
<del>Weight Limit</del>	<del>R12-4</del>	<del>2B.59</del>	<del>36 x 24</del>	<del>36 x 24</del>				
Weight Limit	R12-5	2B.59	24 x 36	24 x 36	36 x 48	48 x 60	—	—
<del>Weigh Station</del>	<del>R13-1</del>	<del>2B.60</del>	<del>72 x 54</del>	<del>72 x 54</del>	<del>96 x 72</del>	<del>120 x 90</del>		
Truck Route	R14-1	2B.61	24 x 18	24 x 18	—	—	—	—
<del>Hazardous Material</del>	<del>R14-2,3</del>	<del>2B.62</del>	<del>24 x 24</del>	<del>24 x 24</del>	<del>30 x 30</del>	<del>36 x 36</del>		<del>42 x 42</del>
<del>National Network</del>	<del>R14-4,5</del>	<del>2B.63</del>	<del>30 x 30</del>	<del>30 x 30</del>	<del>30 x 30</del>	<del>36 x 36</del>	—	<del>42 x 42</del>
<del>Fender Bender Move Vehicles</del>	<del>R16-4</del>	<del>2B.65</del>	<del>36 x 24</del>	<del>36 x 24</del>	<del>48 x 36</del>	<del>60 x 48</del>	—	<del>48 x 36</del>
Lights On When Using Wipers or Raining	R16-5,6	2B.64	24 x 30	24 x 30	36 x 48	48 x 60	—	36 x 48
Turn On Headlights Next XX Miles	R16-7	2B.64	48 x 15	48 x 15	72 x 24	96 x 30	—	72 x 24
Turn On, Check Headlights	R16-8,9	2B.64	30 x 15	30 x 15	48 x 24	60 x 30	—	48 x 24
Begin, End Daytime Headlight Section	R16-10,11	2B.64	48 x 15	48 x 15	72 x 24	96 x 30	—	72 x 24

\* See Table 9B-1 for minimum size required for signs on bicycle facilities

- Notes: 1. Larger signs may be used when appropriate  
2. Dimensions in inches are shown as width x height

**Table 2B-1(CA). California Regulatory Sign and Plaque Sizes (Sheet 1 of 6)**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Speed Zone Ahead	R2-4(CA)	2B.13	24 x 30	24 x 30	36 x 45	48 x 60	24 x 30	---
End Speed Limit	R3(CA)	2B.13	24 x 30	24 x 30	36 x 45	48 x 60	24 x 30	---
TRUCKS, 3 AXELS OR MORE 55 MAXIMUM	R6-3(CA)	2B.13	48 x 60	48 x 60	48 x 60	48 x 60	---	---
TRUCKS 3 AXLES OR MORE RIGHT 2 LANES ONLY	R6-3A(CA)	2B.13	54 x 66	54 x 66	54 x 66	54 x 66	---	---
ALL VEHICLES WHEN TOWING 55 MAXIMUM	R6-4(CA)	2B.13	48 x 60	48 x 60	48 x 60	48 x 60	---	---
ALL VEHICLES WHEN TOWING RIGHT 2 LANES ONLY	R6-4A(CA)	2B.31	54 x 66	54 x 66	54 x 66	54 x 66	---	---
No Right Turn on Red	R13A(CA)	2B.54	18 x 30	24 x 36	30x 48	30x 48	18 x 30	---
No Left Turn on Red	R13B(CA)	2B.54	18 x 30	24 x 36	30x 48	30x 48	18 x 30	---
RIGHT (LEFT) LANE MUST EXIT	R18A(CA)	2B.20	---	---	66 x48	66 x48	---	---
RIGHT (LEFT) LANE FREEWAY ONLY	R18B(CA)	2B.20	36 x 36	36 x 36	---	---	---	---
No Trucks Variable Message	R20-1(CA)	2B.39	---	---	102 x 48	102 x 48	---	---
Weight Limit	R20A(CA)	2B.59	30 x 30	30 x 30	36 x 40	---	---	---
Truck Exclusion plaque	R20D-1(CA)	2B.59	24 x 6	30 x 9	36 x 12	---	24 x 6	---
Truck Exclusion plaque	R20D-2(CA)	2B.59	24 x 6	30 x 9	36 x 12	---	24 x 6	---
Truck Exclusion plaque	R20D-3(CA)	2B.59	24 x 6	30 x 9	36 x 12	---	24 x 6	---
Truck Exclusion plaque	R20D-4(CA)	2B.59	24 x 6	30 x 9	36 x 12	---	24 x 6	---
Truck Length Limit	R20H(CA)	2B.39	36 x 36	36 x 36	42 x 42	---	36 x 36	---
NEXT RIGHT plaque	R20-1A(CA)	2B.39	---	---	102 x 18	102 x 18	---	---
Bridge Speed and Weight Limit	R21(CA)	2B.39	36 X 30	36 X 30	---	---	---	---
OK TO PARK ON BRIDGE	R22(CA)	2B.46	12 X 18	12 X 18	---	---	---	---
NO FISHING (JUMPING) FROM BRIDGE	R23(CA)	2B.101	26 X 18	26 X 18	---	---	---	---
PARK PARALLEL	R24(CA)	2B.46	12 X 18	12 X 18	---	---	---	---
SCHOOL BUS ONLY w/Double Arrow	R24A(CA)	2B.46	12 X 18	12 X 18	---	---	---	---
TAXI CAB ONLY w/Double Arrow	R24B(CA)	2B.46	12 X 18	12 X 18	---	---	---	---
TOUR BUS ONLY w/ Double Arrow	R24C(CA)	2B.46	12 X 18	12 X 18	---	---	---	---
MAIL DEPOSIT ONLY w/ Double Arrow	R24D(CA)	2B.46	12 X 18	12 X 18	---	---	---	---
BLOCK WHEELS TO CURB	R24E(CA)	2B.46	12 X 18	12 X 18	---	---	---	---
PARK OFF PAVEMENT	R25(CA)	2B.46	24 x 15	24 x 15	---	---	---	---
LOADING ONLY 7AM TO 6PM EXCEPT SUNDAY 30 MINUTE LIMIT w/ Double Arrow	R25A(CA)	2B.46	12 X 18	12 X 18	---	---	---	---
Passenger Loading ONLY 5 MINUTE LIMIT w/ Double Arrow	R25B(CA)	2B.46	18 x 18	18 x 18	---	---	---	---
PASSENGER LOADING ONLY 5 MINUTE LIMIT w/ Double Arrow	R25C(CA)	2B.46	18 x 18	18 x 18	---	---	---	---
School Passenger Loading ONLY 7AM TO 4PM SCHOOL DAYS 5 MINUTE LIMIT w/ Double Arrow	R25D(CA)	2B.46	18 x 21	18 x 21	---	---	---	---
PASSENGER LOADING ONLY 7AM TO 4PM SCHOOL DAYS 5 MINUTE LIMIT w/ Double Arrow	R25E(CA)	2B.46	18 x 21	18 x 21	---	---	---	---
School Bus Passenger Loading ONLY w/ Double Arrow	R25F(CA)	2B.46	18 x 18	18 x 18	---	---	---	---
Tour Bus Passenger Loading ONLY w/ Double Arrow	R25H(CA)	2B.46	18 x 18	18 x 18	---	---	---	---

**Table 2B-1(CA). California Regulatory Sign and Plaque Sizes (Sheet 2 of 6)**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
CAR SHARE PARKING ONLY PERMIT REQUIRED w/ Double Arrow	R25J(CA)	2B.46	18 x 18	18 x 18	---	---	---	---
NO PARKING ANY TIME	R26(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
NO STOPPING ANY TIME	R26(S)(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
NO PARKING ANY TIME	R26A(CA)	2B.46	24 x 30	24 x 30	24 x 30	---	---	---
NO STOPPING ANY TIME	R26A(S)(CA)	2B.46	24 x 30	24 x 30	24 x 30	---	---	---
NO STOPPING FIRE LANE	R26F(CA)	2B.46	12 x 18	12 x 18	24 x 30	---	12 x 18	---
Tow-Away No Parking	R26K(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
Tow-Away NO STOPPING ANY TIME	R26L(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
NO PARKING ON BRIDGE	R27(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
NO PARKING ON BRIDGE	R27A(CA)	2B.46	24 x 30	24 x 30	24 x 30	---	---	---
NO PARKING ANY TIME with Arrow	R28(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
NO STOPPING ANY TIME with Arrow	R28(S)(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
NO PARKING ANY TIME with Arrow	R28A(CA)	2B.46	24 x 30	24 x 30	24 x 30	---	---	---
NO STOPPING ANY TIME with Arrow	R28A(S)(CA)	2B.46	24 x 30	24 x 30	24 x 30	---	---	---
NO STOPPING BUS ONLY w/ Arrow	R28C(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
NO PARKING VEHICLES OVER 6' HIGH w/ Double Arrow	R28D(CA)	2B.46	18 x 18	18 x 18	---	---	---	---
NO STOPPING VEHICLES OVER 6' HIGH w/ Double Arrow	R28D(S)(CA)	2B.46	18 x 18	18 x 18	---	---	---	---
NO PUBLIC PARKING SUBJECT TO CITATION AND REMOVAL AT OWNER'S EXPENSE	R28E(CA)	2B.46	18 x 24	18 x 24	---	---	---	---
No Parking VEHICLES OVER 5 TONS	R28F(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
No Stopping/No Parking Specific Hours	R29(CA)	2B.46	18 x 30	18 x 30	---	---	---	---
No Parking Specific Hours	R30(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
No Parking Specific Hours	R30A(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
No Parking 10AM TO 12PM WEDNESDAY STREET SWEEPING	R30B(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
No Parking 2AM TO 6AM EXCEPT BY PERMIT	R30C(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
No Parking 2AM TO 6AM CITYWIDE EXCEPT BY PERMIT	R30D(CA)	2B.46	18 x 30	18 x 30	---	---	---	---
No Parking w/ Double Arrow	R30E(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
No Stopping Specific Hours School Days	R30F(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
No Parking/Parking Specific Hours	R31(CA)	2B.46	14 x 20.5	14 x 20.5	---	---	---	---
No Stopping/Parking Specific Hours	R31(S)(CA)	2B.46	18 x 30	18 x 30	---	---	---	---
Limited Hour/Minute Parking Specific Hours	R32(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
The No Parking/Parking Specific Hours	R32B(CA)	2B.46	12 x 30	12 x 30	---	---	---	---
2 HOUR PARKING 8AM TO 6PM DISTRICT 7 PERMITS EXEMPT	R32C(CA)	2B.46	12 x 18	12 x 18	---	---	---	---

**Table 2B-1(CA). California Regulatory Sign and Plaque Sizes (Sheet 3 of 6)**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
30 MINUTE PARKING 2AM TO 6AM DISTRICT 3 PERMITS EXEMPT	R32D(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
2 HOUR PARKING 8AM TO 4PM - PASSENGER LOADING ONLY 4PM TO MIDNIGHT 5 MINUTE LIMIT w/ Double Arrow	R32E(CA)	2B.46	18 x 30	18 x 30	---	---	---	---
2 HOUR PARKING 8AM TO 6PM MOTORCYCLE PARKING ONLY w/ Double Arrow	R32F(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
NO LEFT TURN Specific Hours	R33(CA)	2B.18	24 x 36	24 x 36	---	---	---	---
NO LEFT TURN Specific Hours	R33A(CA)	2B.18	30 x 48	30 x 48	30 x 48	---	---	---
Commercial Vehicle Weight Exclusion	R36(CA)	2B.59	24 x 24	24 x 24	---	---	---	---
Tow-Away No Stopping/Limited Hour Parking Specific Hours	R37(CA)	2B.46	18 x 31	18 x 31	---	---	---	---
Tow-Away No Parking/Limited Hour Parking Specific Hours	R38(CA)	2B.46	14 x 20.5	14 x 20.5	---	---	---	---
Tow-Away No Stopping/Limited Hour Parking Specific Hours	R38(S)(CA)	2B.46	18 x 31	18 x 31	---	---	---	---
TOW-AWAY NO STOPPING 7AM TO 9AM - PASSENGER LOADING ONLY ALL OTHER TIMES 5 MINUTE LIMIT w/ Double Arrow	R38A(CA)	2B.46	18 x 30	18 x 30	---	---	---	---
NO PARKING OF COMMERCIAL VEHICLES EXCEPT BY PERMIT	R39(CA)	2B.46	24 x 30	24 x 30	---	---	---	---
NO DOUBLE PARKING ANYTIME COMMERCIAL VEHICLES INCLUDED	R39-1(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
NO DOUBLE PARKING ANYTIME COMMERCIAL VEHICLES INCLUDED	R39-2(CA)	2B.46	18 x 18	18 x 18	---	---	---	---
TWO WAY TRAFFIC AHEAD	R40(CA)	2B.102	24 x 30	24 x 30	---	---	---	---
\$1000 FINE FOR LITTERING	R47(CA)	2B.103	52 x 36	52 x 36	52 x 36	52 x 36	---	---
\$1000 FINE FOR ANIMAL ABANDONMENT	R47A(CA)	2B.103	54 x 36	54 x 36	54 x 36	54 x 36	---	---
SPEED ENFORCED BY RADAR	R48(CA)	2B.110	24 x 30	24 x 30	36 x 48	48 x 60	18 x 24	---
RADAR ENFORCED	R48-1(CA)	2B.13	36 x 18	36 x 18	48 x 24	48 x 24	24 x 12	---
SPEED ENFORCED BY AIRCRAFT	R48-2(CA)	2B.13	24 x 30	24 x 30	36 x 48	48 x 60	18 x 24	---
NO PED CROSSING, USE CROSSWALK	R49(CA)	2B.51	42 x 18	42 x 18	---	---	---	---
END TRUCK LANE	R53A(CA)	2B.31	36 x 36	36 x 36	48 x 48	48 x 48	24 x 24	---
TRUCKS RIGHT LANE ONLY	R53B(CA)	2B.31	36 x 48	36 x 48	48 x 60	48 x 60	24 x 30	---
AUTOS WITH TRAILERS - TRUCKS - PROHIBITED	R53D(CA)	2B.39	---	---	66 x 72	66 x 72	---	---
END TRUCK LANE CONTROL	R53E(CA)	2B.31	36 x 48	36 x 48	48 x 60	48 x 60	24 x 30	---
YIELD TO UPHILL TRAFFIC	R55(CA)	2B.31	---	---	48 x 54	48 x 54	---	---
BEGIN FREEWAY	R57(CA)	2B.49	---	---	48 x 26	48 x 26	---	---
END FREEWAY	R58(CA)	2B.48	---	---	48 x 26	48 x 26	---	---
Optional Movement Lane Control	R60B(CA)	2B.21	54 x 48	54 x 48	---	---	---	---
Intersection Lane Control	R61-1(CA)	2B.19	30 x 30	45 x 45	---	---	30 x 30	---
Intersection Lane Control	R61-3(CA)	2B.19	30 x 30	45 x 45	---	---	30 x 30	---
Intersection Lane Control	R61-5(CA)	2B.19	36 x 30	54 x 45	---	---	36 x 30	---
Intersection Lane Control	R61-7(CA)	2B.19	36 x 30	54 x 45	---	---	36 x 30	---

**Table 2B-1(CA). California Regulatory Sign and Plaque Sizes (Sheet 4 of 6)**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Intersection Lane Control	R61-9(CA)	2B.19	36 x 30	54 x 45	---	---	36 x 30	---
Intersection Lane Control	R61-11(CA)	2B.19	36 x 30	54 x 45	---	---	36 x 30	---
Intersection Lane Control	R61-13(CA)	2B.19	48 x 30	72 x 45	---	---	48 x 30	---
Intersection Lane Control	R61-15(CA)	2B.19	48 x 30	72 x 45	---	---	48 x 30	---
Intersection Lane Control	R61-17(CA)	2B.19	48 x 30	72 x 45	---	---	48 x 30	---
Intersection Lane Control	R61-19(CA)	2B.19	36 x 30	48 x 36	---	---	30 x 24	---
Intersection Lane Control	R61-22(CA)	2B.19	54 x 30	78 x 45	---	---	54 x 30	---
Intersection Lane Control	R61-24(CA)	2B.19	54 x 30	78 x 45	---	---	54 x 30	---
Intersection Lane Control	R61-26(CA)	2B.19	48 x 30	72 x 45	---	---	48 x 30	---
Intersection Lane Control	R61-28(CA)	2B.19	48 x 30	72 x 45	---	---	48 x 30	---
Intersection Lane Control	R61-30(CA)	2B.19	36 x 30	54 x 45	---	---	36 x 30	---
Intersection Lane Control	R61-32(CA)	2B.19	36 x 30	54 x 45	---	---	36 x 30	---
Intersection Lane Control	R61-34(CA)	2B.19	48 x 30	72 x 45	---	---	48 x 30	---
Intersection Lane Control	R61-36(CA)	2B.19	48 x 30	72 x 45	---	---	48 x 30	---
PUSH BUTTON FOR PEDESTRIAN WARNING LIGHTS - CROSS WITH CAUTION	R62E(CA)	2B.52	5 x 7.5	5 x 7.5	---	---	5 x 7.5	9 x 12
TRUCKS OK	R70(CA)	2B.31	---	---	---	96 x 70	---	---
Intersection Lane Control	R73-1(CA)	2B.19	36 x 30	36 x 30	---	---	24 x 20	45 x 36
Intersection Lane Control	R73-2(CA)	2B.19	36 x 36	36 x 36	---	---	24 x 24	45 x 45
Intersection Lane Control	R73-3(CA)	2B.19	36 x 36	36 x 36	---	---	24 x 24	45 x 45
Intersection Lane Control	R73-4(CA)	2B.19	36 x 45	36 x 45	---	---	36 x 45	---
Intersection Lane Control	R73-5(CA)	2B.19	36 x 36	36 x 36	---	---	24 x 24	---
Intersection Lane Control	R73-6(CA)	2B.19	36 x 36	36 x 36	---	---	24 x 24	---
Intersection Lane Control	R73-8(CA)	2B.19	36 x 45	36 x 45	---	---	24 x 30	---
CHAIN INSTALLATION ONLY	R74(CA)	2B.46	36 x 36	36 x 36	36 x 36	36 x 36	---	---
CHAINS REQUIRED (X MILE (X MILES)) AHEAD	R75(CA)	2B.46	48 x 42	48 x 42	48 x 42	48 x 42	---	---
CHAINS REQUIRED	R76(CA)	2B.46	48 x 24	48 x 24	48 x 24	48 x 24	---	---
ON SINGLE AXLE DRIVE VEHICLE WITH TRAILER	R76-1(CA)	2B.46	48 x 24	48 x 24	48 x 24	48 x 24	---	---
NO EXCEPTIONS	R77(CA)	2B.46	48 x 30	48 x 30	48 x 30	48 x 30	48 x 12	---
END CHAIN CONTROL	R78(CA)	2B.46	48 x 34	48 x 34	48 x 34	48 x 34	---	---
AUTOS & PICKUPS SNOW TIRES OK - CARRY CHAINS	R79(CA)	2B.46	48 x 30	48 x 30	48 x 30	48 x 30	---	---
4-W DRIVE WITH SNOW TIRES OK - CARRY CHAINS	R80-1(CA)	2B.46	48 x 30	48 x 30	48 x 30	48 x 30	---	---
Specific Hours/Days plaque	R82A(CA)	2B.31	30 x 12	30 x 12	36 x 18	36 x 18	30 x 12	48 x 24
1 CAR (2 CARS) PER GREEN	R89(CA)	2B.56	---	---	22 x 6	36 x 9	22 x 6	---
1 CAR (2 CARS) PER GREEN EACH LANE	R89-1(CA)	2B.56	---	---	22 x 10	36 x 16	22 x 10	---
1 CAR (2 CARS) PER GREEN THIS LANE	R89-2(CA)	2B.56	---	---	22 x 10	36 x 16	22 x 10	---
RIGHT (LEFT) LANE THIS SIGNAL	R89-3(CA)	2B.56	---	---	22 x 10	36 x 16	22 x 10	---
Accessible Parking Only	R99(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
MINIMUM FINE \$250 plaque	R99B(CA)	2B.46	12 x 9	12 x 9	---	---	---	---
Accessible Parking Only Minimum Fine \$250	R99C(CA)	2B.46	12 x 24	12 x 24	---	---	---	---
TOW-AWAY SPECIAL PLACARD OR LICENSE PLATE REQUIRED	R100A(CA)	2B.46	12 x 8	12 x 8	---	---	---	---
Disabled Tow-Away	R100B(CA)	2B.46	24 x 24	24 x 24	---	---	---	---

**Table 2B-1(CA). California Regulatory Sign and Plaque Sizes (Sheet 5 of 6)**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
PRIVATE ROAD (PRIVATE PROPERTY) VEHICLE CODE ENFORCED	R101(CA)	2B.104	36 x 24	36 x 24	---	---	24 x 18	---
Hazardous Waste Prohibited	R102(CA)	2B.62	24 x 24	24 x 24	30 x 30	30 x 30	18 x 18	48 x 48
HAZARDOUS WASTE PROHIBITED	R102A(CA)	2B.62	24 x 18	24 x 18	30 x 20	30 x 20	18 x 12	48 x 30
Hazardous Waste Permitted	R103(CA)	2B.62	24 x 24	24 x 24	30 x 30	30 x 30	18 x 18	48 x 48
HAZARDOUS WASTE PERMITTED	R103A(CA)	2B.62	24 x 18	24 x 18	30 x 20	30 x 20	18 x 12	48 x 30
Hazardous Material Prohibited	R104(CA)	2B.62	24 x 24	24 x 24	30 x 30	30 x 30	18 x 18	48 x 48
HAZARDOUS MATERIAL PROHIBITED	R104A(CA)	2B.62	24 x 18	24 x 18	30 x 20	30 x 20	18 x 12	48 x 30
Hazardous Material Permitted	R105(CA)	2B.62	24 x 24	24 x 24	30 x 30	30 x 30	18 x 18	48 x 48
HAZARDOUS MATERIAL PERMITTED	R105A(CA)	2B.62	24 x 18	24 x 18	30 x 20	30 x 20	18 x 12	48 x 30
Tow-Away NO STOPPING 4 TO 6 PM	R107(CA)	2B.46	18 x 18	18 x 18	---	---	---	---
No Parking of Vehicles for Sale	R108(CA)	2B.46	12 x 18	12 x 18	---	---	---	---
PAY AT STATION	R109(CA)	2B.47	12 x 6	12 x 6	12 x 6	---	---	---
Rest Area Disclaimer	SR2(CA)	2B.46	18 x 12	18 x 12	---	---	---	---
WAIT HERE UNTIL SCALE CLEAR	SR6-1(CA)	2B.60	---	---	44 x 36	44 x 36	---	---
RELEASE BRAKES WHILE ON SCALE	SR7-1(CA)	2B.60	---	---	42 x 36	42 x 36	---	---
SET PARKING BRAKES	SR8-1(CA)	2B.60	---	---	48 x 20	48 x 20	---	---
LOADED	SR9-1(CA)	2B.60	---	---	68 x 24	68 x 24	---	---
EMPTY	SR10-1(CA)	2B.60	---	---	62 x 24	62 x 24	---	---
EMPTY 5 MPH	SR11-1(CA)	2B.60	---	---	112 x 24	112 x 24	---	---
LOADED 3 MPH	SR12-1(CA)	2B.60	---	---	118 x 24	118 x 24	---	---
Theft CHP plaque	SR13-1(CA)	2B.60	48 x 10	48 x 10	---	---	---	---
Seat Belt	SR15(CA)	2B.66	18 x 24	18 x 24	18 x 24	18 x 24	---	---
SAFETY BELT LAW ENFORCED	SR15A(CA)	2B.66	18 x 18	18 x 18	18 x 18	18 x 18	---	---
TRUCKS NOT GIVEN BYPASS SIGNAL MUST ENTER OPEN SCALES	SR17(CA)	2B.60	---	---	120 x 42	144 x 54	120 x 42	---
NO EXPLOSIVES OR FLAMMABLES	SR18(CA)	2B.62	36 x 24	36 x 24	---	---	---	---
EXPLOSIVES AND CORROSIVES PROHIBITED WITHOUT PERMIT	SR19-1(CA)	2B.62	60 x 48	60 x 48	---	---	---	---
SNOW NOT REMOVED BEYOND HERE	SR20-1(CA)	2B.46	48 x 30	48 x 30	---	---	---	---
DUMPING PROHIBITED	SR22-1(CA)	2B.106	30 x 14	30 x 14	---	---	---	---
NO HOUSEHOLD GARBAGE	SR23-1(CA)	2B.106	26 x 18	26 x 18	---	---	---	---
TRANSPORTING ILLEGAL FIREWORKS PROHIBITED	SR25(CA)	2B.63	84 x 42	84 x 42	108 x 54	108 x 54	84 x 42	---
DISPLAY OF VEHICLES FOR SALE PROHIBITED	SR26(CA)	2B.46	30 x 24	30 x 24	---	---	---	---
LEFT TURN ON GREEN ARROW ONLY - NO U TURN	SR39A(CA)	2B.53	36 x 48	36 x 48	---	---	---	---
LEFT OR U TURN ON GREEN ARROW ONLY	SR39A(U)(CA)	2B.53	42 x 24	42 x 24	---	---	---	---
Width Limit	SR40(CA)	2B.60	---	---	60 x 78	60 x 78	48 x 60	---
ALL BUSES STOP AT SCALES	SR41(CA)	2B.60	---	---	84 x 48	84 x 48	---	---
ALL BUSES with Arrow	SR42(CA)	2B.60	---	---	54 x 54	54 x 54	---	---

**Table 2B-1(CA). California Regulatory Sign and Plaque Sizes (Sheet 6 of 6)**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
GOLF CARTS OK DAYLIGHT HOURS	SR43(CA)	2B.107	18 x 24	18 x 24	---	---	---	---
Bus and Truck Registration	SR44(CA)	2B.108	72 x 42	72 x 42	---	---	---	---
EMERGENCY ACCESS KEEP CLEAR	SR46(CA)	2B.109	24 x 30	24 x 30	---	---	---	---
OFF HIGHWAY VEHICLES COMBINED USE NEXT (X) MILES	SR47(CA)	2B.110	48 x 48	48 x 48	---	---	---	---
NO OFF HIGHWAY VEHICLES BEYOND THIS POINT	SR48(CA)	2B.110	48 x 48	48 x 48	---	---	---	---
TOW-AWAY NO PARKING WHEN SNOW REMOVAL CONDITIONS EXIST	SR49(CA)	2B.46	36 x 45	36 x 45	---	---	18 x 24	---
SPECIAL DRIVING ZONE BEGINS HERE - DOUBLE FINE ZONE	SR53(CA)	2B.17	48 x 48	48 x 48	72 x 72	72 x 72	48 x 48	---
DOUBLE FINE ZONE	SR54(CA)	2B.17	30 x 30	30 x 30	42 x 42	42 x 42	30 x 30	---
SPECIAL DRIVING ZONE ENDS HERE	SR55(CA)	2B.17	48 x 30	48 x 30	72 x 42	42 x 72	48 x 30	---
Traffic Signal PHOTO ENFORCED	SR56(CA)	2B.55	36 x 54	36 x 54	48 x 72	48 x 72	30 x 42	---
ALL TRUCKS - 2 AXLE AND MORE - STOP AT SCALE	SR57(CA)	2B.60	84 x 18	84 x 18	120 x 30	144 x 36	84 x 18	---
RED LIGHT VIOLATION \$ ____ FINE	SR58(CA)	2B.55	30 x 36	30 x 36	36 x 48	36 x 48	30 x 36	---
NO IDLING COMMERCIAL VEHICLES AND ALL BUSES	SR62 (CA)	2B.55	18 x 24	18 x 24	---	---	---	---
NO IDLING All Buses and Commercial Vehicles	SR63 (CA)	2B.55	18 x 24	18 x 24	---	---	---	---
FREEWAY - ACCESS RIGHTS RESTRICTED ON THIS SECTION OF HIGHWAY	S3-1(CA)	2B.39	30 x 24	30 x 24	---	---	---	---
STATE PROPERTY - NO DUMPING - NO PARKING - NO TRESPASSING	S8(CA)	2B.111	36 x 22	36 x 22	---	---	---	---
STATE PROPERTY - ANY PERSON REMOVING OR MOLESTING SAME WILL BE PROSECUTED	S20(CA)	2B.111	24 x 18	24 x 18	---	---	---	---
Weigh Station Repair Service plaque	S21(CA)	2B.60	36 x 24	36 x 24	---	---	---	---
DAYLIGHT HEADLIGHT SECTION	S30-1(CA)	2B.64	---	---	84 x 54	84 x 54	---	---
TURN ON HEADLIGHTS NEXT X MILES	S30-2(CA)	2B.64	---	---	108 x 54	108 x 54	---	---
END DAYLIGHT HEADLIGHT SECTION	S30-3(CA)	2B.64	---	---	84 x 66	84 x 66	---	---
TURN ON HEADLIGHTS	S30-4(CA)	2B.64	---	---	84 x 42	84 x 42	---	---
CHECK HEADLIGHTS	S30-5(CA)	2B.64	---	---	84 x 42	84 x 42	---	---
Safety Corridor Sign	S33(CA)	2B.64	---	---	102 x 48	102 x 48	---	---

**Table 2B-2. Meanings of Symbols and Legends on Reversible Lane Control Signs**

Symbol / Word Message	Meaning
Red X on white background	Lane closed
Upward pointing black arrow on white background (if left turns are permitted, the arrow shall be modified to show left / through arrow)	Lane open for through travel and any turns not otherwise prohibited
Black two-way left-turn arrows on white background and legend ONLY	Lane may be used only for left turns in either direction (i.e., as a two-way left-turn lane)
Black single left-turn arrow on white background and legend ONLY	Lane may be used only for left turns in one direction (without opposing left turns in the same lane)

**Table 2B-101(CA) Standard Application of Speed Limits per California Vehicle Code**

Speed	Determined by	Roadway Facility	CVC Section
15 mph	State or local authority	<ul style="list-style-type: none"> <li>▪ Railroad grade crossing with obstructed view</li> <li>▪ Uncontrolled highway intersection with obstructed view</li> <li>▪ An alley</li> </ul>	22352.a.1
15 & 20 mph	State or local authority	Where the prima facie speed of 25 mph is more than is reasonable or safe <ul style="list-style-type: none"> <li>▪ Narrow street not exceeding 25 feet other than a State Highway in a business or residential area or in a public park</li> <li>▪ Road near a school or senior center facility</li> </ul>	22358.3 & 22358.4
25 mph	State or local authority	<ul style="list-style-type: none"> <li>▪ Any highway other than a State highway in any business or residential district</li> <li>▪ A street contiguous to senior citizen facility other than a State highway</li> <li>▪ Adjacent to a children's playground in a public park, but only during particular hours or days when children are expected to use facilities</li> </ul>	22352.a.2 & 22357.1

**Table 2B-102(CA) Optional Application of Speed Limits per California Vehicle Code**

Speed	Determined by	Roadway facility	CVC Section
25 to 60 mph	State Department of Transportation	State highway, based on an E&TS where the limit of 65 mph is more than is reasonable or safe	22354
25 to 60 mph	Local city council or county board of supervisors for the State Department of Transportation	State highway, local entities may conduct a public hearing on proposed increases or decreases and the State Department of Transportation shall take into consideration the results of the public hearing	22354.5
25 to 65 mph	Local authority	Any street other than a State highway, by ordinance, may post a prima facie speed limit based on an E&TS where a speed > 25 mph would facilitate the orderly movement of vehicular traffic and would be reasonable and safe	22357
20 to 50 mph for Trucks	State or local authority	Highways under their respective jurisdiction where 55 mph is more than is reasonable or safe for vehicles mentioned in CVC 22406 (Trucks and other large vehicles)	22407
Maximum Speed 55 mph	State or local authority	<ul style="list-style-type: none"> <li>• Two-lane, undivided highway</li> <li>• Any highway if driving any of the following vehicles:                             <ol style="list-style-type: none"> <li>a. Motortruck or truck tractor with &gt; 3 axles</li> <li>b. Passenger vehicle or bus towing any other vehicle</li> <li>c. School bus transporting any school pupil</li> <li>d. A farm labor vehicle when transporting passengers</li> <li>e. A vehicle transporting explosives</li> <li>f. A trailer bus</li> </ol> </li> </ul>	22349.b & .c and 22406
Maximum Speed Limit of 65 mph	State or local authority	Any highway, posted at 65 mph based upon an E&TS, for vehicles not subject to CVC 22406	22349(a) & 22349
Maximum Freeway Speed Limit 70 mph	State Department of Transportation	Freeways, after consultation with the California Highway Patrol, based upon an E&TS, or upon the basis of appropriate designs standards and projected traffic volumes in the case of newly constructed freeway segments, for vehicles not subject to CVC 22406	22356



## CHAPTER 2C. WARNING SIGNS AND OBJECT MARKERS

### Section 2C.01 Function of Warning Signs

Support:

01 Warning signs call attention to unexpected conditions on or adjacent to a highway, street, or private roads open to public travel and to situations that might not be readily apparent to road users. Warning signs alert road users to conditions that might call for a reduction of speed or an action in the interest of safety and efficient traffic operations.

### Section 2C.02 Application of Warning Signs

Standard:

01 **The use of warning signs shall be based on an engineering study or on engineering judgment.**

Guidance:

02 *The use of warning signs should be kept to a minimum as the unnecessary use of warning signs tends to breed disrespect for all signs. In situations where the condition or activity is seasonal or temporary, the warning sign should be removed or covered when the condition or activity does not exist.*

Option:

03 Consistent with the provisions of Chapter 2L, changeable message signs may be used to display a warning message.

04 Consistent with the provisions of Chapter 4L, a Warning Beacon may be used in combination with a standard warning sign.

Support:

05 The categories of warning signs are shown in Table 2C-1.

06 Warning signs provided in this Manual cover most of the conditions that are likely to be encountered. Additional warning signs for low-volume roads (as defined in Section 5A.01), temporary traffic control zones, school areas, grade crossings, and bicycle facilities are discussed in Parts 5 through 9, respectively.

07 Section 1A.09 contains information regarding the assistance that is available to jurisdictions that do not have engineers on their staffs who are trained and/or experienced in traffic control devices.

### Section 2C.03 Design of Warning Signs

Standard:

01 **Except as provided in Paragraph 2 or unless specifically designated otherwise, all warning signs shall be diamond-shaped (square with one diagonal vertical) with a black legend and border on a yellow background. Warning signs shall be designed in accordance with the sizes, shapes, colors, and legends contained in the “Standard Highway Signs and Markings” book and Department of Transportation’s California Sign Specifications (see Section 1A.11).**

Option:

02 A warning sign that is larger than the size shown in the Oversized column in Table 2C-2 and 2C-2(CA) for that particular sign may be diamond-shaped or may be rectangular or square in shape.

03 Except for symbols on warning signs, minor modifications may be made to the design provided that the essential appearance characteristics are met. Modifications may be made to the symbols shown on combined horizontal alignment/intersection signs (see Section 2C.11) and intersection warning signs (see Section 2C.46) in order to approximate the geometric configuration of the intersecting roadway(s).

04 Word message warning signs other than those provided in this Manual may be developed and installed by State and local highway agencies. See Section 2A.06.

04a **Warning signs may be supplemented with a yellow flashing beacon.**

05 Warning signs regarding conditions associated with pedestrians, bicyclists, and playgrounds may have a black legend and border on a yellow or fluorescent yellow-green background.

**Standard:**

**<sup>06</sup> Warning signs regarding conditions associated with school buses and schools and their related supplemental plaques shall have a black legend and border on a fluorescent yellow-green background (see Section 7B.07).**

<sup>07</sup> The use of educational plaques to supplement symbol signs is described in Section 2A.12.

**Section 2C.04 Size of Warning Signs**

**Standard:**

**<sup>01</sup> Except as provided in Section 2A.11, the sizes for warning signs shall be as shown in Table 2C-2 and 2C-2(CA).**

**Support:**

<sup>02</sup> Section 2A.11 contains information regarding the applicability of the various columns in Table 2C-2 and 2C-2(CA).

**Standard:**

**<sup>03</sup> Except as provided in Paragraph 5, the minimum size for all diamond-shaped warning signs facing traffic on a multi-lane conventional road where the posted speed limit is higher than 35 mph shall be 36 x 36 inches.**

**<sup>04</sup> The minimum size for supplemental warning plaques that are not included in Table 2C-2 and 2C-2(CA) shall be as shown in Table 2C-3.**

**Option:**

<sup>05</sup> If a diamond-shaped warning sign is placed on the left-hand side of a multi-lane roadway to supplement the installation of the same warning sign on the right-hand side of the roadway, the minimum size identified in the Single Lane column in Table 2C-2 and 2C-2(CA) may be used.

<sup>06</sup> Signs and plaques larger than those shown in Tables 2C-2 and 2C-3 may be used (see Section 2A.11).

**Guidance:**

<sup>07</sup> *The minimum size for all diamond-shaped warning signs facing traffic on exit and entrance ramps should be the size identified in Table 2C-2 and 2C-2(CA) for the mainline roadway classification (Expressway or Freeway). If a minimum size is not provided in the Freeway Column, the Expressway size should be used. If a minimum size is not provided in the Freeway or the Expressway Column, the Oversized size should be used.*

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

**Support:**

<sup>01</sup> For information on placement of warning signs, see Sections 2A.16 to 2A.21.

<sup>02</sup> The time needed for detection, recognition, decision, and reaction is called the Perception-Response Time (PRT). Table 2C-4 is provided as an aid for determining warning sign location. The distances shown in Table 2C-4 can be adjusted for roadway features, other signing, and to improve visibility.

**Guidance:**

<sup>03</sup> *Warning signs should be placed so that they provide an adequate PRT. The distances contained in Table 2C-4 are for guidance purposes and should be applied with engineering judgment. Warning signs should not be placed too far in advance of the condition, such that drivers might tend to forget the warning because of other driving distractions, especially in urban areas.*

<sup>04</sup> *Minimum spacing between warning signs with different messages should be based on the estimated PRT for driver comprehension of and reaction to the second sign.*

<sup>05</sup> *The effectiveness of the placement of warning signs should be periodically evaluated under both day and night conditions.*

**Option:**

<sup>06</sup> Warning signs that advise road users about conditions that are not related to a specific location, such as Deer Crossing or SOFT SHOULDER, may be installed in an appropriate location, based on engineering judgment, since they are not covered in Table 2C-4.

**Standard:**

**<sup>07</sup> Warning signs shall be installed in accordance with the general requirements for sign placement as described in Sections 2A.16 to 2A.21 and as shown in Figure 2A-3.**

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

### **Support:**

<sup>01</sup> A variety of horizontal alignment warning signs (see Figure 2C-1), pavement markings (see Chapter 3B), and delineation (see Chapter 3F) can be used to advise motorists of a change in the roadway alignment. Uniform application of these traffic control devices with respect to the amount of change in the roadway alignment conveys a consistent message establishing driver expectancy and promoting effective roadway operations. The design and application of horizontal alignment warning signs to meet those requirements are addressed in Sections 2C.06 through 2C.15.

### **Standard:**

<sup>02</sup> **In advance of horizontal curves on freeways, on expressways, and on roadways with more than 1,000 AADT that are functionally classified as arterials or collectors, horizontal alignment warning signs shall be used in accordance with Table 2C-5 based on the speed differential between the roadway's posted or statutory speed limit or 85th-percentile speed, whichever is higher, or the prevailing speed on the approach to the curve, and the horizontal curve's advisory speed.**

### **Option:**

<sup>03</sup> Horizontal Alignment Warning signs may also be used on other roadways or on arterial and collector roadways with less than 1,000 AADT based on engineering judgment.

## **Section 2C.07 Horizontal Alignment Signs (W1-1 through W1-5, W1-11, W1-15)**

### **Standard:**

<sup>01</sup> **If Table 2C-5 indicates that a horizontal alignment sign (see Figure 2C-1) is required, recommended, or allowed, the sign installed in advance of the curve shall be a Curve (W1-2) sign unless a different sign is recommended or allowed by the provisions of this Section.**

<sup>02</sup> **A Turn (W1-1) sign shall be used instead of a Curve sign in advance of curves that have advisory speeds of 30 mph or less (see Figure 2C-2).**

### **Guidance:**

<sup>03</sup> *Where there are two changes in roadway alignment in opposite directions that are separated by a tangent distance of less than 600 feet, the Reverse Turn (W1-3) sign should be used instead of multiple Turn (W1-1) signs and the Reverse Curve (W1-4) sign should be used instead of multiple Curve (W1-2) signs.*

### **Support:**

<sup>03a</sup> Refer to Section 2C.10 for Reverse Turn/Advisory Speed (W4-1(CA)) sign or Reverse Curve/Advisory Speed (W4-18(CA)) signs (see Figure 2C-1(CA)).

### **Option:**

<sup>04</sup> A Winding Road (W1-5) sign may be used instead of multiple Turn (W1-1) or Curve (W1-2) signs where there are three or more changes in roadway alignment each separated by a tangent distance of less than 600 feet.

### **Guidance:**

<sup>04a</sup> *The Winding Road (W1-5) sign should be used where there is a series of turns or curves which requires driving caution, and where curve or turn signs would be too numerous to be effective. This sign should be erected in advance of the second curve of the winding section of highway. The first curve should be marked with a curve or turn sign and an Advisory Speed (W13-1P) plaque. Where the winding road is 1 mile or more in length, a Next Distance (W7-3a) plaque should supplement the W1-5 sign. Where any of the curves has an advisory speed that is 10 mph or more below that of the first curve then it should be posted with a curve or turn sign and an Advisory Speed (W13-1P) plaque.*

### **Option:**

<sup>04b</sup> The WINDING LEVEE ROAD (SW22-1(CA)) sign (see Figure 2C-1(CA)) may be used to warn road users of the roadway alignment where the use of curve warning signs have been determined not to be appropriate.

<sup>04c</sup> The Speed/Distance (SW22-1A(CA)) plaque (see Figure 2C-1(CA)) may be installed below the SW22-1(CA) sign. The Next Distance (W7-3a) plaque may be used when there is no advisory speed.

### **Standard:**

<sup>04d</sup> **If used, the Speed/Distance (SW22-1A(CA)) plaque shall be installed below the SW22-1(CA) sign.**

<sup>05</sup> A NEXT XX MILES (W7-3aP) supplemental distance plaque (see Section 2C.55) may be installed below the Winding Road sign where continuous roadway curves exist for a specific distance.

06 If the curve has a change in horizontal alignment of 135 degrees or more, the Hairpin Curve (W1-11) sign may be used instead of a Curve or Turn sign.

07 If the curve has a change of direction of approximately 270 degrees, such as on a cloverleaf interchange ramp, the 270-degree Loop (W1-15) sign may be used instead of a Curve or Turn sign.

**Support:**

07a Refer to Section 2C.10 for Hairpin Curve /Advisory Speed (W4-10(CA)) sign, 270-degree Loop/Advisory Speed (W4-14(CA)) sign and combination Truck Rollover Warning /Advisory Speed (W4-22(CA)) sign (see Figure 2C-1(CA)).

**Guidance:**

08 When the Hairpin Curve sign or the 270-degree Loop sign is installed, either a One-Direction Large Arrow (W1-6) sign or Chevron Alignment (W1-8) signs should be installed on the outside of the turn or curve.

**Option:**

09 The TRACTOR-SEMIS OVER \_\_\_ FEET KINGPIN TO REAR AXLE NOT ADVISED (SW48(CA)) sign (see Figure 2C-5(CA)) may be used on certain specified conventional highways and freeways that have restricted turning radii.

**Standard:**

10 **At freeway off-ramps to restricted conventional highways, the freeway sign shall be installed with a NEXT EXIT (SW 48-1(CA)) sign.**

**Guidance:**

11 The SW48(CA) sign should be located far enough in advance of the restricted area to allow the vehicle operator time to select an alternate route.

**Option:**

12 The NEXT EXIT (SW48-1(CA)) sign (see Figure 2C-5(CA)) or Next Distance (W7-3a) plaque may supplement the SW48(CA) sign, as appropriate. Alternate messages for the SW 48-1(CA) sign may be NEXT RIGHT, SECOND EXIT, SECOND RIGHT, NEXT LEFT or SECOND LEFT.

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

**Option:**

01 The Advisory Speed (W13-1P) plaque (see Figure 2C-1) may be used to supplement any warning sign to indicate the advisory speed for a condition.

**Standard:**

02 **The use of the Advisory Speed plaque for horizontal curves shall be in accordance with the information shown in Table 2C-5. The Advisory Speed plaque shall also be used where an engineering study indicates a need to advise road users of the advisory speed for other roadway conditions.**

03 **If used, the Advisory Speed plaque shall carry the message XX MPH. The speed displayed shall be a multiple of 5 mph.**

04 **Except in emergencies or when the condition is temporary, an Advisory Speed plaque shall not be installed until the advisory speed has been determined by an engineering study.**

05 **The Advisory Speed plaque shall only be used to supplement a warning sign and shall not be installed as a separate sign installation.**

06 **The advisory speed shall be determined by an engineering study that follows established engineering practices.**

**Support:**

07 Among the established engineering practices that are appropriate for the determination of the recommended advisory speed for a horizontal curve are the following:

- A. An accelerometer that provides a direct determination of side friction factors
- B. A design speed equation
- C. A traditional ball-bank indicator using the following criteria:
  - 1. 16 degrees of ball-bank for speeds of 20 mph or less
  - 2. 14 degrees of ball-bank for speeds of 25 to 30 mph
  - 3. 12 degrees of ball-bank for speeds of 35 mph and higher

08 The 16, 14, and 12 degrees of ball-bank criteria are comparable to the current AASHTO horizontal curve design guidance. Research has shown that drivers often exceed existing posted advisory curve speeds by 7 to 10 mph.

*Guidance:*

*09 The advisory speed should be determined based on free-flowing traffic conditions.*

*10 Because changes in conditions, such as roadway geometrics, surface characteristics, or sight distance, might affect the advisory speed, each location should be evaluated periodically or when conditions change.*

**Standard:**

**11 If used, the speed shown on the W13-1P plaque shall not be in excess of the posted or maximum speed limit. The advisory speed shall be determined in accordance with this section.**

**12 The Advisory Speed plaque shall not be used in conjunction with any sign other than a warning sign, nor shall it be used alone. When used, it shall be positioned below the warning sign.**

*Guidance:*

*13 In determining the need for curve or turn warning signs, consideration should be given to driver expectancy based on the driving environment. If the curve can be driven at legal speed without discomfort, there is normally no need for a sign. A curve warning sign should be considered in advance of any curve that produces a reading of 10 degrees on a Ball Bank Indicator at speeds lower than the approach speed. If a curve warning sign is needed, it should be supplemented with an advisory speed message.*

*14 A mechanical or electronic Ball Indicator should be used to determine the advisory speed for curves.*

**Support:**

**15 This speed is shown on the Horizontal Alignment signs (see Section 2C.06), Combination Horizontal Alignment/Advisory Speed Signs (see Section 2C.10), Advisory Exit and Ramp Speed Signs (see Section 2C.14), Combination Horizontal Alignment/Advisory Exit and Ramp Speed Signs (see Section 2C.15) and Advisory Speed Plaque.**

**Option:**

**16 The Advisory Speed (W13-1P) plaque may also be used with a number of other warning signs.**

**Support:**

**17 One method of determining the advisory speed is to drive the curve at several selected uniform speeds and plot the Ball Bank Indicator readings as shown in Figure 2C-101(CA).**

*Guidance:*

*18 A minimum of three speed runs should be made in each direction.*

**Support:**

**19 The limiting Ball Bank Indicator value for comfort is 16° for speeds of 20 mph or less, approximately 14° for speeds of 25 to 30 mph, inclusive and 12° for speeds of 35 mph or higher.**

**Standard:**

**20 The speeds shown on the sign shall be in mph.**

*Guidance:*

*21 The speed shown on the sign should be in 5 mph increments to the lowest appropriate speed found for the condition.*

**Option:**

**22 A changeable message sign that displays to approaching drivers the speed at which they are traveling may be installed on the same post and in conjunction with any horizontal alignment sign that has an advisory speed.**

**23 Any horizontal alignment that has an advisory speed may be supplemented with a changeable message sign that displays the horizontal alignment sign, advisory speed and the approaching driver's speed.**

**Standard:**

**24 If a changeable message sign is installed, the legend YOUR SPEED XX (MPH) or such similar legend shall be shown.**

**25 The color of the changeable message sign shall be a yellow legend on a black background or the reverse of these colors.**

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

**Standard:**

**01 The use of the Chevron Alignment (W1-8) sign (see Figures 2C-1 and 2C-2) to provide additional emphasis and guidance for a change in horizontal alignment shall be in accordance with the information shown in Table 2C-5.**

**Option:**

**02 When used, Chevron Alignment signs may be used instead of or in addition to standard delineators.**

**Standard:**

**03 The Chevron Alignment sign shall be a vertical rectangle. No border shall be used on the Chevron Alignment sign.**

**04 If used, a minimum of three Chevron Alignment signs shall be installed on the outside of a turn or curve, in line with and at approximately a right angle to approaching traffic. Chevron Alignment signs shall be installed at a minimum height of 4 feet, measured vertically from the bottom of the sign to the elevation of the near edge of the traveled way.**

*Guidance:*

*05 The approximate spacing of Chevron Alignment signs on the turn or curve measured from the point of curvature (PC) should be as shown in Table 2C-6.*

*06 If used, Chevron Alignment signs should be visible for a sufficient distance to provide the road user with adequate time to react to the change in alignment.*

**Standard:**

**07 Chevron Alignment signs shall not be placed on the far side of a T-intersection facing traffic on the stem approach to warn drivers that a through movement is not physically possible, as this is the function of a Two-Direction (or One-Direction) Large Arrow sign.**

**08 Chevron Alignment signs shall not be used to mark obstructions within or adjacent to the roadway, including the beginning of guardrails or barriers, as this is the function of an object marker (see Section 2C.63).**

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

**Option:**

**01 The Turn (W1-1) sign or the Curve (W1-2) sign may be combined with the Advisory Speed (W13-1P) plaque (see Section 2C.08) to create a combination Turn/Advisory Speed (W1-1a) sign or combination Curve/Advisory Speed (W1-2a) sign (see Figure 2C-1).**

**01a The Reverse Turn (W1-3) sign or the Reverse Curve (W1-4) sign may be combined with the Advisory Speed (W13-1P) plaque (see Section 2C.08) to create a combination Reverse Turn/Advisory Speed (W4-1(CA)) sign (see Figure 2C-1(CA)), or combination Reverse Curve/Advisory Speed (W4-18(CA)) sign (see Figure 2C-1(CA)).**

**01b The Hairpin Curve (W1-11) sign or the 270-degree Loop (W1-15) sign may be combined with the Advisory Speed (W13-1P) plaque (see Section 2C.08) to create a combination Hairpin Curve /Advisory Speed (W4-10(CA)) sign (see Figure 2C-1(CA)), or combination 270-degree Loop/Advisory Speed (W4-14(CA)) sign (see Figure 2C-1(CA)).**

**01c The Truck Rollover Warning (W1-13) sign may be combined with the Advisory Speed (W13-1P) plaque (see Section 2C.08) to create a combination Truck Rollover Warning /Advisory Speed (W4-22(CA)) sign (see Figure 2C-1(CA)).**

**02 The combination Horizontal Alignment/Advisory Speed sign may be used to supplement the advance Horizontal Alignment warning sign and Advisory Speed plaque based upon an engineering study.**

**Standard:**

**03 If used, the combination Horizontal Alignment/Advisory Speed sign shall not be used alone and shall not be used as a substitute for a Horizontal Alignment warning sign and Advisory Speed plaque at the advance warning location. The combination Horizontal Alignment/Advisory Speed sign shall only be used as a supplement to the advance Horizontal Alignment warning sign.**

*Guidance:*

*03a If used, the combination Horizontal Alignment/Advisory Speed sign ~~shall~~ should be installed at the beginning of the turn or curve.*

**Support:**

**03b The combination Turn/Advisory Speed (W1-1a) sign or combination Curve/Advisory Speed (W1-2a) sign (see Figure 2C-1) is used at problem locations where the Horizontal Alignment (W1-1 through W1-5) signs have not proven to be effective.**

**Standard:**

**03c When used, combination Turn/Advisory Speed (W1-1a) sign or combination Curve/Advisory Speed (W1-2a) sign (see Figure 2C-1) shall be used in the head-on position (left side) and/or at the beginning of the turn or curve(right side).**

**Guidance:**

*<sup>03d</sup> When used, the square shape should be used in the head-on position (left side) for combination Turn/Advisory Speed (W1-1a) sign or combination Curve/Advisory Speed (W1-2a) sign (see Figure 2C-1).*

*<sup>03e</sup> When used, the diamond shape should be used in the beginning of the turn or curve (right side) for the combination Turn/Advisory Speed (W1-1a) sign or combination Curve/Advisory Speed (W1-2a) sign (see Figure 2C-1).*

*<sup>03f</sup> Existing pavement markings should also be evaluated.*

**Standard:**

**<sup>03g</sup> The advisory speed shall be determined in accordance with Section 2C.08.**

**Guidance:**

*<sup>04</sup> The advisory speed displayed on the combination Horizontal Alignment/Advisory Speed sign should be based on the advisory speed for the horizontal curve using recommended engineering practices (see Section 2C.08).*

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

**Option:**

<sup>01</sup> The Turn (W1-1) sign or the Curve (W1-2) sign may be combined with the Cross Road (W2-1) sign or the Side Road (W2-2 or W2-3) sign to create a combination Horizontal Alignment/Intersection (W1-10 series) sign (see Figure 2C-1) that depicts the condition where an intersection occurs within or immediately adjacent to a turn or curve.

**Guidance:**

*<sup>02</sup> Elements of the combination Horizontal Alignment/Intersection sign related to horizontal alignment should comply with the provisions of Section 2C.07, and elements related to intersection configuration should comply with the provisions of Section 2C.46. The symbol design should approximate the configuration of the intersecting roadway(s). No more than one Cross Road or two Side Road symbols should be displayed on any one combination Horizontal Alignment/Intersection sign.*

**Standard:**

**<sup>03</sup> The use of the combination Horizontal Alignment/Intersection sign shall be in accordance with the appropriate Turn or Curve sign information shown in Table 2C-5.**

### **Section 2C.12 One-Direction Large Arrow Sign (W1-6)**

**Option:**

<sup>01</sup> A One-Direction Large Arrow (W1-6) sign (see Figure 2C-1) may be used either as a supplement or alternative to Chevron Alignment signs in order to delineate a change in horizontal alignment (see Figure 2C-2).

<sup>02</sup> A One-Direction Large Arrow (W1-6) sign may be used to supplement a Turn or Reverse Turn sign (see Figure 2C-2) to emphasize the abrupt curvature.

**Standard:**

**<sup>03</sup> The One-Direction Large Arrow sign shall be a horizontal rectangle with an arrow pointing to the left or right.**

**<sup>04</sup> The use of the One-Direction Large Arrow sign shall be in accordance with the information shown in Table 2C-5.**

**<sup>05</sup> If used, the One-Direction Large Arrow sign shall be installed on the outside of a turn or curve in line with and at approximately a right angle to approaching traffic.**

**<sup>06</sup> The One-Direction Large Arrow sign shall not be used where there is no alignment change in the direction of travel, such as at the beginnings and ends of medians or at center piers.**

**<sup>07</sup> The One-Direction Large Arrow sign directing traffic to the right shall not be used in the central island of a roundabout.**

**Guidance:**

*<sup>08</sup> If used, the One-Direction Large Arrow sign should be visible for a sufficient distance to provide the road user with adequate time to react to the change in alignment.*

*<sup>09</sup> Type N-1(CA) (OM1-3) object marker should be used below and on the same post as the W1-6 sign. See Section 2C.65.*

### **Section 2C.13 Truck Rollover Warning Sign (W1-13)**

**Option:**

01 A Truck Rollover Warning (W1-13) sign (see Figure 2C-1) may be used to warn drivers of vehicles with a high center of gravity, such as trucks, tankers, and recreational vehicles, of a curve or turn where geometric conditions might contribute to a loss of control and a rollover as determined by an engineering study.

**Support:**

02 Among the established engineering practices that are appropriate for the determination of the truck rollover potential of a horizontal curve are the following:

- A. An accelerometer that provides a direct determination of side friction factors
- B. A design speed equation
- C. A traditional ball-bank indicator using 10 degrees of ball-bank (see Figure 2C-101(CA)).

**Standard:**

03 **If a Truck Rollover Warning (W1-13) sign is used, it shall be accompanied by an Advisory Speed (W13-1P) plaque indicating the recommended speed for vehicles with a higher center of gravity.**

**Option:**

04 The Truck Rollover Warning sign may be displayed as a static sign, as a static sign supplemented by a flashing warning beacon, or as a changeable message sign activated by the detection of an approaching vehicle with a high center of gravity that is traveling in excess of the recommended speed for the condition.

**Support:**

05 The curved arrow on the Truck Rollover Warning sign shows the direction of roadway curvature. The truck tips in the opposite direction.

### **Section 2C.14 Advisory Exit and Ramp Speed Signs (W13-2 and W13-3)**

**Standard:**

01 **Advisory Exit Speed (W13-2) and Advisory Ramp Speed (W13-3) signs (see Figure 2C-1) shall be vertical rectangles. The use of Advisory Exit Speed and Advisory Ramp Speed signs on freeway and expressway ramps shall be in accordance with the information shown in Table 2C-5.**

*Guidance:*

02 *If used, the Advisory Exit Speed sign should be installed along the deceleration lane and the advisory speed displayed should be based on an engineering study. When a Truck Rollover (W1-13) sign (see Section 2C.13) is also installed for the ramp, the advisory exit speed should be based on the truck advisory speed for the horizontal alignment using recommended engineering practices.*

03 *If used, the Advisory Exit Speed sign should be visible in time for the road user to decelerate and make an exiting maneuver.*

**Support:**

04 Table 2C-4 lists recommended advance sign placement distances for deceleration to various advisory speeds.

*Guidance:*

05 *If used, the Advisory Ramp Speed sign should be installed on the ramp to confirm the ramp advisory speed.*  
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06 *If used, Chevron Alignment (W1-8) signs and/or One-Direction Large Arrow (W1-6) signs should be installed on the outside of the exit curve as described in Sections 2C.09 and 2C.12.*

**Option:**

07 ~~Where there is a need to remind road users of the recommended advisory speed, a horizontal alignment warning sign with an advisory speed plaque may be installed at or beyond the beginning of the exit curve or on the outside of the curve, provided that it is apparent that the sign applies only to exiting traffic. These signs may also be used at intermediate points along the ramp, especially if the ramp curvature changes and the subsequent curves on the ramp have a different advisory speed than the initial ramp curve.~~

**Support:**

08 ~~Figure 2C-3 shows an example of advisory speed signing for an exit ramp.~~

**Guidance:**

<sup>09</sup> *The Advisory Exit Speed (W13-2) sign (see Figure 2C-1) should be placed on the right of exit ramps just beyond the neutral area (gore) to advise motorists of the speed at which the exit ramp can be comfortably negotiated. Consideration should also be given to the speed at which traffic can enter the surface street at the end of the ramp if a stop is not required.*

**Support:**

<sup>10</sup> *The W13-2 sign is not necessary for an exit ramp that has tangent alignment and terminates at a stop sign or a signal.*

**Guidance:**

<sup>11</sup> *The Advisory Ramp Speed (W13-3) sign (see Figure 2C-1) should be placed on the right of the freeway to freeway connector ramps just beyond the neutral area (gore) where the ramps cannot be comfortably negotiated by motorists at approach speeds.*

<sup>12</sup> *Where additional warning is needed for ramp curvature beyond the neutral area (gore), a curve warning sign and an advisory speed should be posted.*

**Standard:**

<sup>13</sup> **The advisory speed shall be determined in accordance with Section 2C.08.**

### **Section 2C.15 Combination Horizontal Alignment/Advisory Exit and Ramp Speed Signs (W13-6 and W13-7)**

**Option:**

<sup>01</sup> A horizontal alignment sign (see Section 2C.07) may be combined with an Advisory Exit Speed or Advisory Ramp Speed sign to create a combination Horizontal Alignment/Advisory Exit Speed (W13-6) sign or a combination Horizontal Alignment/Advisory Ramp Speed (W13-7) sign (see Figure 2C-1). These combination signs may be used where the severity of the exit ramp curvature might not be apparent to road users in the deceleration lane or where the curvature needs to be specifically identified as being on the exit ramp rather than on the mainline.

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

**Guidance:**

<sup>01</sup> *The Hill (W7-1) sign (see Figure 2C-4) should be used in advance of a downgrade where the length, percent of grade, horizontal curvature, and/or other physical features require special precautions on the part of road users.*

<sup>02</sup> *The Hill sign and supplemental grade (W7-3P) plaque (see Section 2C.57) used in combination, or the W7-1a sign used alone, should be installed in advance of downgrades for the following conditions:*

- A. 5% grade that is more than 3,000 feet in length,
- B. 6% grade that is more than 2,000 feet in length,
- C. 7% grade that is more than 1,000 feet in length,
- D. 8% grade that is more than 750 feet in length, or
- E. 9% grade that is more than 500 feet in length.

<sup>03</sup> *These signs should also be installed for steeper grades or where crash experience and field observations indicate a need.*

<sup>04</sup> *Supplemental plaques (see Section 2C.57) and larger signs should be used for emphasis or where special hill characteristics exist. On longer grades, the use of the Hill sign with a distance (W7-3aP) plaque or the combination distance/grade (W7-3bP) plaque at periodic intervals of approximately 1-mile spacing should be considered.*

**Standard:**

<sup>05</sup> **If the percent grade is displayed on a supplemental plaque, the plaque shall be placed below the Hill (W7-1) sign.**

**Option:**

<sup>06</sup> A USE LOW GEAR (W7-2P) or TRUCKS USE LOWER GEAR (W7-2bP) supplemental plaque (see Figure 2C-4) may be used to indicate a situation where downshifting as well as braking might be advisable.

<sup>07</sup> *The SLOW TRUCKS (W51(CA)) sign (see Figure 2C-4(CA)) may be used to inform drivers that slow moving trucks substantially interfere with the flow of traffic. The Next Distance (W7-3a) plaque may be used with the W51(CA) sign.*

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

*Guidance:*

*01 Where applicable, truck escape (or runaway truck) ramp advance warning signs (see Figure 2C-4) should be located approximately 1 mile, and 1/2 mile in advance of the grade, and of the ramp. A sign also should be placed at the gore. A RUNAWAY VEHICLES ONLY (R4-10) sign (see Section 2B.35) should be installed near the ramp entrance to discourage other road users from entering the ramp. ~~No Parking (R8-3) signs should be placed near the ramp entrance.~~ NO STOPPING ANYTIME (R26A(S)(CA)) signs should be placed to keep motorists from stopping in the path of runaway trucks.*

**Standard:**

**02 When truck escape ramps are installed, at least one of the W7-4 series signs shall be used.**

*Option:*

*03 A SAND (W7-4dP), GRAVEL (W7-4eP), or PAVED (W7-4fP) supplemental plaque (see Figure 2C-4) may be used to describe the ramp surface. State and local highway agencies Department of Transportation (see Section 2A.06) may develop appropriate word message signs for the specific situation.*

**Standard:**

**04 The DEEP GRAVEL (W30B(CA)) sign (see Figure 2C-4(CA)) shall be placed on all truck escape ramps.**

*Guidance:*

*05 The W30B(CA) sign should be placed near the outside edge of the paved ramp prior to the beginning of the gravel bed. See Figure 3D-103(CA) for Runaway Truck Ramp sign and marking details.*

*06 The RIGHT (LEFT) EXIT (W30C(CA)) sign (see Figure 2C-4(CA)) should be used to indicate a right or left exit to a truck escape ramp.*

*Support:*

*07 Erect the W30C(CA) sign below and on the same post with the first W7-4 sign.*

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

*Option:*

*01 A HILL BLOCKS VIEW (W7-6) sign (see Figure 2C-4) may be used in advance of a crest vertical curve to advise road users to reduce speed as they approach and traverse the hill as only limited stopping sight distance is available.*

*Guidance:*

*02 When a HILL BLOCKS VIEW sign is used, it should be supplemented by an Advisory Speed (W13-1P) plaque indicating the recommended speed for traveling over the hillcrest based on available stopping sight distance.*

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

*Guidance:*

*01 Except as provided in Paragraph 2, a ROAD NARROWS (W5-1) sign (see Figure 2C-5) should be used in advance of a transition on two-lane roads where the pavement width is reduced abruptly to a width such that vehicles traveling in opposite directions cannot simultaneously travel through the narrow portion of the roadway without reducing speed.*

*Option:*

*02 The ROAD NARROWS (W5-1) sign may be omitted on low-volume local streets that have speed limits of 30 mph or less.*

*03 Additional emphasis may be provided by the use of object markers and delineators (see Sections ~~2B.63~~ 2C.63 through ~~2B.65~~ 2C.65 and Chapter 3F). The Advisory Speed (W13-1P) plaque (see Section 2C.08) may be used to indicate the recommended speed.*

*04 The Downward Arrow (SW44(CA)) sign (see Figure 2C-5(CA)) may be used where object markers (see Sections 2C.63 and 2C.65) may be ineffective, with the downward arrow either left or right, to mark obstructions in the roadway where traffic is permitted to pass on one side only.*

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

*Guidance:*

*01 A NARROW BRIDGE (W5-2) sign (see Figure 2C-5) should be used in advance of any bridge or culvert having a two-way roadway clearance width of 16 to ~~18~~ 28 feet, or any bridge or culvert having a roadway clearance less than the width of the approach travel lanes.*

*02 Additional emphases should be provided by the use of object markers, delineators, and/or pavement markings.*

*Option:*

*03 A NARROW BRIDGE sign may be used in advance of a bridge or culvert on which the approach shoulders are narrowed or eliminated.*

*Support:*

*04 See Figure 3F-104(CA) for narrow bridge sign and marking details.*

*Option:*

*05 The TUNNEL (SW37(CA)) sign (see Figure 2C-5(CA)) may be used to warn road user that there is a tunnel ahead.*

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

*Guidance:*

*01 A ONE LANE BRIDGE (W5-3) sign (see Figure 2C-5) should be used on two-way roadways in advance of any bridge or culvert:*

*A. Having a clear roadway width of less than 16 feet, or*

*B. Having a clear roadway width of less than 18 feet when commercial vehicles constitute a high proportion of the traffic, or*

*C. Having a clear roadway width of 18 feet or less where the sight distance is limited on the approach to the structure.*

*02 Additional emphases should be provided by the use of object markers, delineators, and/or pavement markings.*

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

*Guidance:*

*01 A Divided Highway (W6-1) sign (see Figure 2C-5) should be used on the approaches to a section of highway (not an intersection or junction) where the opposing flows of traffic are separated by a median or other physical barrier.*

**Standard:**

**02 The Divided Highway (W6-1) sign shall not be used instead of a Keep Right (R4-7 series) sign on the approach end of a median island.**

*Support:*

*03 See Figure 3B-14(CA) for signing and marking applications for lane reductions.*

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

*Guidance:*

*01 A Divided Highway Ends (W6-2) sign (see Figure 2C-5) should be used in advance of the end of a section of physically divided highway (not an intersection or junction) as a warning of two-way traffic ahead.*

*02 The Two-Way Traffic (W6-3) sign (see Section 2C.44) should be used to give warning and notice of the transition to a two-lane, two-way section.*

*Support:*

*03 See Figure 3B-14(CA) for signing and marking applications for lane reductions.*

### **Section 2C.24 Freeway or Expressway Ends Signs (W19 Series)**

*Option:*

*01 A FREEWAY ENDS XX MILES (W19-1) sign or a FREEWAY ENDS (W19-3) sign (see Figure 2C-5) may be used in advance of the end of a freeway.*

02 An EXPRESSWAY ENDS XX MILES (W19-2) sign or an EXPRESSWAY ENDS (W19-4) sign (see Figure 2C-5) may be used in advance of the end of an expressway.

03 The rectangular W19-1 and W19-2 signs may be post-mounted or may be mounted overhead for increased emphasis.

**Guidance:**

04 *If the reason that the freeway is ending is that the next portion of the freeway is not yet constructed and as a result all traffic must use an exit ramp to leave the freeway, an ALL TRAFFIC MUST EXIT (W19-5) sign (see Figure 2C-5) should be used in addition to the Freeway Ends signs in advance of the downstream end of the freeway.*

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

**Option:**

01 The Double Arrow (W12-1) sign (see Figure 2C-5) may be used to advise road users that traffic is permitted to pass on either side of an island, obstruction, or gore in the roadway. Traffic separated by this sign may either rejoin or change directions.

**Guidance:**

02 *If used on an island, the Double Arrow sign should be mounted near the approach end.*

03 *If used in front of a pier or obstruction, the Double Arrow sign should be mounted on the face of, or just in front of, the obstruction. Where stripe markings are used on the obstruction, they should be discontinued to leave a 3-inch space around the outside of the sign.*

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

**Option:**

01 The DEAD END (W14-1) sign (see Figure 2C-5) may be used at the entrance of a single road or street that terminates in a dead end or cul-de-sac. The NO OUTLET (W14-2) sign (see Figure 2C-5) may be used at the entrance to a road or road network from which there is no other exit.

02 DEAD END (W14-1a) or NO OUTLET (W14-2a) signs (see Figure 2C-5) may be used in combination with Street Name (D3-1) signs (see Section 2D.43) to warn turning traffic that the cross street ends in the direction indicated by the arrow.

03 At locations where the cross street does not have a name, the W14-1a or W14-2a signs may be used alone in place of a street name sign.

**Standard:**

04 **The DEAD END (W14-1a) and NO OUTLET (W14-2a) signs shall be horizontal rectangles with an arrow pointing to the left or right.**

05 **When the W14-1 or W14-2 sign is used, the sign shall be posted as near as practical to the entry point or at a sufficient advance distance to permit the road user to avoid the dead end or no outlet condition by turning at the nearest intersecting street.**

06 **The DEAD END (W14-1a) or NO OUTLET (W14-2a) signs shall not be used instead of the W14-1 or W14-2 signs where traffic can proceed straight through the intersection into the dead end street or no outlet area.**

**Option:**

07 **The END (W31(CA)) sign (see Figure 2C-5(CA)) may be used where a street or highway ends.**

08 **The ROAD ENDS ----- FT (W31A(CA)) sign (see Figure 2C-5(CA)) may be used in advance of the END (W31(CA)) sign.**

**Support:**

09 **Install in a head-on position (left side) in combination with an end-of-roadway marker. See Section 2C.66.**

10 **See Figure 2C-13 and 2C-13(CA) for examples of object markers and more details.**

### **Section 2C.27 Low Clearance Signs (W12-2 and W12-2a)**

**Standard:**

01 **The Low Clearance (W12-2) sign (see Figure 2C-5) shall be used to warn road users of clearances less than 12 inches above the statutory maximum vehicle height.**

*Guidance:*

*02 The actual clearance should be displayed on the Low Clearance sign to the nearest 1 inch not exceeding the actual clearance. However, in areas that experience changes in temperature causing frost action, a reduction, not exceeding 3 inches, should be used for this condition.*

*03 Where the clearance is less than the legal maximum vehicle height, the W12-2 sign with a supplemental distance plaque should be placed at the nearest intersecting road or wide point in the road at which a vehicle can detour or turn around.*

*04 In the case of an arch or other structure under which the clearance varies greatly, two or more signs should be used as necessary on the structure itself to give information as to the clearances over the entire roadway.*

*05 Clearances should be evaluated periodically, particularly when resurfacing operations have occurred.*

*Option:*

*06 The Low Clearance sign may be installed on or in advance of the structure. If a sign is placed on the structure, it may be a rectangular shape (W12-2a) with the appropriate legend (see Figure 2C-5).*

**Standard:**

**07 The Low Clearance (W12-2) sign shall be used to warn motorists of low structure clearances.**

**08 For clearance 15 feet 6 inch or less, in addition to the W12-2P, two advance Low Clearance signs shall be installed on the right side of the roadway. The first W12-2 sign shall be placed in advance of the nearest intersecting street or highway or wide point in the road at which a motorist can detour or safely turn around.**

*Guidance:*

*09 A Distance Ahead (W34A(CA)) plaque should be placed below the W12-2 sign at this location.*

**Standard:**

**10 The second W12-2 sign shall be placed in advance of the structure.**

*Support:*

*11 No W34A(CA) plaque is needed at the second location.*

**Standard:**

**12 The W12-2 sign shall display the same clearance as shown on the W12-2P sign.**

*Guidance:*

*13 The Distance Ahead (W34A(CA)) plaque when used, should be placed below a W12-2 sign.*

**Standard:**

**14 The \_\_\_ FT \_\_\_ IN plaque (W12-2P) shall be used to warn motorists of structural clearance 15 feet 6 inch or less.**

*Guidance:*

*15 The W12-2P plaque should be centered over the traveled way on the approach side of all underpasses, overheads, viaducts, overcrossings, undercrossings, and grade separations for state highways.*

**Standard:**

**16 The W12-2P plaque shall not encroach over the shoulder area.**

**17 The W12-2P plaque shall display the minimum vertical clearance to the nearest inch, not exceeding the measured value.**

**18 The CAUTION, VERTICAL CLEARANCE \_\_\_' \_\_\_" Arrow (W34C(CA)) sign (see Figure 2C-5(CA)) shall be used on all blind approaches to structures with clearances 15 feet 6 inch or less.**

*Support:*

*19 The W34C(CA) sign is used to warn motorists of low structure clearance around corners.*

*Guidance:*

*20 The W34C(CA) sign should be placed at a location where the motorist can detour or safely turn around before making the turn.*

**Standard:**

**21 The W34C(CA) sign shall display the same clearance as shown on the W12-2P sign.**

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

*Guidance:*

*01 BUMP (W8-1) and DIP (W8-2) signs (see Figure 2C-6) should be used to give warning of a sharp rise or depression in the profile of the road.*

**Standard:**

**<sup>01a</sup> When used at a cattle guard, the BUMP (W8-1) or DIP (W8-2) signs shall be supplemented with a diagonal downward pointing arrow (W16-7p) plaque showing the location of the cattle guard.**

**Option:**

<sup>02</sup> These signs may be supplemented with an Advisory Speed plaque (see Section 2C.08).

**Standard:**

**<sup>03</sup> The DIP sign shall not be used at a short stretch of depressed alignment that might momentarily hide a vehicle.**

**Guidance:**

<sup>04</sup> A short stretch of depressed alignment that might momentarily hide a vehicle should be treated as a no-passing zone when center line striping is provided on a two-lane or three-lane road (see Section 3B.02).

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

**Guidance:**

<sup>01</sup> The SPEED HUMP (W17-1) sign (see Figure 2C-6) should be used to give warning of a vertical deflection in the roadway that is designed to limit the speed of traffic.

<sup>02</sup> If used, the SPEED HUMP sign should be supplemented by an Advisory Speed plaque (see Section 2C.08).

**Option:**

<sup>03</sup> If a series of speed humps exists in close proximity, an Advisory Speed plaque may be eliminated on all but the first SPEED HUMP sign in the series.

<sup>04</sup> The legend SPEED BUMP may be used instead of the legend SPEED HUMP on the W17-1 sign.

**Support:**

<sup>05</sup> Speed humps generally provide more gradual vertical deflection than speed bumps. Speed bumps limit the speed of traffic more severely than speed humps. Other forms of speed humps include speed tables and raised intersections. However, these differences in engineering terminology are not well known by the public, so for signing purposes these terms are interchangeable.

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

**Guidance:**

<sup>01</sup> A PAVEMENT ENDS (W8-3) word message sign (see Figure 2C-6) should be used where a paved surface changes to either a gravel treated surface or an earth road surface.

**Option:**

<sup>02</sup> An Advisory Speed plaque (see Section 2C.08) may be used when the change in roadway condition requires a reduced speed.

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

**Option:**

<sup>01</sup> The SOFT SHOULDER (W8-4) sign (see Figure 2C-6) may be used to warn of a soft shoulder condition.

<sup>02</sup> The LOW SHOULDER (W8-9) sign (see Figure 2C-6) may be used to warn of a shoulder condition where there is an elevation difference of less than 3 inches between the shoulder and the travel lane.

**Guidance:**

<sup>03</sup> The Shoulder Drop Off (W8-17) sign (see Figure 2C-6) should be used where an unprotected shoulder drop-off, adjacent to the travel lane, exceeds 3 inches in depth for a significant continuous length along the roadway, based on engineering judgment.

**Option:**

<sup>04</sup> A SHOULDER DROP-OFF (W8-17P) supplemental plaque (see Figure 2C-6) may be mounted below the W8-17 sign.

<sup>05</sup> The NO SHOULDER (W8-23) sign (see Figure 2C-6) may be used to warn road users that a shoulder does not exist along a portion of the roadway.

<sup>06</sup> The SHOULDER ENDS (W8-25) sign (see Figure 2C-6) may be used to warn road users that a shoulder is ending.

**Standard:**

**07 When used, shoulder signs shall be placed in advance of the condition (see Table 2C-4).**

**Guidance:**

**08 Additional shoulder signs should be placed at appropriate intervals along the road where the condition continually exists.**

**Support:**

**09 The low shoulder condition (elevation difference up to 3 inches) between shoulder and the travel lane) is not treated as a permanent condition on State highways.**

**Standard:**

**10 The black on yellow background LOW SHOULDER (W8-9) sign shall not be used on State highways.**

**Option:**

**11 The black on orange background LOW SHOULDER (W8-9) sign may be used on State highways to warn of a shoulder condition where there is an elevation difference of less than 3 inch between the shoulder and the travel lane. See Section 6F.44.**

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

**Option:**

**01 The Slippery When Wet (W8-5) sign (see Figure 2C-6) may be used to warn of unexpected slippery conditions. Supplemental plaques with legends such as ICE, WHEN WET, STEEL DECK, or EXCESS OIL may be used with the W8-5 sign to indicate the reason that the slippery conditions might be present.**

**Standard:**

**01a When used at a cattle guard, the Slippery When Wet (W8-5) signs shall be supplemented with a diagonal downward pointing arrow (W16-7p) plaque showing the location of the cattle guard.**

**Option:**

**02 The LOOSE GRAVEL (W8-7) sign (see Figure 2C-6) may be used to warn of loose gravel on the roadway surface.**

**03 The ROUGH ROAD (W8-8) sign (see Figure 2C-6) may be used to warn of a rough roadway surface. It may be desirable to supplement this sign with an Advisory Speed (W13-1P) plaque. Where the rough road is 1 mile or more in length, the W8-8 sign may be supplemented with a Next Distance (W7-3a) plaque.**

**04 An UNEVEN LANES (W8-11) sign (see Figure 2C-6) may be used to warn of a difference in elevation between travel lanes.**

**05 The BRIDGE ICES BEFORE ROAD (W8-13) sign (see Figure 2C-6) may be used in advance of bridges to advise bridge users of winter weather conditions. The BRIDGE ICES BEFORE ROAD sign may be removed or covered during seasons of the year when its message is not relevant.**

**Guidance:**

**06 The ~~FALLEN ROCKS (W8-14) sign (see Figure 2C-6)~~ may Rock Slide Area symbol (W50-1(CA)) sign (see Figure 2C-6(CA)) should be used in advance of an area that is adjacent to a hillside, mountain, or cliff where rocks frequently fall onto the roadway.**

**Guidance:**

**07 When used, Surface Condition signs should be placed in advance of the beginning of the affected section (see Table 2C-4), and additional signs should be placed at appropriate intervals along the road where the condition exists.**

**Option:**

**08 The SLIDE AREA (W38(CA)) sign (see Figure 2C-6(CA)) may be used in advance of where slides on the highway could be expected.**

**09 The SNOW SLIDE AREA (SW41(CA)) sign (see Figure 2C-6(CA)) may be used in areas of known snow slide or avalanche activity.**

**10 The Next Distance (W7-3a) plaque may be used below the W38(CA), W50-1(CA) and SW41(CA) signs.**

**11 The DRIFTING SAND (SW32(CA)) sign (see Figure 2C-6(CA)) may be used to warn traffic of drifting sand on the roadway.**

**12 The WATCH FOR SNOW SLIPPERY (SW46(CA)) sign (see Figure 2C-6(CA)) may be used to warn road users of conditions where snow may be on the roadway surface, but chains are not yet required. The SW46(CA) sign may be placed**

in advance of areas where such conditions may exist, and intermittently as needed where such conditions may exist for long sections of highways.

<sup>13</sup> The SW46(CA) sign may be displayed when weather conditions are such that it would be reasonable to assume that snow on the roadway would be a possibility.

*Guidance:*

<sup>14</sup> *The SW46(CA) sign should be removed when such conditions are no longer present.*

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

**Support:**

<sup>01</sup> The signs and plaques described in this Section are intended to give motorcyclists advance notice of surface conditions that might adversely affect their ability to maintain control of their motorcycle under wet or dry conditions. The use of some of the advance surface condition warning signs described in Section 2C.32, such as Slippery When Wet, LOOSE GRAVEL, or ROUGH ROAD, can also be helpful to motorcyclists if those conditions exist.

**Option:**

<sup>02</sup> If a portion of a street or highway features a roadway pavement surface that is grooved or textured instead of smooth, such as a grooved skid resistance treatment for a horizontal curve or a brick pavement surface, a GROOVED PAVEMENT (W8-15) sign (see Figure 2C-6) may be used to provide advance warning of this condition to motorcyclists, bicyclists, and other road users. Alternate legends such as TEXTURED PAVEMENT or BRICK PAVEMENT may also be used on the W8-15 sign.

<sup>03</sup> If a bridge or a portion of a bridge includes a metal or grated surface, a METAL BRIDGE DECK (W8-16) sign (see Figure 2C-6) may be used to provide advance warning of this condition to motorcyclists, bicyclists, and other road users.

<sup>04</sup> A Motorcycle (W8-15P) plaque (see Figure 2C-6) may be mounted below or above a W8-15 or W8-16 sign if the warning is intended to be directed primarily to motorcyclists.

### **Section 2C.34 NO CENTER LINE Sign (W8-12)**

**Option:**

<sup>01</sup> The NO CENTER LINE (W8-12) sign (see Figure 2C-6) may be used to warn of a roadway without center line pavement markings.

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

**Option:**

<sup>01</sup> The ROAD MAY FLOOD (W8-18) sign (see Figure 2C-6) may be used to warn road users that a section of roadway is subject to frequent flooding. A Depth Gauge (W8-19) sign (see Figure 2C-6) may also be installed within a roadway section that frequently floods.

**Standard:**

<sup>02</sup> **If used, the Depth Gauge sign shall be in addition to the ROAD MAY FLOOD sign and shall indicate the depth of the water at the deepest point on the roadway.**

*Guidance:*

<sup>02a</sup> *The FLOODED (W55(CA)) sign (see Figure 2C-6(CA)) should be used in advance of locations where the highway is flooded.*

**Standard:**

<sup>02b</sup> **The W55(CA) signs shall be removed or covered when the condition no longer exists.**

**Option:**

<sup>02c</sup> The FLASH FLOOD AREA (SW35(CA)) sign (see Figure 2C-6(CA)) may be used in advance of depressions in the highway alignment that are subject to flash flooding.

**Option:**

<sup>03</sup> The GUSTY WINDS AREA (W8-21) sign (see Figure 2C-6) may be used to warn road users that wind gusts frequently occur along a section of highway that are strong enough to impact the stability of trucks, recreational vehicles, and other vehicles with high centers of gravity. A NEXT XX MILES (W7-3a) supplemental plaque may

be mounted below the W8-21 sign to inform road users of the length of roadway that frequently experiences strong wind gusts.

04 The FOG AREA (W8-22) sign (see Figure 2C-6) may be used to warn road users that foggy conditions frequently reduce visibility along a section of highway. A NEXT XX MILES (W7-3a) supplemental plaque may be mounted below the W8-22 sign to inform road users of the length of roadway that frequently experiences foggy conditions.

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

#### **Standard:**

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

#### **Support:**

02 Figure 2A-4 shows the typical placement of an Advance Traffic Control sign.

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

#### **Guidance:**

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

#### **Option:**

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

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

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

07a **A BE PREPARED TO STOP (W3-4) sign (see Figure 2C-6) may be used in advance of a traffic control device that could require motorists to stop, such as a traffic control signal or a STOP sign.**

08 **A BE PREPARED TO STOP (W3-4) sign (see Figure 2C-6) WATCH FOR STOPPED VEHICLES (SW60(CA)) sign (see Figure 2C-6(CA)) may be used to warn motorists of stopped traffic caused by a traffic control signal or such as in advance of a section of roadway that regularly experiences traffic congestion.**

#### **Standard:**

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

#### **Option:**

10 The BE PREPARED TO STOP (W3-4) sign or WATCH FOR STOPPED VEHICLES (SW60(CA)) sign may be supplemented with a warning beacon (see Section 4L.03).

#### **Guidance:**

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

#### **Support:**

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

#### **Standard:**

13 **WHEN FLASHING (W16-13p) plaque shall not be used to supplement the BE PREPARED TO STOP (W3-4) sign or WATCH FOR STOPPED VEHICLES (SW60(CA)) sign.**

#### **Support:**

14 Studies indicate that W16-13p is generally not effective as a warning device for motorists approaching signalized intersections. The non-use of WHEN FLASHING (W16-13p) plaque also addresses the situation when a warning beacon is inoperative for any reason.

*Guidance:*

<sup>15</sup> *The Stop Ahead sign (W3-1) should not be used in the approach to an intersection where there is channelization and the majority of the traffic turns to the right without being required to stop.*

*Option:*

<sup>16</sup> *The STOP AHEAD pavement markings may be placed in accordance with Section 3B.20.*

<sup>17</sup> *The SIGNAL/STOP AHEAD Arrow sign (SW26(CA)) may be used in the head-on position (left side) where W3-1 and W3-3 signs have proven ineffective.*

*Guidance:*

<sup>18</sup> *The W3-1 and W3-3 signs should be left in place when the SW26(CA) sign is placed.*

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

*Support:*

<sup>00</sup> *For State highways, see Department of Transportation's Ramp Metering Design Manual. See Section 1A.11 for information regarding this publication.*

*Option:*

<sup>01</sup> *A RAMP METER AHEAD (W3-7) sign (see Figure 2C-6) may be used to warn road users that a freeway entrance ramp is metered and that they will encounter a ramp control signal (see Chapter 4I).*

*Guidance:*

<sup>02</sup> *When the ramp control signals are ~~in operation operated only during certain periods of the day~~, a RAMP METERED WHEN FLASHING (W3-8) sign (see Figure 2C-6), or an internally illuminated "METER ON" indication, or an extinguishable "PREPARE TO STOP" message sign should be installed in advance of the ramp control signal near the entrance to the ramp, or on the arterial on the approach to the ramp, to alert road users to the presence and operation of ramp meters.*

**Standard:**

<sup>03</sup> **The RAMP METERED WHEN FLASHING sign shall be supplemented with a warning beacon (see Section 4L.03) that flashes when the ramp control signal is in operation.**

### **Section 2C.38 Reduced Speed Limit Ahead Signs (W3-5, W3-5a)**

*Guidance:*

<sup>01</sup> *A Reduced Speed Limit Ahead (W3-5 or W3-5a) sign (see Figure 2C-7) should be used to inform road users of a reduced speed zone where the speed limit is being reduced by more than 10 mph, or where engineering judgment indicates the need for advance notice to comply with the posted speed limit ahead.*

**Standard:**

<sup>02</sup> **If used, Reduced Speed Limit Ahead signs shall be followed by a Speed Limit (R2-1) sign installed at the beginning of the zone where the speed limit applies.**

<sup>03</sup> **The speed limit displayed on the Reduced Speed Limit Ahead sign shall be identical to the speed limit displayed on the subsequent Speed Limit sign.**

*Option:*

<sup>04</sup> *The TRAILERS-CAMPERS-GUSTY WIND AREA NEXT \_\_\_ MILES (SW17-1(CA)) sign (see Figure 2C-7(CA)) may be used where known or potential wind collision problems exist.*

### **Section 2C.39 DRAW BRIDGE Sign (W3-6)**

**Standard:**

<sup>01</sup> **A DRAW BRIDGE (W3-6) sign (see Figure 2C-6) shall be used in advance of movable bridge signals and gates (see Section 4J.02) to give warning to road users, except in urban conditions where such signing would not be practical.**

*Guidance:*

<sup>02</sup> *Where physical conditions prevent a motorist driving at the legal speed limit from having a continuous view of at least one signal indication before reaching the stop line, an auxiliary device should be provided in advance of movable bridge signals and gates.*

Option:

<sup>03</sup> This device may be either a supplemental signal or the mandatory DRAW BRIDGE (W3-6) sign to which has been added a flashing yellow beacon interconnected with movable bridge control.

Support:

<sup>04</sup> See Figure 3F-104(CA) for narrow bridge sign and marking details.

### **Section 2C.40 Merge Signs (W4-1, W4-5)**

Option:

<sup>01</sup> A Merge (W4-1) sign (see Figure 2C-8) may be used to warn road users on the major roadway that merging movements might be encountered in advance of a point where lanes from two separate roadways converge as a single traffic lane and no turning conflict occurs.

<sup>02</sup> A Merge sign may also be installed on the side of the entering roadway to warn road users on the entering roadway of the merge condition.

Guidance:

<sup>03</sup> *The Merge sign should be installed on the side of the major roadway where merging traffic will be encountered and in such a position as to not obstruct the road user's view of entering traffic.*

<sup>04</sup> *Where two roadways of approximately equal importance converge, a Merge sign should be placed on each roadway.*

<sup>05</sup> *When a Merge sign is to be installed on an entering roadway that curves before merging with the major roadway, such as a ramp with a curving horizontal alignment as it approaches the major roadway, the Entering Roadway Merge (W4-5) sign (see Figure 2C-8) should be used to better portray the actual geometric conditions to road users on the entering roadway.*

<sup>06</sup> *The Merge sign should not be used where two roadways converge and merging movements are not required.*

<sup>07</sup> *The Merge sign should not be used in place of a Lane Ends sign (see Section 2C.42) where lanes of traffic moving on a single roadway must merge because of a reduction in the actual or usable pavement width.*

Option:

<sup>08</sup> An Entering Roadway Merge (W4-5) sign with a NO MERGE AREA (W4-5P) supplemental plaque (see Figure 2C-8) mounted below it may be used to warn road users on an entering roadway that they will encounter an abrupt merging situation without an acceleration lane at the downstream end of the ramp.

<sup>09</sup> A Merge (W4-1) sign with a NO MERGE AREA (W4-5P) supplemental plaque mounted below it may be used to warn road users on the major roadway that traffic on an entering roadway will encounter an abrupt merging situation without an acceleration lane at the downstream end of the ramp.

<sup>10</sup> For a yield-controlled channelized right-turn movement onto a roadway without an acceleration lane, a NO MERGE AREA (W4-5P) supplemental plaque may be mounted below a Yield Ahead (W3-2) sign and/or below a YIELD (R1-2) sign when engineering judgment indicates that road users would expect an acceleration lane to be present.

Guidance:

<sup>11</sup> *When installed at freeway entrance ramps, the W4-1 sign should be installed in advance of the paved gore area.*

Option:

<sup>12</sup> On expressways, the THRU TRAFFIC MERGE LEFT (RIGHT) (W74(CA)) sign (see Figure 2C-8(CA)) may be used in advance of the RIGHT(LEFT) LANE MUST TURN RIGHT(LEFT) sign (R3-7).

Guidance:

<sup>13</sup> *On conventional highways, the RIGHT(LEFT) LANE TURNS RIGHT(LEFT) AHEAD (W73A(CA)) sign (see Figure 2C-8(CA)) and/or the THRU TRAFFIC MERGE LEFT (RIGHT) sign (W74(CA)) should be used in advance of the RIGHT(LEFT) LANE MUST TURN RIGHT(LEFT) sign (R3-7).*

Support:

<sup>14</sup> See Figure 3B-14(CA) for signs and lane reduction markings.

Standard:

<sup>15</sup> **The THRU TRAFFIC MERGE LEFT (RIGHT) (W74(CA)) sign shall be used on freeways and expressways to inform motorists that the outside or inside lane is being dropped at the next exit, and through traffic must merge into the adjacent lane.**

**Guidance:**

<sup>16</sup> The W74(CA) sign should not be used for a lane reduction.

**Option:**

<sup>17</sup> The W74(CA) signs may also be used on conventional highways.

**Support:**

<sup>18</sup> See Figure 3B-10(CA) for lane drop signing and markings at exit ramps.

**Option:**

<sup>19</sup> The RIGHT(LEFT) LANE TURNS RIGHT(LEFT) AHEAD (W73A(CA)) sign (see Figure 2C-8(CA)) and/or the THRU TRAFFIC MERGE LEFT (RIGHT) (W74(CA)) sign may be used in black on orange version for temporary traffic control zones.

**Support:**

<sup>20</sup> See Figures 6H-22, 6H-24 and 6H-25 for merge signs used for temporary traffic controls.

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

**Guidance:**

<sup>01</sup> The Added Lane (W4-3) sign (see Figure 2C-8) should be installed in advance of a point where two roadways converge and merging movements are not required. When possible, the Added Lane sign should be placed such that it is visible from both roadways; if this is not possible, an Added Lane sign should be placed on the side of each roadway.

<sup>02</sup> When an Added Lane sign is to be installed on a roadway that curves before converging with another roadway that has a tangent alignment at the point of convergence, the Entering Roadway Added Lane (W4-6) sign (see Figure 2C-8) should be used to better portray the actual geometric conditions to road users on the curving roadway.

<sup>03</sup> When installed at freeway entrance ramps, the sign should be installed in advance of the paved gore area.

### **Section 2C.42 Lane Ends Signs (W4-2, W9-1, W9-2)**

**Guidance:**

<sup>01</sup> The ~~LANE ENDS MERGE LEFT (RIGHT) (W9-2) sign~~ or the Lane Ends (W4-2) sign should be used to warn of the reduction in the number of traffic lanes in the direction of travel on a multi-lane highway (see Figure 2C-8).

**Standard:**

<sup>01a</sup> For consistency, the LANE ENDS MERGE LEFT (RIGHT) (W9-2) sign is deleted, only Lane Ends (W4-2) symbol sign shall be used.

**Option:**

<sup>02</sup> The RIGHT (LEFT) LANE ENDS (W9-1) sign (see Figure 2C-8) may be used in advance of the Lane Ends (W4-2) sign ~~or the LANE ENDS MERGE LEFT (RIGHT) (W9-2) sign~~ as additional warning or to emphasize that the traffic lane is ending and that a merging maneuver will be required.

**Guidance:**

<sup>03</sup> If used, the RIGHT (LEFT) LANE ENDS (W9-1) sign should be installed adjacent to the Lane-Reduction Arrow pavement markings.

**Option:**

<sup>04</sup> On one-way streets or on divided highways where the width of the median will permit, two Lane Ends signs may be placed facing approaching traffic, one on the right-hand side and the other on the left-hand side or median.

**Support:**

<sup>05</sup> Section 3B.09 contains information regarding the use of pavement markings in conjunction with a lane reduction.

**Guidance:**

<sup>06</sup> Where an extra lane has been provided for slower moving traffic (see Section 2B.31), a Lane Ends word sign or a Lane Ends (W4-2) symbol sign should be installed in advance of the downstream end of the extra lane.

<sup>07</sup> Lane Ends signs should not be installed in advance of the downstream end of an acceleration lane.

**Standard:**

**08 In dropped lane situations, regulatory signs (see Section 2B.20) shall be used to inform road users that a through lane is becoming a mandatory turn lane. The W4-2, W9-1, and W9-2 signs shall not be used in dropped lane situations.**

*Guidance:*

*09 The RIGHT (LEFT) LANE ENDS sign (W9-1) should be used in conjunction with the Lane Ends (W4-2) sign.*

*Support:*

*10 The W9-2 or W4-2 sign is not to be used for a lane drop at an exit.*

*11 See Figure 3B-14(CA) for signing and marking applications for lane reductions.*

**Standard:**

**12 The RIGHT (LEFT) LANE EXITS AHEAD (W73(CA)) sign (see Figure 2C-8(CA)) shall be placed between the THRU TRAFFIC MERGE LEFT (RIGHT) (W74(CA)) sign (see Figure 2C-8(CA)) and the RIGHT (LEFT) LANE MUST EXIT sign (R18A(CA)), at locations where overhead Exit Only signs (E11-1 Series or W61(CA) Series) are not in place for lane drops at freeway exit ramps.**

*Guidance:*

*13 On expressways, the RIGHT(LEFT) LANE TURNS RIGHT(LEFT) AHEAD (W73A(CA)) sign (see Figure 2C-8(CA)) should be used in advance of the RIGHT(LEFT) LANE MUST TURN RIGHT(LEFT) sign (R3-7).*

*14 On conventional highways, the RIGHT(LEFT) LANE TURNS RIGHT(LEFT) AHEAD (W73A(CA)) sign and/or the THRU TRAFFIC MERGE LEFT (RIGHT) (W74(CA)) sign (see Figure 2C-8(CA)) should be used in advance of the RIGHT(LEFT) LANE MUST TURN RIGHT(LEFT) sign (R3-7).*

*Support:*

*15 See Figure 3B-10(CA) for lane drop signing and markings at exit ramps.*

*16 See Figure 3B-14(CA) for signs and lane reduction markings.*

**Section 2C.43 RIGHT (LEFT) LANE EXIT ONLY AHEAD Sign (W9-7)**

*Option:*

*01 The RIGHT (LEFT) LANE EXIT ONLY AHEAD (W9-7) sign (see Figure 2C-8) may be used to provide advance warning to road users that traffic in the right-hand (left-hand) lane of a roadway that is approaching a grade-separated interchange will be required to depart the roadway on an exit ramp at the next interchange.*

**Standard:**

**02 The W9-7 sign shall be a horizontal rectangle with a black legend and border on a yellow background.**

*Guidance:*

*03 If used, the W9-7 sign should be installed upstream from the first overhead guide sign that contains an EXIT ONLY sign panel or upstream from the first RIGHT (LEFT) LANE MUST EXIT (R3-33) regulatory sign, whichever is farther upstream from the exit.*

*Support:*

*04 Section 2B.23 contains information regarding a regulatory sign that can also be used for lane drops at grade-separated interchanges.*

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

*Guidance:*

*01 A Two-Way Traffic (W6-3) sign (see Figure 2C-8) should be used to warn road users of a transition from a multi-lane divided section of roadway to a two-lane, two-way section of roadway.*

*02 A Two-Way Traffic (W6-3) sign with an AHEAD (W16-9P) plaque (see Figure 2C-12) should be used to warn road users of a transition from a one-way street to a two-lane, two-way section of roadway (see Figure 2B-14).*

*Option:*

*03 The Two-Way Traffic sign may be used at intervals along a two-lane, two-way roadway and may be used to supplement the Divided Highway (Road) Ends (W6-2) sign discussed in Section 2C.23.*

*Guidance:*

*04 The Two-Way Traffic (W6-3) sign should also be used at locations where motorists could perceive that they are on a one-way roadway when, in fact, they are on a two lane, two-way highway. Following are some typical situations:*

*A. Construction sites where a two-lane highway is being converted to a freeway or an expressway.*

- B. Two-lane, two-way highways where ultimate freeway or expressway right-of-way has been purchased and grading for the full width has been completed.
- C. Two-lane, two-way highways following long sections of multi-lane freeway or expressway.
- D. Two-way highway with edge lines but with no centerlines.

**Standard:**

<sup>05</sup> The TWO WAY TRAFFIC (W44A(CA)) plaque (see figure 2C-8(CA)), if used, shall be positioned below the W6-3 sign.

<sup>06</sup> The Black on Yellow PASS WITH CARE (W83(CA)) sign (see figure 2C-8(CA)), when used, shall be positioned below the Two Way Traffic (W6-3) sign where two-way traffic is being routed over a single roadway of a divided highway and passing is permitted.

**Support:**

- <sup>07</sup> See Figure 3B-14(CA) for signing and marking applications for lane reductions.
- <sup>08</sup> Typical example of W6-3 sign application is shown in Figure 3B-104(CA).

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

**Standard:**

<sup>01</sup> The NO PASSING ZONE (W14-3) sign (see Figure 2C-8) shall be a pennant-shaped isosceles triangle with its longer axis horizontal and pointing to the right. When used, the NO PASSING ZONE sign shall be installed on the left side of the roadway at the beginning of no-passing zones identified by pavement markings or DO NOT PASS signs or both (see Sections 2B.28 and 3B.02).

**Option:**

<sup>02</sup> The NO PASSING ZONE (W14-3) sign may be used at the beginning of no-passing zones identified by either pavement markings or DO NOT PASS signs or both (see Sections 2B.28 and 3B.02).

### **Section 2C.46 Intersection Warning Signs (W2-1 through W2-8)**

**Option:**

<sup>01</sup> A Cross Road (W2-1) symbol, Side Road (W2-2 or W2-3) symbol, T-Symbol (W2-4), or Y-Symbol (W2-5) sign (see Figure 2C-9) may be used in advance of an intersection to indicate the presence of an intersection and the possibility of turning or entering traffic.

<sup>02</sup> The Circular Intersection (W2-6) symbol sign (see Figure 2C-9) may be installed in advance of a circular intersection (see Figures 2B-21 through 2B-23).

**Guidance:**

<sup>03</sup> *If an approach to a roundabout has a statutory or posted speed limit of 40 mph or higher, the Circular Intersection (W2-6) symbol sign should be installed in advance of the circular intersection.*

**Option:**

<sup>04</sup> An educational plaque (see Figure 2C-9) with a legend such as ROUNDABOUT (W16-17P) or TRAFFIC CIRCLE (W16-12P) may be mounted below a Circular Intersection symbol sign.

<sup>05</sup> The relative importance of the intersecting roadways may be shown by different widths of lines in the symbol.

<sup>06</sup> An advance street name plaque (see Section 2C.58) may be installed above or below an Intersection Warning sign.

**Guidance:**

<sup>07</sup> *The Intersection Warning sign should illustrate and depict the general configuration of the intersecting roadway, such as cross road, side road, T-intersection, or Y-intersection.*

<sup>08</sup> *Intersection Warning signs, other than the Circular Intersection (W2-6) symbol sign and the T-intersection (W2-4) symbol sign should not be used on approaches controlled by STOP signs, YIELD signs, or signals.*

<sup>09</sup> *If an Intersection Warning sign is used where the side roads are not opposite of each other, the Offset Side Roads (W2-7) symbol sign (see Figure 2C-9) should be used instead of the Cross Road symbol sign.*

<sup>10</sup> *If an Intersection Warning sign is used where two closely-spaced side roads are on the same side of the highway, the Double Side Roads (W2-8) symbol sign (see Figure 2C-9) should be used instead of the Side Road symbol sign.*

<sup>11</sup> *No more than two side road symbols should be displayed on the same side of the highway on a W2-7 or W2-8 symbol sign, and no more than three side road symbols should be displayed on a W2-7 or W2-8 symbol sign.*

Support:

<sup>12</sup> Figure 2A-4 shows the typical placement of an Intersection Warning sign.

Option:

<sup>13</sup> A bulb shape may be placed on the appropriate leg of the Cross Road (W2-1), Side Road (W2-2 or W2-3), T-Symbol (W2-4), or Y-Symbol (W2-5) advance intersection signs to indicate a "Dead End" condition. See Section 2C.26 for DEAD END (W14-1) sign.

Guidance:

<sup>14</sup> *The END FREEWAY \_\_\_\_\_ MI (W69(CA)) sign (see Figure 2C-9(CA)) should be used at locations where traffic leaving the freeway comes into a lower standard roadway. At problem locations dual installations with yellow flashing beacons or overhead installations should be considered. The W69(CA) sign should also be used at transitions from freeways to expressways.*

Option:

<sup>15</sup> The END FREEWAY (SW36(CA)) sign (see Figure 2C-9(CA)) may be used at locations where traffic leaving the freeway comes into a lower standard roadway. It may also be used where additional emphasis is needed for the W69(CA) sign.

Guidance:

<sup>16</sup> *The CROSS TRAFFIC AHEAD (W70(CA)) sign (see Figure 2C-9(CA)) should be used at locations where traffic leaves a freeway section and enters an expressway section to warn motorists that crossing at grade may be expected.*

Option:

<sup>17</sup> Where two sections of freeway are connected by a section of expressway of a relatively short distance, the Next Distance (W7-3a) plaque may be installed below the W70(CA) sign.

### **Section 2C.47 Two-Direction Large Arrow Sign (W1-7)**

**Standard:**

<sup>01</sup> **The Two-Direction Large Arrow (W1-7) sign (see Figure 2C-9) shall be a horizontal rectangle.**

<sup>02</sup> **If used, it shall be installed on the far side of a T-intersection in line with, and at approximately a right angle to, traffic approaching from the stem of the T-intersection.**

<sup>03</sup> **The Two-Direction Large Arrow sign shall not be used where there is no change in the direction of travel such as at the beginnings and ends of medians or at center piers.**

<sup>04</sup> **The Two-Direction Large Arrow sign directing traffic to the left and right shall not be used in the central island of a roundabout.**

Guidance:

<sup>05</sup> *The Two-Direction Large Arrow sign should be visible for a sufficient distance to provide the road user with adequate time to react to the intersection configuration.*

<sup>06</sup> *Type N-1(CA) (OM1-3) object marker should be used below and on the same post as the W1-7 sign. See Section 2C.65.*

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

**Standard:**

~~<sup>01</sup> At locations where either a W25-1 or a W25-2 sign is required based on the provisions in Section 4D.05, the W25-1 or W25-2 sign (see Figure 2C-9) shall be installed near the left-most signal head. The W25-1 and W25-2 signs shall be vertical rectangles.~~

Guidance:

<sup>02</sup> *The "yellow trap" should be eliminated rather than trying to correct it with these signs. See Part 4.*

### **Section 2C.49 Vehicular Traffic Warning Signs (W8-6, W11-1, W11-5, W11-5a, W11-8, W11-10, W11-11, W11-12P, W11-14, W11-15, and W11-15a)**

Option:

<sup>01</sup> Vehicular Traffic Warning (W8-6, W11-1, W11-5, W11-5a, W11-8, W11-10, W11-11, W11-12P, W11-14, W11-15, and W11-15a) signs (see Figure 2C-10) may be used to alert road users to locations where unexpected entries into the roadway by trucks, bicyclists, farm vehicles, emergency vehicles, golf carts, horse-drawn

vehicles, or other vehicles might occur. The TRUCK CROSSING (W8-6) word message sign may be used as an alternate to the Truck Crossing (W11-10) symbol sign.

**Support:**

<sup>02</sup> These locations might be relatively confined or might occur randomly over a segment of roadway.

**Guidance:**

<sup>03</sup> *Vehicular Traffic Warning signs should be used only at locations where the road user's sight distance is restricted, or the condition, activity, or entering traffic would be unexpected.*

<sup>04</sup> *If the condition or activity is seasonal or temporary, the Vehicular Traffic Warning sign should be removed or covered when the condition or activity does not exist.*

**Option:**

<sup>05</sup> The combined Bicycle/Pedestrian (W11-15) sign may be used where both bicyclists and pedestrians might be crossing the roadway, such as at an intersection with a shared-use path. A TRAIL X-ING (W11-15P) supplemental plaque (see Figure 2C-10) may be mounted below the W11-15 sign. The TRAIL CROSSING (W11-15a) sign may be used to warn of shared-use path crossings where pedestrians, bicyclists, and other user groups might be crossing the roadway.

<sup>06</sup> The W11-1, W11-15, and W11-15a signs and their related supplemental plaques may have a fluorescent yellow-green background with a black legend and border.

<sup>07</sup> Supplemental plaques (see Section 2C.53) with legends such as AHEAD, XX FEET, NEXT XX MILES, or SHARE THE ROAD may be mounted below Vehicular Traffic Warning signs to provide advance notice to road users of unexpected entries.

**Guidance:**

<sup>08</sup> *If used in advance of a pedestrian and bicycle crossing, a W11-15 or W11-15a sign should be supplemented with an AHEAD or XX FEET plaque to inform road users that they are approaching a point where crossing activity might occur.*

**Standard:**

<sup>09</sup> **If a post-mounted W11-1, W11-11, W11-15, or W11-15a sign is placed at the location of the crossing point where golf carts, pedestrians, bicyclists, or other shared-use path users might be crossing the roadway, a diagonal downward pointing arrow (W16-7P) plaque (see Figure 2C-12) shall be mounted below the sign. If the W11-1, W11-11, W11-15, or W11-15a sign is mounted overhead, the W16-7P supplemental plaque shall not be used.**

**Option:**

<sup>10</sup> The crossing location identified by a W11-1, W11-11, W11-15, or W11-15a sign may be defined with crosswalk markings (see Section 3B.18).

**Standard:**

<sup>11</sup> **The Emergency Vehicle (W11-8) sign (see Figure 2C-10) with the EMERGENCY SIGNAL AHEAD (W11-12P) supplemental plaque (see Figure 2C-10) shall be placed in advance of all emergency-vehicle traffic control signals (see Chapter 4G).**

**Option:**

~~<sup>12</sup> The Emergency Vehicle (W11-8) sign, or a word message sign indicating the type of emergency vehicle (such as rescue squad), may be used in advance of the emergency vehicle station when no emergency vehicle traffic control signal is present.~~

**Standard:**

<sup>12a</sup> **The Emergency Vehicle (W11-8) sign or the EMERGENCY VEHICLES (SW52(CA)) sign (see Figure 2C-10(CA)) shall be used for all types of emergency vehicles.**

**Guidance:**

<sup>12b</sup> *Vehicular Traffic signs should not be placed on the highway where the unexpected entry is located on an intersecting roadway.*

**Option:**

<sup>13</sup> A Warning Beacon (see Section 4L.03) may be used with any Vehicular Traffic Warning sign to indicate specific periods when the condition or activity is present or is likely to be present, or to provide enhanced sign conspicuity.

~~14 A supplemental WHEN FLASHING (W16-13P) plaque (see Figure 2C-12) may be used with any Vehicular Traffic Warning sign that is supplemented with a Warning Beacon to indicate specific periods when the condition or activity is present or is likely to be present.~~

**Standard:**

**15 WHEN FLASHING (W16-13p) plaque shall not be used to supplement any Vehicular Traffic Warning sign.**

**Support:**

16 Studies indicate that W16-13p is generally not effective as a warning devices for motorists approaching signalized intersections. The non-use of WHEN FLASHING (W16-13p) plaque also addresses the situation when a warning beacon is inoperative for any reason.

**Option:**

17 The Snowmobile (W11-6) and Golf Cart (W11-11) signs may be used to alert road users to locations where unexpected entries into the roadway by snowmobiles or golf carts might occur, such as at snowmobile or golf cart crossings. Refer to CVC 38025. Also refer to CVC 21115.1.

18 The W11-11 sign may also be used in combination with the SHARE THE ROAD (W16-1) sign at locations where a local agency permits the sharing of the roadway with slower moving golf carts. Refer to CVC 21115.

19 The OFF HIGHWAY VEHICLES (SW47(CA)) sign (see Figure 2C-10(CA)) may be used in advance of a segment of highway that permits the use of regular vehicular traffic and also the driving of off highway motor vehicles on that portion of the highway.

**Guidance:**

20 *A Next Distance (W7-3a) plaque should supplement this sign.*

**Option:**

21 The WATCH FOR SNOW REMOVAL EQUIPMENT (SW58(CA)) sign (see Figure 2C-10(CA)) may be used on highways leading to snow areas.

**Guidance:**

22 *The SW58(CA) sign should be covered or removed during the summer season.*

**Support:**

23 The SW58(CA) sign is normally placed at lower elevations where the first snow is usually encountered.

**Section 2C.50 Non-Vehicular Warning Signs (W11-2, W11-3, W11-4, W11-6, W11-7, W11-9, and W11-16 through W11-22)**

**Option:**

01 Non-Vehicular Warning (W11-2, W11-3, W11-4, W11-6, W11-7, W11-9, and W11-16 through W11-22) signs (see Figure 2C-11) may be used to alert road users in advance of locations where unexpected entries into the roadway might occur or where shared use of the roadway by pedestrians, animals, or equestrians might occur.

**Support:**

02 These conflicts might be relatively confined, or might occur randomly over a segment of roadway.

**Guidance:**

03 *If used in advance of a pedestrian, snowmobile, or equestrian crossing, the W11-2, W11-6, W11-7, and W11-9 signs should be supplemented with plaques (see Section 2C.55) with the legend AHEAD or XX FEET to inform road users that they are approaching a point where crossing activity might occur.*

**Standard:**

**04 If a post-mounted W11-2, W11-6, W11-7, or W11-9 sign is placed at the location of the crossing point where pedestrians, snowmobilers, or equestrians might be crossing the roadway, a diagonal downward pointing arrow (W16-7P) plaque (see Figure 2C-12) shall be mounted below the sign. If the W11-2, W11-6, W11-7, or W11-9 sign is mounted overhead, the W16-7P plaque shall not be used.**

**Option:**

05 A Pedestrian Crossing (W11-2) sign may be placed overhead or may be post-mounted with a diagonal downward pointing arrow (W16-7P) plaque at the crosswalk location where Yield Here To Pedestrians signs (see Section 2B.11) have been installed in advance of the crosswalk.

**Standard:**

**06 If a W11-2 sign has been post-mounted at the crosswalk location where a Yield Here To ~~(Stop Here For)~~ Pedestrians sign is used on the approach, the Yield Here To ~~(Stop Here For)~~ Pedestrians sign shall not be placed on the same post as or block the road user's view of the W11-2 sign.**

**Option:**

07 An advance Pedestrian Crossing (W11-2) sign with an AHEAD or a distance supplemental plaque may be used in conjunction with a Yield Here To ~~(Stop Here For)~~ Pedestrians sign on the approach to the same crosswalk.

08 The crossing location identified by a W11-2, W11-6, W11-7, or W11-9 sign may be defined with crosswalk markings (see Section 3B.18).

09 The W11-2 and W11-9 signs and their related supplemental plaques may have a fluorescent yellow-green background with a black legend and border.

**Support:**

09a Refer to CVC 21364 and 21365 for the Cattle (W11-4) sign.

09b Refer to CVC 21805 for the Equestrian (W11-7) sign.

**Guidance:**

09c *The Deer Crossing (W11-3) sign should be used only after confirmation from a Department of Fish and Game warden having jurisdiction in the area that a substantial problem exists.*

**Option:**

09d The Migrating Bears (SW59(CA)) sign (see Figure 2C-11(CA)) may be used in advance of an area known to be inhabited by bear and there have been reported instances where bears are crossing the roadway.

**Guidance:**

09e *If used, the NEXT XX MILES supplemental plaque should be placed at approximately 5 mile intervals, or when intersecting major traffic generators.*

**Option:**

09f The DEAF CHILDREN NEAR (SW38(CA)) sign (see Figure 2C-11(CA)) may be used on city streets or county roads to indicate that a deaf child is near. Refer to CVC 21351.7.

**Guidance:**

09g *The SENIOR CITIZEN FACILITY (SW50(CA)) sign (see Figure 2C-11(CA)) should not be used alone.*

**Option:**

09h The SW50(CA) sign may be used in combination, above the Speed Limit (R2-1 (25,20 or 15)) sign on any street or road, other than a State highway, with a speed limit greater than 25 mph that is adjacent to a senior citizen facility. Refer to CVC 22352 and 22358.4.

**Guidance:**

10 *When a fluorescent yellow-green background is used, a systematic approach featuring one background color within a zone or area should be used. The mixing of standard yellow and fluorescent yellow-green backgrounds within a selected site area should be avoided.*

**Option:**

11 A Warning Beacon (see Section 4L.03) may be used with any Non-Vehicular Warning sign to indicate specific periods when the condition or activity is present or is likely to be present, or to provide enhanced sign conspicuity.

~~12 A supplemental WHEN FLASHING (W16-13P) plaque (see Figure 2C-12) may be used with any Non-Vehicular Warning sign that is supplemented with a Warning Beacon to indicate specific periods when the condition or activity is present or is likely to be present.~~

**Standard:**

**13 WHEN FLASHING (W16-13p) plaque shall not be used to supplement any Non-Vehicular Warning sign.**

**Support:**

14 Studies indicate that W16-13p is generally not effective as a warning devices for motorists approaching signalized intersections. The non-use of WHEN FLASHING (W16-13p) plaque also addresses the situation when a warning beacon is inoperative for any reason.

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

**Option:**

<sup>01</sup> The Playground (W15-1) sign (see Figure 2C-11) may be used to give advance warning of a designated children's playground that is located adjacent to the road.

<sup>02</sup> The Playground sign may have a fluorescent yellow-green background with a black legend and border.

**Guidance:**

<sup>03</sup> *If the access to the playground area requires a roadway crossing, the application of crosswalk pavement markings (see Section 3B.18) and Non-Vehicular Warning signs (see Section 2C.50) should be considered.*

<sup>04</sup> *The PLAYGROUND (SW49(CA)) sign (see Figure 2C-11(CA)) should not be used alone.*

**Option:**

<sup>05</sup> The SW49(CA) sign may be used in combination above the Speed Limit (R2-1 (25)) sign and WHEN CHILDREN ARE PRESENT (S4-2) sign on any street or road, other than a state highway, with a speed limit greater than 25 mph that is adjacent to a children's playground within a public park. Refer to CVC 22357.1.

### **Section 2C.52 NEW TRAFFIC PATTERN AHEAD Sign (W23-2)**

**Option:**

<sup>01</sup> A NEW TRAFFIC PATTERN AHEAD (W23-2) sign (see Figure 2C-6) may be used on the approach to an intersection or along a section of roadway to provide advance warning of a change in traffic patterns, such as revised lane usage, roadway geometry, or signal phasing.

**Guidance:**

<sup>02</sup> *The NEW TRAFFIC PATTERN AHEAD sign should be removed when the traffic pattern returns to normal, when the changed pattern is no longer considered to be new, or within six months.*

### **Section 2C.53 Use of Supplemental Warning Plaques**

**Option:**

<sup>01</sup> A supplemental warning plaque (see Figure 2C-12) may be displayed with a warning or regulatory sign when engineering judgment indicates that road users require additional warning information beyond that contained in the main message of the warning or regulatory sign.

**Standard:**

<sup>02</sup> **Supplemental warning plaques shall be used only in combination with warning or regulatory signs. They shall not be mounted alone or displayed alone. If used, a supplemental warning plaque shall be installed on the same post(s) as the warning or regulatory sign that it supplements.** <sup>03</sup> **Unless otherwise provided in this Manual for a particular plaque, supplemental warning plaques shall be mounted below the sign they supplement.**

### **Section 2C.54 Design of Supplemental Warning Plaques**

**Standard:**

<sup>01</sup> **A supplemental warning plaque used with a warning sign shall have the same legend, border, and background color as the warning sign with which it is displayed. A supplemental warning plaque used with a regulatory sign shall have a black legend and border on a yellow background.**

<sup>02</sup> **Supplemental warning plaques shall be square or rectangular.**

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

**Option:**

<sup>01</sup> The Distance Ahead (W16-2 series and W16-3 series) plaques (see Figure 2C-12) may be used to inform the road user of the distance to the condition indicated by the warning sign.

<sup>02</sup> The Next Distance (W7-3aP and W16-4P) plaques (see Figures 2C-4 and 2C-12) may be used to inform road users of the length of roadway over which the condition indicated by the warning sign exists.

<sup>03</sup> *The Distance Ahead (W34A(CA)) plaque (see Figure 2C-12(CA)) may be used to inform the road user of the distance to the condition indicated by the warning sign.*

*Guidance:*

*04 When the distance is in miles, the mileage shown should be to the nearest 1/4 mile for a distance of less than 1 mile and to the nearest mile for distances over one mile. The text "MILE" should be used for a distance of one mile or less. The text "MILES" should be used for distances over one mile.*

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

*Guidance:*

*01 If the condition indicated by a warning sign is located on an intersecting road and the distance between the intersection and condition is not sufficient to provide adequate advance placement of the warning sign, a Supplemental Arrow (W16-5P or W16-6P) plaque (see Figure 2C-12) should be used below the warning sign.*

**Standard:**

**02 Supplemental Arrow plaques shall have the same legend design as the Advance Turn Arrow and Directional Arrow auxiliary signs (see Sections 2D.26 and 2D.28) except that they shall have a black legend and border on a yellow or fluorescent yellow-green background, as appropriate.**

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

*Guidance:*

*01 Hill-Related (W7-2 series, W7-3 series) plaques (see Figure 2C-4) or other appropriate legends and larger signs should be used for emphasis or where special hill characteristics exist.*

*02 On longer grades, the use of the distance plaque (W7-3aP or W7-3bP) at periodic intervals of approximately 1-mile spacing should be considered.*

*Option:*

*03 The WATCH DOWNHILL SPEED (SW4-1(CA)) sign (see Figure 2C-4(CA)) may be used on long downhill grades to remind motorists to maintain the posted speed.*

**Section 2C.58 Advance Street Name Plaque (W16-8P, W16-8aP)**

*Option:*

*01 An Advance Street Name (W16-8P or W16-8aP) plaque (see Figure 2C-12) may be used with any Intersection sign (W2 series, W10-2, W10-3, or W10-4) or Advance Traffic Control (W3 series) sign to identify the name of the intersecting street.*

**Standard:**

**02 The lettering on Advance Street Name plaques shall be composed of a combination of lower-case letters with initial upper-case letters.**

**03 If two street names are used on the Advance Street Name plaque, a directional arrow pointing in the direction of the street shall be placed next to each street name. Arrows pointing to the left shall be placed to the left of the street name, and arrows pointing to the right shall be placed to the right of the street name.**

*Guidance:*

*04 If two street names are used on the Advance Street Name plaque, the street names and associated arrows should be displayed in the following order:*

*A. For a single intersection, the name of the street to the left should be displayed above the name of the street to the right; or*

*B. For two sequential intersections, such as where the plaque is used with an Offset Side Roads (W2-7) or a Double Side Road (W2-8) symbol sign, the name of the first street encountered should be displayed above the name of the second street encountered, and the arrow associated with the second street encountered should be an advance arrow, such as the arrow shown on the W16-6P arrow plaque (see Figure 2C-12).*

**Section 2C.59 CROSS TRAFFIC DOES NOT STOP Plaque (W4-4P)**

*Option:*

*01 The CROSS TRAFFIC DOES NOT STOP (W4-4P) plaque (see Figure 2C-9) may be used in combination with a STOP sign when engineering judgment indicates that conditions are present that are causing or could cause drivers to misinterpret the intersection as an all-way stop.*

<sup>02</sup> Alternative messages (see Figure 2C-9) such as TRAFFIC FROM LEFT (RIGHT) DOES NOT STOP (W4-4aP) or ONCOMING TRAFFIC DOES NOT STOP (W4-4bP) may be used when such messages more accurately describe the traffic controls established at the intersection.

*Guidance:*

<sup>02a</sup> *The CROSS TRAFFIC DOES NOT STOP (W4-4p) plaque should be used in combination with a STOP sign at two-way stop-controlled intersections when a conversion from four-way stop to two-way stop operation is implemented.*

<sup>03</sup> *Plaques with the appropriate alternative messages of TRAFFIC FROM LEFT (RIGHT) DOES NOT STOP or ONCOMING TRAFFIC DOES NOT STOP should be used at intersections where STOP signs control all but one approach to the intersection, unless the only non-stopped approach is from a one-way street.*

**Standard:**

<sup>04</sup> **If a W4-4P plaque or a plaque with an alternative message is used, it shall be mounted below the STOP sign.**

### **Section 2C.60 SHARE THE ROAD Plaque (W16-1P)**

*Option:*

<sup>01</sup> In situations where there is a need to warn drivers to watch for other slower forms of transportation traveling along the highway, such as bicycles, golf carts, horse-drawn vehicles, or farm machinery, a SHARE THE ROAD (W16-1P) plaque (see Figure 2C-12) may be used.

**Standard:**

<sup>02</sup> **A W16-1P plaque shall not be used alone. If a W16-1P plaque is used, it shall be mounted below either a Vehicular Traffic Warning sign (see Section 2C.49) or a Non-Vehicular Warning sign (see Section 2C.50). The background color of the W16-1P plaque shall match the background color of the warning sign with which it is displayed.**

*Support:*

<sup>03</sup> Refer to Section 9B.06 for Bicycles May Use Full Lane (R4-11) sign.

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

*Option:*

<sup>01</sup> A Photo Enforced (W16-10P) plaque or a PHOTO ENFORCED (W16-10aP) word message plaque (see Figure 2C-12) may be mounted below a warning sign to advise road users that the regulations associated with the condition being warned about (such as a traffic control signal or a toll plaza) are being enforced by photographic equipment.

**Standard:**

<sup>02</sup> **If used below a warning sign, the Photo Enforced (W16-10P or W16-10aP) plaque shall be a rectangle with a black legend and border on a yellow background.**

### **Section 2C.62 NEW Plaque (W16-15P)**

*Option:*

<sup>01</sup> A NEW (W16-15P) plaque (see Figure 2C-12) may be mounted above a regulatory sign when a new regulation takes effect in order to alert road users to the new traffic regulation. A NEW plaque may also be mounted above an advance warning sign (such as a Signal Ahead sign for a newly-installed traffic control signal) for a new traffic regulation.

**Standard:**

<sup>02</sup> **The NEW plaque shall not be used alone.**

<sup>03</sup> **The NEW plaque shall be removed no later than 6 months after the regulation has been in effect.**

### **Section 2C.63 Object Marker Design and Placement Height**

*Support:*

<sup>01</sup> Type 1, 2, and 3 object markers are used to mark obstructions within or adjacent to the roadway. Type 4 object markers are used to mark the end of a roadway.

**Standard:**

**02** When used, object markers (see Figure 2C-13) shall not have a border and shall consist of an arrangement of one or more of the following types:

**Type 1**—a diamond-shaped sign, at least 18 inches on a side, consisting of either a yellow (OM1-1) or black (OM1-2) sign with nine yellow retroreflective devices, each with a minimum diameter of 3 inches, mounted symmetrically on the sign, or an all-yellow retroreflective sign (OM1-3).

**Type 2**—either a marker (OM2-1V or OM2-1H) consisting of three yellow retroreflective devices, each with a minimum diameter of 3 inches, arranged either horizontally or vertically on a white sign measuring at least 6 x 12 inches; or an all-yellow horizontal or vertical retroreflective sign (OM2-2V or OM2-2H), measuring at least 6 x 12 inches.

**Type 3**—a striped marker, 12 x 36 inches, consisting of a vertical rectangle with alternating black and retroreflective yellow stripes sloping downward at an angle of 45 degrees toward the side of the obstruction on which traffic is to pass. The minimum width of the yellow and black stripes shall be 3 inches.

**Type 4**—a diamond-shaped sign, at least 18 inches on a side, consisting of either a red (OM4-1) or black (OM4-2) sign with nine red retroreflective devices, each with a minimum diameter of 3 inches, mounted symmetrically on the sign, or an all-red retroreflective sign (OM4-3).

**Type L(CA) Utility Pole marker** (see Figure 2C-13(CA)) shall be yellow retroreflective material consisting of three 2 x 12 inch horizontal rectangles arranged vertically on a utility pole.

**Type Q(CA) object marker** (see Figure 2C-13(CA)) shall be a vertical tubular marker, with a height of 18 to 24 inch and a minimum cross sectional dimension of 2 ¼ inch. The yellow retroreflective material shall consist of three bands, each 3 inch in height or a single band 9 inch in height.

**Type R(CA) (OM-3C) object marker** (see Figure 2C-13(CA)) size shall be 24 x 30 inch.

**Support:**

**02a** A cross-reference of object markers is shown in Table 2C-101(CA).

**03** A better appearance can be achieved if the black stripes are wider than the yellow stripes.

**04** Type 3 object markers with stripes that begin at the upper right side and slope downward to the lower left side are designated as right object markers (OM3-R). Object markers with stripes that begin at the upper left side and slope downward to the lower right side are designated as left object markers (OM3-L).

**Guidance:**

~~**05** When used for marking obstructions within the roadway or obstructions that are 8 feet or less from the shoulder or curb, the minimum mounting height, measured from the bottom of the object marker to the elevation of the near edge of the traveled way, should be 4 feet.~~

~~**06** When used to mark obstructions more than 8 feet from the shoulder or curb, the clearance from the ground to the bottom of the object marker should be at least 4 feet.~~

~~**07** Object markers should not present a vertical or horizontal clearance obstacle for pedestrians.~~

**Standard:**

**07a** Figure 2C-13(CA) shall be used for mounting height of object markers.

**Option:**

**08** When object markers or markings are applied to an obstruction that by its nature requires a lower or higher mounting, the vertical mounting height may vary according to need.

**Support:**

**09** Section 9B.26 contains information regarding the use of object markers on shared-use paths.

**Section 2C.64 Object Markers for Obstructions Within the Roadway**

**Standard:**

**01** Obstructions within the roadway shall be marked with a Type 1 or Type 3 object marker. In addition to markers on the face of the obstruction, warning of approach to the obstruction shall be given by appropriate pavement markings (see Section 3B.10).

**Option:**

**02** To provide additional emphasis, a Type 1 or Type 3 object marker may be installed at or near the approach end of a median island.

03 To provide additional emphasis, large surfaces such as bridge piers may be painted with diagonal stripes, 12 inches or greater in width, similar in design to the Type 3 object marker.

**Standard:**

04 **The alternating black and retroreflective yellow stripes (OM3-L, OM3-R) shall be sloped down at an angle of 45 degrees toward the side on which traffic is to pass the obstruction. If traffic can pass to either side of the obstruction, the alternating black and retroreflective yellow stripes (OM3-C) shall form chevrons that point upwards.**

**Option:**

05 Appropriate signs (see Sections 2B.32 and 2C.25) directing traffic to one or both sides of the obstruction may be used instead of the object marker.

06 Objects in a paved area within 8 feet of the traveled way may be marked with a Type P(CA) (OM-3L, OM-3R) or Type R(CA) (OM-3C) object marker.

07 The Type Q(CA) object marker may be used to emphasize objects within the roadway, for example, curb noses, where it is desirable that the marker be visible from all directions.

**Guidance:**

08 *If any object marker is located behind the guard rail, all of the marker panel should be visible to approaching traffic.*

09 *The Type P(CA) (OM-3L, OM-3R) object marker should be in line with the inner edge of the obstruction.*

## **Section 2C.65 Object Markers for Obstructions Adjacent to the Roadway**

**Support:**

01 Obstructions not actually within the roadway are sometimes so close to the edge of the road that they need a marker. These include underpass piers, bridge abutments, handrails, ends of traffic barriers, utility poles, and culvert headwalls. In other cases there might not be a physical object involved, but other roadside conditions exist, such as narrow shoulders, drop-offs, gores, small islands, and abrupt changes in the roadway alignment, that might make it undesirable for a road user to leave the roadway, and therefore would create a need for a marker.

**Standard:**

02 **If a Type 2 or Type 3 object marker is used to mark an obstruction adjacent to the roadway, the edge of the object marker that is closest to the road user shall be installed in line with the closest edge of the obstruction.**

03 **Where Type 3 object markers are applied to the approach ends of guardrail and other roadside appurtenances-appurtenances, sheeting without a substrate shall be directly affixed to the approach end of the guardrail in a rectangular shape conforming to the size of the approach end of the guardrail with alternating black and retroreflective yellow stripes sloping downward at an angle of 45 degrees toward the side of the obstruction on which traffic is to pass.**

04 **Type 1 and Type 4 object markers shall not be used to mark obstructions adjacent to the roadway.**

**Guidance:**

05 *Standard warning signs in this Chapter should also be used where applicable.*

**Option:**

06 Objects outside of the paved shoulder, within 12 feet of the traveled way, may be marked with Type L(CA) object markers.

07 The Type L(CA) (OM2-2V and OM2-2H) object markers may be placed in front of, alongside of, or attached to the object. Where objects are very close to each other, only the first object may need to be marked.

08 The Type L(CA) Utility Pole marker may be used to mark a utility pole.

**Standard:**

09 **If used on State highways, Type L-1(CA) (OM2-2V) object marker shall be used instead of Type L-2(CA) (OM2-2V).**

**Guidance:**

10 *If used, the utility company should be responsible for installing and maintaining the Type L(CA) Utility Pole marker.*

**Support:**

11 See Section 2C.12 and 2C.47 for use of Type N-1(CA) (OM1-3) object markers in conjunction with One-Directional Large Arrow (W1-6) and Two-Direction Large Arrow (W1-7) signs for abrupt changes in the roadway alignment.

<sup>12</sup> See Section 6F.105(CA) for use of Type N(CA), P(CA) and R(CA) object markers for temporary traffic control.

Option:

<sup>13</sup> If engineering judgment indicates that the exit gore at an interchange cannot be negotiated in a reasonable manner, then in addition to the Type F and G delineators, Type R(CA) (OM-3C) object marker may be used as shown in Figure 3F-102(CA).

## **Section 2C.66 Object Markers for Ends of Roadways**

Support:

<sup>01</sup> The Type 4 object marker is used to warn and alert road users of the end of a roadway in other than construction or maintenance areas.

**Standard:**

<sup>02</sup> **If an object marker is used to mark the end of a roadway, a Type 4 object marker shall be used.**

Option:

~~<sup>03</sup> The Type 4 object marker may be used in instances where there are no alternate vehicular paths.~~

**Standard:**

<sup>03a</sup> **The end-of-roadway marker shall be used at the end of a road or cul-de-sac street where there is no alternate vehicular path.**

<sup>04</sup> Where conditions warrant, more than one marker, or a larger marker with or without a Type 3 Barricade (see Section 2B.67), may be used at the end of the roadway.

**Standard:**

~~<sup>05</sup> **The minimum mounting height, measured vertically from the bottom of a Type 4 object marker to the elevation of the near edge of the traveled way, shall be 4 feet.**~~

<sup>05a</sup> **Figure 2C-13(CA) shall be used for mounting height of the end-of-the-roadway marker.**

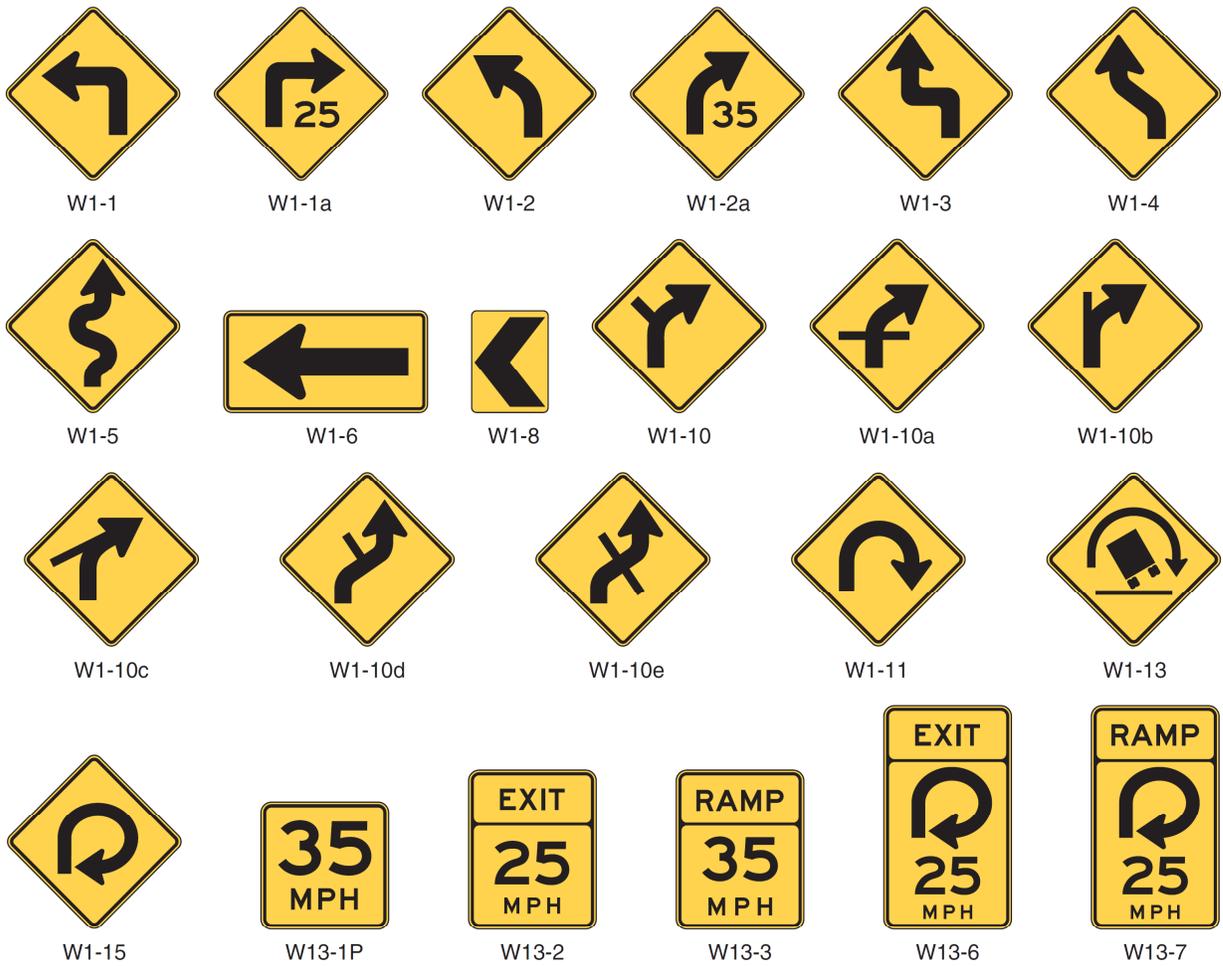
Guidance:

<sup>06</sup> *Appropriate advance warning signs in this Chapter should be used.*

Support:

<sup>07</sup> See Section 2C.26 for use of end-of-roadway marker in conjunction with END (W31(CA)) sign.

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



Note: Turn arrows and reverse turn arrows may be substituted for the curve arrows and reverse curve arrows on the W1-10 series signs where appropriate.

**Figure 2C-1 (CA). Horizontal Alignment Signs and Plaques**



W4-1 (CA)



W4-10 (CA)



W4-14 (CA)



W4-18 (CA)



W4-22 (CA)



SW22-1 (CA)

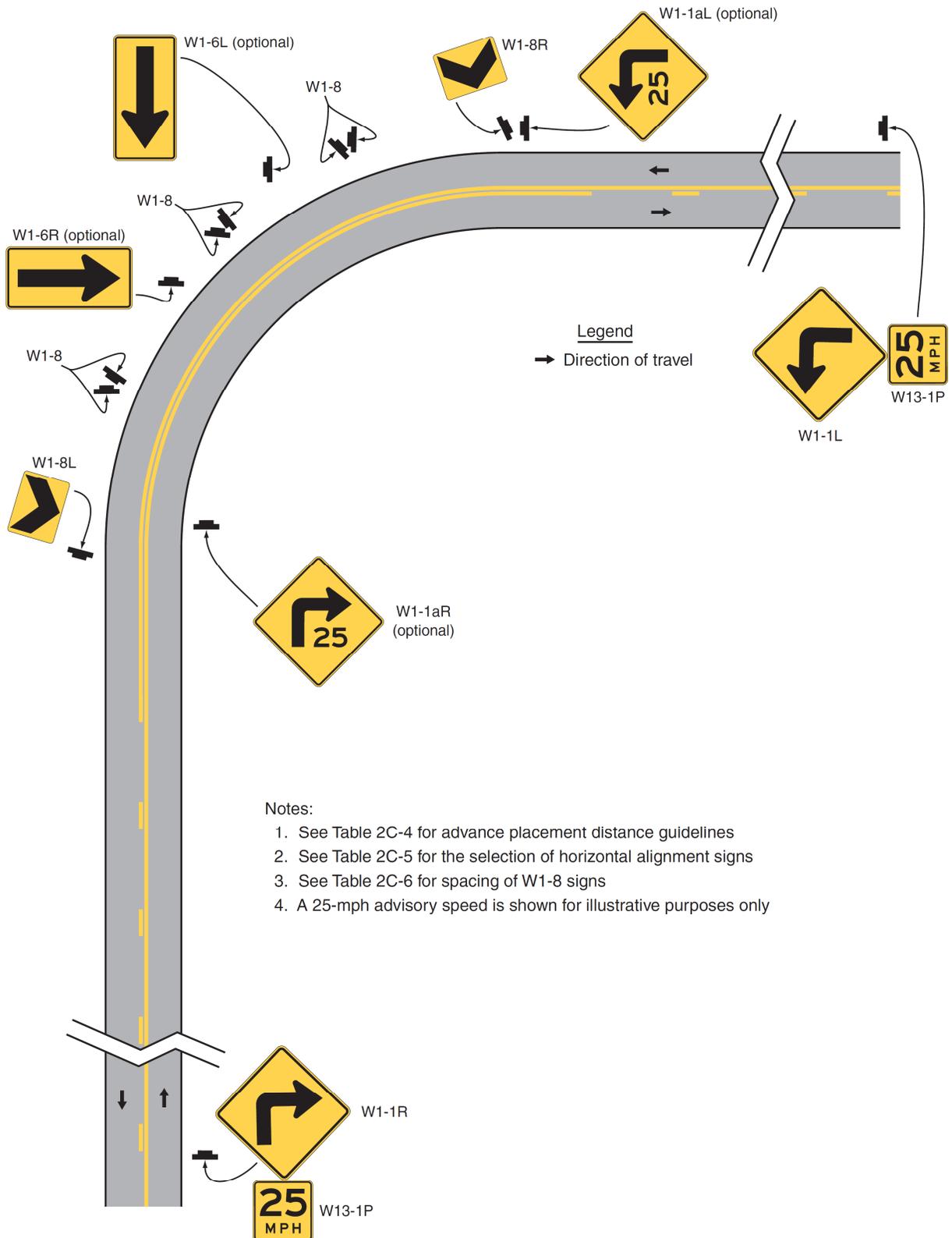


SW22-1A (CA)

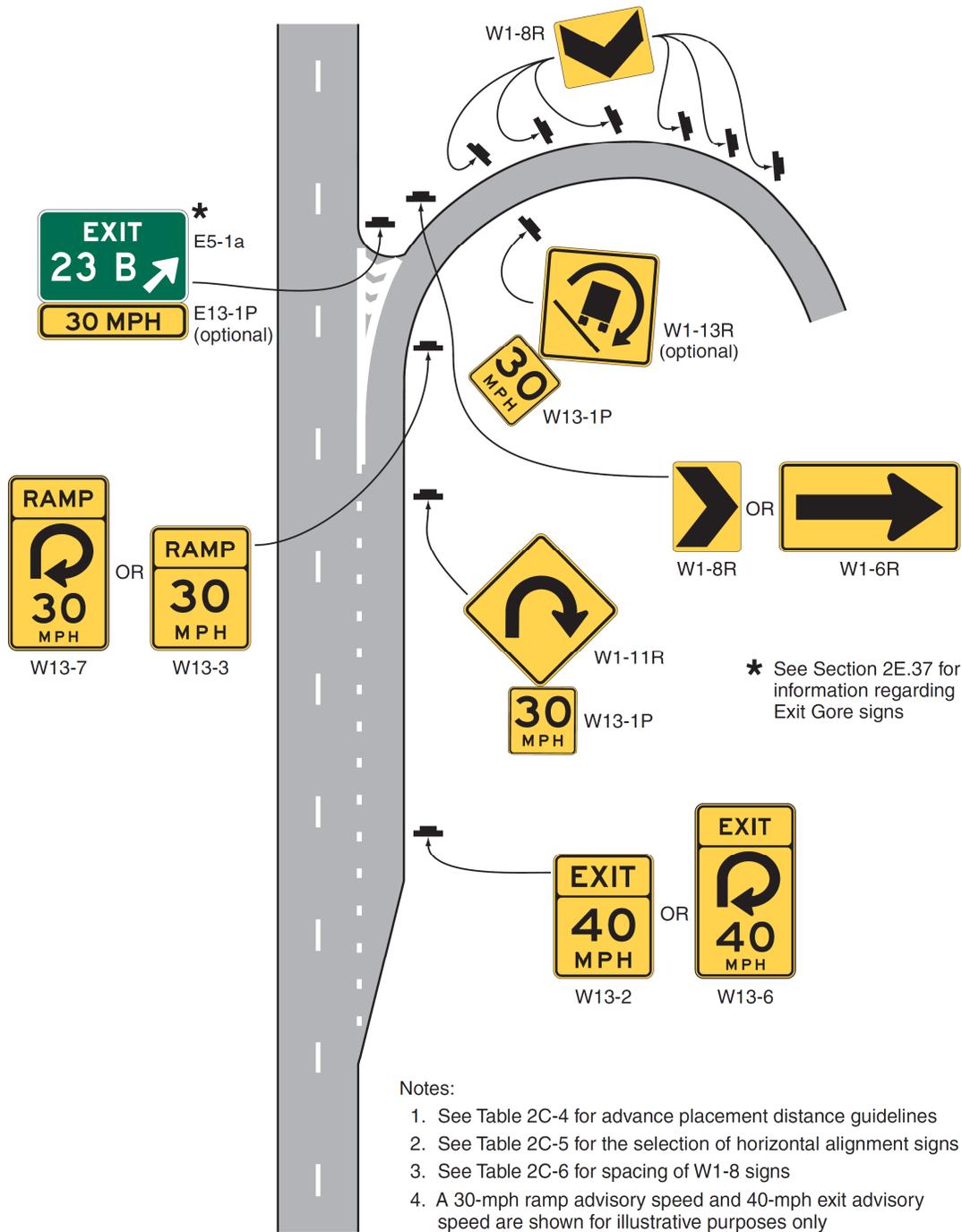


Vehicle Speed Feedback Sign  
(Assembly example shown with W1-2a)

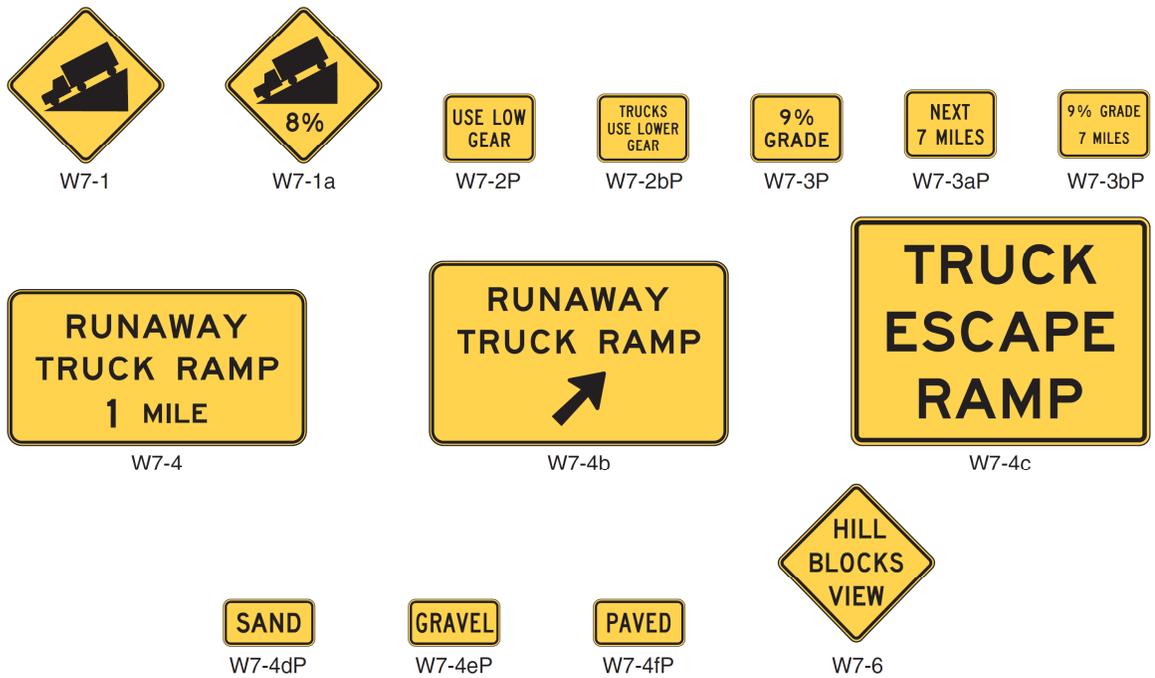
**Figure 2C-2. Example of Warning Signs for a Turn**



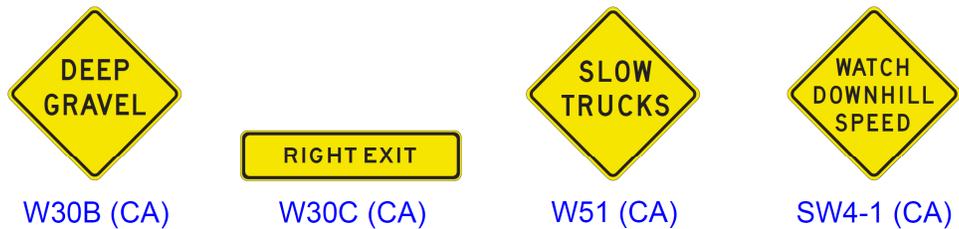
**Figure 2C-3. Example of Advisory Speed Signing for an Exit Ramp**



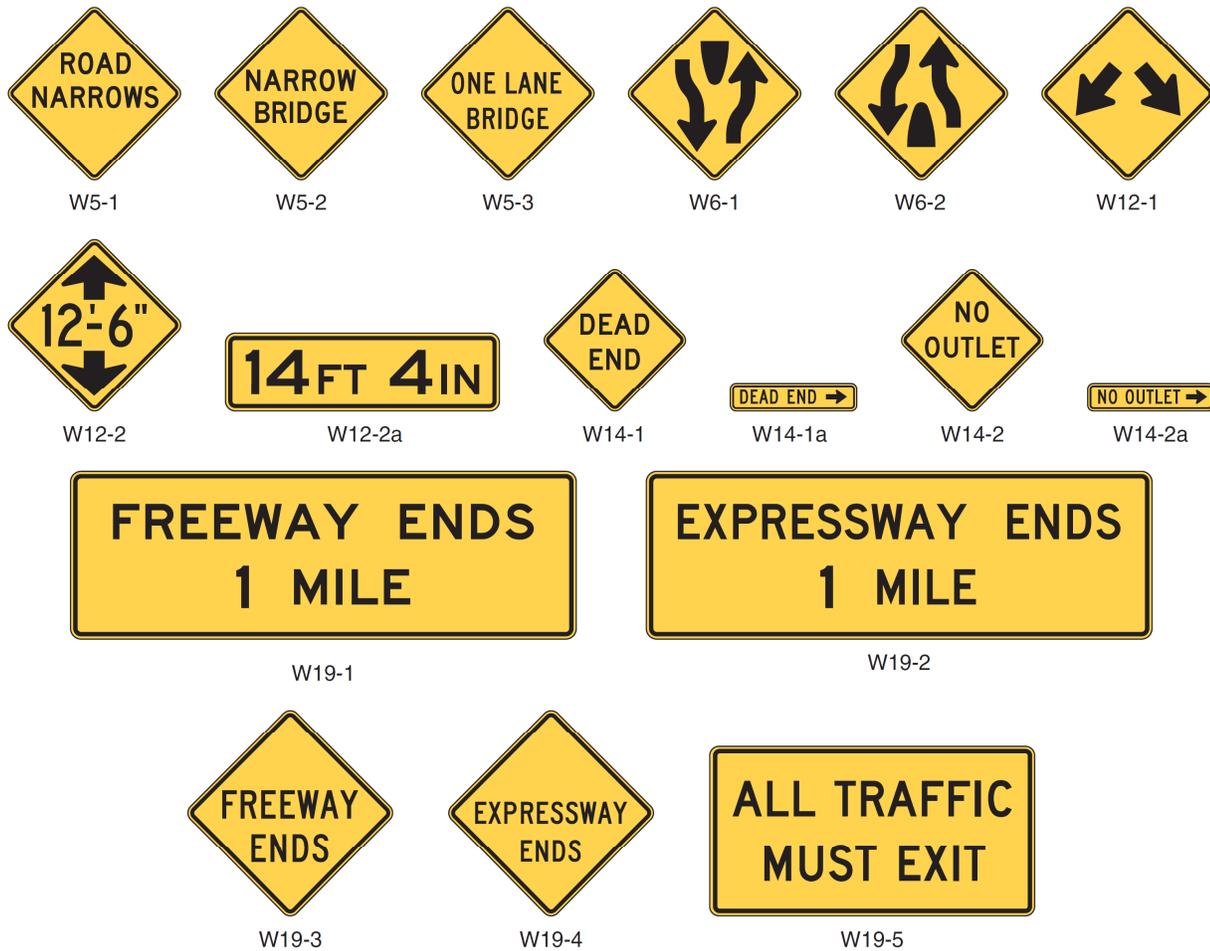
**Figure 2C-4. Vertical Grade Signs and Plaques**



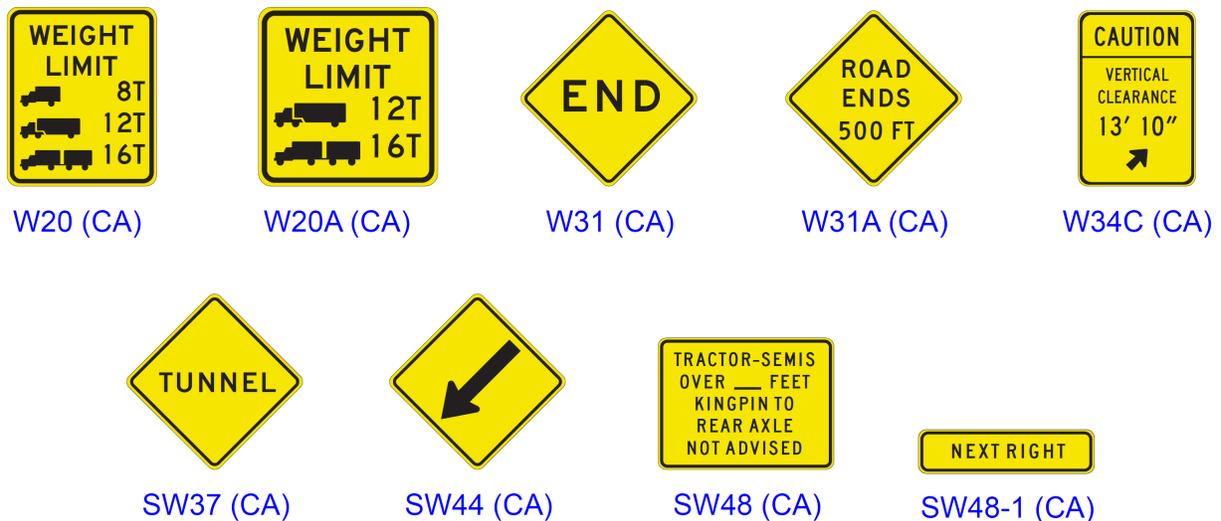
**Figure 2C-4 (CA). Vertical Grade Signs and Plaques**



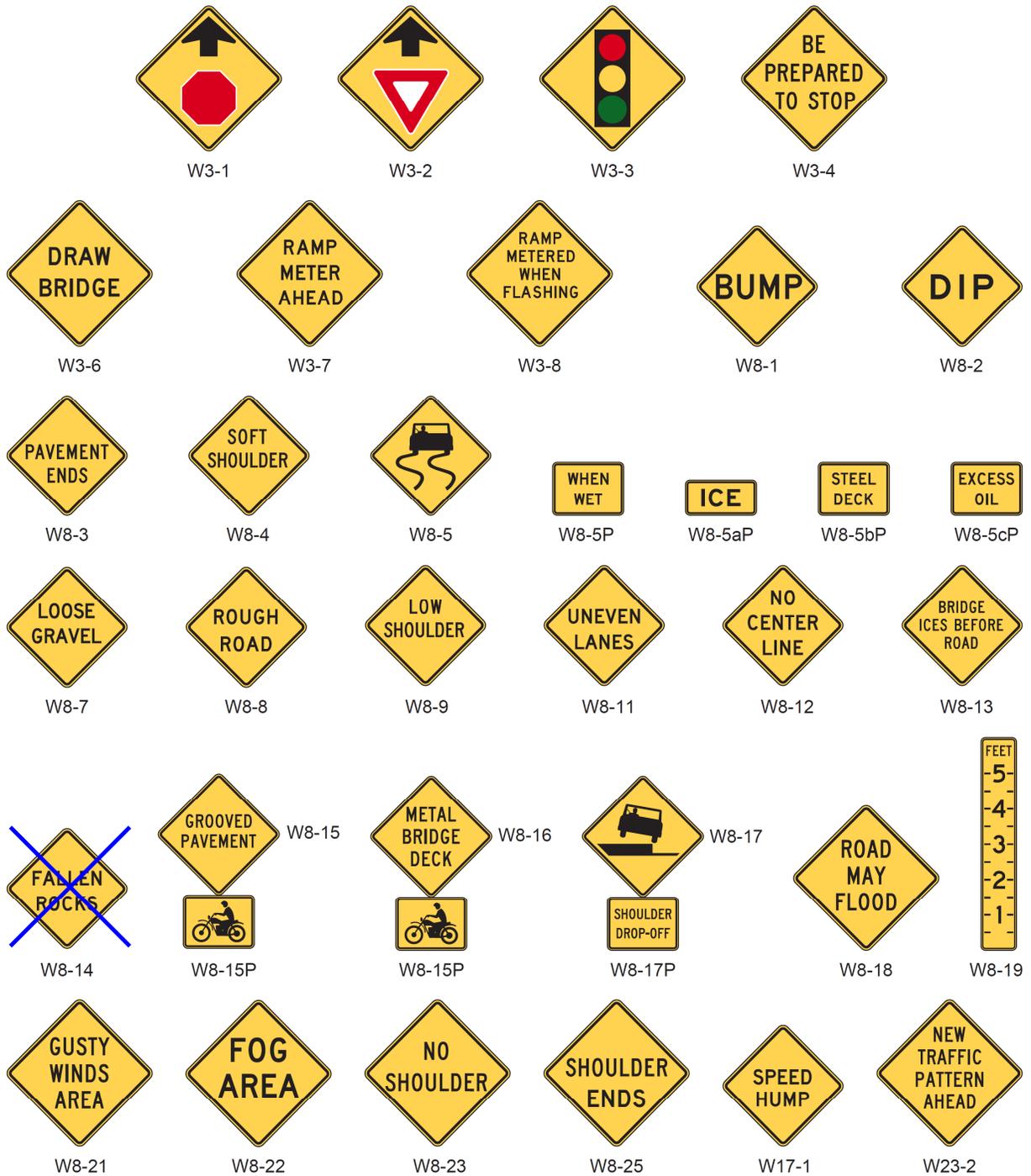
**Figure 2C-5. Miscellaneous Warning Signs**



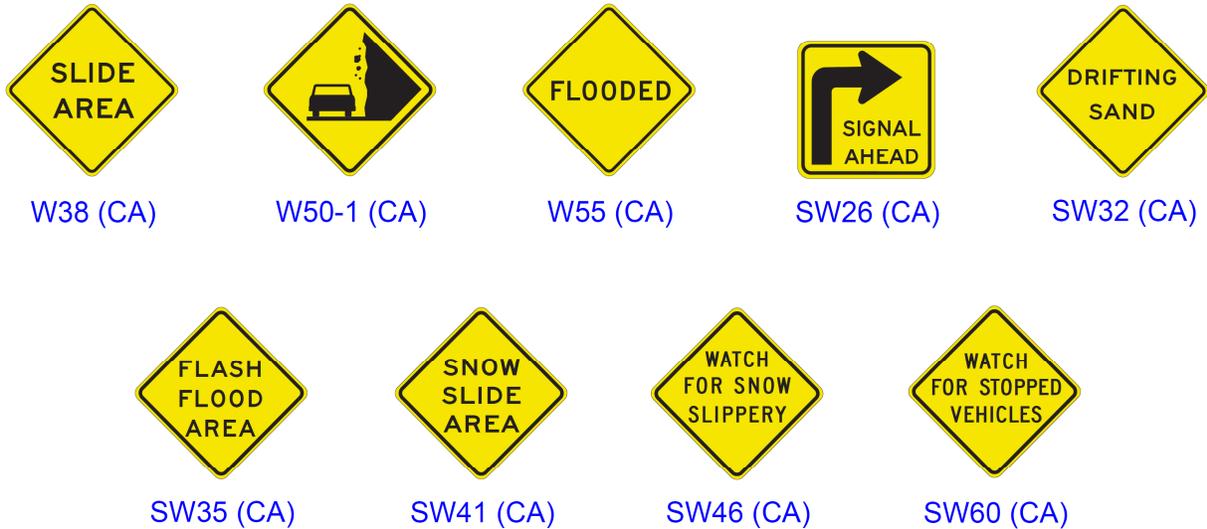
**Figure 2C-5 (CA). Miscellaneous Warning Signs**



**Figure 2C-6. Roadway and Weather Condition and Advance Traffic Control Signs and Plaques**



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



**Figure 2C-7. Reduced Speed Limit Ahead Signs**

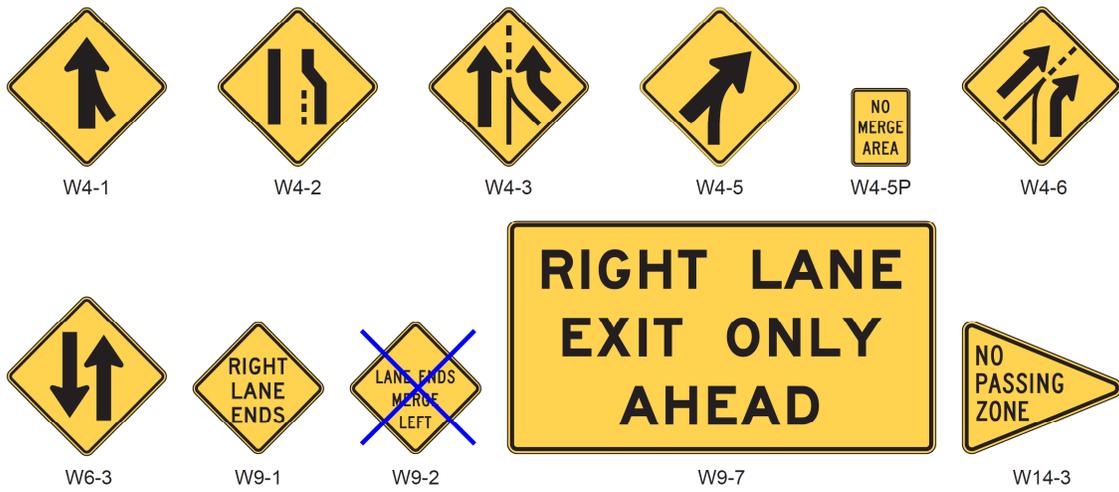


**Figure 2C-7 (CA). Reduced Speed Limit Ahead Signs**



SW17-1 (CA)

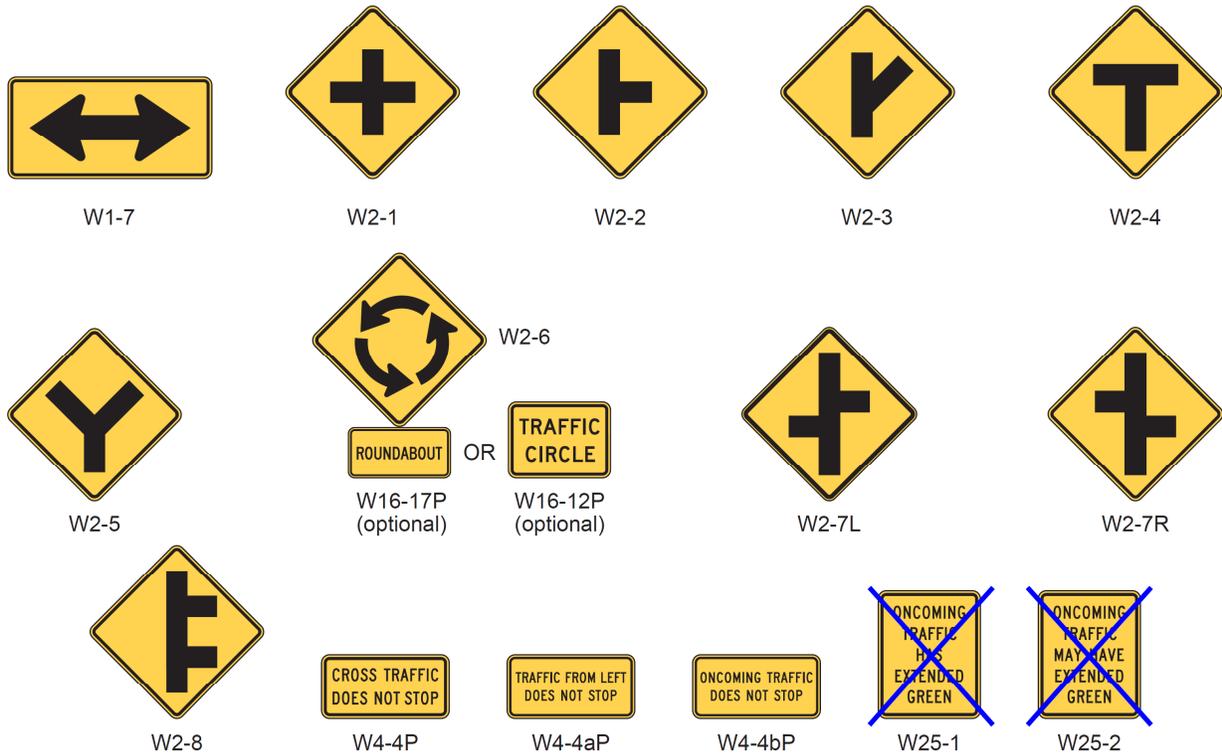
**Figure 2C-8. Merging and Passing Signs and Plaques**



**Figure 2C-8 (CA). Merging and Passing Signs and Plaques**



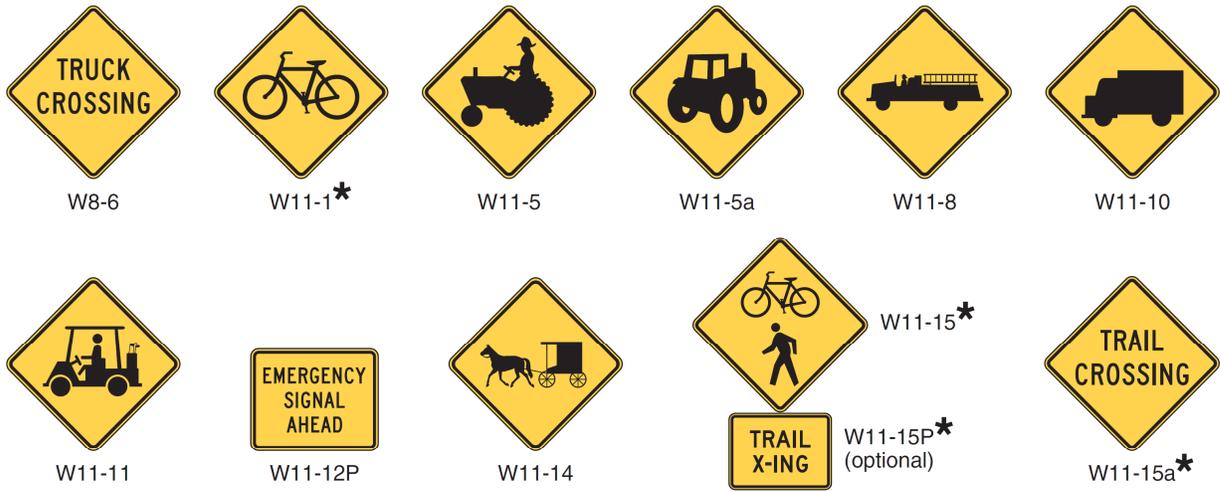
**Figure 2C-9. Intersection Warning Signs and Plaques**



**Figure 2C-9 (CA). Intersection Warning Signs and Plaques**



**Figure 2C-10. Vehicular Traffic Warning Signs and Plaques**

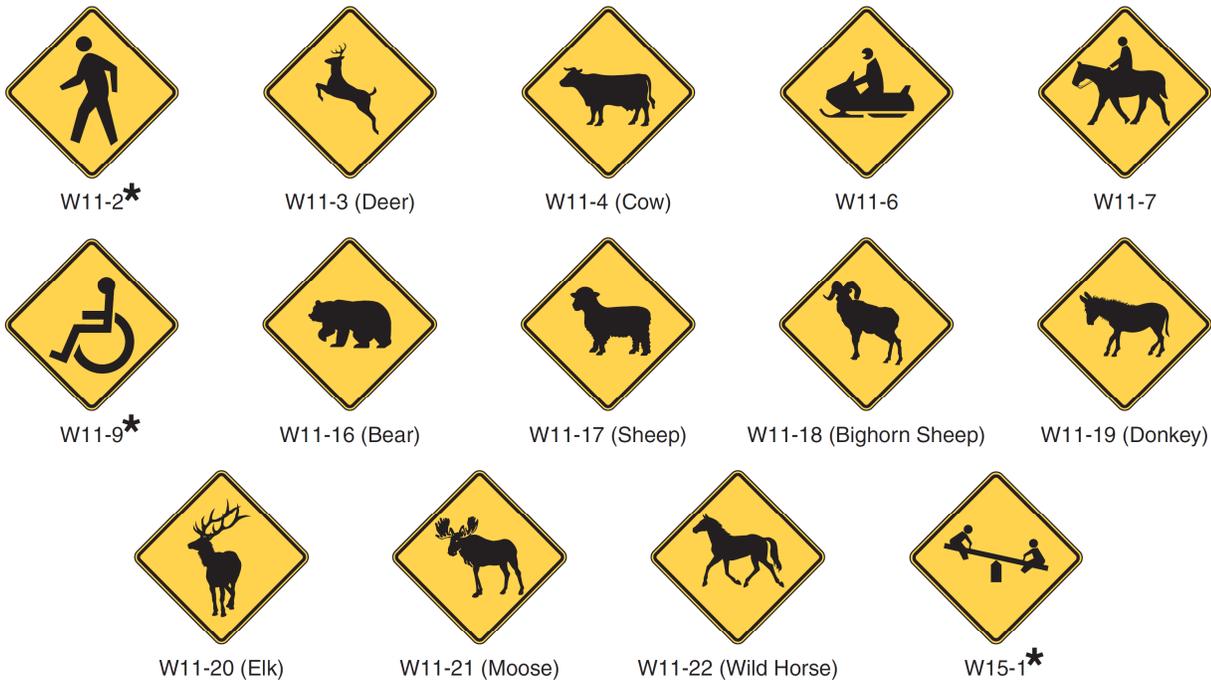


\* A fluorescent yellow-green background color may be used for this sign or plaque.

**Figure 2C-10 (CA). Vehicular Traffic Warning Signs and Plaques**



**Figure 2C-11. Non-Vehicular Warning Signs**

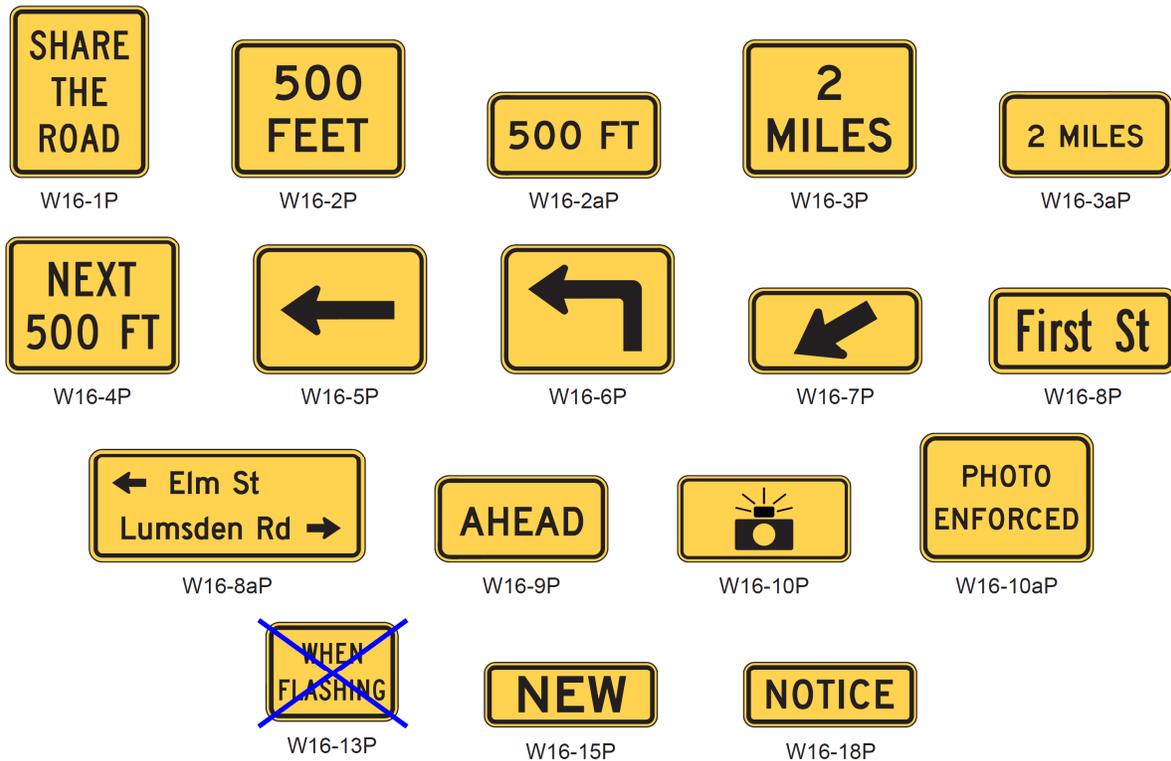


\* A fluorescent yellow-green background color may be used for this sign or plaque.

**Figure 2C-11 (CA). Non-Vehicular Warning Signs**



**Figure 2C-12. Supplemental Warning Plaques**

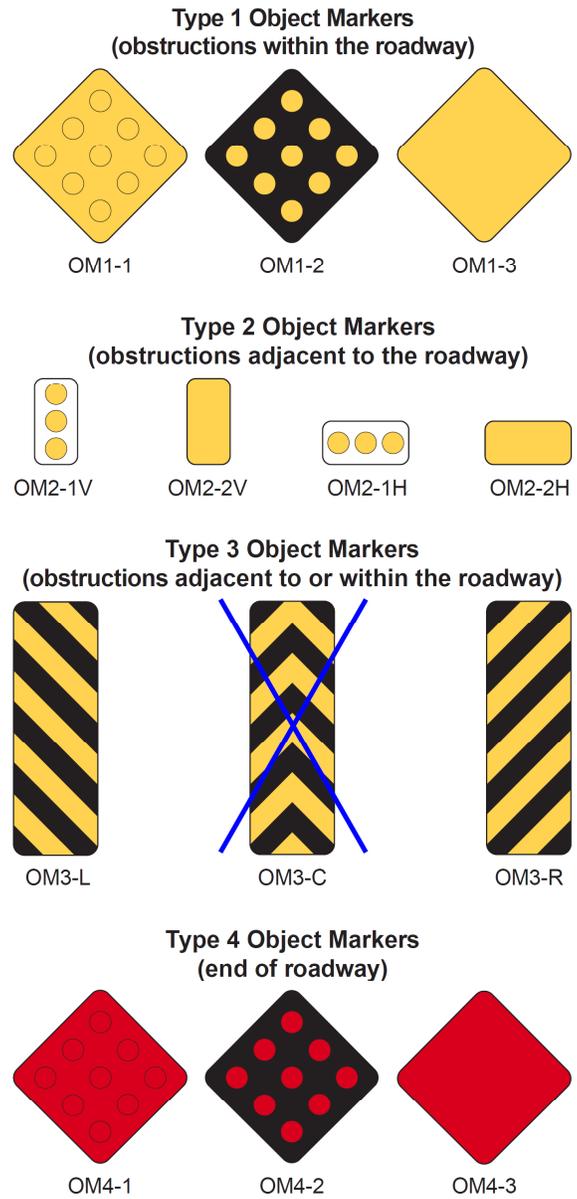


**Figure 2C-12 (CA). Supplemental Warning Plaques**



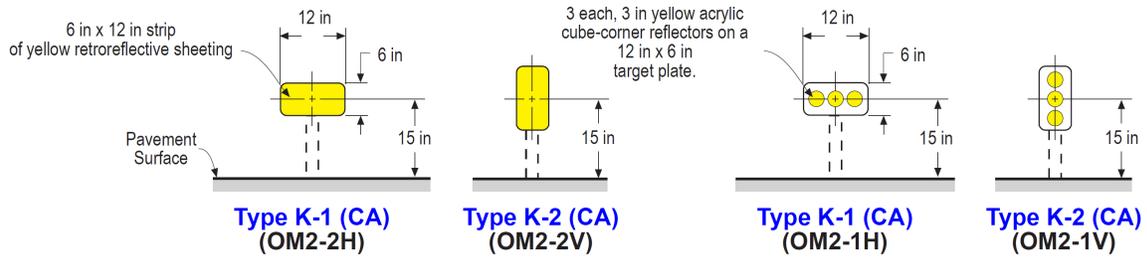
W34A (CA)

**Figure 2C-13. Object Markers**

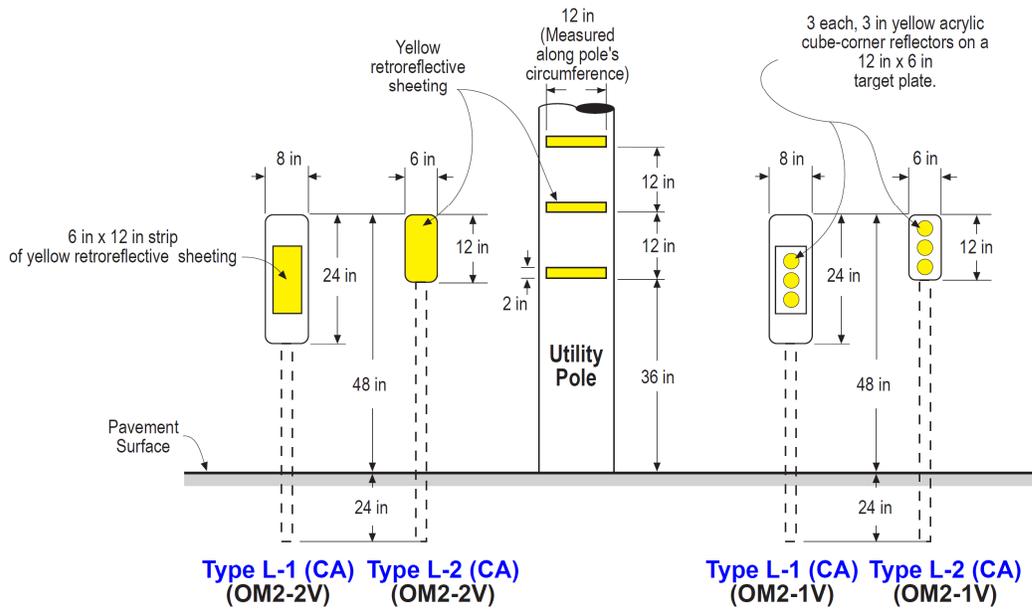


**Figure 2C-13 (CA). California Object Markers (Sheet 1 of 2)**

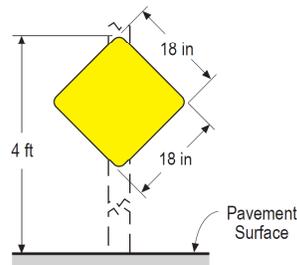
**Type K (CA) Object Marker (Type 2)  
 (obstructions adjacent to the roadway)**



**Type L (CA) Object Marker (Type 2)  
 (obstructions adjacent to the roadway)**



**Type N (CA) Object Marker (Type 1 or Type 4)  
 (obstructions within the roadway or end of roadway)**

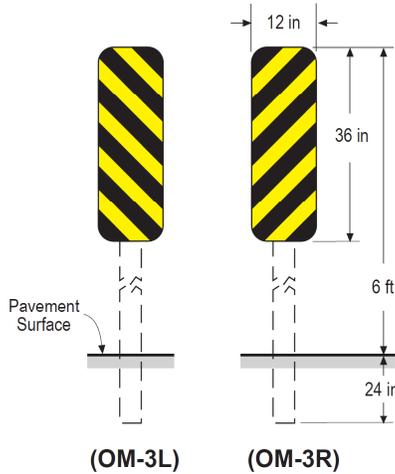


**Type N-1 (CA) (OM1-3), Type N-2 (CA) (OM4-3)**

NOT TO SCALE

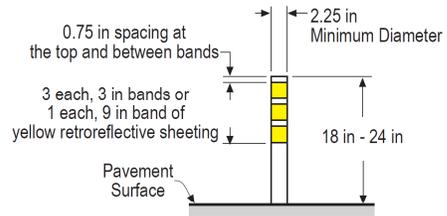
**Figure 2C-13 (CA). California Object Markers (Sheet 2 of 2)**

**Type P (CA) Object Marker (Type 3)  
 (obstructions adjacent to the roadway)**

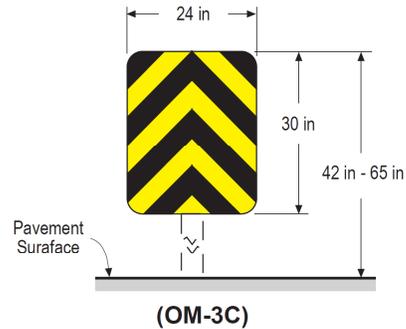


NOT TO SCALE

**Type Q (CA) Object Marker (Type 1)  
 (obstructions within the roadway)**

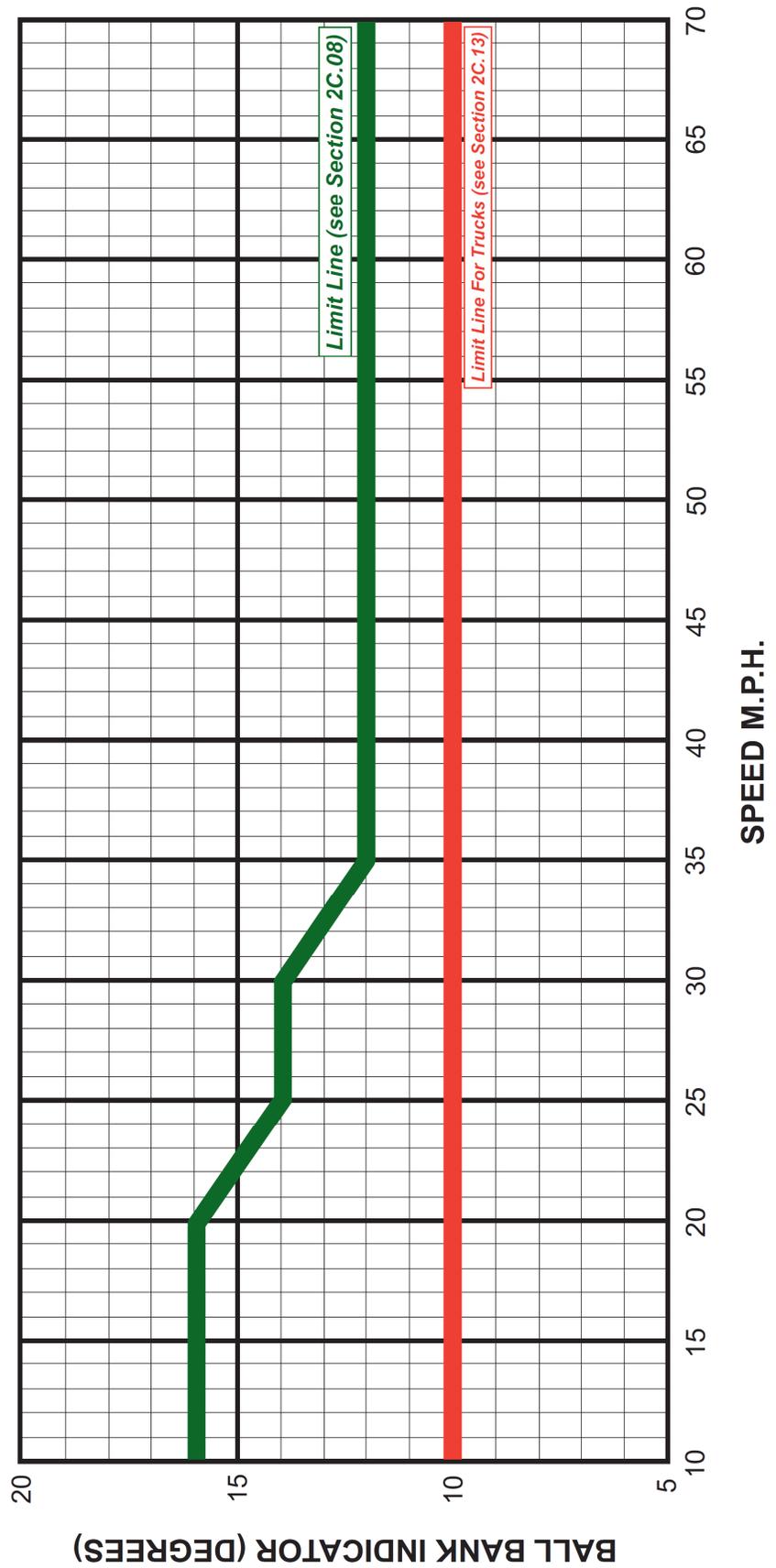


**Type R (CA) Object Marker (Type 1)  
 (obstructions within the roadway)**



**Figure 2C-101 (CA). Determination of Comfortable Speed From Ball Bank Indicator Readings**

Driver \_\_\_\_\_ Co. \_\_\_\_\_ Rte. \_\_\_\_\_ PM \_\_\_\_\_  
 Observer \_\_\_\_\_ Sta. \_\_\_\_\_ To \_\_\_\_\_  
 Vehicle \_\_\_\_\_ Min. Sight Dist. Thru Curve \_\_\_\_\_ Direction \_\_\_\_\_  
 Date \_\_\_\_\_ Approach Speed \_\_\_\_\_ Weather \_\_\_\_\_  
 (Estimated or Observed) \_\_\_\_\_



**Table 2C-1. Categories of Warning Signs and Plaques**

Category	Group	Section	Signs or Plaques	Sign Designations
Roadway Related	Changes in Horizontal Alignment	2C.07	Turn, Curve, Reverse Turn, Reverse Curve, Winding Road, Hairpin Curve, 270-Degree Curve	W1-1,2,3,4,5,11,15
		2C.08	Advisory Speed	W13-1P
		2C.09	Chevron Alignment	W1-8
		2C.10	Combination Horizontal Alignment/Advisory Speed	W1-1a,2a
		2C.11	Combination Horizontal Alignment/Intersection	W1-10,10a,10b,10c,10d
		2C.12	Large Arrow (one direction)	W1-6
		2C.13	Truck Rollover	W1-13
		2C.14	Advisory Exit or Ramp Speed	W13-2,3
	Vertical Alignment	2C.15	Combination Horizontal Alignment/Advisory Exit or Ramp Speed	W13-6,7
		2C.16	Hill	W7-1,1a,2P,2bP,3P,3aP,3bP
		2C.17	Truck Escape Ramp	W7-4,4b,4c,4dP,4eP,4fP
	Cross Section	2C.18	Hill Blocks View	W7-6
		2C.19	Road Narrows	W5-1
		2C.20,21	Narrow Bridge, One Lane Bridge	W5-2,3
		2C.22,23,25	Divided Highway, Divided Highway Ends, Double Arrow	W6-1,2; W12-1
		2C.24	Freeway or Expressway Ends, All Traffic Must Exit	W19-1,2,3,4,5
		2C.26	Dead End, No Outlet	W14-1,1a,2,2a
		2C.27	Low Clearance	W12-2,2a
	Roadway Surface Condition	2C.28,29	Bump, Dip, Speed Hump	W8-1,2; W17-1
		2C.30	Pavement Ends	W8-3
2C.31		Shoulder, Uneven Lanes	W8-4,9,11,17,17P,23,25	
2C.32		Slippery When Wet, Loose Gravel, Rough Road, Bridge Ices Before Road, Fallen Rocks	W8-5,7,8,13,44	
2C.33		Grooved Pavement, Metal Bridge Deck	W8-15,15P,16	
2C.34		No Center Line	W8-12	
Weather	2C.35	Road May Flood, Flood Gauge, Gusty Winds Area, Fog Area	W8-18,19,21,22	
Traffic Related	Advance Traffic Control	2C.36-39	Stop Ahead, Yield Ahead, Signal Ahead, Be Prepared To Stop, Speed Reduction, Drawbridge Ahead, Ramp Meter Ahead	W3-1,2,3,4,5,5a,6,7,8
	Traffic Flow	2C.40-45	Merge, No Merge Area, Lane Ends, Added Lane, Two-Way Traffic, Right Lane Exit Only Ahead, No Passing Zone	W4-1,2,3,5,5P,6; W6-3; W9-1,2,7; W14-3
	Intersections	2C.46	Cross Road, Side Road, T, Y, Circular Intersection, Side Roads	W2-1,2,3,4,5,6,7,8; W16-12P,17P
		2C.47	Large Arrow (two directions)	W1-7
		<del>2C.48</del>	<del>Oncoming Extended Green</del>	<del>W25-1,2</del>
	Vehicular Traffic	2C.49	Truck Crossing, Truck (symbol), Emergency Vehicle, Tractor, Bicycle, Golf Cart, Horse-Drawn Vehicle, Trail Crossing	W8-6; W11-1,5,5a,8,10,11,12P,14,15,15P,15a; <del>W16-13P</del>
	Non-Vehicular	2C.50,51	Pedestrian, Deer, Cattle, Snowmobile, Equestrian, Wheelchair, Large Animals, Playground	W11-2,3,4,6,7,9,16,17,18,19,20,21,22; W15-1; W16-13P
New	2C.52	New Traffic Pattern Ahead	W23-2	
Other Supplemental Plaques	Location	2C.53	Downward Diagonal Arrow, Ahead	W16-7P,9P
	HOV	2C.53	High-Occupancy Vehicle	W16-11P
	Distance	2C.55	XX Feet, XX Miles, Next XX Feet, Next XX Miles	W7-3aP; W16-2P,2aP,3P,3aP,4P
	Arrow	2C.56	Advance Arrow, Directional Arrow	W16-5P,6P
	Street Name Plaque	2C.58	Advance Street Name	W16-8P,8aP
	Intersection	2C.59	Cross Traffic Does Not Stop	W4-4P,4aP,4bP
	Share The Road	2C.60	Share The Road	W16-1P
	Photo Enforced	2C.61	Photo Enforced	W16-10P,10aP
New	2C.62	New	W16-15P	

**Table 2C-2. Warning Sign and Plaque Sizes (Sheet 1 of 3)**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Horizontal Alignment	W1-1,2,3,4,5	2C.07	30 x 30*	36 x 36	36 x 36	36 x 36	—	48 x 48
Combination Horizontal Alignment/Advisory Speed	W1-1a,2a	2C.10	36 x 36	36 x 36	48 x 48	48 x 48	—	48 x 48
One-Direction Large Arrow	W1-6	2C.12	48 x 24	48 x 24	60 x 30	60 x 30	—	60 x 30
Two-Direction Large Arrow	W1-7	2C.47	48 x 24	48 x 24	—	—	—	60 x 30
Chevron Alignment	W1-8	2C.09	18 x 24	18 x 24	30 x 36	36 x 48	—	24 x 30
Combination Horizontal Alignment/Intersection	W1-10,10a,10b,10c,10d,10e	2C.11	36 x 36	36 x 36	36 x 36	48 x 48	—	—
Hairpin Curve	W1-11	2C.07	30 x 30	30 x 30	36 x 36	48 x 48	—	48 x 48
Truck Rollover	W1-13	2C.13	36 x 36	36 x 36	36 x 36	48 x 48	—	36 x 36
270-degree Loop	W1-15	2C.07	30 x 30	30 x 30	36 x 36	48 x 48	—	48 x 48
Intersection Warning	W2-1,2,3,4,5,6,7,8	2C.46	30 x 30	30 x 30	36 x 36	—	24 x 24	48 x 48
Advanced Traffic Control	W3-1,2,3	2C.36	30 x 30	30 x 30	48 x 48	48 x 48	30 x 30	—
Be Prepared to Stop	W3-4	2C.36	36 x 36	36 x 36	48 x 48	48 x 48	30 x 30	—
Reduced Speed Limit Ahead	W3-5	2C.38	36 x 36	36 x 36	48 x 48	48 x 48	—	—
XX MPH Speed Zone Ahead	W3-5a	2C.38	36 x 36	36 x 36	48 x 48	48 x 48	—	—
Draw Bridge	W3-6	2C.39	36 x 36	36 x 36	48 x 48	—	—	60 x 60
Ramp Meter Ahead	W3-7	2C.37	36 x 36	36 x 36	—	—	—	—
Ramp Metered When Flashing	W3-8	2C.37	36 x 36	36 x 36	—	—	—	—
Merge	W4-1	2C.40	36 x 36	36 x 36	48 x 48	48 x 48	30 x 30*	—
Lane Ends	W4-2	2C.42	36 x 36	36 x 36	48 x 48	48 x 48	30 x 30*	—
Added Lane	W4-3	2C.41	36 x 36	36 x 36	48 x 48	48 x 48	30 x 30*	—
Cross Traffic Does Not Stop (plaque)	W4-4P	2C.59	24 x 12	24 x 12	36 x 18	—	—	48 x 24
Traffic From Left (Right) Does Not Stop (plaque)	W4-4aP	2C.59	24 x 12	24 x 12	36 x 18	—	—	48 x 24
Oncoming Traffic Does Not Stop (plaque)	W4-4bP	2C.59	24 x 12	24 x 12	36 x 18	—	—	48 x 24
Entering Roadway Merge	W4-5	2C.40	36 x 36	36 x 36	48 x 48	—	—	—
No Merge Area (plaque)	W4-5P	2C.40	18 x 24	18 x 24	24 x 30	—	—	—
Entering Roadway Added Lane	W4-6	2C.41	36 x 36	36 x 36	48 x 48	—	—	—
Road Narrows	W5-1	2C.19	36 x 36	36 x 36	48 x 48	48 x 48	30 x 30*	—
Narrow Bridge	W5-2	2C.20	36 x 36	36 x 36	48 x 48	48 x 48	30 x 30*	—
One Lane Bridge	W5-3	2C.21	36 x 36	36 x 36	48 x 48	48 x 48	30 x 30*	—
Divided Highway	W6-1	2C.22	36 x 36	36 x 36	48 x 48	48 x 48	—	—
Divided Highway Ends	W6-2	2C.23	36 x 36	36 x 36	48 x 48	48 x 48	—	—
Two-Way Traffic	W6-3	2C.44	36 x 36	36 x 36	48 x 48	48 x 48	—	—
Hill	W7-1	2C.16	30 x 30*	36 x 36	36 x 36	36 x 36	24 x 24*	48 x 48
Hill with Grade	W7-1a	2C.16	30 x 30*	36 x 36	36 x 36	36 x 36	24 x 24*	48 x 48
Use Low Gear (plaque)	W7-2P	2C.57	24 x 18	24 x 18	—	—	—	—
Trucks Use Lower Gear (plaque)	W7-2bP	2C.57	24 x 18	24 x 18	—	—	—	—
XX% Grade (plaque)	W7-3P	2C.57	24 x 18	24 x 18	—	—	—	—
Next XX Miles (plaque)	W7-3aP	2C.55	24 x 18	24 x 18	—	—	—	—
XX% Grade, XX Miles (plaque)	W7-3bP	2C.57	24 x 18	24 x 18	—	—	—	—
Runaway Truck Ramp XX Miles	W7-4	2C.17	78 x 48	78 x 48	78 x 48	78 x 48	—	—
Runaway Truck Ramp (with arrow)	W7-4b	2C.17	78 x 60	78 x 60	78 x 60	78 x 60	—	—
Truck Escape Ramp	W7-4c	2C.17	78 x 60	78 x 60	78 x 60	78 x 60	—	—
Sand, Gravel, Paved (plaques)	W7-4dP,4eP,4fP	2C.17	24 x 12	24 x 12	24 x 12	24 x 12	—	—
Hill Blocks View	W7-6	2C.18	30 x 30*	36 x 36	36 x 36	—	—	48 x 48
Bump or Dip	W8-1,2	2C.28	30 x 30*	36 x 36	36 x 36	48 x 48	24 x 24*	48 x 48

**Table 2C-2. Warning Sign and Plaque Sizes (Sheet 2 of 3)**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Pavement Ends	W8-3	2C.30	36 x 36	36 x 36	48 x 48	—	30 x 30*	—
Soft Shoulder	W8-4	2C.31	36 x 36	36 x 36	48 x 48	48 x 48	24 x 24*	48 x 48
Slippery When Wet	W8-5	2C.32	30 x 30*	36 x 36	36 x 36	48 x 48	24 x 24*	48 x 48
Road Condition (plaques)	W8-5P,5bP,5cP	2C.32	24 x 18	24 x 18	30 x 24	36 x 30	—	36 x 30
Ice	W8-5aP	2C.32	24 x 12	24 x 12	30 x 18	30 x 18	—	—
Truck Crossing	W8-6	2C.49	36 x 36	36 x 36	36 x 36	48 x 48	24 x 24*	48 x 48
Loose Gravel	W8-7	2C.32	36 x 36	36 x 36	36 x 36	—	24 x 24*	48 x 48
Rough Road	W8-8	2C.32	36 x 36	36 x 36	36 x 36	48 x 48	24 x 24*	48 x 48
Low Shoulder	W8-9	2C.31	36 x 36	36 x 36	36 x 36	48 x 48	24 x 24*	48 x 48
Uneven Lanes	W8-11	2C.32	36 x 36	36 x 36	36 x 36	48 x 48	—	48 x 48
No Center Line	W8-12	2C.34	36 x 36	36 x 36	36 x 36	48 x 48	—	—
Bridge Ices Before Road	W8-13	2C.32	36 x 36	36 x 36	36 x 36	48 x 48	24 x 24*	48 x 48
<del>Fallen Rocks</del>	<del>W8-14</del>	<del>2C.32</del>	<del>30 x 30*</del>	<del>36 x 36</del>	<del>36 x 36</del>	<del>48 x 48</del>	<del>24 x 24*</del>	<del>48 x 48</del>
Grooved Pavement	W8-15	2C.33	30 x 30*	36 x 36	36 x 36	48 x 48	24 x 24*	48 x 48
Motorcycle (plaque)	W8-15P	2C.33	24 x 18	24 x 18	30 x 24	36 x 30	—	36 x 30
Metal Bridge Deck	W8-16	2C.33	30 x 30*	36 x 36	36 x 36	48 x 48	24 x 24*	48 x 48
Shoulder Drop Off (symbol)	W8-17	2C.31	30 x 30*	36 x 36	36 x 36	48 x 48	24 x 24*	48 x 48
Shoulder Drop-Off (plaque)	W8-17P	2C.31	24 x 18	24 x 18	30 x 24	36 x 30	—	36 x 30
Road May Flood	W8-18	2C.35	36 x 36	36 x 36	36 x 36	48 x 48	24 x 24*	48 x 48
Flood Gauge	W8-19	2C.35	12 x 72	12 x 72	—	—	—	—
Gusty Winds Area	W8-21	2C.35	36 x 36	36 x 36	36 x 36	48 x 48	24 x 24*	48 x 48
Fog Area	W8-22	2C.35	36 x 36	36 x 36	36 x 36	48 x 48	24 x 24*	48 x 48
No Shoulder	W8-23	2C.31	36 x 36	36 x 36	36 x 36	48 x 48	24 x 24*	48 x 48
Shoulder Ends	W8-25	2C.31	30 x 30*	36 x 36	36 x 36	48 x 48	24 x 24*	48 x 48
Left (Right) Lane Ends	W9-1	2C.42	36 x 36	36 x 36	36 x 36	48 x 48	30 x 30*	48 x 48
<del>Lane Ends Merge Left (Right)</del>	<del>W9-2</del>	<del>2C.42</del>	<del>36 x 36</del>	<del>36 x 36</del>	<del>36 x 36</del>	<del>48 x 48</del>	<del>30 x 30*</del>	<del>48 x 48</del>
Right (Left) Lane Exit Only Ahead	W9-7	2C.43	132 x 72	132 x 72	132 x 72	132 x 72	—	—
Bicycle	W11-1	2C.49	30 x 30	30 x 30	36 x 36	—	24 x 24*	48 x 48
Pedestrian	W11-2	2C.50	30 x 30*	36 x 36	36 x 36	—	24 x 24*	48 x 48
Large Animals	W11-3,4,16,17,18,19,20,21,22	2C.50	30 x 30*	36 x 36	36 x 36	—	24 x 24*	48 x 48
Farm Vehicle	W11-5,5a	2C.49	30 x 30*	36 x 36	36 x 36	—	24 x 24*	48 x 48
Snowmobile	W11-6	2C.50	30 x 30*	36 x 36	36 x 36	—	24 x 24*	48 x 48
Equestrian	W11-7	2C.50	30 x 30*	36 x 36	36 x 36	—	24 x 24*	48 x 48
Emergency Vehicle	W11-8	2C.49	30 x 30*	36 x 36	36 x 36	—	24 x 24*	48 x 48
Handicapped	W11-9	2C.50	30 x 30*	36 x 36	36 x 36	—	—	48 x 48
Truck	W11-10	2C.49	30 x 30*	36 x 36	36 x 36	—	24 x 24*	48 x 48
Golf Cart	W11-11	2C.49	30 x 30*	36 x 36	36 x 36	—	24 x 24*	48 x 48
Emergency Signal Ahead (plaque)	W11-12P	2C.49	36 x 30	36 x 30	36 x 30	—	—	—
Horse-Drawn Vehicle	W11-14	2C.49	30 x 30*	36 x 36	36 x 36	—	24 x 24*	48 x 48
Bicycle / Pedestrian	W11-15	2C.49	30 x 30*	36 x 36	36 x 36	—	24 x 24*	48 x 48
Trail Crossing	W11-15a	2C.49	30 x 30*	36 x 36	36 x 36	—	24 x 24*	48 x 48
Trail X-ing (plaque)	W11-15P	2C.49	24 x 18	24 x 18	30 x 24	—	—	36 x 30
Double Arrow	W12-1	2C.25	30 x 30*	36 x 36	36 x 36	—	—	—
Low Clearance (with arrows)	W12-2	2C.27	36 x 36	36 x 36	48 x 48	48 x 48	30 x 30*	—
Low Clearance	W12-2a	2C.27	78 x 24	78 x 24	—	—	—	—
Advisory Speed (plaque)	W13-1P	2C.08	18 x 18	18 x 18	24 x 24	30 x 30	—	30 x 30
Advisory Exit or Ramp Speed	W13-2,3	2C.14	24 x 30	24 x 30	36 x 48	36 x 48	—	48 x 60
Combination Horizontal Alignment/Advisory Exit or Ramp Speed	W13-6,7	2C.15	24 x 42	24 x 42	36 x 60	36 x 60	—	48 x 84
Dead End, No Outlet	W14-1,2	2C.26	30 x 30*	36 x 36	36 x 36	—	24 x 24*	48 x 48

**Table 2C-2. Warning Sign and Plaque Sizes (Sheet 3 of 3)**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Dead End, No Outlet (with arrow)	W14-1a,2a	2C.26	36 x 8	36 x 8	—	—	—	—
No Passing Zone (pennant)	W14-3	2C.45	48 x 48 x 36	48 x 48 x 36	—	—	40 x 40 x 30	64 x 64 x 48
Playground	W15-1	2C.51	30 x 30*	36 x 36	36 x 36	—	24 x 24*	48 x 48
Share the Road (plaque)	W16-1P	2C.60	18 x 24	18 x 24	24 x 30	—	—	24 x 30
XX Feet	W16-2P	2C.55	24 x 18	24 x 18	—	—	—	30 x 24
XX Ft	W16-2aP	2C.55	24 x 12	24 x 12	—	—	—	30 x 18
XX Miles (2-line plaque)	W16-3P	2C.55	30 x 24	30 x 24	—	—	—	—
XX Miles (1-line plaque)	W16-3aP	2C.55	30 x 12	30 x 12	—	—	—	—
Next XX Feet (plaque)	W16-4P	2C.55	30 x 24	30 x 24	—	—	—	—
Supplemental Arrow (plaque)	W16-5P,6P	2C.56	24 x 18	24 x 18	—	—	—	—
Downward Diagonal Arrow (plaque)	W16-7P	2C.50	24 x 12	24 x 12	—	—	—	30 x 18
Advance Street Name (1-line plaque)	W16-8P	2C.58	Varies x 8	Varies x 8	—	—	—	—
Advance Street Name (2-line plaque)	W16-8aP	2C.58	Varies x 15	Varies x 15	—	—	—	—
Ahead (plaque)	W16-9P	2C.50	24 x 12	24 x 12	30 x 18	—	—	—
Photo Enforced (symbol plaque)	W16-10P	2C.61	24 x 12	24 x 12	36 x 18	—	—	48 x 24
Photo Enforced (plaque)	W16-10aP	2C.61	24 x 18	24 x 18	36 x 30	—	—	48 x 36
HOV (plaque)	W16-11P	2G.09	24 x 12	24 x 12	30 x 18	—	—	30 x 18
Traffic Circle (plaque)	W16-12P	2C.46	24 x 18	24 x 18	—	—	—	—
<del>When Flashing (plaque)</del>	<del>W16-13P</del>	<del>2C.50</del>	<del>24 x 18</del>	<del>24 x 18</del>				
New (plaque)	W16-15P	2C.62	24 x 12	24 x 12	—	—	—	—
Roundabout (plaque)	W16-17P	2C.46	24 x 12	24 x 12	—	—	—	—
NOTICE	W16-18P	2A.15	24 x 12	24 x 12	—	—	—	—
Speed Hump	W17-1	2C.29	30 x 30*	36 x 36	—	—	24 x 24*	48 x 48
Freeway Ends XX Miles	W19-1	2C.24	—	—	—	144 x 48	—	—
Expressway Ends XX Miles	W19-2	2C.24	—	—	144 x 48	—	—	—
Freeway Ends	W19-3	2C.24	—	—	—	48 x 48	—	—
Expressway Ends	W19-4	2C.24	—	—	48 x 48	—	—	—
All Traffic Must Exit	W19-5	2C.24	—	—	90 x 48	90 x 48	—	—
New Traffic Pattern Ahead	W23-2	2C.52	36 x 36	36 x 36	—	—	—	—
<del>Traffic Signal Extended Green</del>	<del>W25-1,2</del>	<del>2C.48</del>	<del>24 x 30</del>	<del>24 x 30</del>				

**Table 2C-2(CA). California Warning Sign and Plaque Sizes (Sheet 1 of 2)**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Combination Reverse Turn/Advisory Speed	W4-1(CA)	2C.07, 2C.10	48X48	48X48	60X60	60X60	---	72X72 96X96
Combination Hairpin Curve/Advisory Speed	W4-10(CA)	2C.07, 2C.10	48X48	48X48	60X60	60X60	---	72X72 96X96
Combination 270-degree Loop/Advisory Speed	W4-14(CA)	2C.07	48X48	48X48	60X60	60X60	---	72X72 96X96
Combination Reverse Curve/Advisory Speed	W4-18(CA)	2C.07, 2C.10	48X48	48X48	60X60	60X60	---	72X72 96X96
Combination Truck Rollover Warning/Advisory Speed	W4-22(CA)	2C.07, 2C.10	72X72	72X72	72X72	72X72	---	96X96
Weight Limit	W20(CA)	2B.59	30X36	30X36	36X48	36X48	---	---
Weight Limit	W20A(CA)	2B.59	30X30	30X30	36X40	36X40	---	---
DEEP GRAVEL	W30B(CA)	2C.17	36X36	36X36	36X36	36X36	---	---
RIGHT(LEFT) EXIT	W30C(CA)	2C.17	---	---	114X24	114X24	78X18	---
END	W31(CA)	2C.26, 2C.66	30X30	30X30	30X30	30X30	24X24	---
ROAD ENDS ___ FT	W31A(CA)	2C.26	30X30	30X30	36X36	36X36	24X24	---
Distance Ahead plaque	W34A(CA)	2C.27, 2C.55	36X30	36X30	48X36	48X36	---	60X48
CAUTION VERTICAL CLEARANCE ' ' " Arrow	W34C(CA)	2C.27	36X54	36X54	48X72	48X72	---	---
SLIDE AREA	W38(CA)	2C.32	30X30	30X30	48X48	48X48	---	---
TWO WAY TRAFFIC plaque	W44A(CA)	2C.44	36X24	36X24	---	---	---	---
Rock Slide Area	W50-1(CA)	2C.32	36X36	36X36	48X48	48X48	---	---
SLOW TRUCKS	W51(CA)	2C.16	48X48	48X48	48X48	48X48	---	72X72
FLOODED	W55(CA)	2C.35	30X30	30X30	36X36	36X36	---	---
END FREEWAY _____ MI	W69(CA)	2C.46	---	---	---	60X60	---	---
CROSS TRAFFIC AHEAD	W70(CA)	2C.46	---	---	60X60	---	---	---
RIGHT(LEFT) LANE EXITS AHEAD	W73(CA)	2C.42	---	---	48X48	48X48	36X36	60X60
RIGHT(LEFT) LANE TURNS RIGHT(LEFT) AHEAD	W73A(CA)	2C.40, 2C.42	36X36	36X36	48X48	---	---	60X60
THRU TRAFFIC MERGE LEFT (RIGHT)	W74(CA)	2B.20, 2C.40, 2C.42	36X36	36X36	48X48	48X48	---	60X60
PASS WITH CARE	W83(CA)	2C.44	24X30	24X30	36X45	36X45	---	---
WATCH DOWNHILL SPEED	SW4-1(CA)	2C.57	72X72	72X72	72X72	72X72	---	---
TRAILERS-CAMPERS-GUSTY WIND AREA NEXT _____ MILES	SW17-1(CA)	2C.38	132X48	132X48	132X48	132X48	---	---
WINDING LEVEE ROAD	SW22-1(CA)	2C.07	42X42	42X42	---	---	---	---
Speed/Distance plaque	SW22-1A(CA)	2C.07	30X18	30X18	30X18	30X18	---	---
SIGNAL/STOP AHEAD Arrow	SW26(CA)	2C.36	60X60	72X72	72X72	72X72 (ramps)	---	96X96
DRIFTING SAND	SW32(CA)	2C.32	36X36	36X36	48X48	48X48	30X30	---
FLASH FLOOD AREA	SW35(CA)	2C.35	36X36	36X36	36X36	36X36	---	---
END FREEWAY	SW36(CA)	2C.46	48X48	48X48	48X48	48X48	---	---
TUNNEL	SW37(CA)	2C.20	30X30	30X30	30X30	30X30	---	---
DEAF CHILDREN NEAR	SW38(CA)	2C.50	30X30	30X30	30X30	---	24X24	---
SNOW SLIDE AREA	SW41(CA)	2C.32	36X36	36X36	48X48	48X48	30X30	---
Downward Arrow	SW44(CA)	2C.19	36X36	36X36	48X48	48X48	30X30	---

**Table 2C-2(CA). California Warning Sign and Plaque Sizes (Sheet 2 of 2)**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
WATCH FOR SNOW SLIPPERY	SW46(CA)	2C.32	36X36	36X36	48X48	48X48	---	---
OFF HIGHWAY VEHICLES	SW47(CA)	2C.49	36X36	36X36	36X36	---	30X30	---
TRACTOR-SEMIS OVER ___ FEET KINGPIN TO REAR AXLE NOT ADVISED	SW48(CA)	2C.07	48X36	48X36	72X54	72X54	---	---
NEXT RIGHT	SW48-1(CA)	2C.07	48X12	48X12	72X18	72X18	---	---
PLAYGROUND	SW49(CA)	2C.51	36X12	36X12	36X12	---	---	---
SENIOR CITIZEN FACILITY	SW50(CA)	2C.50	36X24	36X24	36X24	---	---	---
EMERGENCY VEHICLES	SW52(CA)	2C.49	42X42	42X42	48X48	48X48	30X30	---
WATCH FOR SNOW REMOVAL EQUIPMENT	SW58(CA)	2C.49	36X36	36X36	54X48	54X48	---	---
Migrating Bears	SW59(CA)	2C.50	36X36	36X36	48X48	48X48	30X30	---
WATCH FOR STOPPED VEHICLES	SW60(CA)	2C.36	36X36	36X36	48X48	48X48	---	---

**Table 2C-3. Minimum Size of Supplemental Warning Plaques**

Size of Warning Sign	Size of Supplemental Plaque			
	Rectangular			Square
	1 Line	2 Lines	Arrow	
24 x 24	24 x 12	24 x 18	24 x 12	18 x 18
30 x 30				
36 x 36	30 x 18	30 x 24	30 x 18	24 x 24
48 x 48				

Notes: 1. Larger supplemental plaques may be used when appropriate  
 2. Dimensions in inches are shown as width x height

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

Posted or 85th-Percentile Speed	Advance Placement Distance <sup>1</sup>								
	Condition A: Speed reduction and lane changing in heavy traffic <sup>2</sup>	Condition B: Deceleration to the listed advisory speed (mph) for the condition							
		0 <sup>3</sup>	10 <sup>4</sup>	20 <sup>4</sup>	30 <sup>4</sup>	40 <sup>4</sup>	50 <sup>4</sup>	60 <sup>4</sup>	70 <sup>4</sup>
20 mph	225 ft	100 ft <sup>6</sup>	N/A <sup>5</sup>	—	—	—	—	—	—
25 mph	325 ft	100 ft <sup>6</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>	—	—	—	—	—
30 mph	460 ft	100 ft <sup>6</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>	—	—	—	—	—
35 mph	565 ft	100 ft <sup>6</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>	—	—	—	—
40 mph	670 ft	125 ft	100 ft <sup>6</sup>	100 ft <sup>6</sup>	N/A <sup>5</sup>	—	—	—	—
45 mph	775 ft	175 ft	125 ft	100 ft <sup>6</sup>	100 ft <sup>6</sup>	N/A <sup>5</sup>	—	—	—
50 mph	885 ft	250 ft	200 ft	175 ft	125 ft	100 ft <sup>6</sup>	—	—	—
55 mph	990 ft	325 ft	275 ft	225 ft	200 ft	125 ft	N/A <sup>5</sup>	—	—
60 mph	1,100 ft	400 ft	350 ft	325 ft	275 ft	200 ft	100 ft <sup>6</sup>	—	—
65 mph	1,200 ft	475 ft	450 ft	400 ft	350 ft	275 ft	200 ft	100 ft <sup>6</sup>	—
70 mph	1,250 ft	550 ft	525 ft	500 ft	450 ft	375 ft	275 ft	150 ft	—
75 mph	1,350 ft	650 ft	625 ft	600 ft	550 ft	475 ft	375 ft	250 ft	100 ft <sup>6</sup>

<sup>1</sup> The distances are adjusted for a sign legibility distance of 180 feet for Condition A. The distances for Condition B have been adjusted for a sign legibility distance of 250 feet, which is appropriate for an alignment warning symbol sign. For Conditions A and B, warning signs with less than 6-inch legend or more than four words, a minimum of 100 feet should be added to the advance placement distance to provide adequate legibility of the warning sign.

<sup>2</sup> Typical conditions are locations where the road user must use extra time to adjust speed and change lanes in heavy traffic because of a complex driving situation. Typical signs are Merge and Right Lane Ends. The distances are determined by providing the driver a PRT of 14.0 to 14.5 seconds for vehicle maneuvers (2005 AASHTO Policy, Exhibit 3-3, Decision Sight Distance, Avoidance Maneuver E) minus the legibility distance of 180 feet for the appropriate sign.

<sup>3</sup> Typical condition is the warning of a potential stop situation. Typical signs are Stop Ahead, Yield Ahead, Signal Ahead, and Intersection Warning signs. The distances are based on the 2005 AASHTO Policy, Exhibit 3-1, Stopping Sight Distance, providing a PRT of 2.5 seconds, a deceleration rate of 11.2 feet/second<sup>2</sup>, minus the sign legibility distance of 180 feet.

<sup>4</sup> Typical conditions are locations where the road user must decrease speed to maneuver through the warned condition. Typical signs are Turn, Curve, Reverse Turn, or Reverse Curve. The distance is determined by providing a 2.5 second PRT, a vehicle deceleration rate of 10 feet/second<sup>2</sup>, minus the sign legibility distance of 250 feet.

<sup>5</sup> No suggested distances are provided for these speeds, as the placement location is dependent on site conditions and other signing. An alignment warning sign may be placed anywhere from the point of curvature up to 100 feet in advance of the curve. However, the alignment warning sign should be installed in advance of the curve and at least 100 feet from any other signs.

<sup>6</sup> The minimum advance placement distance is listed as 100 feet to provide adequate spacing between signs.

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

Type of Horizontal Alignment Sign	Difference Between Speed Limit and Advisory Speed				
	5 mph	10 mph	15 mph	20 mph	25 mph or more
Turn (W1-1), Curve (W1-2), Reverse Turn (W1-3), Reverse Curve (W1-4), Winding Road (W1-5), and Combination Horizontal Alignment/Intersection ( <del>W1-6</del> ) (W1-10) (see Section 2C.07 to determine which sign to use)	Recommended	Required	Required	Required	Required
Advisory Speed Plaque (W13-1P)	Recommended	Required	Required	Required	Required
Chevrons (W1-8) and/or One Direction Large Arrow (W1-6)	Optional	Recommended	Required	Required	Required
Exit Speed (W13-2) and Ramp Speed (W13-3) on exit ramp	Optional	Optional	Recommended	Required	Required

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

Advisory Speed	Curve Radius	Sign Spacing
15 mph or less	Less than 200 feet	40 feet
20 to 30 mph	200 to 400 feet	80 feet
35 to 45 mph	401 to 700 feet	120 feet
50 to 60 mph	701 to 1,250 feet	160 feet
More than 60 mph	More than 1,250 feet	200 feet

Note: The relationship between the curve radius and the advisory speed shown in this table should not be used to determine the advisory speed.

**Table 2C-101(CA). California Object Markers**

Object Marker	California Designation	MUTCD Designation	Section
Typical CA Type K Object Marker	K-1(CA)	OM2-2H	2C.63, 2C.65
Typical CA Type K Object Marker	K-2(CA)	OM2-2V	2C.63, 2C.65
Typical CA Type L Object Marker	L-1(CA)	OM2-2V	2C.63, 2C.65
Typical CA Type L Object Marker	L-2(CA)	OM2-2V	2C.63, 2C.65
Typical CA Type N Object Marker	N-1(CA)	OM1-3	2C.12, 2C.47, 2C.63, 2C.64, 2C.65, 6F.105(CA)
Typical End-of-Roadway Marker	N-2(CA)	OM4-3	2C.26, 2C.66
Typical CA Type P Object Marker	P(CA)	OM-3L and OM-3R	2C.63, 2C.64, 6F.105(CA)
Typical CA Type Q Object Marker	Q(CA)	None	2C.63, 2C.64
Typical CA Type R Object Marker	R(CA)	OM-3C	2C.63, 2C.64
Typical CA Type L Object Marker	Utility Pole	None	2C.63, 2C.65



## CHAPTER 2D. GUIDE SIGNS—CONVENTIONAL ROADS

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

**Standard:**

01 **The provisions of this Chapter shall apply to [expressways](#), [freeways](#), any road or street other than low-volume roads (as defined in Section 5A.01), ~~expressways, and freeways~~ and [except as provided for under Chapter 2E](#).**

### Section 2D.02 Application

**Support:**

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

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

03 [Guide signs are not intended to replace maps or substitute for adequate trip planning by road users.](#)

### Section 2D.03 Color, Retroreflection, and Illumination

**Support:**

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

**Standard:**

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

**Support:**

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

**Standard:**

04 **Except where otherwise provided in this Manual, different color sign backgrounds shall not be used to provide color coding of destinations. The color coding shall be accomplished by the use of different colored square or rectangular sign panels on the face of the guide signs.**

**Option:**

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

**Support:**

06 Two examples of color-coded sign assemblies are shown in Figure 2D-1. Section 2D.50 contains specific provisions regarding Community Wayfinding guide signs.

**[Overhead Guide Sign Illumination Policy](#)**

**Guidance:**

07 *Fixed-lighting should be used to illuminate signs unless retroreflective luminance from headlights provides effective nighttime legibility. The type of fixed-lighting chosen should provide effective and reasonably uniform illumination of the sign face and message.*

**Standard:**

08 **In conjunction with the requirement for retroreflective backgrounds, the [Overhead Guide Sign Illumination policy](#) shall apply to all existing and new overhead guide signs.**

Support:

<sup>09</sup> In all applications of the policy, engineering judgment must be exercised. The purpose of the policy is to provide for uniform application of signs statewide. The intent is to make signs conspicuous (target value) and legible to motorists. The policy is consistent with federal requirements.

**Existing Overhead Signs**

Guidance:

<sup>10</sup> *Currently lighted signs with opaque backgrounds should remain lighted.*

Option:

<sup>11</sup> Currently unlighted opaque signs may be lighted. Retrofit-walkways for fixed –lighting systems need to be checked for proper clearance to the roadway.

**Standard:**

<sup>12</sup> **Signs with opaque backgrounds shall be replaced with new signs with retroreflective backgrounds, legends and borders when the old signs have reached the end of their useful life or are replaced for other reasons.**

Guidance:

<sup>13</sup> *Fixed-lighting should be used to illuminate signs with retroreflective backgrounds, legends and borders unless retroreflective luminance from headlights provides effective nighttime legibility*

**New Overhead Signs**

**Standard:**

<sup>14</sup> **Signs shall have retroreflective backgrounds, legends and borders.**

Guidance:

<sup>15</sup> *Fixed-lighting should be used to illuminate signs unless retroreflective luminance from headlights provides effective nighttime legibility.*

**Standard:**

<sup>16</sup> **Basic components for fixed-lighting systems shall be provided even if lights are not planned initially.**

Guidance:

<sup>17</sup> *Signs should be designed and mounted as if lights were installed, as it could be necessary to provide fixed-lighting for the sign at some future date.*

**Fixed-lighting Systems**

Guidance:

<sup>18</sup> *Energy conservation systems should be considered for fixed-lighting.*

**Engineering Considerations**

Guidance:

<sup>19</sup> *The following criteria should be considered in determining which signs should be lighted:*

- A. *Signs skewed or otherwise positioned relative to traffic so as to render retroreflective luminance from headlights ineffective.*
- B. *Signs that for some other reason are not legible when illuminated by vehicle headlights.*
- C. *Signs adjacent to other signs requiring or having fixed-lighting.*
- D. *Signs in advance of ramps in urban areas with heavy traffic during the evening peak period.*

**Energy Conservation Measures for Guide Signs**

Guidance:

<sup>20</sup> *All non-action guide sign lighting (Interchange Sequence (G23(CA) Series) signs) should be turned off, except in special situations where motorist safety could be affected.*

<sup>21</sup> *Following are some situations where engineering judgment should be used to determine if illumination should be maintained:*

- A. *Locations prone to heavy fog or poor visibility.*
- B. *Signs in work zones or in the proximity of work zones.*
- C. *Non-action guide signs adjacent to other signs that must be lighted.*

<sup>22</sup> *All G21(CA) Series, G24(CA) Series, G83(CA) Series, G85(CA) Series and G86(CA) Series and other action guide signs should remain lighted on highways.*

<sup>23</sup> *When illuminated, lights should be replaced with energy efficient fixtures on highways.*

**Standard:**

**<sup>24</sup> New overhead guide sign structure designs shall include appropriate conduit, pull boxes, and fixture attachment points for the future installation of sign lighting, if and when needed.**

**Section 2D.04 Size of Signs**

**Standard:**

**<sup>01</sup> Except as provided in Section 2A.11, the sizes of conventional road guide signs that have standardized designs shall be as shown in Table 2D-1 and 2D-1(CA).**

**Support:**

<sup>02</sup> Section 2A.11 contains information regarding the applicability of the various columns in Table 2D-1 and 2D-1(CA).

**Option:**

<sup>03</sup> Signs larger than those shown in Table 2D-1 and 2D-1(CA) may be used (see Section 2A.11).

**Support:**

<sup>04</sup> For other guide signs, the legends are so variable that a standardized design or size is not appropriate. The sign size is determined primarily by the length of the message, and the size of lettering and spacing necessary for proper legibility.

**Option:**

<sup>05</sup> Reduced letter height, reduced interline spacing, and reduced edge spacing may be used on guide signs if sign size must be limited by factors such as lane width or vertical or lateral clearance.

**Guidance:**

<sup>06</sup> *Reduced spacing between the letters or words on a line of legend should not be used as a means of reducing the overall size of a guide sign, except where determined necessary by engineering judgment to meet unusual lateral space constraints. In such cases, the legibility distance of the sign legend should be the primary consideration in determining whether to reduce the spacing between the letters or the words or between the words and the sign border, or to reduce the letter height.*

<sup>07</sup> *When a reduction in the prescribed size is necessary, the design used should be as similar as possible to the design for the standard size.*

**Support:**

<sup>08</sup> Sign design details are contained in FHWA's "Standard Highway Signs and Markings" book and Department of Transportation's California Sign Specifications. See Section 1A.11 for information regarding these publications.

**Section 2D.05 Lettering Style**

**Standard:**

**<sup>01</sup> The design of upper-case letters, lower-case letters, numerals, route shields, and spacing shall be as provided in the "Standard Highway Signs and Markings" book (see Section 1A.11).**

**<sup>02</sup> The lettering for names of places, streets, and highways on conventional road guide signs shall be a combination of lower-case letters with initial upper-case letters (see Section 2A.13). The nominal loop height of the lower-case letters shall be 3/4 the height of the initial upper-case letter. When a mixed-case legend letter height is specified referring only to the initial upper-case letter, the height of the lower-case letters that follow shall be determined by this proportion. When the height of a lower-case letter is referenced, the reference is made to the nominal loop height and the height of the initial upper-case letter shall also be determined by this proportion.**

**<sup>03</sup> All other word legends on conventional road guide signs shall be in upper-case letters.**

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

**Section 2D.06 Size of Lettering**

**Support:**

<sup>01</sup> Sign legibility is a direct function of letter size and spacing. Legibility distance has to be sufficient to give road users enough time to read and comprehend the sign. Under optimum conditions, a guide sign message can

be read and understood in a brief glance. The legibility distance takes into account factors such as inattention, blocking of view by other vehicles, unfavorable weather, inferior eyesight, or other causes for delayed or slow reading. Where conditions permit, repetition of guide information on successive signs gives the road user more than one opportunity to obtain the information needed.

**Standard:**

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

**03 The principal legend on guide signs shall be in letters and numerals at least 6 inches in height for all upper-case letters, or a combination of 6 inches in height for upper-case letters and 4.5 inches in height for lower-case letters. On low-volume roads (as defined in Section 5A.01) with speeds of 25 mph or less, and on urban streets with speeds of 25 mph or less, the principal legend shall be in letters at least 4 inches in height for all upper-case letters, or a combination of 4 inches in height for upper-case letters and 3 inches in height for lower-case letters.**

*Guidance:*

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

*05 The minimum lettering sizes provided in this Manual should be exceeded where conditions indicate a need for greater legibility.*

**Standard:**

**06 Design layouts for conventional road guide signs showing interline spacing, edge spacing, and other specification details shall be as shown in FHWA's “Standard Highway Signs and Markings” book and Department of Transportation's California Sign Specifications. See Section 1A.11 for information regarding these publications.**

### **Section 2D.07 Amount of Legend**

**Support:**

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

*Guidance:*

*02 Except where otherwise provided in this Manual, guide signs should be limited to no more than three lines of destinations, which include place names, route numbers, street names, and cardinal directions. Where two or more signs are included in the same overhead display, the amount of legend should be further minimized. Where appropriate, a distance message or action information, such as an exit number, NEXT RIGHT, or directional arrows, should be provided on guide signs in addition to the destinations.*

### **Section 2D.08 Arrows**

**Support:**

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

**Standard:**

**02 On overhead signs where it is desirable to indicate a lane to be followed, a down arrow shall be positioned approximately over the center of the lane and shall point vertically downward toward the approximate center of that lane. Down arrows shall be used only on overhead guide signs that restrict the use of specific lanes to traffic bound for the destination(s) and/or route(s) indicated by these arrows. Down arrows shall not be used unless an arrow can be located over and pointed to the approximate center of each lane that can be used to reach the destination displayed on the sign.**

**03 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. 04 Where a roadway is leaving the through lanes, a directional arrow shall point upward at an angle that approximates the alignment of the exit roadway.**

**Option:**

05 Curved-stem arrows (see Figure 2D-8) that represent the intended driver paths to destinations involving left-turn movements may be used on guide signs on approaches to circular intersections.

**Standard:**

06 **Curved-stem arrows shall not be used on any sign that is not associated with a circular intersection.**

**Guidance:**

07 *If curved-stem arrows are used, the principles set forth in Sections 2D.26 through 2D.29 should be followed.*

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

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

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

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

12 *The Type D directional arrow should be used primarily for sign applications other than guide signs, except as provided in Paragraph 15 16.*

**Option:**

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

14 The Type C directional arrow may be used to the side of the legend of an overhead guide sign to accentuate a sharp turn exit maneuver from a mainline roadway (see Section 2E.36 for additional information regarding Exit Direction signs for low advisory ramp speeds).

15 On conventional roads on the approach to an intersection where the Combination Lane-Use/Destination overhead guide sign (see Section 2D.33) is not used, the Type C advance turn directional arrow may be used beneath the legend of an overhead guide sign to indicate the fact that a turn must be made from a mandatory movement lane over which the sign is placed to reach the destination or destinations displayed on the sign.

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

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

**Guidance:**

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

19 *On a post-mounted guide sign, a directional arrow for a straight-through movement should point upward. Except as provided in Section 2D.46, for a turn, the arrow on a guide sign should point horizontally or at an upward angle that approximates the sharpness of the turn.*

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

**Option:**

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

22 On a post-mounted sign at an exit where placement of the arrow to the side of the legend farthest from the roadway would create an unusually wide sign that limits the road user's view of the arrow, the directional arrow may be placed at the bottom portion of the sign, centered under the legend.

**Guidance:**

23 *The width across the arrowhead for the Types A, B, and C directional arrows should be between 1.5 and 1.75 times the height of the upper-case letters of the principal legend on the sign. The width across the arrowhead for the Type D directional arrow should be at least equal to the height of the upper-case letters of the principal*

*legend on the sign. For down arrows used on overhead signs, the width across the arrowhead should be approximately two times the height of the upper-case letters of the principal legend on the sign.*

*<sup>24</sup> Arrows used in Overhead Arrow-per-Lane and Diagrammatic guide signing, if used on conventional roads, except for signs on approaches to roundabouts, should follow the principles set forth in Section 2E.19. Arrows used in Diagrammatic guide signing on approaches to roundabouts should follow the principles set forth in Section 2D.38.*

Support:

<sup>25</sup> The "Standard Highway Signs and Markings" book (see Section 1A.11) contains design details and standardized sizes of the various arrows based on ranges of letter heights of principal legends.

## **Section 2D.09 Numbered Highway Systems**

Support:

<sup>01</sup> The purpose of numbering and signing highway systems is to identify routes and facilitate travel.

<sup>02</sup> The Interstate and United States (U.S.) highway systems are numbered by the American Association of State Highway and Transportation Officials (AASHTO) upon recommendations of the State highway organizations because the respective States own these systems. State and county road systems are numbered by the appropriate authorities.

<sup>03</sup> The basic policy for numbering the Interstate and U.S. highway systems is contained in the following Purpose and Policy statements published by AASHTO (see Page i for AASHTO's address):

A. "Establishment and Development of United States Numbered Highways," and

B. "Establishment of a Marking System of the Routes Comprising the National System of Interstate and Defense Highways."

Guidance:

<sup>04</sup> *The principles of these policies should be followed in establishing the highway systems described in Paragraph 2 and any other systems, with effective coordination between adjacent jurisdictions. Care should be taken to avoid the use of numbers or other designations that have been assigned to Interstate, U.S., or State routes in the same geographic area. Overlapping numbered routes should be kept to a minimum.*

**Standard:**

<sup>05</sup> **Route systems shall be given preference in this order: Interstate, United States, State, and county. The preference shall be given by installing the highest-priority legend on the top or the left of the sign.**

Support:

<sup>06</sup> Section 2D.53 contains information regarding the signing of unnumbered highways to enhance route guidance and facilitate travel.

Support:

<sup>07</sup> The California Legislature designates all State highway routes and assigns route numbers. General descriptions and route numbers are listed in Chapter 2, Article 3, of the California Streets and Highways Code. The route numbers are used for all administrative purposes.

<sup>08</sup> It is the intent of the Legislature that the numbers on the route guide signs is the same as the designated route number. The routes are described with a general directional convention from south to north and from west to east. The direction and Legislative Route number are used in the State Highway Log, which is distributed annually by the Department of Transportation's Division of Traffic Operations.

<sup>09</sup> A specific location on any State highway is described by Post Mile designation. Post Miles information is available in the State Highway Log and is shown on Post Mile Maps distributed by the Department of Transportation's Division of Transportation System Information. Note that California has adopted a policy of metrication of all engineering plans and specifications. However, a decision has not yet been made to use metric kilometer posts in the Highway Log.

<sup>10</sup> California has three route sign systems on State highways. Each system uses distinctive route signs and shields to inform motorists and to facilitate public travel. These route sign systems are shown on the State Highway Map published by the Department of Transportation. Route numbers in one system will not be duplicated on another system. However, to inform the traveling public, route signs from the State Sign system are posted on the other sign route systems to provide guidance when a break occurs in the State Sign Route.

- A. Interstate System: A network of planned Interstate freeways of national importance are owned and operated by the State. The American Association of State Highway and Transportation Officials (AASHTO) developed the numbering of Interstate routes with the concurrence of the states. Renumbering of a route requires the approval of AASHTO, which assures conformity with established numbering procedures. Renumbering is a system action that must be approved by the Federal Highway Administrator.
- B. United States Numbered Highway Routes: A network of highways of national importance that was created in 1926. These State highways are not necessarily freeways. An U. S. Numbered Route has no connection with Federal control. However, the U. S. Routes are eligible for federal-aid funding according to the route's functional classification. The AASHTO Special Committee on U. S. Route Numbering has full authority for numbering U. S. Routes, with the concurrence of the states.
- C. State Sign Routes: State maintained highways, other than the above-signed routes, are distinctively signed to serve intra-State and interstate travel.

<sup>11</sup> State Business Routes and Interstate Loops are established by Department of Transportation's District Directors.

<sup>12</sup> A Business Route generally is a local street or road in a city or urban area, designated by the same route number as the through Interstate, U.S., or State highway to which it is connected, with the words "Business Route" attached to the identifying route shields. The Business Route designation provides guidance for the traveling public to leave the main highway at one end of a city or urban area, patronize local businesses, and continue on to rejoin the main route at the opposite end of the city or urban area. The Department of Transportation's Division of Transportation System Information is responsible for approval of Business Route designations.

<sup>13</sup> U.S. and Interstate Business Routes require AASHTO approval.

Option:

<sup>14</sup> Applications may be made by memorandum.

**Standard:**

<sup>15</sup> **Applications for Business Route designation and signing shall be made by written request from the local government agency to the Department of Transportation's Division of Transportation System Information. Applications shall include a written request for the route from those local agencies within and whose boundaries the route traverses.**

*Guidance:*

<sup>16</sup> *A sketch, preferably on letter size stationary, showing the highway relocation and the business route or loop, should be included.*

**Standard:**

<sup>17</sup> **Submission for AASHTO approval shall be made by Department of Transportation, Headquarters. Continuous business route signing shall be provided through the bypassed area and back to the highway. If a business route is approved prior to relinquishment, Department of Transportation shall install BUSINESS (M4-3) auxiliary signs or Off-Interstate Business Loop (M1-2) markers. After relinquishment, they shall be installed by the local agency involved.**

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

**Standard:**

<sup>01</sup> **All numbered highway routes shall be identified by route signs and auxiliary signs.**

<sup>02</sup> **The signs for each system of numbered highways, which are distinctive in shape and color, shall be used only on that system and the approaches thereto.**

Option:

<sup>03</sup> Route signs and auxiliary signs may be proportionally enlarged where greater legibility is needed.

Support:

<sup>04</sup> Route signs are typically mounted in assemblies with auxiliary signs.

<sup>05</sup> Section 2D.55 contains information regarding the signing for National Scenic Byways.

<sup>06</sup> Section 2H.07 contains information regarding the signing for Auto Tour Routes.

## Section 2D.11 Design of Route Signs

### Standard:

<sup>01</sup> The “Standard Highway Signs and Markings” book (see Section 1A.11) shall be used for designing route signs. Other route sign designs shall be established by the authority having jurisdiction.

<sup>02</sup> Interstate Route signs (see Figure 2D-3) shall consist of a cutout shield, with the route number in white letters on a blue background, the word INTERSTATE in white upper-case letters on a red background, and a white border. This sign shall be used on all Interstate routes and in connection with route sign assemblies on intersecting highways.

### Guidance:

<sup>03</sup> A 24 x 24-inch minimum sign size ~~shall~~ *should* be used for Interstate route numbers with one or two digits, and a 30 x 24-inch minimum sign size ~~shall~~ *should* be used for Interstate route numbers having three digits.

### Support:

<sup>03a</sup> Route shield sizes shown in Table 2D-101(CA) are lower than the above sizes.

### Option:

<sup>04</sup> Interstate Route signs may contain the State name in white upper-case letters on a blue background.

### Standard:

<sup>05</sup> Off-Interstate Business Route signs (see Figure 2D-3) shall consist of a cutout shield carrying the number of the connecting Interstate route and the words BUSINESS and either LOOP or SPUR in upper-case letters. The legend and border shall be white on a green background, and the shield shall be the same shape and dimensions as the Interstate Route sign. In no instance shall the word INTERSTATE appear on the Off-Interstate Business Route sign.

### Option:

<sup>06</sup> The Off-Interstate Business Route sign may be used on a major highway that is not a part of the Interstate system, but one that serves the business area of a city from an interchange on the system.

<sup>07</sup> When used on a green guide sign, a white square or rectangle may be placed behind the shield to improve contrast.

### Standard:

~~<sup>08</sup> U.S. Route signs (see Figure 2D-3) shall consist of black numerals on a white shield surrounded by a rectangular black background without a border. This sign shall be used on all U.S. routes and in connection with route sign assemblies on intersecting highways.~~

~~<sup>09</sup> A 24 x 24-inch minimum sign size shall be used for U.S. route numbers with one or two digits, and a 30 x 24-inch minimum sign size shall be used for U.S. route numbers having three digits.~~

<sup>09a</sup> The U. S. Route Shield (G26-1(CA)) or U. S. Route Marker (G26-2(CA)) shall be used instead with sizes as shown in Table 2D-101(CA).

<sup>10</sup> State Route signs shall be designed by the individual State highway agencies.

### Guidance:

~~<sup>11</sup> State Route signs (see Figure 2D-3) should be rectangular and should be approximately the same size as the U.S. Route sign. State Route signs should also be similar to the U.S. Route sign by containing approximately the same size black numerals on a white area surrounded by a rectangular black background without a border. The shape of the white area should be circular in the absence of any determination to the contrary by the individual State concerned.~~

<sup>11a</sup> The State Route Shield (G28-1(CA)) or State Route Marker (G28-2(CA)) shall be used instead with sizes as shown in Table 2D-101(CA).

<sup>12</sup> Where U.S. or State Route signs are used as components of guide signs, only the distinctive shape of the shield itself and the route numerals within should be used. The rectangular background upon which the distinctive shape of the shield is mounted, such as the black area around the outside of the shields on the M1-4 and standard M1-5 signs, should not be included on the guide sign. Where U.S. or State Route signs are used as components of other signs of non-contrasting background colors, the rectangular background should be used so that recognition of the distinctive shape of the shield can be maintained.

**Standard:**

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

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

*Guidance:*

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

*Option:*

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

**Standard:**

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

*Support:*

*18 The Route Shields are used on the face of guide signs. The Route Markers are used as stand-alone installations.*

*Guidance:*

*19 The U. S. Route Shield (G26-1(CA)), Interstate Route Shield (M1-1 or G27-1(CA)) or the State Route Shield (G28-1(CA)) should be used when they are placed on the face of a guide sign. These Route Shields should not be used for stand-alone installations.*

*20 The U. S. Route Marker (G26-2(CA)), Interstate CALIFORNIA Route Marker (G27-2(CA)) or the State Route Marker (G28-2(CA)) should be used for stand-alone installations as route markers. These Route Markers should not be used on the face of guide signs.*

*Support:*

*21 For Route Shield sizes, see Table 2D-101(CA).*

*22 For Route Shield and Marker sketches, see Figure 2D-3(CA).*

*23 The design details for Route Shields and Markers are contained in Department of Transportation's California Sign Specifications. See Section 1A.11 for information regarding these publications.*

*Option:*

*24 The EISENHOWER INTERSTATE SYSTEM (M1-10) sign may be placed on Interstate Highways on the right near the State boundary facing traffic entering the State and at rest areas and vista points on the Interstate Highway System.*

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

**Standard:**

**01 Route sign auxiliaries carrying word legends, except the JCT sign, shall have a standard size of 24 x 12 inches. Those carrying arrow symbols, or the JCT sign, shall have a standard size of 21 x 15 inches. All route sign auxiliaries shall match the color combination of the route sign that they supplement.**

*Guidance:*

*02 With route signs of larger heights, auxiliary signs should be suitably enlarged, but not such that they exceed the width of the route sign.*

*03 The background, legend, and border of a route sign auxiliary should have the same colors as those of the route sign with which the auxiliary is mounted in a route sign assembly (see Section 2D.29). For a route sign design that uses multiple background colors, such as the Interstate route sign, the background color of the corresponding auxiliary should be that of the background area on which the route number is placed on the route sign.*

*Option:*

*04 A route sign and any auxiliary signs used with it may be combined on a single sign as a guide sign.*

*Guidance:*

*05 If a route sign and its auxiliary signs are combined to form a single guide sign, the background color of the sign should be green and the design should comply with the basic principles for the design of guide signs.*

**Standard:**

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

**Support:**

*07 Chapter 2F contains information regarding auxiliary signs for toll highways.*

**Option:**

*08 The NEXT RIGHT/LEFT (G58(CA)) Auxiliary sign may be used on freeways, expressways or conventional highways in conjunction with, and placed below a route sign.*

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

**Standard:**

**01 The Junction (M2-1) auxiliary sign (see Figure 2D-4) shall carry the abbreviated legend JCT and shall be mounted at the top of an assembly (see Section 2D.30) directly above the route sign, the sign for an alternative route (see Section 2D.17) that is part of the route designation, or the Cardinal Direction auxiliary sign where access is available only to one direction of the intersected route. The minimum size of the Junction auxiliary sign shall be 21 x 15 inches for compatibility with auxiliary signs carrying arrow symbols.**

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

**Option:**

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

**Standard:**

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

*Guidance:*

*03 The Combination Junction sign should comply with the specific provisions of Section 2D.11 regarding the incorporation of the route signs as components of guide signs.*

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

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

*Guidance:*

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

**Standard:**

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

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

**Option:**

*04 Cardinal Direction auxiliary signs may be placed to the right of the route shield, if used on the face of a guide sign.*

**Support:**

*05 For application of Cardinal Direction auxiliary signs in freeway entrance sign packages, refer to Section 2E.53.*

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

**Option:**

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

**Standard:**

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

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

**Option:**

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

**Standard:**

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

**Guidance:**

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

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

**Option:**

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

**Standard:**

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

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

**Option:**

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

**Standard:**

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

**Option:**

03 The ROUTE \_\_\_ BUSINESS (G76(CA)) sign (see Figure 2D-4(CA)) may be used to direct motorists to an established U. S. or State numbered business route or an interstate business loop from a State highway.

**Guidance:**

04 *The G76(CA) sign should be installed below an advance ground-mounted directional sign.*

**Option:**

05 The G76(CA) sign may be placed separately in advance of the business route if it is necessary. A NEXT RIGHT/LEFT message may be used. Refer to Section 2D.09 for establishing business routes.

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

**Option:**

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

**Standard:**

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

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

**Option:**

01 The TO (M4-5) auxiliary sign (see Figure 2D-4) may be used to provide directional guidance to a particular road facility from other highways in the vicinity (see Section 2D.35).

**Standard:**

02 **If used, the TO auxiliary sign shall be mounted directly above a route sign or an auxiliary sign for an alternative route. If a Cardinal Direction auxiliary sign is also included in the assembly, the TO auxiliary sign shall be mounted directly above the Cardinal Direction auxiliary sign.**

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

**Guidance:**

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

**Standard:**

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

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

**Option:**

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

**Standard:**

02 **If used, the BEGIN auxiliary sign shall be mounted at the top of the first Confirming assembly (see Section 2D.34) for the route that is beginning.**

**Guidance:**

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

**Standard:**

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

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

**Option:**

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

**Standard:**

02 **If used, the TEMPORARY or TEMP auxiliary sign shall be mounted directly above the route sign, above a Cardinal Direction sign, or above a sign for an alternate route that is a part of the route designation.**

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

### **Section 2D.25 Temporary Detour and Auxiliary Signs**

**Support:**

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

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

**Standard:**

01 **If used, the Advance Turn Arrow auxiliary sign (see Figure 2D-5) shall be mounted directly below the route sign in Advance Route Turn assemblies, and displays a right or left arrow, the shaft of which is bent at a 90-degree angle (M5-1) or at a 45-degree angle (M5-2).**

**02 If used, the curved-stem Advance Turn Arrow auxiliary (M5-3) sign shall be used only on the approach to a circular intersection to depict a movement along the circulatory roadway around the central island and to the left, relative to the approach roadway and entry into the intersection.**

*Guidance:*

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

*Option:*

*04 The Advance Turn (G22(CA)) sign (see Figure 2D-5(CA)) may be used to give advance notice of a turnoff on expressways and high speed two-lane roads.*

*Guidance:*

*05 The G22(CA) sign should not be used on freeways. The G22(CA) sign should be placed on the right approximately 0.25 to 0.5 mile in advance of the turnoff.*

*Option:*

*06 A route shield may be used on the G22(CA) sign.*

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

*Option:*

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

**Standard:**

**02 If used, the Lane Designation auxiliary signs shall be used only where the designated lane is a mandatory movement lane and shall be located adjacent to the full-width portion of the mandatory movement lane. The Lane Designation auxiliary signs shall not be installed adjacent to a through lane in advance of a lane that is being added or along the taper for a lane that is being added.**

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

**Standard:**

**01 If used, the Directional Arrow auxiliary sign (see Figure 2D-5) shall be mounted below the route sign and any other auxiliary signs in Directional assemblies (see Section 2D.32), and displays a single- or double-headed arrow pointing in the general direction that the route follows.**

**02 A Directional Arrow auxiliary sign that displays a double-headed arrow shall not be mounted in any Directional assembly in advance of or at a circular intersection.**

*Option:*

*03 The downward pointing diagonal arrow auxiliary (M6-2a) sign may be used in a Directional assembly at the far corner of an intersection to indicate the immediate entry point to a freeway or expressway entrance ramp (see Section 2D.46).*

**Standard:**

**04 The M6-2a sign shall not be used on the approach to or on the near side of an intersection, such as to designate an approach lane.**

*Option:*

*05 The Directional Arrow auxiliary (G33-1(CA)) sign (see Figure 2D-5(CA)) may be used in lieu of the Directional Arrow auxiliary (M6 Series) signs.*

### **Section 2D.29 Route Sign Assemblies**

**Standard:**

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

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

**03 Within groups of assemblies, information for routes intersecting from the left shall be mounted at the left in horizontal arrangements and at the top or center of vertical arrangements. Similarly, information for routes intersecting from the right shall be at the right or bottom, and for straight-through routes at the center in horizontal arrangements or top in vertical arrangements.**

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

*Guidance:*

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

*Option:*

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

*07 The diagrammatic route guide sign format, such as the D1-5 and D1-5a signs shown in Figure 2D-8, may be used on approaches to roundabouts.*

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

*Support:*

*09 Figure 2D-6 shows typical placements of route signs.*

**Standard:**

**10 The larger shields shall be used on freeways and expressways.**

*Option:*

*11 The smaller shields may be used on conventional highways, in interchange areas, at entrances to State highways and for all trailblazer assemblies.*

*Guidance:*

*12 The sign assemblies should be placed on the right.*

**Standard:**

**13 On freeways, shields shall be installed beyond the end of the acceleration lane of all entrances to freeway to freeway interchanges and at intermediate locations at 3 to 5 mile intervals.**

*Guidance:*

*14 On conventional highways, they should be installed at important urban and rural intersections and at intermediate locations at 3 to 5 mile intervals in rural areas.*

*15 The Off-Interstate Business Loop Marker (M1-2) should not be placed on the interstate route itself. The ROUTE \_\_\_\_ BUSINESS (G76(CA)) plaque should be used for advance signing on the interstate route.*

## **Section 2D.30 Junction Assembly**

**Standard:**

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

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

*Guidance:*

*03 In urban areas, the Junction assembly should be installed in the block preceding the intersection. In urban areas where speeds are low, the Junction assembly should not be installed more than 300 feet in advance of the intersection.*

*04 In rural areas, the Junction assembly should be installed at least 400 feet in advance of the intersection. In rural areas, the minimum distance between a Junction assembly and either a Destination sign or an Advance Route Turn assembly should be 200 feet.*

*05 Where speeds are high, greater spacings should be used.*

Option:

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

### **Section 2D.31 Advance Route Turn Assembly**

**Standard:**

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

Option:

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

*Guidance:*

**Standard:**

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

Option:

*04 Lane Designation auxiliary signs (see Section 2D.27) may be used in Advance Route Turn Assemblies in place of the Advance Turn Arrow auxiliary signs where engineering judgment indicates that specific lane information associated with each route is needed and overhead signing is not practical and the designated lane is a mandatory movement lane. An assembly with the Lane Designation auxiliary signs may supplement or substitute for an assembly with Advance Turn Arrow auxiliary signs.*

*Guidance:*

*05 In low-speed areas, the Advance Route Turn assembly should be installed not less than 200 feet in advance of the turn. In high-speed areas, the Advance Route Turn assembly should be installed not less than 300 feet in advance of the turn. In rural areas, the minimum distance between an Advance Route Turn assembly and either a Destination sign or a Junction assembly should be 200 feet.*

**Standard:**

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

*Guidance:*

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

Support:

*08 See Figures 2E-34(CA) through 2E-40(CA) in Chapter 2E for typical freeway signing.*

**Standard:**

**09 The Advance Lane Assignment (G20(CA) Series or G21(CA) Series) or Interchange Guide (G77(CA) Series) signs (see Figure 2D-5(CA)) shall be used on multilane cross streets approaching a freeway interchange to indicate the proper lane for the desired freeway entrance. The principal message shall be route and cardinal direction.**

Option:

*10 Names of major or control cities may be used in addition to cardinal directions.*

Support:

*11 The Advance Lane Assignment (G21(CA) Series) signs are available in a stacked format for use where space is limited.*

*Guidance:*

*12 When stacked format is used, the top message should indicate the first freeway entrance.*

*13 The Interchange Guide (G77(CA)) sign should be used on two-lane cross streets at interchange areas to direct motorists from the cross street to the freeway ramp entrances.*

Option:

<sup>14</sup> The G77(CA) sign may also be used at an exit ramp split to direct motorists to the cross street.

<sup>15</sup> The Interchange Guide (G78(CA) Series) signs (see Figure 2D-5(CA)) may be used to direct motorists to a single cardinal direction or destination.

Support:

<sup>16</sup> The G78 Series(CA) signs are ordinarily used as a follow-up to the G77(CA) sign.

<sup>17</sup> The FREEWAY with Arrow (G82(CA)) sign (see Figure 2D-5(CA)) may be used to direct motorists to a freeway from a business route or from a community served by a single freeway.

<sup>18</sup> The G82(CA) sign is available with the freeway name and with vertical, diagonal, or horizontal arrows on either side of the message.

Option:

<sup>19</sup> The G82(CA) signs may be placed at appropriate locations to guide traffic to the freeway.

## Section 2D.32 Directional Assembly

### Standard:

<sup>01</sup> **A Directional assembly shall consist of a Cardinal Direction auxiliary sign, if needed; a route sign; and a Directional Arrow auxiliary sign. The various uses of Directional assemblies shall be as provided in Items A through D:**

**A. Turn movements (indicated in advance by an Advance Route Turn assembly) shall be marked by a Directional assembly with a route sign displaying the number of the turning route and a single-headed arrow pointing in the direction of the turn.**

**B. The beginning of a route (indicated in advance by a Junction assembly) shall be marked by a Directional assembly with a route sign displaying the number of that route and a single-headed arrow pointing in the direction of the route.**

**C. An intersected route (indicated in advance by a Junction assembly) on a crossroad where the route is designated on both legs shall be designated by:**

**1. Two Directional assemblies, each with a route sign displaying the number of the intersected route, a Cardinal Direction auxiliary sign, and a single-headed arrow pointing in the direction of movement on that route; or**

**2. A Directional assembly with a route sign displaying the number of the intersected route and a double-headed arrow, pointing at appropriate angles to the left, right, or ahead.**

**D. An intersected route (indicated in advance by a Junction assembly) on a side road or on a crossroad where the route is designated only on one of the legs shall be designated by a Directional assembly with a route sign displaying the number of the intersected route, a Cardinal Direction auxiliary sign, and a single-headed arrow pointing in the direction of movement on that route.**

### Guidance:

<sup>02</sup> *Straight-through movements should be indicated by a Directional assembly with a route sign displaying the number of the continuing route and a vertical arrow. A Directional assembly should not be used for a straight-through movement in the absence of other assemblies indicating right or left turns, as the Confirming assembly sign beyond the intersection normally provides adequate guidance.*

<sup>03</sup> *Directional assemblies should be located on the near right corner of the intersection. At major intersections and at Y or offset intersections, additional Directional assemblies should be installed on the far right or left corner to confirm the near-side assemblies. When the near-corner position is not practical for Directional assemblies, the far right corner should be the preferred alternative, with oversized signs, if necessary, for legibility. Where unusual conditions exist, the location of a Directional assembly should be determined by engineering judgment with the goal being to provide the best possible combination of view and safety.*

### Support:

<sup>04</sup> It is more important that guide signs be readable, and that the information and direction displayed thereon be readily understood, at the appropriate time and place than to be located with absolute uniformity.

<sup>05</sup> Figure 2D-6 shows typical placements of Directional assemblies.

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

**Option:**

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

**Support:**

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

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

**Standard:**

04 **The Combination Lane-Use/Destination (D15-1) overhead guide sign shall be used only where the designated lane is a mandatory movement lane. The D15-1 sign shall not be used for lanes with optional movements.**

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

### **Section 2D.34 Confirming or Reassurance Assemblies**

**Standard:**

01 **If used, Confirming or Reassurance assemblies shall consist of a Cardinal Direction auxiliary sign and a route sign. Where the Confirming or Reassurance assembly is for an alternative route, the appropriate auxiliary sign for an alternative route (see Section 2D.16) shall also be included in the assembly.**

*Guidance:*

02 *A Confirming assembly should be installed just beyond intersections of numbered routes. It should be placed 25 to 200 feet beyond the far shoulder or curb line of the intersected highway.*

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

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

### **Section 2D.35 Trailblazer Assembly**

**Support:**

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

**Standard:**

02 **A Trailblazer assembly shall consist of a TO auxiliary sign, a route sign for a numbered or named highway (see Section 2D.53) or an Auto Tour Route sign (see Section 2H.07), and a single-headed Directional Arrow auxiliary sign pointing in the direction leading to the route. Where the Trailblazer assembly is for an alternative route, the appropriate auxiliary sign for an alternative route (see Section 2D.16) shall also be included in the assembly.**

**Option:**

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

*Guidance:*

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

**Option:**

<sup>05</sup> Trailblazer assemblies may be installed with other Route Sign assemblies, or alone, in the immediate vicinity of the designated facilities.

<sup>06</sup> CVC 21350 provides that the State may, with the consent of the local authorities, place and maintain along city streets and county roads, appropriate signs directing traffic to State highways.

**Guidance:**

<sup>07</sup> *Cooperation with local authorities should be sought in placing trailblazer signs.*

**Standard:**

<sup>08</sup> **Permission shall be obtained from the appropriate local agency for all signs placed outside the State highway right-of-way.**

**Support:**

<sup>09</sup> For all signs placed outside of the State right of way refer to Section 2A.101(CA).

**Option:**

<sup>10</sup> In metropolitan areas, the freeway name may be used only if it is well known, in common use, and its deletion would be confusing to motorists.

**Standard:**

<sup>11</sup> **The format shall include the appropriate route shield.**

### **Section 2D.36 Destination and Distance Signs**

**Support:**

<sup>01</sup> In addition to guidance by route numbers, it is desirable to supply the road user information concerning the destinations that can be reached by way of numbered or unnumbered routes. This is done by means of Destination signs and Distance signs.

<sup>01a</sup> See Figure 2D-7(CA) for G1(CA) Series, G8(CA) Series and G86(CA) Series California Destination and Distance Signs.

**Option:**

<sup>02</sup> Route shields and cardinal directions may be included on the Destination sign with the destinations and arrows.

**Guidance:**

<sup>03</sup> *If Route shields and cardinal directions are included on a Destination sign, the height of the route shields should be at least two times the height of the upper-case letters of the principal legend and not less than 18 inches, and the cardinal directions should be in all upper-case letters that are at least the minimum height specified for these signs.*

### **Section 2D.37 Destination Signs (D1 Series)**

**Standard:**

<sup>01</sup> **Except on approaches to interchanges (see Section 2D.45), the Destination (D1-1 through D1-3) sign (see Figure 2D-7), if used, shall be a horizontal rectangle displaying the name of a city, town, village, or other traffic generator, and a directional arrow.**

**Option:**

<sup>02</sup> The distance (see Section 2D.41) to the place named may also be displayed on the Destination (D1-1a through D1-3a) sign (see Figure 2D-7). If several destinations are to be displayed at a single point, the several names may be placed on a single sign with an arrow (and the distance, if desired) for each name. If more than one destination lies in the same direction, a single arrow may be used for such a group of destinations.

**Guidance:**

<sup>03</sup> *Adequate separation should be made between any destinations or group of destinations in one direction and those in other directions by suitable design of the arrow, spacing of lines of legend, heavy lines entirely across the sign, or separate signs.*

**Support:**

<sup>04</sup> Separation of destinations by direction by the use of a horizontal separator line can enhance the readability of a Destination sign by relating an arrow and its corresponding destination(s) and by eliminating the need for multiple arrows that point in the same direction and excessive space between lines of legend.

**Standard:**

**05 Except as otherwise provided in this Manual, an arrow pointing to the right shall be at the extreme right of the sign, and an arrow pointing left or up shall be at the extreme left. The distance numerals, if used, shall be placed to the right of the destination names.**

**Option:**

**06** An arrow pointing up may be placed at the extreme right of the sign when the sign is mounted to the left of the traffic to which it applies.

**Guidance:**

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

**08** *If several individual name signs are assembled into a group, all signs in the assembly should be of the same horizontal width.*

**09** *Destination signs should be used:*

*A. At the intersections of U.S. or State numbered routes with Interstate, U.S., or State numbered routes; and*

*B. At points where they serve to direct traffic from U.S. or State numbered routes to the business section of towns, or to other destinations reached by unnumbered routes.*

**Standard:**

**10** **Where a total of three or less destinations are provided on the Advance Guide (see Section 2E.33) and Supplemental Guide (see Section 2E.35) signs, no more than three destination names shall be used on a Destination sign. Where four destinations are provided by the Advance Guide and Supplemental Guide signs, no more than four destination names shall be used on a Destination sign.**

**Guidance:**

**11** *If space permits, four destinations should be displayed as two separate signs at two separate locations.*

**Option:**

**12** Where space does not permit, or where all four destinations are in one direction, a single sign may be used. Where a single sign is used and all destinations are in the same direction, the arrow may be placed below the destinations for the purpose of enhancing the conspicuity of the arrow.

**Standard:**

**13** **Where a single four-name sign assembly is used, a heavy line entirely across the sign or separate signs shall be used to separate destinations by direction.**

**Guidance:**

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

**Standard:**

**15** **If more than one destination is displayed in the same direction, the name of a nearer destination shall be displayed above the name of a destination that is further away.**

**Support:**

**16** Refer to Section 2E.13 for the designation of destinations and control cities.

**Standard:**

**17** **If there are more eligible destinations at a given intersection than can be accommodated (under the limitations mentioned in this section) they shall compete for signs on the basis of traffic volumes to these destinations.**

**Guidance:**

**18** *Destinations should be signed to by the route requiring the least amount of time to travel from the nearest State highway.*

**Standard:**

**19** **Criteria for supplemental destination signs shall be as shown in Table 2D-102(CA).**

**20** **Signs shall not be provided for privately owned, profit making enterprises regardless of their size.**

**Option:**

**21** **If unusual operational or safety issues become apparent that would be mitigated by signing to the private enterprise, signs on State highways may be used with the approval of the Department of Transportation's Division of Traffic Operations.**

**Standard:**

<sup>22</sup> **Signs to shopping centers shall not be allowed.**

<sup>23</sup> **When a street or facility name change is made on an existing sign on a State highway primarily for the benefit of the requestor, with no, or only minor, improvement of traffic flow, the costs of materials and labor for said change, plus the current overhead assessment rate as determined by the Accounting Service Center to cover administrative overhead, shall be paid by the requestor. Such changes shall require approval of the Department of Transportation's District Director.**

**Option:**

<sup>24</sup> Street name changes on signs on State highways which are clearly in the best interest of the motorists and the State may also be approved by the Department of Transportation's District Director.

**Standard:**

<sup>25</sup> **New signs, if warranted, shall be installed at State expense.**

**Option:**

<sup>26</sup> Signs to a public or nonprofit facility may be installed and maintained on conventional State highways in a "city street" configuration, by local governmental bodies under an encroachment permit.

**Standard:**

<sup>27</sup> **Deviations from the signing policies shall not be allowed unless a documented engineering study describes a substantial traffic problem that would be alleviated by increased signing.**

**Option:**

<sup>28</sup> The Veterans National Cemetery (G86-14(CA)) Signs may be placed, one in each direction of travel from and on the nearest State highway, based upon a request from the Federal Department of Veterans Affairs.

**Supplemental Signing for City Civic Center Areas**

**Option:**

<sup>29</sup> Signs to City Civic Center areas may be installed on state highways for incorporated cities.

**Standard:**

<sup>30</sup> **The city shall be incorporated and contiguous with the State highway right-of-way.**

<sup>31</sup> **The city shall adopt a resolution requesting installation of signs on specific State highways for the purpose of guiding motorists to the city's civic center area, otherwise commonly referred to as downtown, central business district, city center, or city hall. The resolution shall include the appropriate wording for the legend on the sign.**

<sup>32</sup> **The route from State highways to City hall shall not be more than 3 mile.**

**Option:**

<sup>33</sup> When requested by resolution, signs may be placed on all State highways, which are within 3 mile of City hall.

**Standard:**

<sup>34</sup> **Only one sign shall be installed in each direction of travel for each State highway so requested. If any portion of the route from a State highway to the Civic Center area is under the jurisdiction of another city, both cities shall agree (in writing) that signs can be installed on the State highway.**

**Guidance:**

<sup>35</sup> *Trailblazer signs should be in place on local streets and roads prior to installation of signs on State highways.*

**Option:**

<sup>36</sup> The legend may be "(city name) Civic Center," "Downtown (city name)," "(city name) Central Business District," "(city name) City Center," "(city name) City Hall," or a very similar message.

**Standard:**

<sup>37</sup> **Only one legend shall be selected and used on all corresponding State highways for a particular Civic Center area.**

**Guidance:**

<sup>38</sup> *Signs should be roadside signs. Where possible, signs should be supplemental plaques mounted on existing roadside Supplemental Destination (G86(CA) Series) signs and NEXT X EXITS (E9) signs.*

**Option:**

<sup>39</sup> When this is not reasonable, signs may be separate roadside signs.

<sup>40</sup> Signs may be mounted overhead if there is no reasonable roadside alternative.

**Standard:**

**41 The city shall have the signs installed under an encroachment permit and shall pay all costs for fabrication, and installation of the signs. The Department of Transportation shall maintain these signs.**

**42 Signs shall comply with applicable Department of Transportation policies, specifications and standards.**

**Bypassed Communities**

**43 Section 100.9 of the Streets and Highways Code provides that appropriate directional signs shall be installed directing to bypassed cities and business districts. This law requires that all signs, except route shields, be left in place on the old highway, regardless of its status as a business route.**

*Guidance:*

*44 When relinquishing any bypassed highway, the city or county concerned should be advised regarding continued maintenance of such signs by the local agencies.*

**Signing for Indian Reservations and Rancherias**

**Standard:**

**45 Indian Reservations and Rancherias shall be signed in a like manner as cities and unincorporated communities for supplemental destination and miscellaneous guide signs. Only the official name of the federally recognized Indian Tribe, Reservation, or Rancheria shall be used on signs. The signs shall be white with retroreflective legend and border on green retroreflective background.**

**46 The signs and sign messages shall conform to the requirements of the California Outdoor Advertising Act, which prohibits advertising displays within the right-of-way of any State highway.**

**Section 2D.38 Destination Signs at Circular Intersections**

**Standard:**

**01 Destination signs that are used at circular intersections shall comply with the provisions of Section 2D.37, except as provided in this Section.**

**Option:**

**02 Exit destination (D1-1d, D1-1e) signs (see Figure 2D-8) with diagonal upward-pointing arrows or Directional assemblies (see Section 2D.32) may be used to designate a particular exit from a circular intersection.**

**03 Exit destination (D1-2d, D1-3d) signs (see Figure 2D-8) with curved-stem arrows may be used on approaches to circular intersections to represent the left-turn movements.**

**04 Curved-stem arrows on circular intersection destination signs may point in diagonal directions to depict the location of an exit relative to the approach roadway and entry into the intersection.**

**05 Exit destination (D1-5 or D1-5a) signs (see Figure 2D-8) with a diagram of the circular intersection may be used on approaches to circular intersections.**

*Guidance:*

*06 If curved-stem arrows are used on destination signs, then this arrow type should also be used consistently on any regulatory lane-use signs (see Chapter 2B), Directional assemblies (see Section 2D.32), and pavement markings (see Part 3) for a particular destination or movement.*

**Support:**

**07 Figure 2D-9 illustrates two examples of guide signing for circular intersections.**

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

**Standard:**

**09 If used, diagrammatic guide signs for circular intersections shall not depict the number of lanes within the intersection circulatory roadway, or on its approaches or exits, through the use of lane lines, multiple arrow shafts for the same movement, or other methods.**

**Support:**

**10 Chapter 2B contains information regarding regulatory signs at circular intersections, Chapter 2C contains information regarding warning signs at circular intersections, and Chapter 3C contains information regarding pavement markings at circular intersections.**

### **Section 2D.39 Destination Signs at Jughandles**

#### **Standard:**

**01 Destination signs that are used at jughandles shall comply with the provisions of Section 2D.37, except as provided in this Section.**

#### **Option:**

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

#### **Support:**

03 Section 2B.27 contains information regarding regulatory signs for jughandle turns. Figure 2B-9 shows examples of regulatory and destination guide signing for various types of jughandle turns.

### **Section 2D.40 Location of Destination Signs**

#### **Guidance:**

01 *When used in high-speed areas, Destination signs should be located 200 feet or more in advance of the intersection, and following any Junction or Advance Route Turn assemblies that might be required. In rural areas, the minimum distance between a Destination sign and either an Advance Route Turn assembly or a Junction assembly should be 200 feet.*

#### **Option:**

02 In urban areas, shorter advance distances may be used.

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

#### **Support:**

04 Figure 2D-6 shows typical placements of Destination signs.

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

#### **Standard:**

**01 If used, the Distance (D2-1 through D2-3) sign (see Figure 2D-7) shall be a horizontal rectangle of a size appropriate for the required legend, carrying the names of no more than three cities, towns, junctions, or other traffic generators, and the distance (to the nearest mile) to those places.**

**02 The distance numerals shall be placed to the right of the destination names as shown in Figure 2D-7.**

#### **Guidance:**

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

04 *The top name on the Distance sign should be that of the next place on the route having a post office or a railroad station, a route number or name of an intersected highway, or any other significant geographical identity. The bottom name on the sign should be that of the next major destination or control city. If three destinations are displayed, the middle line should be used to indicate communities of general interest along the route or important route junctions.*

#### **Option:**

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

#### **Guidance:**

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

#### **Option:**

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

**Guidance:**

*08 On a route continuing into another State, destinations in the adjacent State ~~may~~ should be displayed.*

**Support:**

*09 Refer to Section 2E.13 for the designation of destinations and control cities.*

## **Section 2D.42 Location of Distance Signs**

**Guidance:**

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

*02 Where overlapping routes separate a short distance from the municipal limits, the Distance sign at the municipal limits should be omitted. The Distance sign should be installed approximately 300 feet beyond the separation of the two routes.*

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

**Support:**

*04 Figure 2D-6 shows typical placements of Distance signs.*

**Guidance:**

*05 The Distance (G5(CA) Series) signs should be placed at approximate 10 mile intervals, unless the destinations have changed. Distances to the same destinations should not be shown more frequently than at 5 mile intervals.*

**Option:**

*06 The Destination and Street Name with Arrow (G8(CA) Series) signs may be used in advance of conventional highway intersections.*

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

**Guidance:**

*01 Street Name (D3-1 or D3-1a or G7-1(CA)) signs (see Figure 2D-10 and 2D-10(CA)) should be installed in urban areas at all street intersections regardless of other route signs that might be present and should be installed in rural areas to identify important roads that are not otherwise signed.*

**Option:**

*02 For streets that are part of a U.S., State, or county numbered route, a D3-1a Street Name sign (see Figure 2D-10) that incorporates a route shield may be used to assist road users who might not otherwise be able to associate the name of the street with the route number.*

**Standard:**

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

**Guidance:**

*04 Lettering on post-mounted Street Name signs should be composed of initial upper-case letters at least 6 inches in height and lower-case letters at least 4.5 inches in height.*

*05 On multi-lane streets with speed limits greater than 40 mph, the lettering on post-mounted Street Name signs should be composed of initial upper-case letters at least 8 inches in height and lower-case letters at least 6 inches in height.*

**Option:**

*06 For local roads with speed limits of 25 mph or less, the lettering on post-mounted Street Name signs may be composed of initial upper-case letters at least 4 inches in height and lower-case letters at least 3 inches in height.*

**Guidance:**

*07 If overhead Street Name signs are used, the lettering should be composed of initial upper-case letters at least 12 inches in height and lower-case letters at least 9 inches in height.*

**Support:**

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

Option:

<sup>09</sup> Supplementary lettering to indicate the type of street (such as Street, Avenue, or Road) or the section of the city (such as NW) on the D3-1 and D3-1a signs may be in smaller lettering, composed of initial upper-case letters at least 3 inches in height and lower-case letters at least 2.25 inches in height. Conventional abbreviations (see Section 1A.15) may be used except for the street name itself.

<sup>10</sup> A pictograph (see definition in Section 1A.13) may be used on a D3-1 sign.

**Standard:**

<sup>11</sup> **Pictographs shall not be displayed on D3-1a or Advance Street Name (D3-2) signs (see Section 2D.44).**

<sup>12</sup> **If a pictograph is used on a D3-1 sign, the height and width of the pictograph shall not exceed the upper-case letter height of the principal legend of the sign.**

*Guidance:*

<sup>13</sup> *The pictograph should be positioned to the left of the street name.*

**Standard:**

<sup>14</sup> **The Street Name sign shall be retroreflective or illuminated to show the same shape and similar color both day and night. The color of the legend (and border, if used) shall contrast with the background color of the sign.**

Option:

<sup>15</sup> The border may be omitted from a Street Name sign.

<sup>16</sup> An alternative background color other than the normal guide sign color of green may be used for Street Name (D3-1 or D3-1a) signs where the highway agency determines this is necessary to assist road users in determining jurisdictional authority for roads.

**Standard:**

<sup>17</sup> **Alternative background colors shall not be used for Advance Street Name (D3-2) signs (see Section 2D.44).**

<sup>18</sup> **The only acceptable alternative background colors for Street Name (D3-1 or D3-1a) signs shall be blue, brown, or white. Regardless of whether green, blue, or brown is used as the background color for Street Name (D3-1 or D3-1a) signs, the legend (and border, if used) shall be white. For Street Name signs that use a white background, the legend (and border, if used) shall be black.**

*Guidance:*

<sup>19</sup> *An alternative background color for Street Name signs, if used, should be applied to the Street Name (D3-1 or D3-1a) signs on all roadways under the jurisdiction of a particular highway agency.*

<sup>20</sup> *In business or commercial areas and on principal arterials, Street Name signs should be placed at least on diagonally opposite corners. In residential areas, at least one Street Name sign should be mounted at each intersection. Signs naming both streets should be installed at each intersection.*

**Standard:**

**They ~~should~~ shall be mounted with their faces parallel to the streets they name.**

Option:

<sup>21</sup> To optimize visibility, Street Name signs may be mounted overhead. Street Name signs may also be placed above a regulatory or STOP or YIELD sign with no required vertical separation.

*Guidance:*

<sup>22</sup> *In urban or suburban areas, especially where Advance Street Name signs for signalized and other major intersections are not used, the use of overhead Street Name signs should be strongly considered.*

Option:

<sup>23</sup> At intersection crossroads where the same road has two different street names for each direction of travel, both street names may be displayed on the same sign along with directional arrows.

Support:

<sup>24</sup> Information regarding the use of street names on supplemental plaques for use with intersection-related warning signs is contained in Section 2C.58.

**Standard:**

<sup>25</sup> **Street Name signs shall be placed, clearly visible to traffic approaching from all directions, at all signalized intersections. Refer to CVC 21366.**

Option:

<sup>26</sup> If structurally adequate luminaire poles are available, the street name signs may be mounted on them at a height of approximately 15 feet. Refer to Department of Transportation's Standard Plans publication. See Section 1A.11 for information regarding this publication.

## Section 2D.44 Advance Street Name Signs (D3-2)

Support:

<sup>01</sup> Advance Street Name (D3-2) signs (see Figure 2D-10) identify an upcoming intersection. Although this is often the next intersection, it could also be several intersections away in cases where the next signalized intersection is referenced.

**Standard:**

<sup>02</sup> **Advance Street Name (D3-2) signs, if used, shall supplement rather than be used instead of the Street Name (D3-1) signs at the intersection.**

Option:

<sup>03</sup> Advance Street Name (D3-2) signs may be installed in advance of signalized or unsignalized intersections to provide road users with advance information to identify the name(s) of the next intersecting street to prepare for crossing traffic and to facilitate timely deceleration and/or lane changing in preparation for a turn.

~~Guidance:~~

**Standard:**

<sup>04</sup> **On arterial highways in rural areas, Advance Street Name signs ~~should~~ shall be used in advance of all signalized intersections and in advance of all intersections with exclusive turn lanes.**

Guidance:

<sup>05</sup> *In urban areas, Advance Street Name signs should be used in advance of all signalized intersections on major arterial streets, except where signalized intersections are so closely spaced that advance placement of the signs is impractical.*

<sup>06</sup> *The heights of the letters on Advance Street Name signs should be the same as those used for Street Name signs (see Section 2D.43).*

**Standard:**

<sup>07</sup> **If used, Advance Street Name signs shall have a white legend and border on a green background.**

<sup>08</sup> **If used, Advance Street Name signs shall provide the name(s) of the intersecting street(s) on the top line(s) of the legend and the distance to the intersecting streets or messages such as NEXT SIGNAL, NEXT INTERSECTION, NEXT ROUNDABOUT, or directional arrow(s) on the bottom line of the legend.**

<sup>09</sup> **Pictographs shall not be displayed on Advance Street Name signs.**

Option:

<sup>10</sup> Directional arrow(s) may be placed to the right or left of the street name or message such as NEXT SIGNAL, as appropriate, rather than on the bottom line of the legend. Curved-stem arrows may be used on Advance Street Name signs on approaches to circular intersections.

<sup>11</sup> For intersecting crossroads where the same road has a different street name for each direction of travel, the different street names may be displayed on the same Advance Street Name sign along with directional arrows.

<sup>12</sup> In advance of two closely-spaced intersections where it is not practical to install separate Advance Street Name signs, the Advance Street Name sign may include the street names for both intersections along with appropriate supplemental legends for both street names, such as NEXT INTERSECTION, 2ND INTERSECTION, or NEXT LEFT and NEXT RIGHT, or directional arrows.

Guidance:

<sup>13</sup> *If two street names are used on the Advance Street Name sign, the street names should be displayed in the following order:*

*A. For a single intersection where the same road has a different street name for each direction of travel, the name of the street to the left should be displayed above the name of the street to the right; or*

*B. For two closely-spaced intersections, the name of the first street encountered should be displayed above the name of the second street encountered, and the arrow associated with the second street encountered should be an advance arrow, such as the arrow shown on the W16-6P arrow plaque (see Figure 2C-12).*

Option:

<sup>14</sup> An Advance Street Name (W16-8P or W16-8aP) plaque (see Section 2C.58) with black legend on a yellow background, installed supplemental to an Intersection (W2 series) or Advance Traffic Control (W3 series) warning sign may be used instead of an Advance Street Name guide sign.

<sup>15</sup> [The Destination and Street Name with Arrow \(G8\(CA\) Series\) signs may be used in advance of conventional highway intersections.](#)

## **Section 2D.45 Signing on Conventional Roads on Approaches to Interchanges**

Support:

<sup>01</sup> Because there are a number of different ramp configurations that are commonly used at interchanges with conventional roads, drivers on the conventional road cannot reliably predict whether they will be required to turn left or right in order to enter the correct ramp to access the freeway or expressway in the desired direction of travel. Consistently applied signing for conventional road approaches to freeway or expressway interchanges is highly desirable.

**Standard:**

<sup>02</sup> **On multi-lane conventional roads approaching an interchange, guide signs shall be provided to identify which direction of turn is to be made and/or which specific lane to use for ramp access to each direction of the freeway or expressway.**

*Guidance:*

<sup>03</sup> *The signing of conventional roads with one lane of traffic approaching an interchange should consist of a sequence containing the following signs (see Figure 2D-11):*

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

**Standard:**

<sup>04</sup> **If used, the Entrance Direction sign shall consist of a white legend and border on a green background. It shall contain the freeway or expressway route shield(s), cardinal direction, and directional arrow(s).**

Option:

<sup>05</sup> The Entrance Direction sign may contain a destination(s) and/or an action message such as NEXT RIGHT.

<sup>06</sup> At minor interchanges, the following sequence of signs may be used (see Figure 2D-12):

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

*Guidance:*

<sup>07</sup> *On multi-lane conventional roads approaching an interchange, the sign sequence should contain the following signs (see Figures 2D-13 through 2D-15):*

- A. *Junction Assembly*
- B. *Advance Entrance Direction sign(s) for both directions (if applicable) of travel on the freeway or expressway*
- C. *Entrance Direction sign for first ramp*
- D. *Advance Turn Assembly*
- E. *Entrance Direction sign for the second ramp*

Support:

<sup>08</sup> Advance Entrance Direction signs are used to direct road users to the appropriate lane(s).

**Standard:**

<sup>09</sup> **The Advance Entrance Direction sign shall consist of a white legend and border on a green background. It shall contain the freeway or expressway route shield(s) and cardinal direction(s).**

Option:

<sup>10</sup> The Advance Entrance Direction sign may have destinations, directional arrows, and/or an action message such as KEEP LEFT, NEXT LEFT, or SECOND RIGHT. Signs in this sequence may be mounted overhead to improve visibility as shown in Figures 2D-13 through 2D-15.

<sup>10a</sup> [Contact Department of Transportation's Division of Traffic Operations for further guidance regarding Figures 2D-11 through 2D-15.](#)

Support:

<sup>11</sup> A post-mounted Advance Entrance Direction diagrammatic guide sign (see Figure 2D-16), within the sequence of approach guide signing described in Paragraphs 3, 6, and 7, might be helpful in depicting the location of a freeway or expressway entrance ramp that is in close proximity to an intervening intersection on the same side of the approach roadway and where signing for only the ramp might cause confusion to road users.

**Standard:**

<sup>12</sup> **If used, the post-mounted Advance Entrance Direction diagrammatic guide sign shall display only the two successive turns from the same side of the roadway, one of which shall be the entrance ramp. The post-mounted Advance Entrance Direction sign shall depict only the successive turns and shall not depict lane use with lane lines, multiple arrow shafts for the approach roadway, action messages, or other representations.**

Support:

<sup>13</sup> Section 2D.46 contains information regarding the use of a Directional assembly or a FREEWAY ENTRANCE sign to mark the entrance to a freeway or expressway at the far corner of an intersection.

### **Section 2D.46 Freeway Entrance Signs (D13-3 and D13-3a)**

Option:

<sup>01</sup> FREEWAY ENTRANCE (D13-3) signs or FREEWAY ENTRANCE with downward pointing diagonal arrow (D13-3a) signs (see ~~Figure 2D-14~~) may be used on entrance ramps near the crossroad to inform road users of the freeway or expressway entrance, as appropriate.

<sup>02</sup> The D13-3 and D13-3a signs may display an alternate legend in place of FREEWAY, such as EXPRESSWAY or PARKWAY, as appropriate, or may display the name of an unnumbered highway.

<sup>03</sup> A Directional assembly (see Section 2D.32) with a downward pointing diagonal arrow auxiliary (M6-2a) sign (see Section 2D.28) may be used at the far left-hand corner of an intersection with a freeway or expressway entrance ramp as an alternative to the D13-3a sign, facing left-turning traffic on the conventional road approach to indicate the immediate point of entry to the freeway or expressway and distinguish the entrance ramp from an adjoining exit ramp terminal at the same intersection with the conventional road (see ~~Figure 2D-14~~). A similar Directional assembly may be used at the far right-hand corner of an intersection with a freeway or expressway entrance ramp where the entrance ramp and a crossroad or side road follow one another in close succession on the conventional road approach and the point of entry to the freeway or expressway might be difficult for the road user to distinguish from the crossroad or side road on the conventional road approach (see ~~Figure 2D-14~~).

Support:

<sup>04</sup> Section 2B.41 contains information regarding the use of regulatory signs to deter wrong-way movements at intersections of freeway or expressway ramps with conventional roads, and in the area where entrance ramps intersect with the mainline lanes.

### **Section 2D.47 Parking Area Guide Sign (D4-1)**

Option:

<sup>01</sup> The Parking Area (D4-1) guide sign (see Figure 2D-10) may be used to show the direction to a nearby public parking area or parking facility.

**Standard:**

<sup>02</sup> **If used, the Parking Area (D4-1) guide sign shall be a horizontal rectangle with a standard size of 30 x 24 inches, or with a smaller size of 18 x 15 inches for minor, low-speed streets. It shall carry the word PARKING, with the letter P five times the height of the remaining letters, and a directional arrow. The legend and border shall be green on a retroreflectorized white background.**

*Guidance:*

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

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

**Option:**

*01 PARK - RIDE (D4-2) signs (see Figure 2D-10) may be used to direct road users to park - ride facilities.*

**Standard:**

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

**Option:**

*03 PARK - RIDE signs may contain the local transit pictograph and/or carpool symbol on the sign.*

**Standard:**

**04 If used, the local transit pictograph and/or carpool symbol shall be located in the top part of the sign above the message PARK - RIDE. In no case shall the vertical dimension of the local transit pictograph and/or carpool symbol exceed 18 inches.**

*Guidance:*

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

**Standard:**

**06 These signs shall have a retroreflective white legend and border on a rectangular green background. The carpool symbol shall be as shown for the D4-2 sign. The color of the local transit pictograph shall be selected by the local transit authority.**

**Option:**

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

*08 The PARK - RIDE (G95A(CA)) sign (see Figure 2D-10(CA)) may be used below the Advance Guide (G83(CA) Series) signs on freeways and expressways for directions to ride sharing parking lots.*

*09 The PARK - RIDE NEXT RIGHT (G95B(CA)) sign (see Figure 2D-10(CA)) may be used as a separate installation on freeways and expressways where it is not possible to use the G95A(CA) sign.*

*Guidance:*

*10 The Park - Ride Courtesy Plaque (G95B-1(CA)) (see Figure 2D-10(CA)) when used, should be used in conjunction with, and mounted below the PARK - RIDE NEXT RIGHT (G95B(CA)) sign.*

**Standard:**

**11 The following criteria shall be met in order for a private concern to qualify for this type of signing:**

- A. The parking area must have reasonably convenient access to the major transportation facility that 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 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 the appropriate locations prior to the installation of the G95B(CA) and G95B-1(CA) signs on the major transportation system.**

**Option:**

*12 The BUS SERVICE (G95D(CA)) Plaque (see Figure 2D-10(CA)) may be placed below the G95A(CA) or G95B(CA) signs at locations where bus service is available at a particular Park and Ride Facility.*

*13 The Park - Ride (G95E(CA)) Plaque (see Figure 2D-10(CA)) may be used below the existing Advance Guide (G83(CA) Series) signs on freeways and expressways for direction to ridesharing parking lots.*

*Guidance:*

<sup>14</sup> If both transit and carpool parking are available, the local transit logo or symbol should be used to the left of the standard carpool symbol shown. If transit parking only, the local transit symbol or logo should be used in lieu of the carpool symbol.

*Option:*

<sup>15</sup> The NO LOITERING, CAMPING, VENDING OR PARKING OF VEHICLES 30 FEET OR LONGER (S22(CA)) sign (see Figure 2D-10(CA)) may be placed at fringe and transportation corridor parking facilities constructed, maintained, or operated by Department of Transportation for the purpose of ridesharing. Refer to CVC Section 22518.

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

**Support:**

<sup>01</sup> The general concept for Weigh Station signing is similar to Rest Area signing (see Section 2I.05) because in both cases traffic using either area remains within the right-of-way.

**Standard:**

<sup>02</sup> **The standard installation for Weigh Station signing shall include three basic signs:**

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

**Support:**

<sup>03</sup> Example locations of these signs are shown in Figure 2D-17 and 2D-17(CA).

**Option:**

<sup>04</sup> Where State law requires a regulatory sign (~~R13-1~~) in advance of the Weigh Station, a fourth sign (see Section 2B.60) may be located following the Advance sign.

*Guidance:*

<sup>05</sup> *The Exit Direction sign (D8-2) or the Advance sign (D8-1) should display, either within the sign border or on a supplemental plaque or sign panel, the changeable message OPEN or CLOSED.*

*Option:*

<sup>06</sup> The NO PICKUPS (SG8(CA)) sign may be used at problem locations to warn motorists that pickups are not allowed at weigh stations.

<sup>07</sup> The ALL TRUCKS – 2 AXLE AND MORE – STOP AT SCALE (SR57(CA)) sign may be placed in combination, below the Weigh Station Exit Direction (D8-2) sign to inform operators of small trucks to stop at the weigh station.

<sup>08</sup> On State highways, an extinguishable message sign may be used in lieu of the OPEN/CLOSED supplemental panel.

<sup>09</sup> The VEHICLE INSPECTION ONLY NO LOITERING OR CAMPING (S22-1(CA)) sign may be placed at problem locations in the area designated for brake check or safety inspection at weigh stations.

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

**Support:**

<sup>01</sup> Community wayfinding guide signs are part of a coordinated and continuous system of signs that direct tourists and other road users to key civic, cultural, visitor, and recreational attractions and other destinations within a city or a local urbanized or downtown area.

<sup>02</sup> Community wayfinding guide signs are a type of destination guide sign for conventional roads with a common color and/or identification enhancement marker for destinations within an overall wayfinding guide sign plan for an area.

<sup>03</sup> Figures 2D-18 through 2D-20 illustrate various examples of the design and application of community wayfinding guide signs.

**Standard:**

<sup>04</sup> **The use of community wayfinding guide signs shall be limited to conventional roads. Community wayfinding guide signs shall not be installed on freeway or expressway mainlines or ramps. Direction to community wayfinding destinations from a freeway or expressway shall be limited to the use of a Supplemental Guide sign (see Section 2E.35) on the mainline and a Destination sign (see Section 2D.37) on the ramp to direct road users to the area or areas within which community wayfinding guide signs are used. The individual wayfinding destinations shall not be displayed on the Supplemental Guide and**

**Destination signs except where the destinations are in accordance with the State or agency policy on Supplemental Guide signs.**

**05 Community wayfinding guide signs shall not be used to provide direction to primary destinations or highway routes or streets. Destination or other guide signs shall be used for this purpose as described elsewhere in this Chapter and shall have priority over any community wayfinding sign in placement, prominence, and conspicuity.**

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

**07 Community wayfinding guide signs shall not be mounted overhead.**

*Guidance:*

*08 If used, a community wayfinding guide sign system should be established on a local municipal or equivalent jurisdictional level or for an urbanized area of adjoining municipalities or equivalent that form an identifiable geographic entity that is conducive to a cohesive and continuous system of signs. Community wayfinding guide signs should not be used on a regional or statewide basis where infrequent or sparse placement does not contribute to a continuous or coordinated system of signing that is readily identifiable as such to the road user. In such cases, Destination or other guide signs detailed in this Chapter should be used to direct road users to an identifiable area in which the type of eligible destination described in Paragraph 1 is located.*

*08a On State highways, community wayfinding guide signs should be placed under an encroachment permit from the Department of Transportation.*

**Standard:**

**08b Placement of the community wayfinding guide signs shall be by the jurisdiction or agency making the request through the normal permit process as a fee exempt permit.**

**08c These signs shall be installed in accordance with the Department of Transportation's Standard Plans publication. See Section 1A.11 for more information regarding this publication.**

*Guidance:*

*08d These signs 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.*

**Support:**

**09 The specific provisions of this Section regarding the design of community wayfinding sign legends apply to vehicular community wayfinding signs and do not apply to those signs that are intended only to provide information or direction to pedestrians or other users of a sidewalk or roadside area.**

*Guidance:*

*10 Because pedestrian wayfinding signs typically use smaller legends that are inadequately sized for viewing by vehicular traffic and because they can provide direction to pedestrians that might conflict with that appropriate for vehicular traffic, wayfinding signs designed for and intended to provide direction to pedestrians or other users of a sidewalk or other roadside area should be located to minimize their conspicuity to vehicular traffic. Such signs should be located as far as practical from the street, such as at the far edge of the sidewalk. Where locating such signs farther from the roadway is not practical, the pedestrian wayfinding signs should have their conspicuity to vehicular traffic minimized by employing one or a combination of the following methods:*

*A. Locating signs away from intersections where high-priority traffic control devices are present.*

*B. Facing the pedestrian message toward the sidewalk and away from the street.*

*C. Cantilevering the sign over the sidewalk if the pedestrian wayfinding sign is mounted at a height consistent with vehicular traffic signs, removing the pedestrian wayfinding signs from the line of sight in a sequence of vehicular signs.*

*11 To further minimize their conspicuity to vehicular traffic during nighttime conditions, pedestrian wayfinding signs should not be retroreflective.*

**Support:**

**12 Color coding is sometimes used on community wayfinding guide signs to help road users distinguish between multiple potentially confusing traffic generator destinations located in different neighborhoods or subareas within a community or area.**

Option:

13 At the boundaries of the geographical area within which community wayfinding guide signing is used, an informational guide sign (see Figures 2D-18 and 2D-20) may be posted to inform road users about the presence of wayfinding signing and to identify the meanings of the various color codes or pictographs that are being used.

**Standard:**

14 **These informational guide signs shall have a white legend and border on a green background and shall have a design similar to that illustrated in Figures 2D-1 and 2D-18 and shall be consistent with the basic design principles for guide signs. These informational guide signs shall not be installed on freeway or expressway mainlines or ramps.**

15 **The color coding or a pictograph of the identification enhancement markers of the community wayfinding guide signing system shall be included on the informational guide sign posted at the boundary of the community wayfinding guide signing area. The color coding or pictographs shall apply to a specific, identifiable neighborhood or geographical subarea within the overall area covered by the community wayfinding guide signing. Color coding or pictographs shall not be used to distinguish between different types of destinations that are within the same designated neighborhood or subarea. The color coding shall be accomplished by the use of different colored square or rectangular panels on the face of the informational guide sign, each positioned to the left of the neighborhood or named geographic area to which the color-coding panel applies. The height of the colored square or rectangular panels shall not exceed two times the height of the upper-case letters of the principal legend on the sign.**

Option:

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

17 Except for the informational guide sign posted at the boundary of the wayfinding guide sign area, community wayfinding guide signs may use background colors other than green in order to provide a color identification for the wayfinding destinations by geographical area within the overall wayfinding guide signing system. Color-coded community wayfinding guide signs may be used with or without the boundary informational guide sign displaying corresponding color-coding panels described in Paragraphs 13 through 16. Except as provided in Paragraphs 18 and 19, in addition to the colors that are approved in this Manual for use on official traffic control signs (see Section 2A.10), other background colors may also be used for the color coding of community wayfinding guide signs.

**Standard:**

18 **The standard colors of red, orange, yellow, purple, or the fluorescent versions thereof, fluorescent yellow-green, and fluorescent pink shall not be used as background colors for community wayfinding guide signs, in order to minimize possible confusion with critical, higher-priority regulatory and warning sign color meanings readily understood by road users.**

19 **The minimum luminance ratio of legend to background for community wayfinding guide signs shall be 3:1.**

20 **All messages, borders, legends, and backgrounds of community wayfinding guide signs and any identification enhancement markers shall be retroreflective (see Sections 2A.07 and 2A.08).**

*Guidance:*

21 *Community wayfinding guide signs, exclusive of any identification enhancement marker used, should be rectangular in shape. Simplicity and uniformity in design, position, and application as described in Section 2A.06 are important and should be incorporated into the community wayfinding guide sign design and location plans for the area.*

22 *Community wayfinding guide signs should be limited to three destinations per sign (see Section 2D.07).*

23 *Abbreviations (see Section 1A.15) should be kept to a minimum, and should include only those that are commonly recognized and understood.*

24 *Horizontal lines of a color that contrasts with the sign background color should be used to separate groups of destinations by direction from each other.*

Support:

25 The basic requirement for all highway signs, including community wayfinding signs, is that they be legible to those for whom they are intended and that they be understandable in time to permit a proper response. Section 2A.06 contains additional information on the design of signs, including desirable attributes of effective designs.

Guidance:

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

Standard:

27 **The minimum specific ratio of letter height to legibility distance shall comply with the provisions of Section 2A.13. The size of lettering used for destination and directional legends on community wayfinding signs shall comply with the provisions of minimum letter heights as provided in Section 2D.06.**

28 **Interline and edge spacing shall comply with the provisions of Section 2D.06.**

29 **Except as provided in Paragraph 31, the lettering style used for destination and directional legends on community wayfinding guide signs shall comply with the provisions of Section 2D.05.**

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

Option:

31 A lettering style other than the Standard Alphabets provided in the "Standard Highway Signs and Markings" book may be used on community wayfinding guide signs if an engineering study determines that the legibility and recognition values for the chosen lettering style meet or exceed the values for the Standard Alphabets for the same legend height and stroke width.

Standard:

32 **Except for signs that are intended to be viewed only by pedestrians, bicyclists stopped out of the flow of traffic, or occupants of parked vehicles, Internet and e-mail addresses, including domain names and uniform resource locators (URL), shall not be displayed on any community wayfinding guide sign or sign assembly.**

33 **The arrow location and priority order of destinations shall follow the provisions described in Sections 2D.08 and 2D.37. Arrows shall be of the designs provided in Section 2D.08.**

Option:

34 Pictographs (see definition in Section 1A.13) may be used on community wayfinding guide signs.

Standard:

35 **If a pictograph is used, its height shall not exceed two times the height of the upper-case letters of the principal legend on the sign.**

36 **Except for pictographs, symbols that are not approved in this Manual for use on guide signs shall not be used on community wayfinding guide signs.**

37 **Business logos, commercial graphics, or other forms of advertising (see Section 1A.01) shall not be used on community wayfinding guide signs or sign assemblies.**

Option:

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

Support:

39 An enhancement marker consists of a shape, color, and/or pictograph that is used as a visual identifier for the community wayfinding guide signing system for an area. Figure 2D-18 shows examples of identification enhancement marker designs that can be used with community wayfinding guide signs.

Option:

40 An identification enhancement marker may be used in a community wayfinding guide sign assembly, or may be incorporated into the overall design of a community wayfinding guide sign, as a means of visually identifying the sign as part of an overall system of community wayfinding signs and destinations.

Standard:

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

*Guidance:*

*02 The area of the identification enhancement marker should not exceed 1/5 of the area of the community wayfinding guide sign with which it is mounted in the same sign assembly.*

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

*Guidance:*

*01 If an extra lane has been provided for trucks and other slow-moving traffic, a NEXT TRUCK LANE XX MILES (D17-1) sign and/or a TRUCK LANE XX MILES (D17-2) sign (see Figure 2D-21) should be installed in advance of the lane.*

*Option:*

- 02 Alternative legends such as PASSING LANE or CLIMBING LANE may be used instead of TRUCK LANE.*
- 03 Section 2B.31 contains information regarding regulatory signs for these types of lanes.*

*Option:*

*04 The DIVIDED ROAD (X MILES) AHEAD (G68(CA)) sign (see Figure 2D-101(CA)) may be used to indicate the distance to the next section of divided highway.*

*Guidance:*

- 05 The mileage shown should be to the nearest one-fourth mile, and to the nearest mile for distances over one mile.*

*Option:*

- 06 The G68(CA) sign may be used on a two-lane highway in advance of a divided section of highway to encourage passing in the divided section.*
- 07 The PASSING LANE (X MILES) or AHEAD (G69(CA)) sign (see Figure 2D-21(CA)) may be used to inform motorists on a two-lane highway that an additional lane is available ahead for passing slower traffic.*

*Support:*

- 08 See Section 3B.05 for signing and marking of passing and truck lanes.*

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

*Guidance:*

*01 If a slow vehicle turn-out area has been provided for slow-moving traffic, a SLOW VEHICLE TURN-OUT XX MILES (D17-7) sign (see Figure 2D-21) should be installed in advance of the turn-out area.*

*Option:*

- 02 Section 2B.35 contains information regarding regulatory signs for slow vehicle turn-out areas.*

**Section 2D.53 Signing of Named Highways**

*Option:*

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

**Standard:**

- 02 Highway names shall not replace official numeral designations.**
- 03 Memorial names (see Section 2M.10) shall not appear on supplemental signs or on any other information sign on or along the highway or its intersecting routes.**
- 04 The use of route signs shall be restricted to signs officially used for guidance of traffic in accordance with this Manual and the "Purpose and Policy" statement of the American Association of State Highway and Transportation Officials that applies to Interstate and U.S. numbered routes (see Page i for AASHTO's address).**

*Option:*

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

*Guidance:*

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

## **Section 2D.54 Crossover Signs (D13-1 and D13-2)**

### **Option:**

<sup>01</sup> Crossover signs may be installed on divided highways to identify median openings not otherwise identified by warning or other guide signs.

### **Standard:**

<sup>02</sup> **A CROSSOVER (D13-1) sign (see Figure 2D-21) shall not be used to identify a median opening that is permitted to be used only by official or authorized vehicles. If used, the sign shall be a horizontal rectangle of appropriate size to carry the word CROSSOVER and a horizontal directional arrow. The CROSSOVER sign shall have a white legend and border on a green background.**

### *Guidance:*

<sup>03</sup> *If used, the CROSSOVER sign should be installed immediately beyond the median opening, either on the right-hand side of the roadway or in the median.*

### **Option:**

<sup>04</sup> The Advance Crossover (D13-2) sign (see Figure 2D-21) may be installed in advance of the CROSSOVER sign to provide advance notice of the crossover.

### **Standard:**

<sup>05</sup> **If used, the Advance Crossover sign shall be a horizontal rectangle of appropriate size to carry the word CROSSOVER and the distance to the median opening. The sign shall have white legend and border on a green background.**

### *Guidance:*

<sup>06</sup> *The distance displayed on the Advance Crossover sign should be 1 MILE, 1/2 MILE, or 1/4 MILE, unless unusual conditions require some other distance. If used, the sign should be installed either on the right-hand side of the roadway or in the median at approximately the distance displayed on the sign.*

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

### **Support:**

<sup>01</sup> Certain roads have been designated by the U.S. Secretary of Transportation as National Scenic Byways or All-American Roads based on their archeological, cultural, historic, natural, recreational, or scenic qualities.

### **Option:**

<sup>02</sup> State and local highway agencies may install the National Scenic Byways (D6-4 or D6-4a) signs at entrance points to a route that has been recognized by the U.S. Secretary of Transportation as a National Scenic Byway or an All-American Road. The D6-4 or D6-4a sign may be installed on route sign assemblies (see Figure 2D-22) or as part of larger roadside structures. National Scenic Byways signs may also be installed at periodic intervals along the designated route and at intersections where the designated route turns or follows a different numbered highway. At locations where roadside features have been developed to enhance the traveler's experience such as rest areas, historic sites, interpretive facilities, or scenic overlooks, the National Scenic Byways sign may be placed on the associated sign assembly to inform travelers that the site contributes to the byway travel experience.

### **Standard:**

<sup>03</sup> **When a National Scenic Byways sign is installed on a National Scenic Byway or an All-American Road, the design shown for the D6-4 or D6-4a sign in Figure 2D-22 shall be used. Use of this design shall be limited to routes that have been designated as a National Scenic Byway or All-American Road by the U.S. Secretary of Transportation.**

<sup>04</sup> **If used, the D6-4 or D6-4a sign shall be placed such that the roadway route signs have primary visibility for the road user.**

### **Scenic Route Signs (G30(CA) Series)**

### **Support:**

<sup>05</sup> **A scenic route is defined as an officially designated portion of the State Highway System traversing areas of outstanding scenic beauty, which together with the adjacent scenic corridors requires special scenic conservation treatment. Refer to California Streets and Highway Codes 260 through 263.8.**

### **Standard:**

<sup>06</sup> **The Scenic Route (G30(CA)) sign shall be used to identify routes, which have been designated as official State Scenic Highways. The G30(CA) sign shall be installed on the right at the beginning of the scenic route.**

*Guidance:*

*07 The Scenic Route (G30A(CA) and G30B(CA)) signs, when used, should be used on State and county routes, respectively, and placed below and on the same post with the route shield signs.*

*Option:*

*08 The Begin plate (G30C(CA)) may be placed above the Scenic Route sign, and the End plate (G30D(CA)) may be placed below the scenic route signs.*

*Support:*

*09 See Figure 2D-101(CA) for G30(CA) series signs.*

### **Section 2D.101(CA) Inventory Markers**

*Option:*

*01 The Inventory Markers (G11-1(CA), G11-2(CA), G11-4(CA) and G11-5(CA)) may be used at major rivers or creeks to identify bridges or structures.*

*02 The Inventory Markers (G11-6(CA)) may be used to identify bridges or structures at locations where the official name and number is not needed for motorist orientation.*

*03 The Inventory Markers (G11-10(CA)) may be used to mark the limits of an environmentally sensitive area within the State highway right of way.*

*04 The Memorial Bridge and Inventory Marker (G11-8(CA) and G11-9(CA)) combination signs may be placed when an appropriate authority has requested that a highway facility be designated as a memorial facility.*

*Support:*

*05 See Figure 2D-101(CA) for G11(CA) series signs.*

*Guidance:*

*06 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:*

*07 The official name and number of structures on State highways are determined by the Department of Transportation's Office of Structures Design.*

*Option:*

*08 The Inventory Marker (Survey) (S2(CA)) may be used as an accessory or witness marker to aid in the protection, location and identification of Department of transportation's survey monuments that are to be perpetuated.*

*Support:*

*09 The S2(CA) marker is to be placed on a metal guide post, which is driven 12 to 18 inches away from the monument.*

#### **Mile Post Markers (G11-7(CA)) on State Highways:**

*Support:*

*10 Refer to Department of Transportation's TASAS Manual for more details on this topic. See Section 1A.11 for information regarding this publication.*

*11 This section, regarding Mile Post Markers (identified as "highway post markers" in Department's Standard Plans), is for future application. It will apply after the field conversion of existing markers and conversion of the Highway Data Base.*

*12 The existing markers in the field are in English units (miles). Installation of new markers, replacement of missing markers and correction (relocation) of existing markers will be done in English units (miles). The previous policies of calculation, lateral placement, and spacing for two lane roads and divided roads and rural and urban will remain effective until such time as a full field conversion program is applied.*

*13 The mile post markers in the field are used by traffic officers, maintenance forces and others to locate specific incidents or features with reference to the mile post marker system. The mile post marker is integral to the mile post marker system and shall not be used for additional marker functions. Other types of markers shall not be used as mile post markers.*

**Standard:**

**14 The mile post marker shall indicate the route, county, and mile post marker of the installation; only mile post markers shall contain the route and county designation.**

### Placement

#### Support:

##### A - Rural Areas.

1. Two-Lane Roads - Markers are placed 1 mile apart on both sides of the highway, staggered by 0.5 mile.
2. Divided Roads - Markers are placed 1 mile apart on both sides of the highway at the same mile post marker location.

##### B - Urban Areas.

1. Two-Lane Roads - Markers are placed 0.5 mile apart on each side of the highway, staggered by 0.25 mile.
2. Divided Roads - Markers are placed 0.5 mile apart on each side of the highway at the same mile post marker location.
3. See sub-heading 'D' below.

#### Option:

##### C - Maximum Spacing.

When a regular marker falls within 0.25 mile of a landmark (bridge, etc.), the 1 mile or 0.5 mile marker may be omitted. The intent is to have mile post markers spaced no farther apart than 1 mile on rural highways, or 0.5 mile on urban highways. This is a maximum spacing. Additional markers may be placed in areas where it is desired to have additional highway reference points.

##### D - Incorporated or Suburban Areas.

Mile post markers may be omitted in communities with city-street characteristics of curb, gutter, sidewalks and local development. In these areas, intersecting streets would be used as reference points in lieu of markers.

#### Support:

##### E - Mile Post Marker at County Lines.

At county lines, the county names and mile post marker information are delineated on separate markers and mounted side-by-side on separate posts, facing both directions of traffic.

##### F - Mile Post Marker Equation.

1. Mile post marker equation with a difference in value of 0.02 mile or more shall be posted on the highway.
2. Each side of the equation is shown on separate markers and mounted side-by-side on separate posts, both facing the direction of traffic.
3. Current mile post marker letter prefix and suffix codes are listed in the State Highway Log. They are also defined in the TASAS Manuals. All prefix letters shall be shown on the mile post markers. The suffix letter E identifies a mile post marker equation. In the field, the letter E is replaced with BK (Back) and AH (Ahead) on separate markers, placed side-by-side.

### Mile Post Markers for Structures

1. Mile Post Markers.

#### Standard:

**Mile post marker or G11(CA) signs shall be mounted on, or placed at bridge abutments and at the beginning of bridge rails.**

#### Support:

On skewed structures the mile post marker will not necessarily be identical on each side of the highway. The mile post marker on each side of the highway is the mile point of the centerline opposite the marker location.

2. Highway Log Mile Post Marker Values.

##### a. Overcrossing and Underpass.

The Highway Log mile post marker for an overcrossing or underpass is measured from the structure centerline where it intersects the highway centerline. The Post Marker will reflect that value, plus or minus the structure width, and direction of travel. This rule applies to all structures crossing over the highway regardless of the skew.

##### b. Undercrossings, Overheads and Bridges.

Single Structure: The Highway Log mile post marker value is measured along the highway centerline. A post marker value is assigned to the paving notch at the end of the structure and the paved roadbed in each direction of travel.

<sup>15</sup> Divided or Separated Structures on Divided Highways: The Highway Log mile post marker value is measured along the centerline of each roadbed. The post marker value is assigned to the paving notch at the end of the structure and the paved

roadbed in each direction of travel. Depending on the width of the median and the skew, two mile post marker values may be assigned to each end.

#### **Placement**

##### **Standard:**

**16 The preparation of plans for placement of Mile post markers on State highways shall be the responsibility of the Department of Transportation's District Traffic Branch.**

##### Support:

17 Dimensions, lettering and positioning standards are included in the Department of Transportation's Standard Plans and California Sign Specifications publications. See Section 1A.11 for information regarding these publications.

##### **Standard:**

**18 Mile post markers shall not be reflectorized. If a mile post marker should fall within a line of guide markers, it shall be placed in a manner that will not interfere with the guide marker pattern. Mile post markers shall not be used as guide markers, clearance markers, culvert markers, etc.**

#### **Installation and Verification**

##### **Standard:**

**19 Mile post markers shall be placed a minimum of 2 feet and not more than 12 feet beyond the edge of shoulder on the right side of the highway facing traffic.**

##### Guidance:

*20 Generally, they should be placed in such a position as to minimize interference with maintenance.*

##### **Standard:**

**21 When installed behind guardrail, the marker shall be placed so that the entire legend is legible from the road.**

##### Option:

22 Stenciling of the mile post marker on concrete median barriers may be in addition to, but not in place of the regular mile post markers. This is an additional aid for maintenance and collision investigation.

##### **Standard:**

**23 All markers shall be located to an accuracy of 50 foot on the ground. The value shown on the marker shall be to the nearest 0.001 mile or 50 feet, and shall reflect the mile point of the centerline opposite the marker location.**

**24 The Department of Transportation's District Traffic Branch shall have the responsibility to verify the accuracy of the placement of mile post markers on State highways. Any markers found to be more than 50 feet from the intended location shall be relocated.**

### **Section 2D.102(CA) Intersection Number (G98(CA)) Sign**

##### Option:

01 The Intersection Number (G98(CA)) Sign (see Figure 2D-101(CA)) may be installed on any section of a highway route to number an intersection to assist road users in estimating their progress, and to provide a means for identifying the location on the highway.

02 The intersection numbering may be reference location numbering or consecutive numbering.

##### Support:

Reference location numbering is preferred over consecutive numbering for two reasons:

- A. if new intersections are added on a route, the highway agencies do not have to change the numbering sequence; and
- B. reference location numbering assists road users in determining their destination distances and travel mileage.

03 The G98(CA) signs are used to provide a simple method for tourists to find their way safely and efficiently along the highway route upon which a great number of tourist destinations are located on or in close proximity.

##### Guidance:

*04 If used, the G98(CA) signs should be ground-mounted or placed on the traffic signal poles at signalized intersections.*

##### **Standard:**

**05 The G98(CA) signs shall not be installed on a highway unless the intersection numbers are published in a tourist map.**

### **Section 2D.103(CA) State Property Signs (SG26(CA), S1-1(CA), and S27(CA))**

**Option:**

<sup>01</sup> The Caltrans Facility Entrance (SG26(CA)) sign (see Figure 2D-101(CA)) may be placed at Department of Transportation's facilities where necessary to identify the facility and serve a public need.

<sup>02</sup> The STATE PROPERTY (S1-1(CA)) (see Figure 2D-101(CA)) sign may be used to identify materials placed on or near the Department of Transportation's right-of-way for maintenance or construction purposes.

**Standard:**

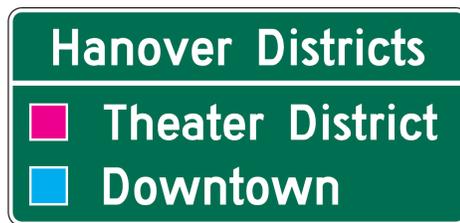
<sup>03</sup> **The Department of Transportation's CONSTRUCTION FIELD OFFICE (S27(CA)) (see Figure 2D-101(CA)) sign shall be placed to identify a facility where offices are provided for the construction projects resident engineer and staff. Refer to Department of Transportation's Construction Manual, Chapter 1, Section 402. See Section 1A.11 for information regarding this publication.**

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

**A - Freeway or Expressway – Airport Terminals**

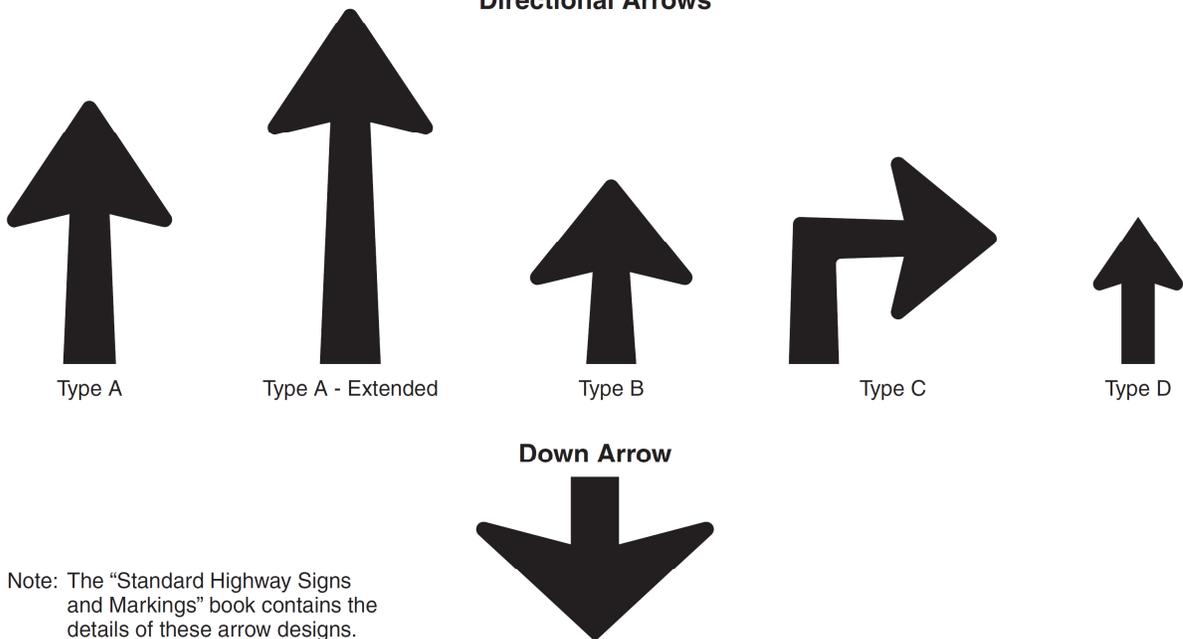


**B - Conventional Road or Street – Urban Areas**



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

**Directional Arrows**

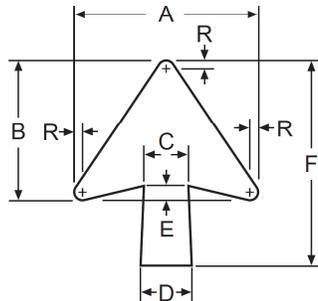


Note: The "Standard Highway Signs and Markings" book contains the details of these arrow designs.

**Figure 2D-2 (CA). Arrows for Use on Guide Signs (Sheet 1 of 2)**

**Standard Arrows for Directional Signs**

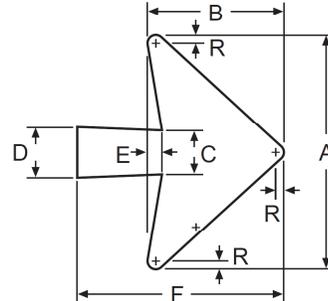
**1 Line Horizontal, Vertical, or Diagonal Arrow**



ENGLISH UNITS

Letter Sizes	A	B	C	D	E	F	R
4UC(EM), 4UC(E)	5-5/8	3-5/8	1-9/16	1-15/16	7/16	6-3/8	5/16
5UC(E)	7-1/16	4-9/16	1-15/16	2-7/16	9/16	8-1/16	3/8
6UC(EM)	8-7/16	5-7/16	2-5/16	2-15/16	5/8	9-9/16	1/2
6UC(E), 8UC(EM)	11-1/4	7-1/4	3-1/8	3-7/8	7/8	12-3/4	5/8
8UC(E), 10.67UC(EM)	14-1/4	9-13/16	3-3/8	4-1/2	1-5/16	17-1/4	3/4
10UC(E)	14	9	4	5	7/8	16	7/8
12UC(E), 13.3UC(EM)	17-1/2	11-3/4	4-3/8	5-5/8	1-1/2	20-1/4	7/8
15UC(E), 16UC(EM)	21-7/8	14-1/4	5	6-3/4	1-3/4	25	1

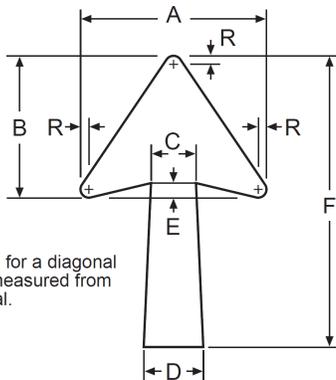
**2 (or more) Line Horizontal Arrow**



ENGLISH UNITS

Letter Sizes	A	B	C	D	E	F	R
4UC(EM), 4UC(E)	7-1/8	4-1/8	1-9/16	1-15/16	7/16	6-3/8	5/16
5UC(E)	9	5-3/16	1-15/16	2-7/16	9/16	8-1/16	3/8
6UC(EM)	10-11/16	6-3/16	2-5/16	2-15/16	5/8	9-9/16	1/2
6UC(E), 8UC(EM)	14-1/4	8-1/4	3-1/8	3-7/8	7/8	12-3/4	5/8
8UC(E), 10.67UC(EM)	18-3/4	10-7/8	3-3/4	5	1-5/16	17-1/4	13/16
10 or 12UC(E), 13.3UC(EM)	23-13/16	13-13/16	4-1/2	6	1-1/2	20-1/4	3/4
15UC(E), 16UC(EM)	28-1/2	16-1/2	5-3/8	7-1/8	1-3/4	25	1

**2 (or more) Line Vertical or Diagonal Arrow**

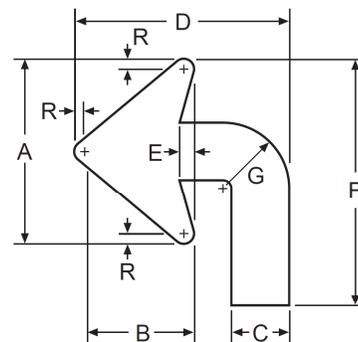


NOTE:  
 The angle for a diagonal arrow is measured from the vertical.

ENGLISH UNITS

Letter Sizes	A	B	C	D	E	F	R
4UC(EM), 4UC(E)	5-5/8	4-3/8	1-9/16	1-15/16	7/16	9-1/8	5/16
5UC(E)	7-1/16	5-1/2	1-15/16	2-7/16	9/16	11-1/2	3/8
6UC(EM)	8-7/16	6-9/16	2-5/16	2-15/16	5/8	13-11/16	1/2
6UC(E), 8UC(EM)	11-1/4	8-3/4	3-1/8	3-7/8	7/8	18-1/4	5/8
8UC(E), 10.67UC(EM)	15-1/8	11-9/16	3-3/4	5	1-5/16	24-1/4	13/16
10 or 12UC(E), 13.3UC(EM)	18-1/4	14	4-1/2	6	1-1/2	29-1/4	3/4
15UC(E), 16UC(EM)	22-1/4	17	5-3/8	7-1/8	1-3/4	35-5/8	1

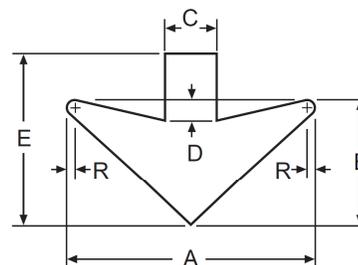
**Advance Arrow (Left or Right Turn)**



ENGLISH UNITS

Letter Sizes	A	B	C	D	E	F	G	R
6UC(EM)	8-7/16	5-7/16	2-5/8	9-3/4	5/8	11-1/4	3R	1/2
6UC(E), 8UC(EM)	11-1/4	7-1/4	3-1/2	13	7/8	15	4R	5/8

**Vertical Down Arrow**



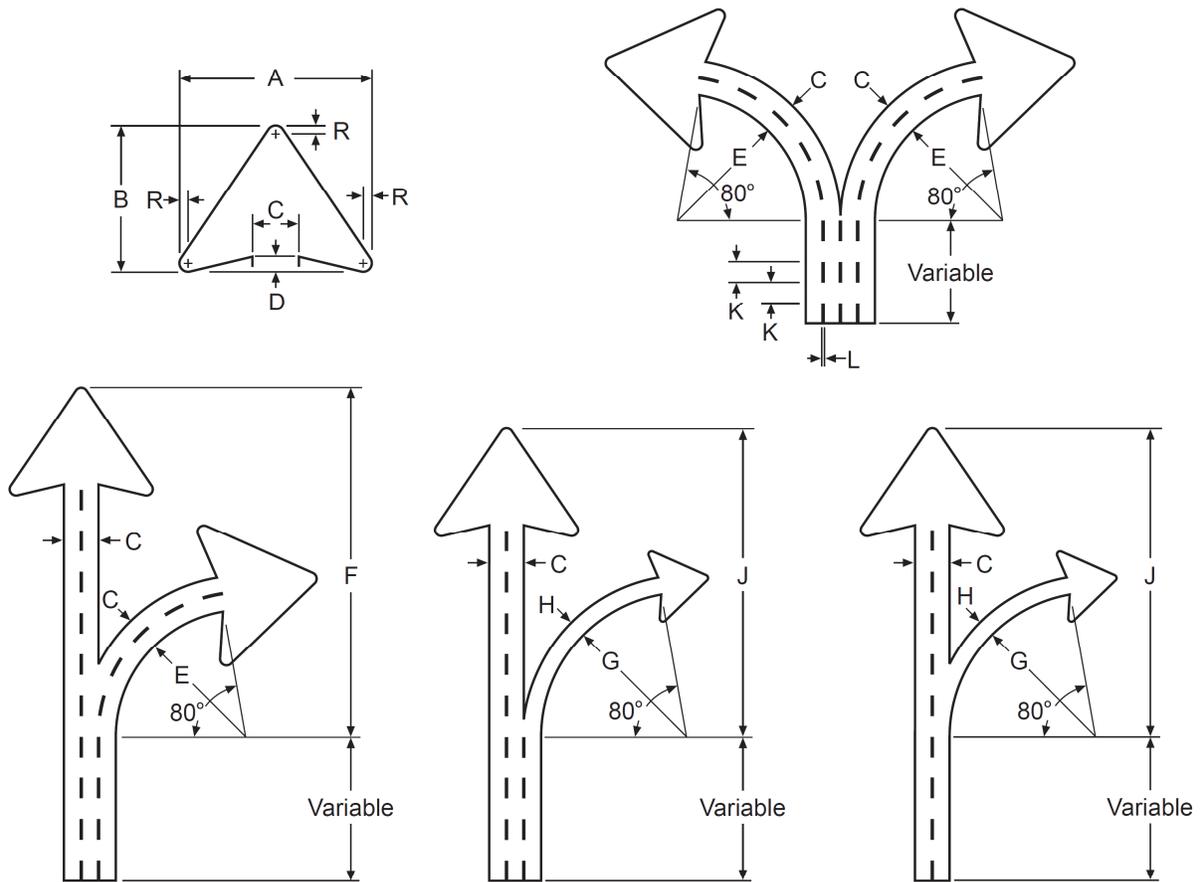
ENGLISH UNITS

A	B	C	D	E	R
24	12	5	2	16-1/2	3/4
32	16	6-1/2	3	22	1

2/28/08

**Figure 2D-2 (CA). Arrows for Use on Guide Signs (Sheet 2 of 2)**

**Standard Arrows for Diagrammatic Signs**



**ENGLISH UNITS**

Letter Sizes	A	B	C	D	E	F	G	H	J	K	L	R
13.3UC(EM)	29	19	6.5	2.25	24	66	27.5	3.25	60	4	.625	1.375
16UC(EM)	35	22.75	8	2.75	29.5	84	33.5	4	72	4.75	.75	1.625
20UC(EM)	43.75	28.5	10	3.5	37	102	42	5	90	6	1	2

2/20/08

**Figure 2D-3. Route Signs**



**Figure 2D-3 (CA). California Route Signs**



Figure 2D-4. Route Sign Auxiliaries

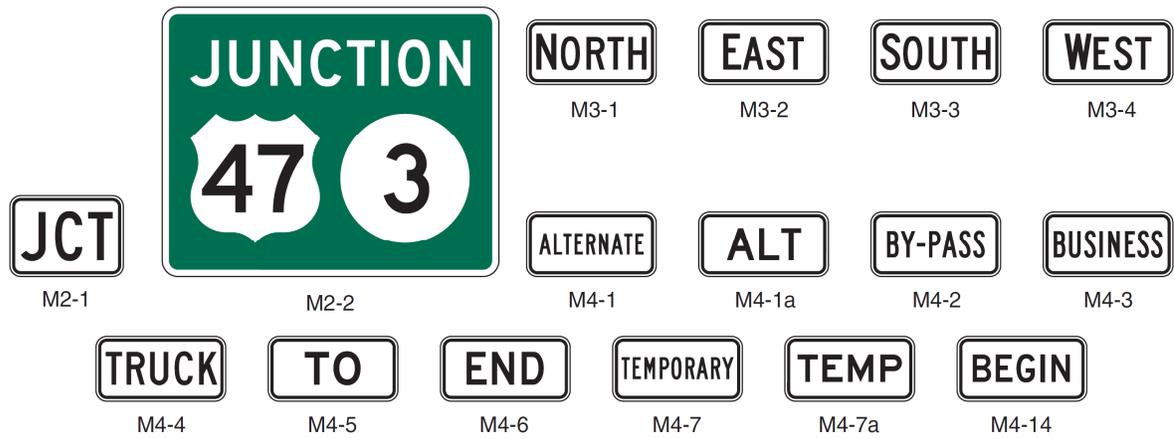
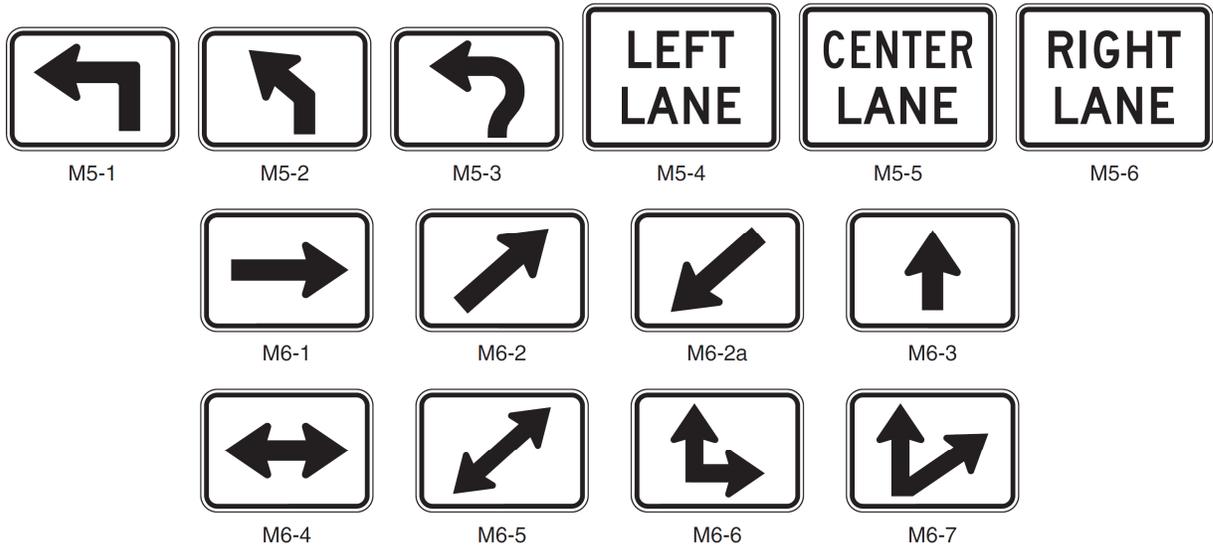


Figure 2D-4 (CA). California Route Sign Auxiliaries



G76 (CA)

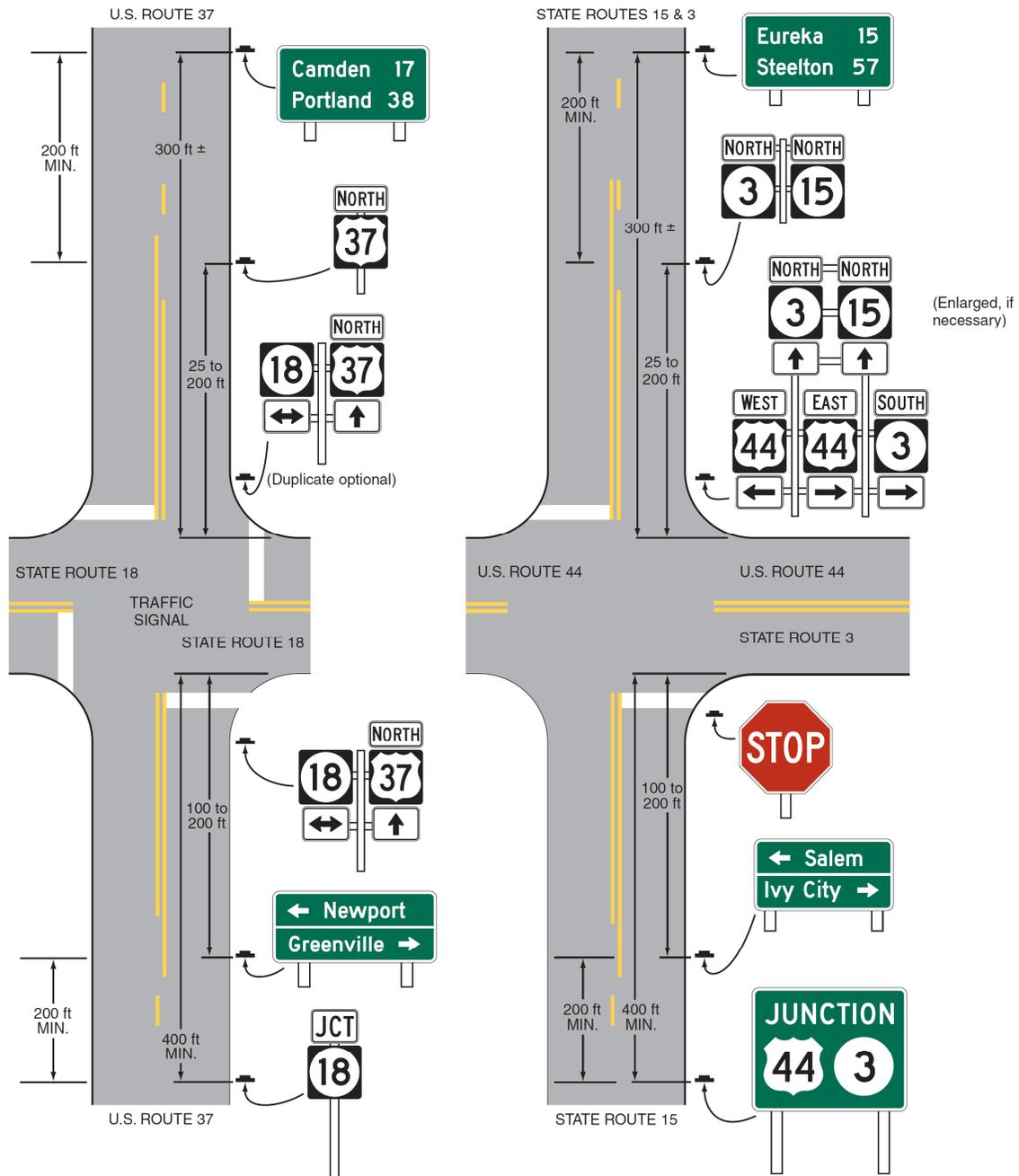
**Figure 2D-5. Advance Turn and Directional Arrow Auxiliary Signs**



**Figure 2D-5 (CA). Advance Turn and Directional Arrow Auxiliary Signs**

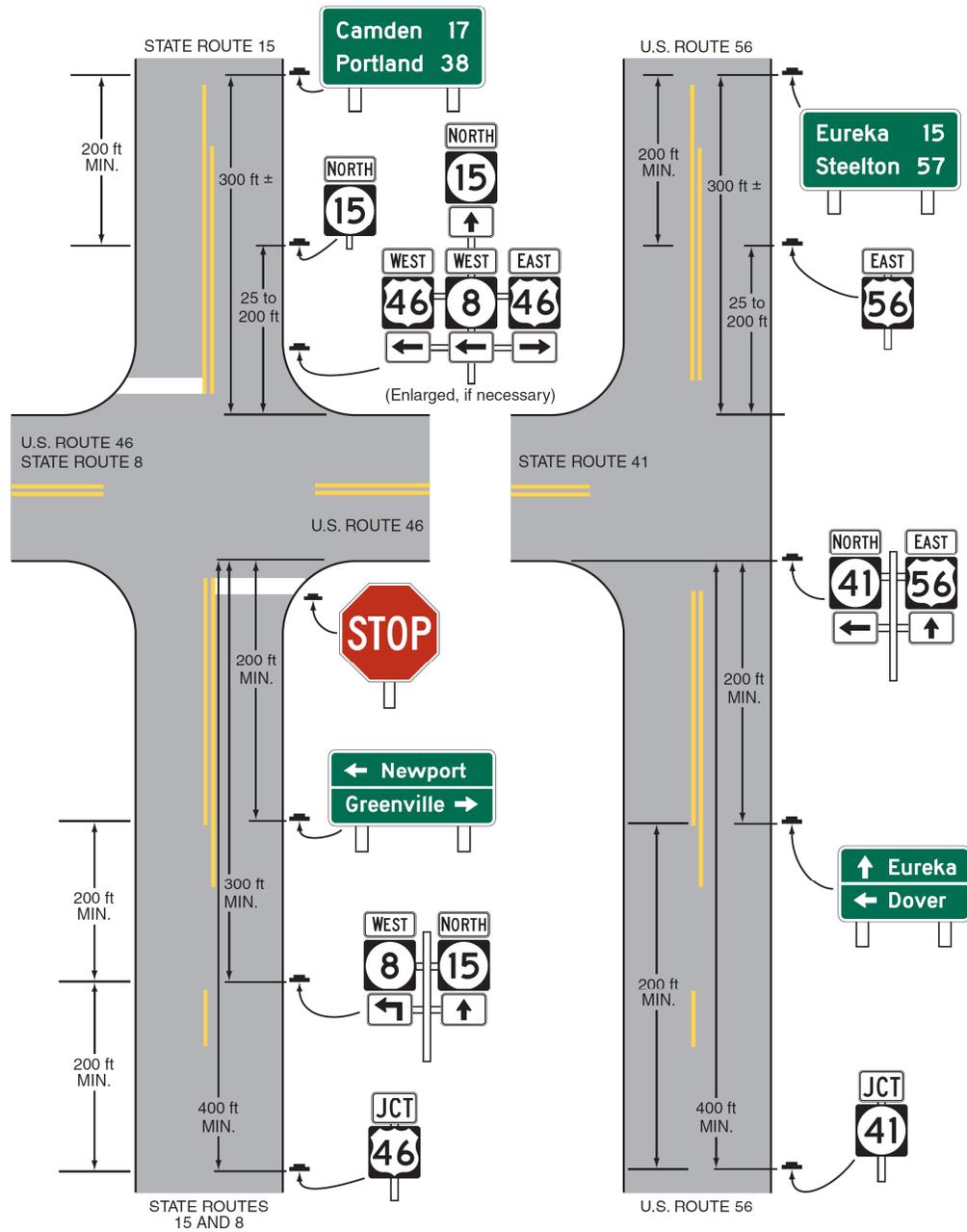


**Figure 2D-6. Illustration of Directional Assemblies and Other Route Signs  
 (for One Direction of Travel Only) (Sheet 1 of 4)**



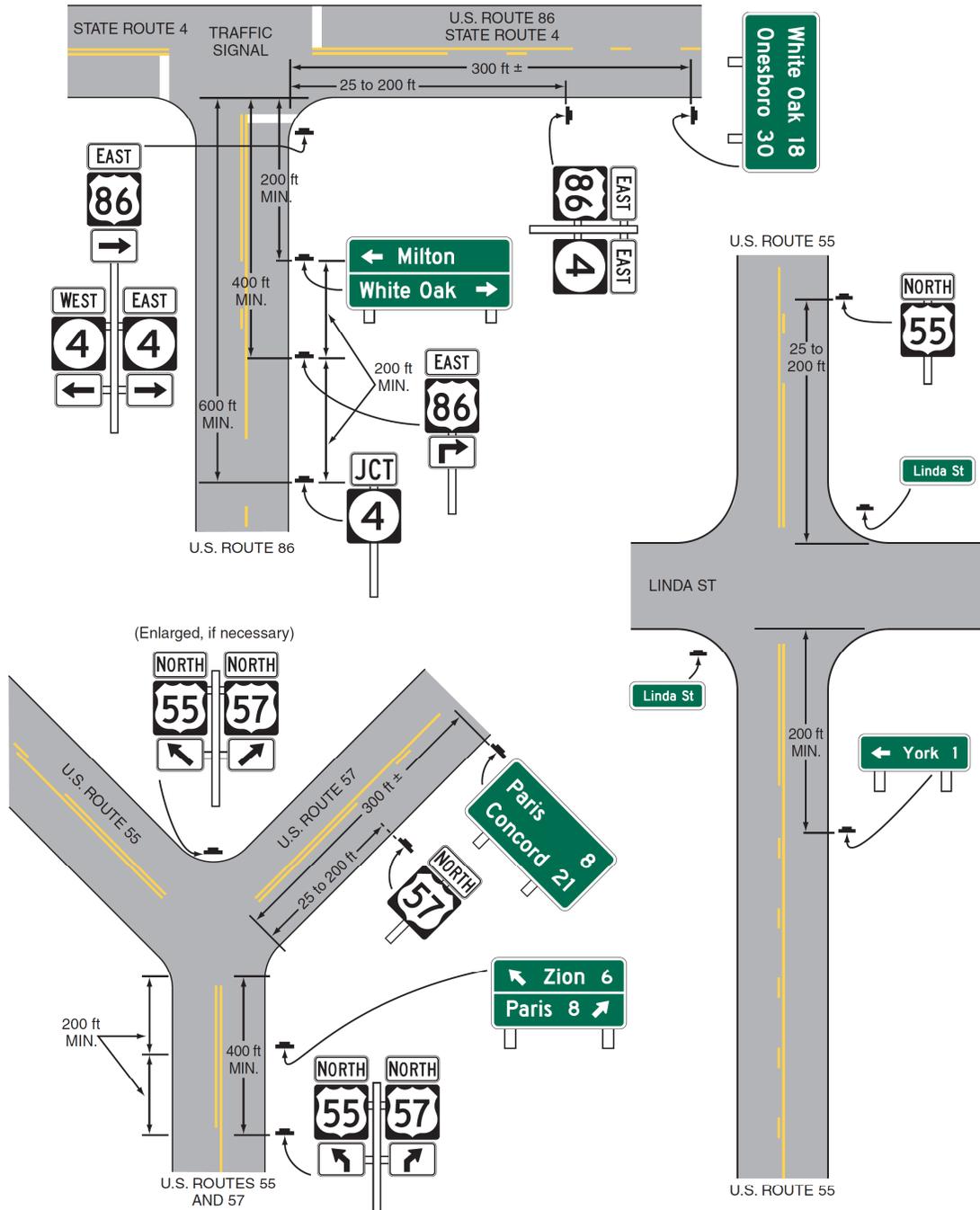
Note: The spacings shown on this figure are for rural intersections.  
 See Sections 2D.29, 2D.30, 2D.32, 2D.34, 2D.40, and 2D.42 for low-speed and/or urban conditions.

**Figure 2D-6. Illustration of Directional Assemblies and Other Route Signs (for One Direction of Travel Only) (Sheet 2 of 4)**



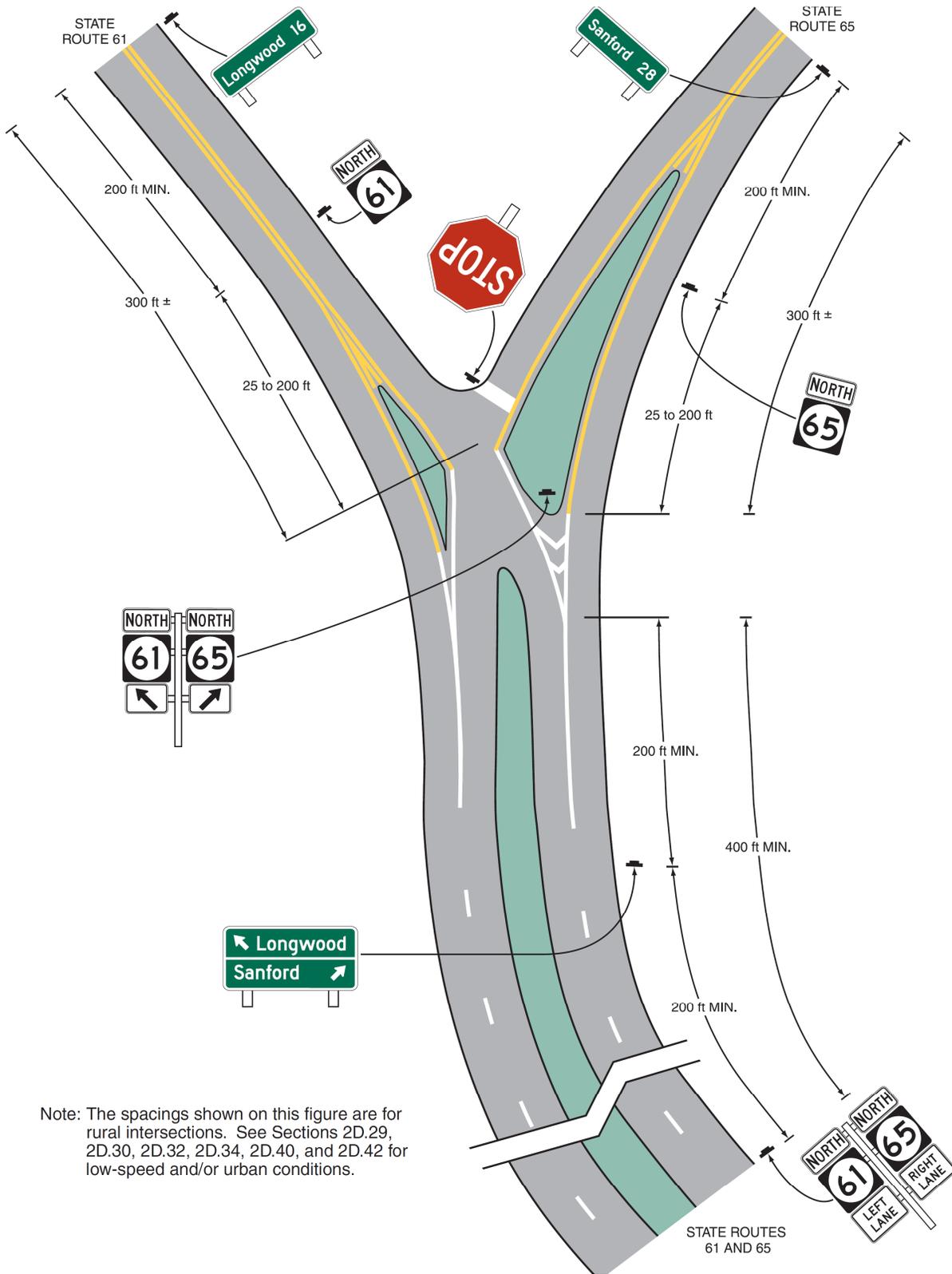
Note: The spacings shown on this figure are for rural intersections.  
 See Sections 2D.29, 2D.30, 2D.32, 2D.34, 2D.40, and 2D.42 for low-speed and/or urban conditions.

**Figure 2D-6. Illustration of Directional Assemblies and Other Route Signs (for One Direction of Travel Only) (Sheet 3 of 4)**



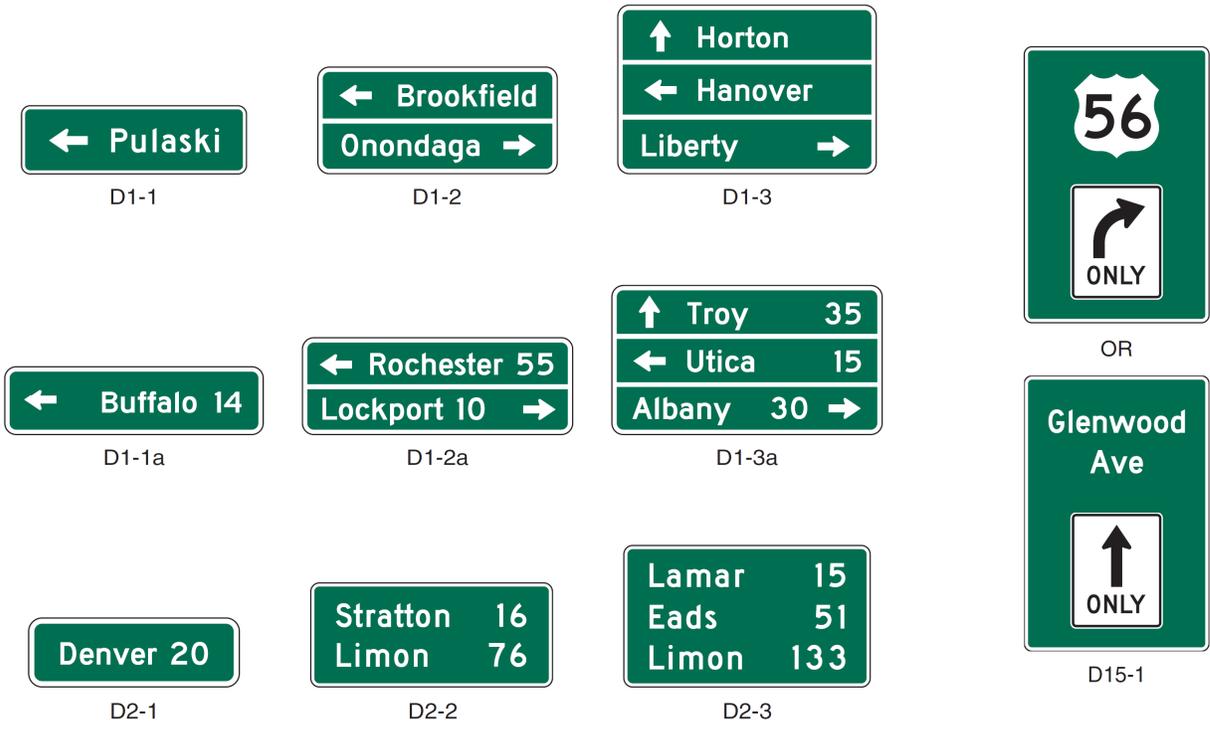
Note: The spacings shown on this figure are for rural intersections.  
 See Sections 2D.29, 2D.30, 2D.32, 2D.34, 2D.40, and 2D.42 for low-speed and/or urban conditions.

**Figure 2D-6. Illustration of Directional Assemblies and Other Route Signs (for One Direction of Travel Only) (Sheet 4 of 4)**



Note: The spacings shown on this figure are for rural intersections. See Sections 2D.29, 2D.30, 2D.32, 2D.34, 2D.40, and 2D.42 for low-speed and/or urban conditions.

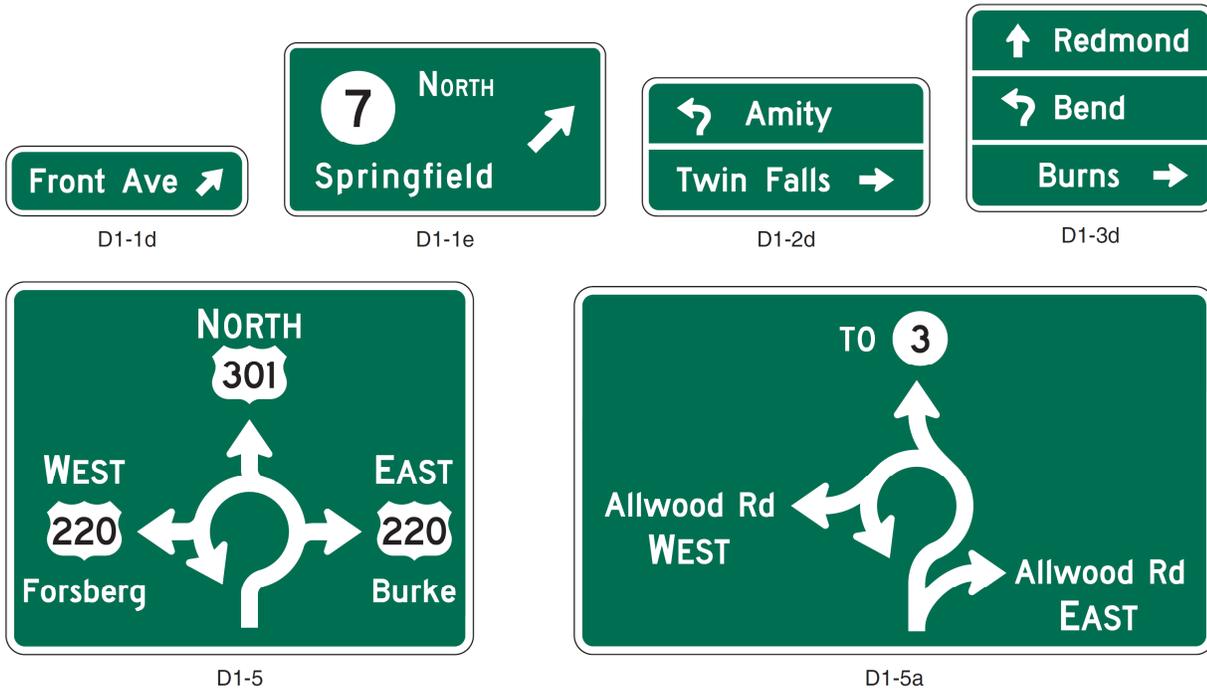
**Figure 2D-7. Destination and Distance Signs**



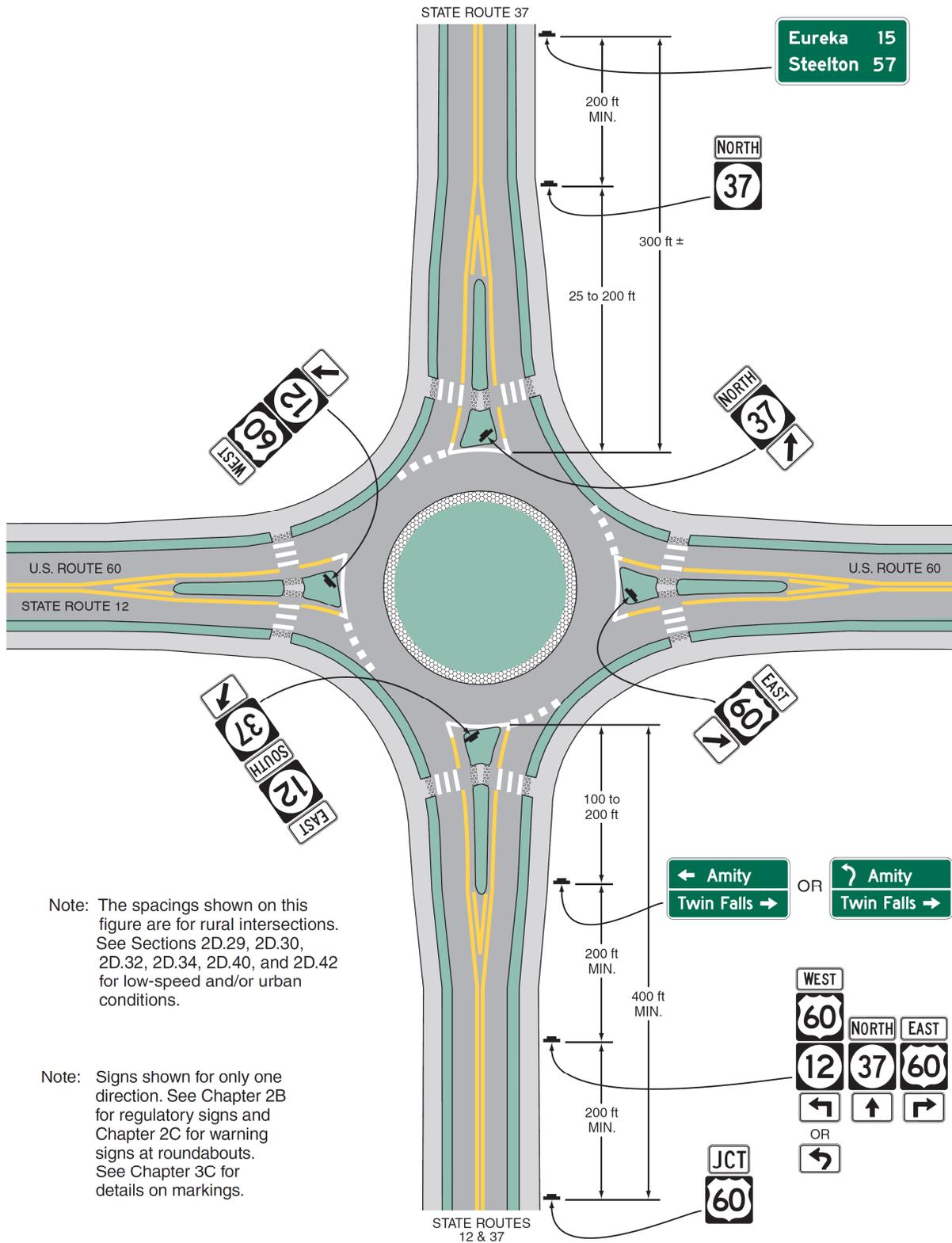
**Figure 2D-7 (CA). California Destination and Distance Signs**



Figure 2D-8. Destination Signs for Roundabouts



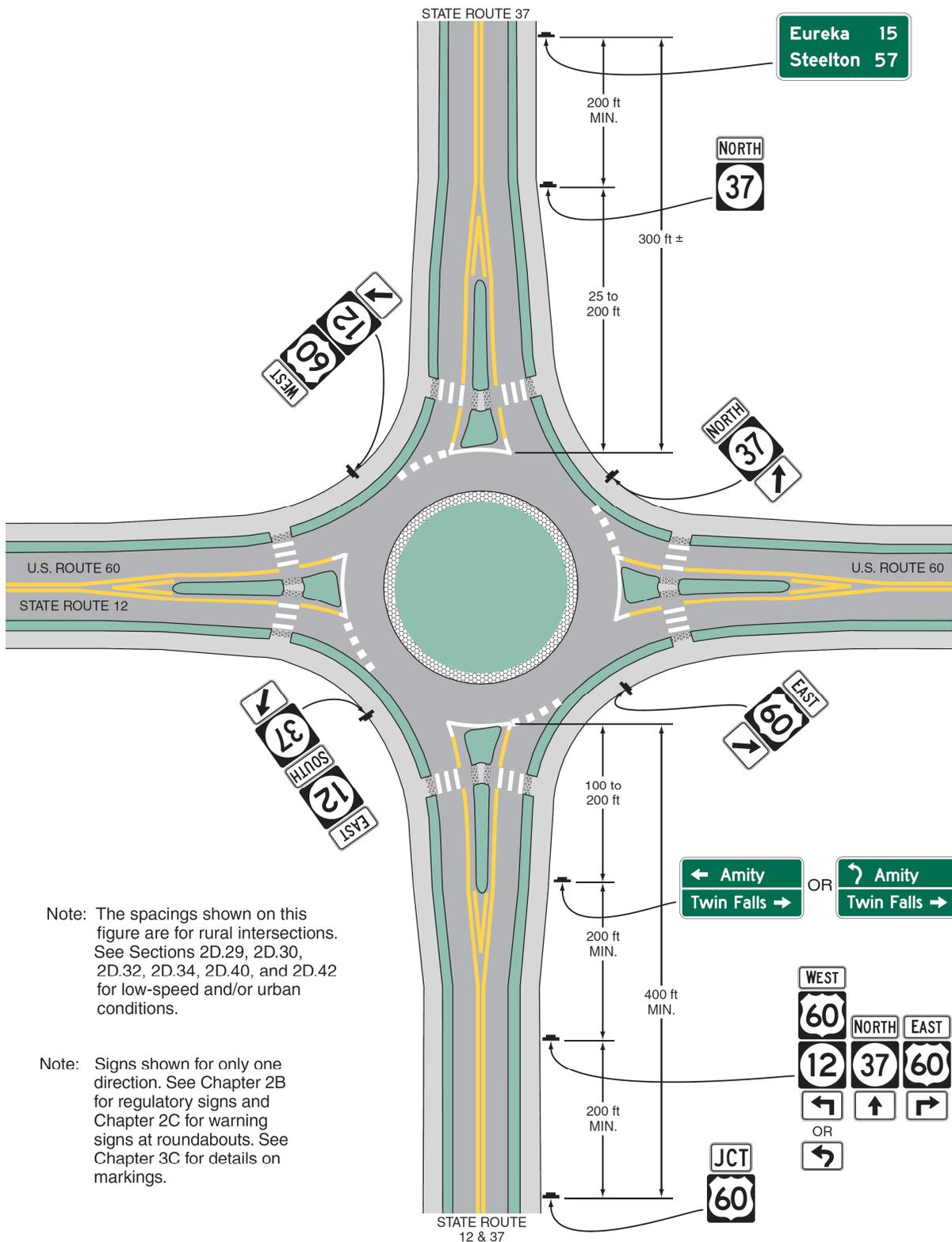
**Figure 2D-9. Examples of Guide Signs for Roundabouts (Sheet 1 of 2)**



Note: The spacings shown on this figure are for rural intersections. See Sections 2D.29, 2D.30, 2D.32, 2D.34, 2D.40, and 2D.42 for low-speed and/or urban conditions.

Note: Signs shown for only one direction. See Chapter 2B for regulatory signs and Chapter 2C for warning signs at roundabouts. See Chapter 3C for details on markings.

**Figure 2D-9. Examples of Guide Signs for Roundabouts (Sheet 2 of 2)**



Note: The spacings shown on this figure are for rural intersections. See Sections 2D.29, 2D.30, 2D.32, 2D.34, 2D.40, and 2D.42 for low-speed and/or urban conditions.

Note: Signs shown for only one direction. See Chapter 2B for regulatory signs and Chapter 2C for warning signs at roundabouts. See Chapter 3C for details on markings.

**Figure 2D-10. Street Name and Parking Signs**



**Figure 2D-10 (CA). Street Name and Parking Signs**



Figure 2D-11. Example of Interchange Crossroad Signing for a One-Lane Approach

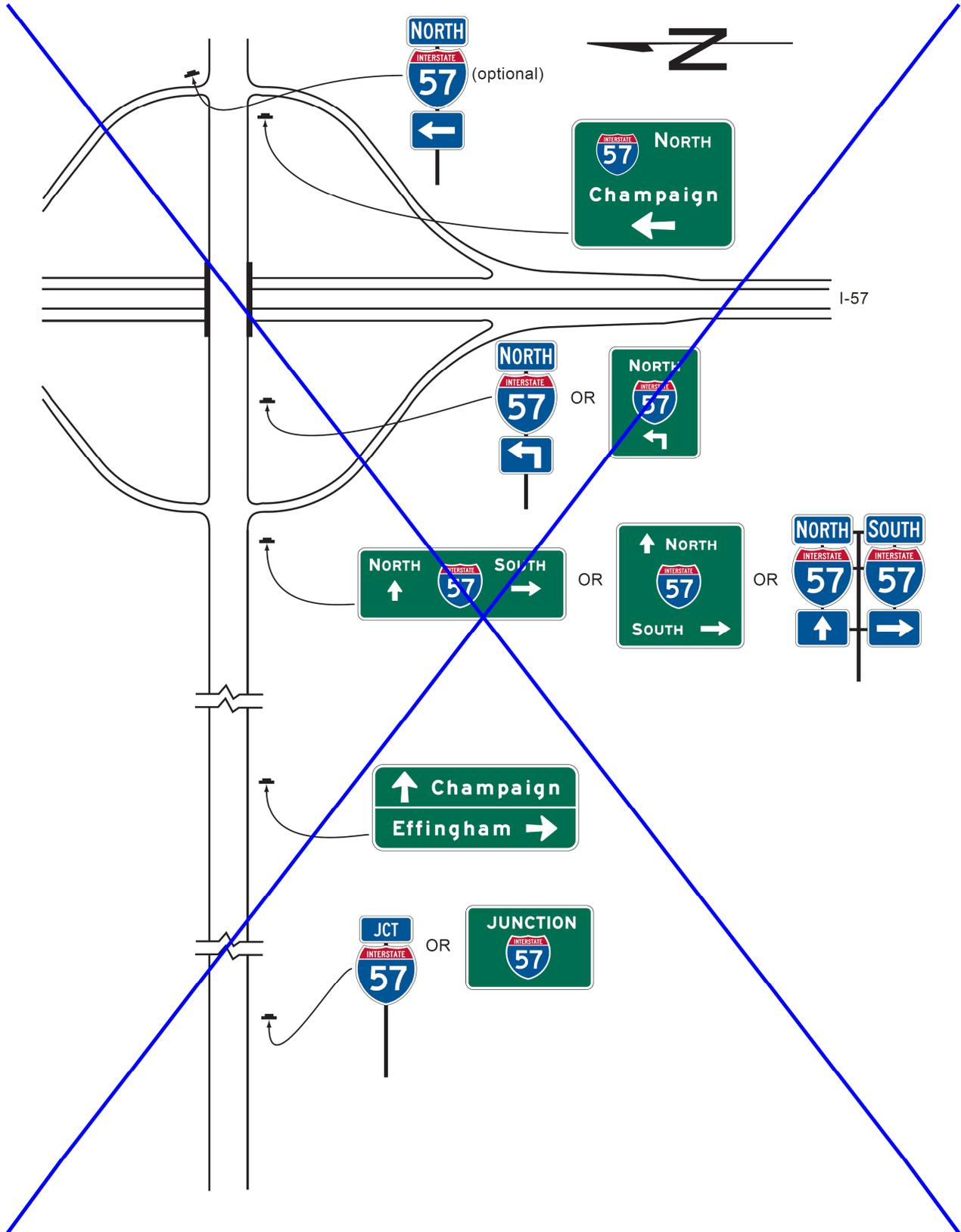


Figure 2D-12. Example of Minor Interchange Crossroad Signing

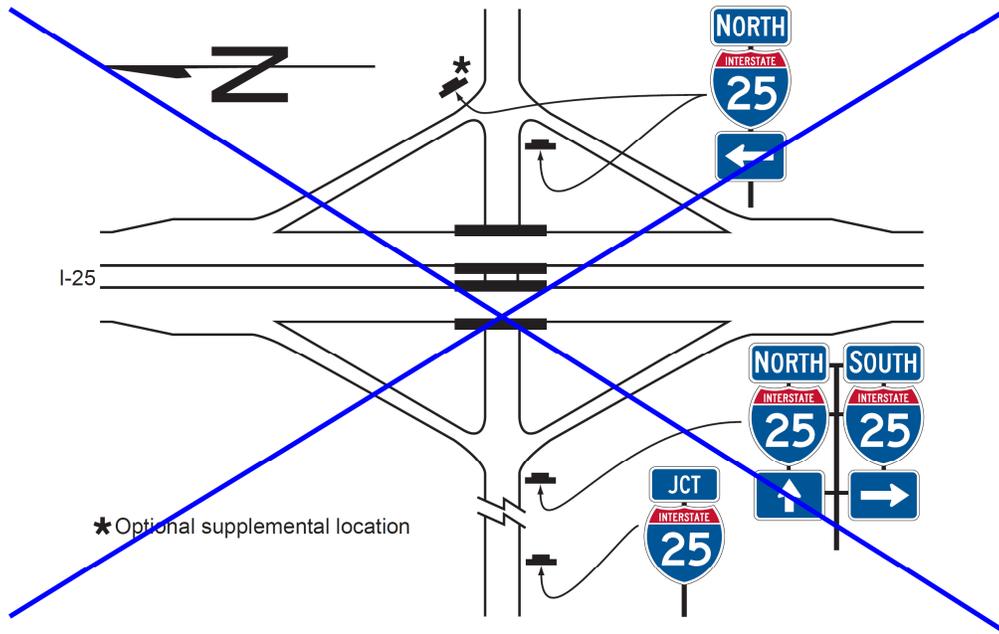


Figure 2D-13. Examples of Multi-Lane Crossroad Signing for a Diamond Interchange

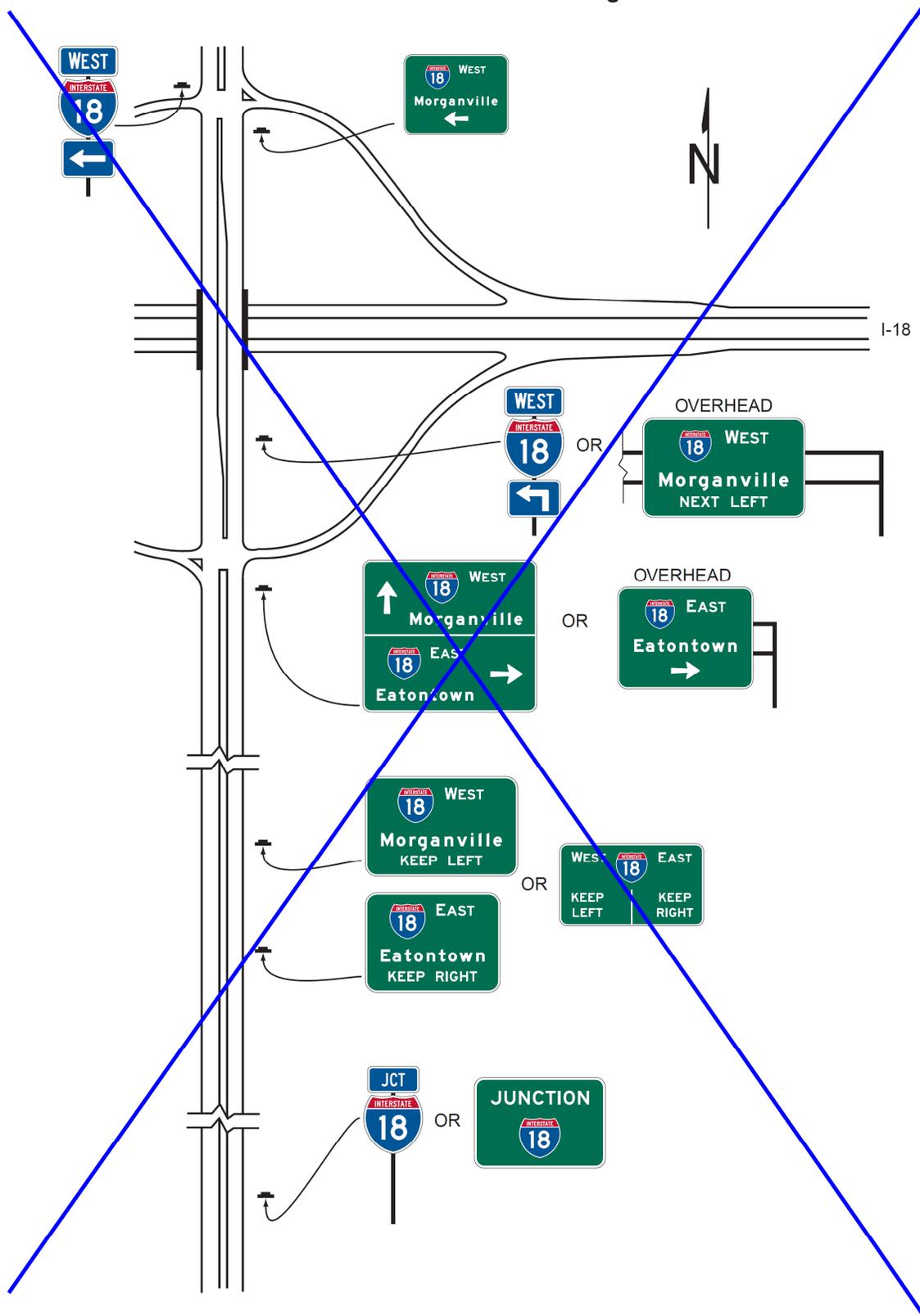


Figure 2D-14. Examples of Multi-Lane Crossroad Signing for a Partial Cloverleaf Interchange

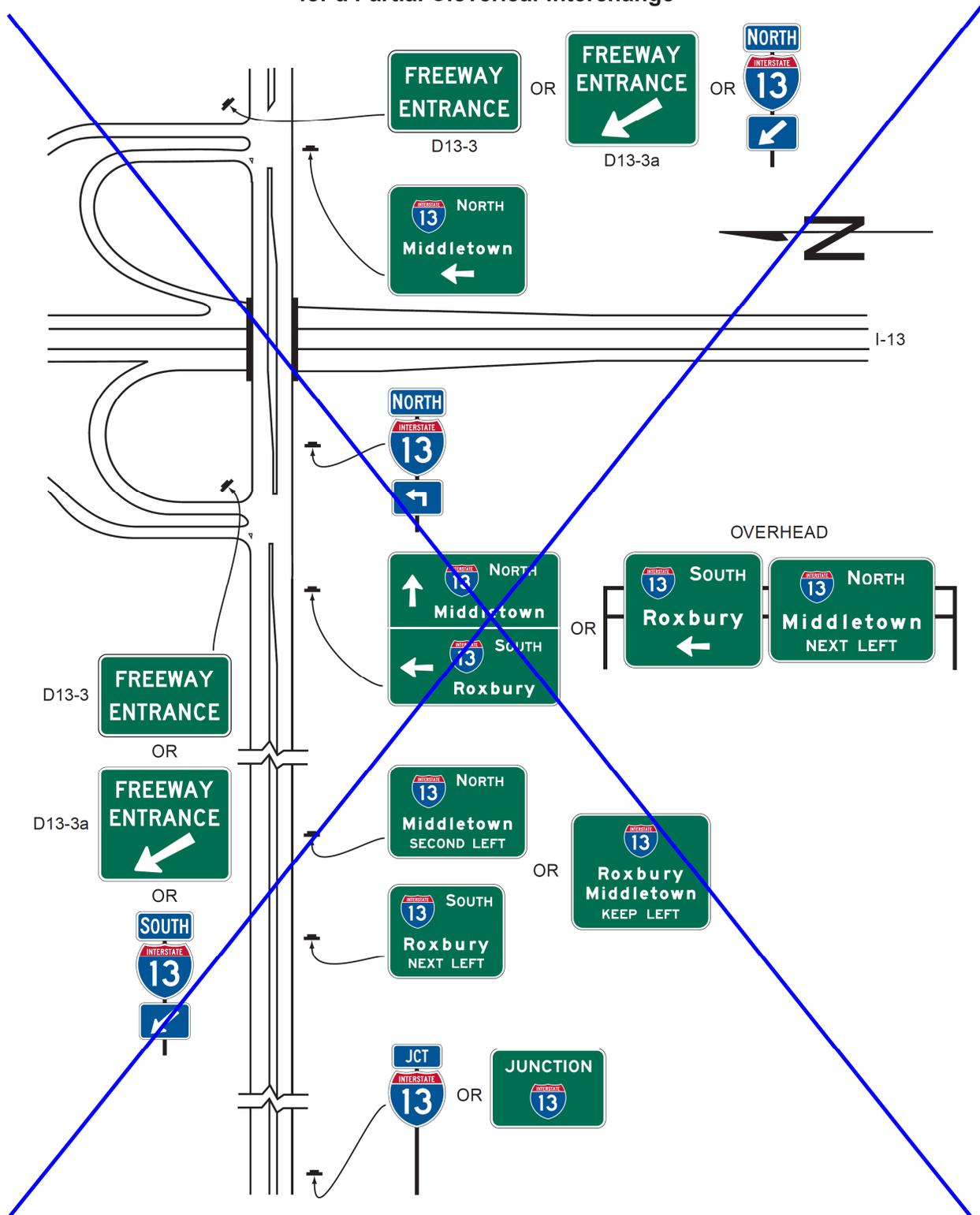


Figure 2D-15. Examples of Multi-Lane Crossroad Signing for a Cloverleaf Interchange

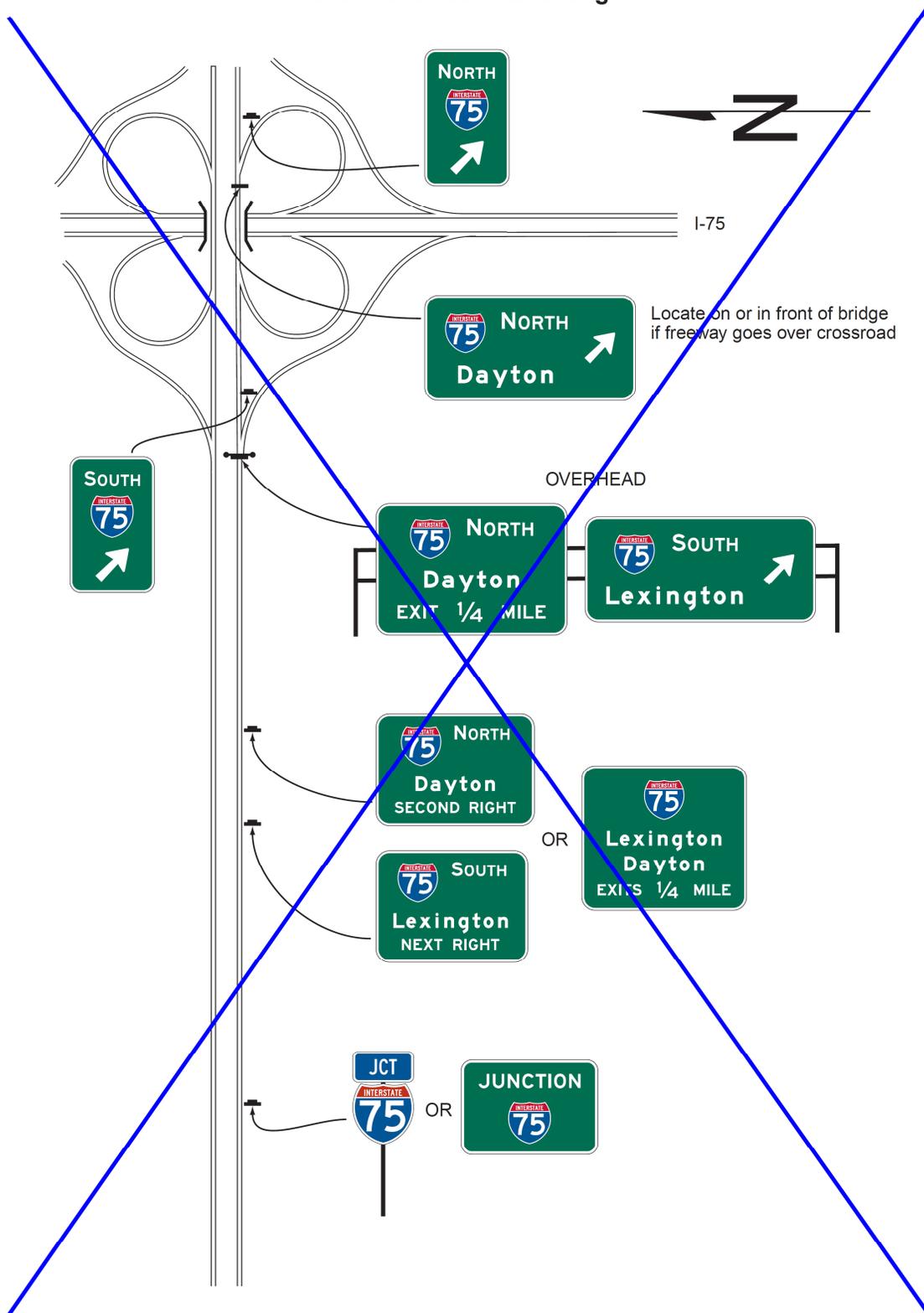
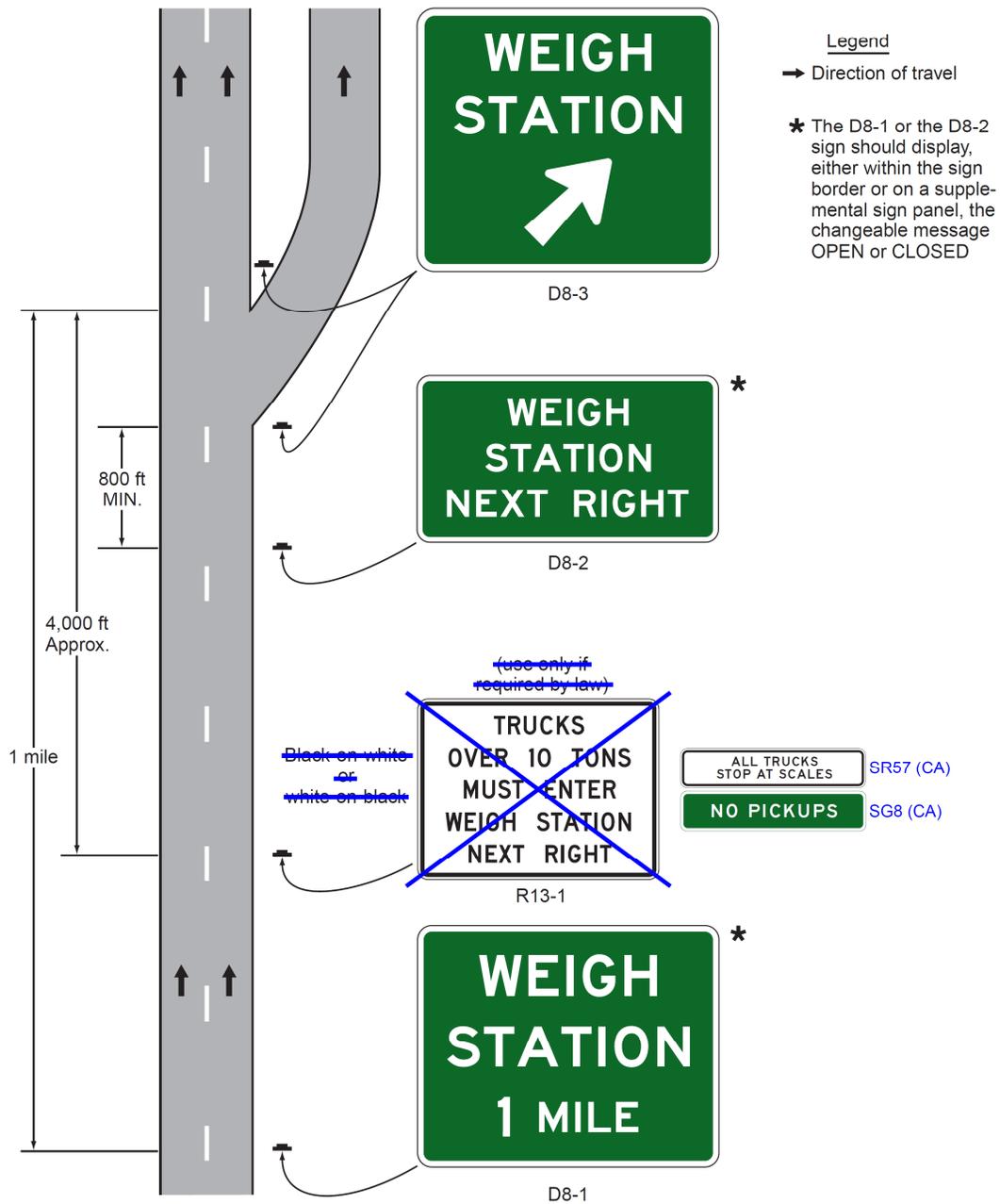




Figure 2D-17. Example of Weigh Station Signing



**Figure 2D-17 (CA). Example of Weigh Station Signing**



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

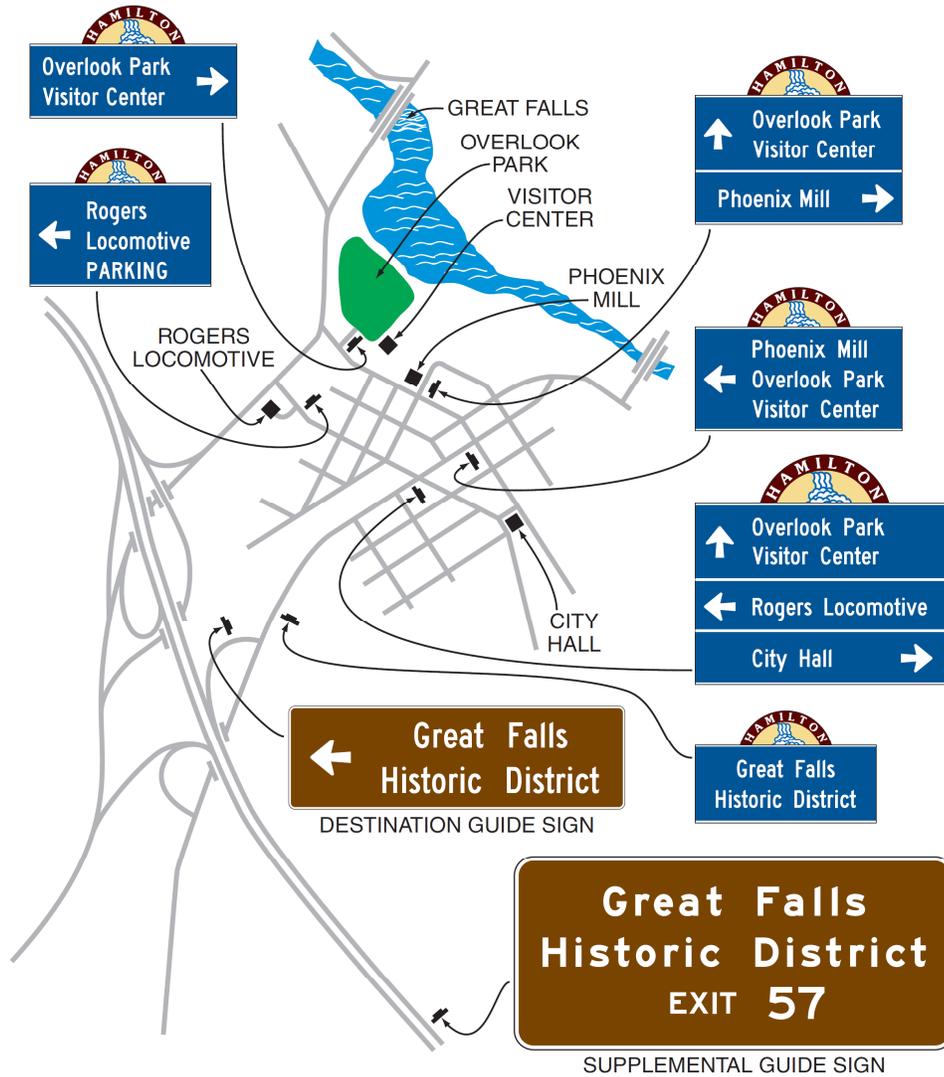
**A - Community Wayfinding Guide Signs with Enhancement Markers**



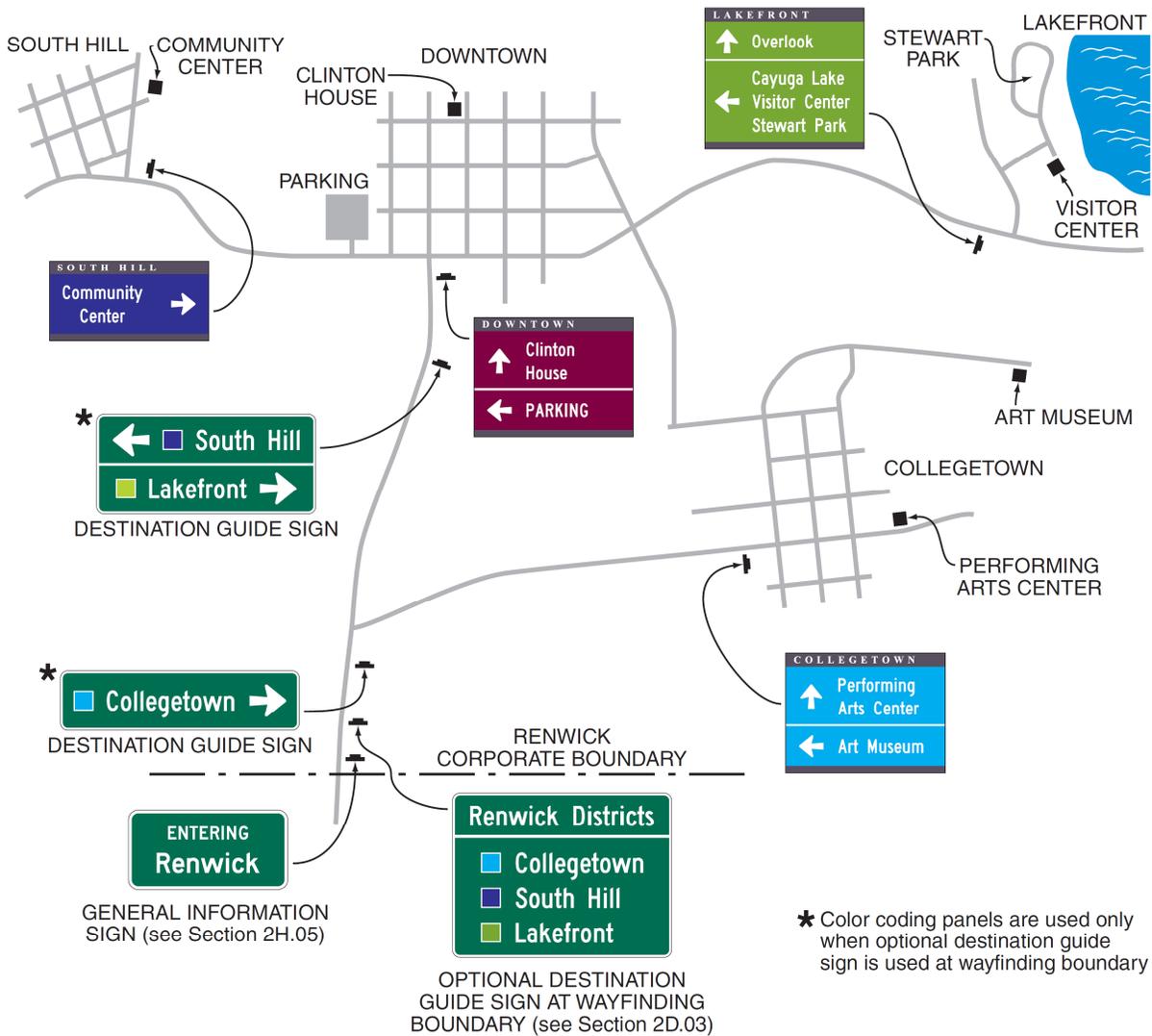
**B - Destination Guide Signs for Color-Coded Community Wayfinding System**



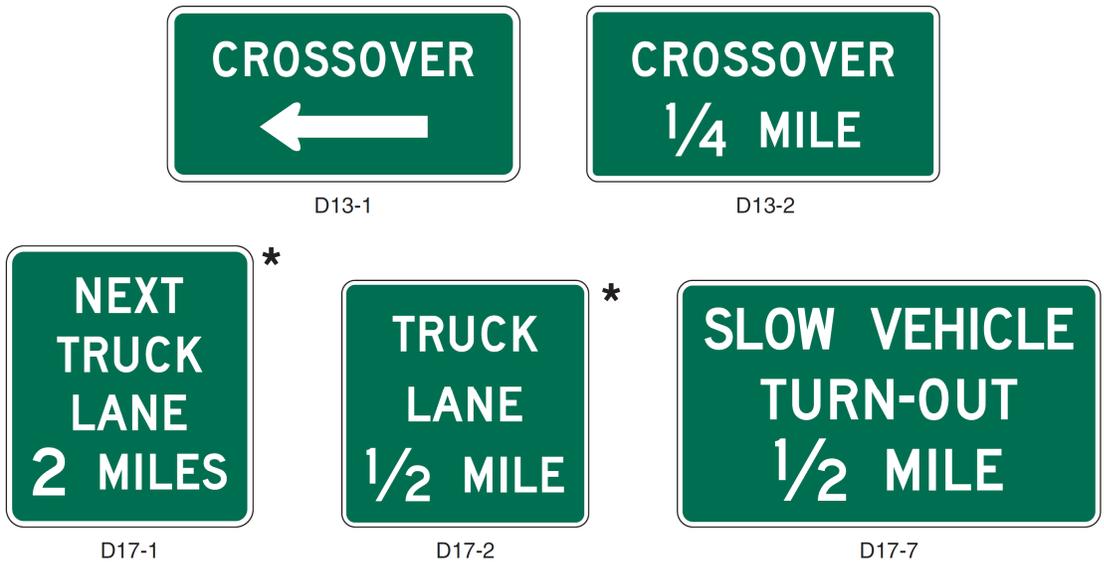
**Figure 2D-19. Example of a Community Wayfinding Guide Sign System Showing Direction from a Freeway or Expressway**



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



**Figure 2D-21. Crossover, Truck Lane, and Slow Vehicle Signs**



\* The words PASSING or CLIMBING may be substituted for the word TRUCK on the D17-1 and D17-2 signs.

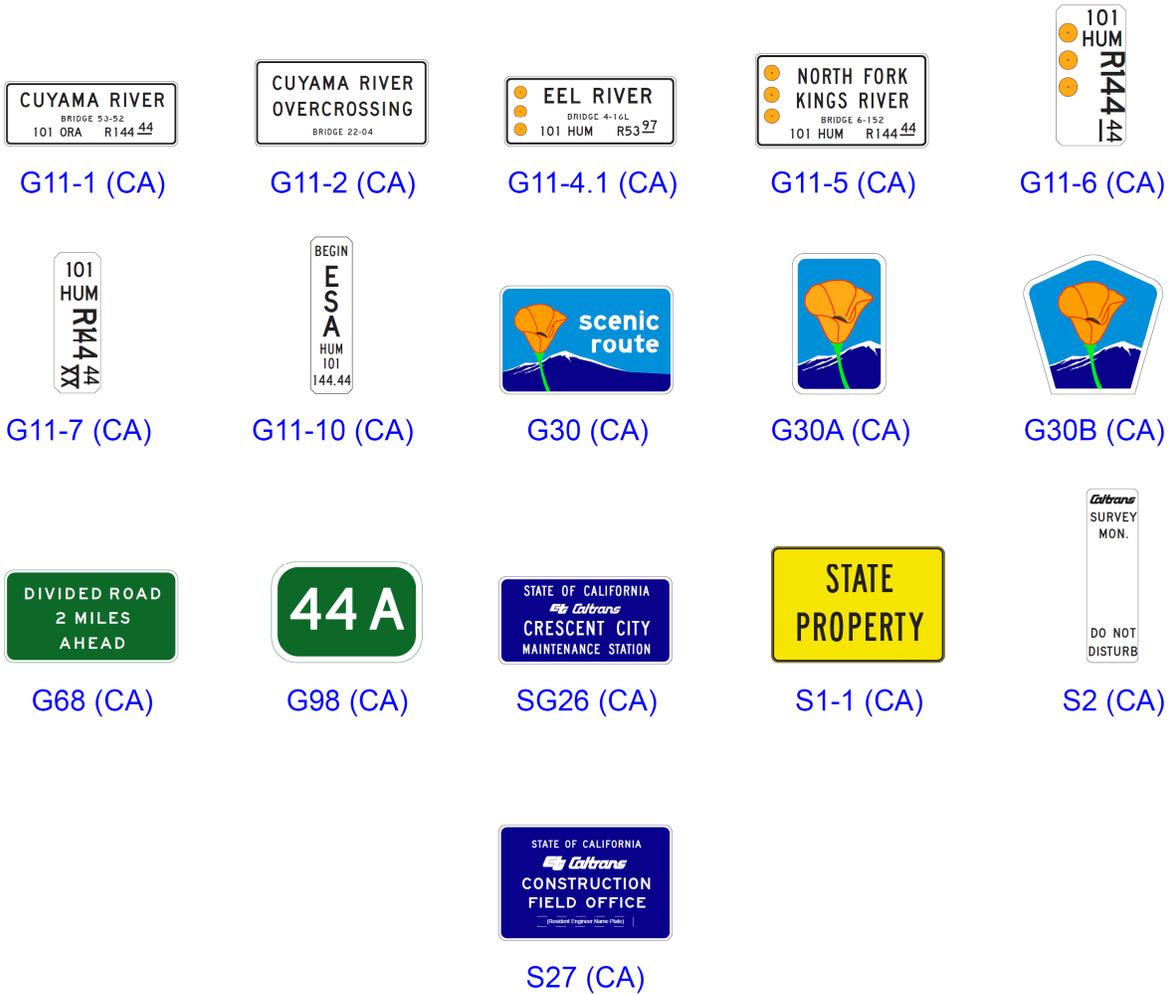
*Figure 2D-21 (CA). Crossover, Truck Lane, and Slow Vehicle Signs*



**Figure 2D-22. Examples of Use of the National Scenic Byways Sign**



**Figure 2D-101 (CA). California Miscellaneous Guide Signs**



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

Sign	Sign Designation	Section	Conventional Road	Minimum	Oversized
Interstate Route Sign (1 or 2 digits)	M1-1	2D.11	24 x 24	24 x 24	36 x 36
Interstate Route Sign (3 digits)	M1-1	2D.11	30 x 24	30 x 24	45 x 36
Off-Interstate Route Sign (1 or 2 digits)	M1-2,3	2D.11	24 x 24	24 x 24	36 x 36
Off-Interstate Route Sign (3 digits)	M1-2,3	2D.11	30 x 24	30 x 24	45 x 36
<del>U.S. Route Sign (1 or 2 digits)</del>	<del>M1-4</del>	<del>2D.11</del>	<del>24 x 24</del>	<del>24 x 24</del>	<del>36 x 36</del>
<del>U.S. Route Sign (3 digits)</del>	<del>M1-4</del>	<del>2D.11</del>	<del>30 x 24</del>	<del>30 x 24</del>	<del>45 x 36</del>
<del>State Route Sign (1 or 2 digits)</del>	<del>M1-5</del>	<del>2D.11</del>	<del>24 x 24</del>	<del>24 x 24</del>	<del>36 x 36</del>
<del>State Route Sign (3 digits)</del>	<del>M1-5</del>	<del>2D.11</del>	<del>30 x 24</del>	<del>30 x 24</del>	<del>45 x 36</del>
County Route Sign (1, 2, or 3 digits)	M1-6	2D.11	24 x 24	24 x 24	36 x 36
Forest Route (1, 2, or 3 digits)	M1-7	2D.11	24 x 24	18 x 18	36 x 36
Junction	M2-1	2D.13	21 x 15	21 x 15	30 x 21
Combination Junction (2 route signs)	M2-2	2D.14	60 x 48*	—	—
Cardinal Direction	M3-1,2,3,4	2D.15	24 x 12	24 x 12	36 x 18
Alternate	M4-1,1a	2D.17	24 x 12	24 x 12	36 x 18
By-Pass	M4-2	2D.18	24 x 12	24 x 12	36 x 18
Business	M4-3	2D.19	24 x 12	24 x 12	36 x 18
Truck	M4-4	2D.20	24 x 12	24 x 12	36 x 18
To	M4-5	2D.21	24 x 12	24 x 12	36 x 18
End	M4-6	2D.22	24 x 12	24 x 12	36 x 18
Temporary	M4-7,7a	2D.24	24 x 12	24 x 12	36 x 18
Begin	M4-14	2D.23	24 x 12	24 x 12	36 x 18
Advance Turn Arrow	M5-1,2,3	2D.28	21 x 15	21 x 15	—
Lane Designation	M5-4,5,6	2D.33	24 x 18	24 x 18	36 x 24
Directional Arrow	M6-1,2,2a,3,4,5,6,7	2D.29	21 x 15	21 x 15	30 x 21
Destination (1 line)	D1-1	2D.39	Varies x 18	Varies x 18	—
Destination and Distance (1 line)	D1-1a	2D.39	Varies x 18	Varies x 18	—
Circular Intersection Destination (1 line)	D1-1d	2D.40	Varies x 18	Varies x 18	—
Circular Intersection Departure Guide	D1-1e	2D.40	Varies x 42*	—	—
Destination (2 lines)	D1-2	2D.39	Varies x 30	Varies x 30	—
Destination and Distance (2 lines)	D1-2a	2D.39	Varies x 30	Varies x 30	—
Circular Intersection Destination (2 lines)	D1-2d	2D.40	Varies x 30	Varies x 30	—
Destination (3 lines)	D1-3	2D.39	Varies x 42	Varies x 42	—
Destination and Distance (3 lines)	D1-3a	2D.39	Varies x 42	Varies x 42	—
Circular Intersection Destination (3 lines)	D1-3d	2D.40	Varies x 42	Varies x 42	—
Distance (1 line)	D2-1	2D.43	Varies x 18	Varies x 18	—
Distance (2 lines)	D2-2	2D.43	Varies x 30	Varies x 30	—
Distance (3 lines)	D2-3	2D.43	Varies x 42	Varies x 42	—
Street Name (1 line)	D3-1,1a	2D.45	Varies x 12	Varies x 8	Varies x 18
Advance Street Name (2 lines)	D3-2	2D.46	Varies x 30*	—	—
Advance Street Name (3 lines)	D3-2	2D.46	Varies x 42*	—	—
Advance Street Name (4 lines)	D3-2	2D.46	Varies x 60*	—	—
Parking Area	D4-1	2D.49	30 x 24	18 x 15	—
Park - Ride	D4-2	2D.50	30 x 36	24 x 30	36 x 48
National Scenic Byways	D6-4	2D.56	24 x 24	24 x 24	—
National Scenic Byways	D6-4a	2D.56	24 x 12	24 x 12	—
Weigh Station XX Miles	D8-1	2D.51	78 x 60	60 x 48	96 x 72
Weigh Station Next Right	D8-2	2D.51	84 x 72	66 x 54	108 x 90
Weigh Station (with arrow)	D8-3	2D.51	66 x 60	48 x 42	84 x 78
Crossover	D13-1,2	2D.55	60 x 30	60 x 30	78 x 42
Freeway Entrance	D13-3	2D.48	48 x 30	48 x 30	—
Freeway Entrance (with arrow)	D13-3a	2D.48	48 x 42	48 x 42	—
Combination Lane Use / Destination	D15-1	2D.35	Varies x 96	Varies x 96	—
Next Truck Lane XX Miles	D17-1	2D.53	42 x 48	42 x 48	60 x 66
Truck Lane XX Miles	D17-2	2D.53	42 x 42	42 x 42	60 x 54
Slow Vehicle Turn-Out XX Miles	D17-7	2D.54	72 x 42	72 x 42	96 x 54

\*The size shown is for a typical sign. The size should be appropriately based on the amount of legend required for the sign.

- Notes: 1. Larger signs may be used when appropriate  
2. Dimensions in inches are shown as width x height

**Table 2D-1(CA). California Conventional Road Guide Sign Sizes (Sheet 1 of 2)**

Sign or Plaque	Sign Designation	Section	Conventional Road	Minimum	Oversized
Destination	G1-1(CA)	2D.36	VAR x 18	VAR x 12	VAR x 24
Destination	G1-4(CA)	2D.36	VAR x 30	VAR x 18	VAR x 42
Destination	G1-7(CA)	2D.36	VAR x 36	VAR x 24	VAR x 48
Destination	G1-10(CA)	2D.36	VAR x 48	VAR x 30	VAR x 60
Destination	G1-13(CA)	2D.36	VAR x 48	VAR x 30	VAR x 60
Destination	G1-16(CA)	2D.36	VAR x 48	VAR x 36	VAR x 72
Destination	G1-19(CA)	2D.36	VAR x 42	VAR x 30	VAR x 54
Distance	G5(CA)	2D.42	VAR x 42	VAR x 30	VAR x 54
Street Name	G7-1(CA)	2D.43	VAR x 18	VAR x 6	VAR x 24
Advance Street Name plaque	G7-2(CA)	2D.44	VAR x 18	VAR x 12	VAR x 24
Destination and Street Name with Arrow	G8-1(CA)	2D.42	VAR x 18	VAR x 12	VAR x 24
Destination and Street Name with Arrow	G8-4(CA)	2D.42	VAR x 30	VAR x 18	VAR x 42
Destination and Street Name with Arrow	G8-7(CA)	2D.42	VAR x 36	VAR x 24	VAR x 48
Destination and Street Name with Arrow	G8-10(CA)	2D.42	VAR x 48	VAR x 30	VAR x 60
Destination and Street Name with Arrow	G8-13(CA)	2D.42	VAR x 48	VAR x 30	VAR x 60
Destination and Street Name with Arrow	G8-16(CA)	2D.42	VAR x 48	VAR x 36	VAR x 72
Destination and Street Name with Arrow	G8-19(CA)	2D.42	VAR x 42	VAR x 30	VAR x 54
Destination and Street Name with Arrow	G8-22(CA)	2D.42	VAR x 30	VAR x 18	VAR x 42
Inventory Marker	G11-1(CA)	2D.101(CA)	36 x 18	---	---
Inventory Marker	G11-2(CA)	2D.101(CA)	36 x 21	---	---
Inventory Marker	G11-4(CA)	2D.101(CA)	44 x 18	---	---
Inventory Marker	G11-4A(CA)	2D.101(CA)	44 x 18	---	---
Inventory Marker	G11-4B(CA)	2D.101(CA)	44 x 24	---	---
Inventory Marker	G11-5(CA)	2D.101(CA)	44 x 24	---	---
Inventory Marker	G11-6(CA)	2D.101(CA)	12 x 24	---	---
Inventory Marker	G11-7(CA)	2D.101(CA)	8 x 24	---	---
Inventory Marker	G11-10(CA)	2D.101(CA)	8 x 30	---	---
Advance Lane Assignment	G21-1(CA)	2D.31	VAR x 60	VAR x 60	VAR x 72
Advance Lane Assignment	G21-3(CA)	2D.31	VAR x 90	VAR x 90	VAR x 108
Advance Turn	G22(CA)	2D.26	VAR x 48	---	---
U.S. Route Shield	G26-1(CA)	2D.11	11.625 x 10	11.625 x 10	35 x 30
U.S. Route Marker	G26-2(CA)	2D.11	21 x 18	21 x 18	35 x 30
Interstate Route Shield	G27-1(CA)	2D.11	14 x 12	14 x 12	36 x 36
Interstate Route Marker	G27-2(CA)	2D.11	21 x 18	21 x 18	36 x 36
State Route Shield	G28-1(CA)	2D.11	10.5 x 9	10.5 x 9	35 x 32
State Route Marker	G28-2(CA)	2D.11	21 x 18	21 x 18	35 x 32
Scenic Route	G30(CA)	2D.55	48 x 26	---	---
Scenic Route	G30A(CA)	2D.55	12 x 18	12 x 18	18 x 27
Scenic Route	G30B(CA)	2D.55	18 x 18	18 x 18	24 x 24
Directional Arrow Auxiliary	G33-1(CA)	2D.28	24 x 6	18 x 5	30 x 8
DIVIDED ROAD (X MILES AHEAD)	G68(CA)	2D.51	114 x 60	---	---
PASSING LANE (X MILES) or AHEAD	G69(CA)	2D.51	48 x 36	---	---
ROUTE ____ BUSINESS	G76(CA)	2D.19	VAR x 30	---	---
Interchange Guide	G77-1(CA)	2D.31	VAR x 48	VAR x 48	VAR x 72
Interchange Guide	G77-4(CA)	2D.31	VAR x 54	VAR x 54	VAR x 72
Interchange Guide	G77-7(CA)	2D.31	VAR x 54	VAR x 54	VAR x 72
Interchange Guide	G77A(CA)	2D.31	VAR x 66	VAR x 66	VAR x 90
Interchange Guide	G78-1(CA)	2D.31	VAR x 42	VAR x 42	VAR x 54
Interchange Guide	G78-4(CA)	2D.31	VAR x 42	VAR x 42	VAR x 48
FREEWAY with Arrow	G82(CA)	2D.31	42 x 12	42 x 12	54 x 15
Supplemental Destination	G86-1(CA)	2D.37	VAR x 54	VAR x 54	VAR x 66
Supplemental Destination	G86-3(CA)	2D.37	VAR x 96	VAR x 96	VAR x 110
Supplemental Destination	G86-5(CA)	2D.37	VAR x 90	VAR x 90	VAR x 108
Supplemental Destination	G86-7(CA)	2D.37	VAR x 90	VAR x 90	VAR x 96

**Table 2D-1(CA). California Conventional Road Guide Sign Sizes (Sheet 2 of 2)**

Sign or Plaque	Sign Designation	Section	Conventional Road	Minimum	Oversized
Exit Numbered Supplemental Destination	G86-12(CA)	2D.37	VAR x 84	VAR x 84	VAR x 100
Exit Numbered Supplemental Destination	G86-13(CA)	2D.37	VAR x 78	VAR x 78	VAR x 90
Veterans National Cemetery Sign	G86-14(CA)	2D.37	VAR x 72	---	---
PARK - RIDE	G95A(CA)	2D.48	96 x 42	96 x 42	108 x 48
PARK - RIDE NEXT RIGHT	G95B(CA)	2D.48	96 x 60	96 x 60	108 x 72
Park - Ride Courtesy Plaque	G95B-1(CA)	2D.48	96 x 18	96 x 18	108 x 24
BUS SERVICE Plaque	G95D(CA)	2D.48	96 x 24	96 x 24	108 x 30
Park - Ride Plaque	G95E(CA)	2D.48	96 x 18	96 x 18	120 x 24
Intersection Number	G98(CA)	2D.102(CA)	18 x 12	---	---
NO PICKUPS	SG8(CA)	2D.49	84 x 18	84 x 18	120 x 24
Caltrans Facility Entrance	SG26(CA)	2D.103(CA)	72 x 36	---	---
STATE PROPERTY	S1-1(CA)	2D.103(CA)	21 x 15	---	---
Inventory Marker (Survey)	S2(CA)	2D.101(CA)	3.5 x 12	---	---
NO LOITERING, CAMPING, VENDING OR PARKING OF VEHICLES 30 FEET OR LONGER	S22(CA)	2D.48	24x24	24x24	---
VEHICLE INSPECTION ONLY, NO LOITERING OR CAMPING	S22-1(CA)	2D.49	48 x 15	---	---
Department of Transportation's CONSTRUCTION FIELD OFFICE	S27(CA)	2D.103(CA)	36 x 24	---	---

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

Type of Mounting	Type of Street or Highway	Speed Limit	Recommended Minimum Letter Height	
			Initial Upper-Case	Lower-Case
Overhead	All types	All speed limits	12 inches	9 inches
Post-mounted	Multi-lane	More than 40 mph	8 inches	6 inches
Post-mounted	Multi-lane	40 mph or less	6 inches	4.5 inches
Post-mounted	2-lane	All speed limits	6 inches*	4.5 inches*

\* On local two-lane streets with speed limits of 25 mph or less, 4-inch initial upper-case letters with 3-inch lower-case letters may be used.

**Table 2D-101 (CA). Route Shield Sizes for Guide Signs**

Guide Sign Letter Size	State Route Shield Size	Interstate Route Shield Size	U.S. Route Shield Size	Quantity of Numerals	Shield Numeral Size
4" & 5" Caps	10-1/2" x 9"			1 or 2	4"
4" & 5" Caps	15" x 11"			3	4"
4" & 5" Caps		14" x 12"		1 or 2	4"
4" & 5" Caps		16" x 14"		3	4"
4" & 5" Caps			11-1/2" x 10"	1 or 2	4"
4" & 5" Caps			14-1/2" x 10"	3	4"
8" U.C. & 6" L.C. or 6" U.C. & 4-1/2" L.C.	21" x 18"	21" x 18"	21" x 18"	1 or 2	8"
8" U.C. & 6" L.C. or 6" U.C. & 4-1/2" L.C.	24" x 18"			3	6" without the numeral 1
8" U.C. & 6" L.C. or 6" U.C. & 4-1/2" L.C.	24" x 18"			3	8" with the numeral 1
8" U.C. & 6" L.C. or 6" U.C. & 4-1/2" L.C.		21" x 18"		3	6" with the numeral 1
8" U.C. & 6" L.C. or 6" U.C. & 4-1/2" L.C.		24" x 24"		3	6" without the numeral 1
8" U.C. & 6" L.C. or 6" U.C. & 4-1/2" L.C.			27" x 18"	3	8"
10.67" U.C. & 8" L.C.	28" x 25"			1 or 2	10"
10.67" U.C. & 8" L.C.	32" x 25"			3	10"
10.67" U.C. & 8" L.C.		24" x 24"		1 or 2	10"
10.67" U.C. & 8" L.C.		30" x 25"		3	8" without the numeral 1
10.67" U.C. & 8" L.C.		30" x 25"		3	10" with the numeral 1
10.67" U.C. & 8" L.C.			28" x 24"	1 or 2	10"
10.67" U.C. & 8" L.C.			36" x 24"	3	10"
13.3" U.C. & 10" L.C.	35" x 32"			1 or 2	12"
13.3" U.C. & 10" L.C.	40" x 32"			3	12"
13.3" U.C. & 10" L.C.		36" x 36"		1 or 2	12"
13.3" U.C. & 10" L.C.		36" x 36"		3	12" with the numeral 1
13.3" U.C. & 10" L.C.		45" x 38"		3	12" without the numeral 1
13.3" U.C. & 10" L.C.			35" x 30"	1 or 2	12"
13.3" U.C. & 10" L.C.			45" x 30"	3	12"
16" U.C. & 12" L.C.	36" x 36"	36" x 36"		1 or 2	15"
16" U.C. & 12" L.C.	45" x 36"			3	12" without the numeral 1
16" U.C. & 12" L.C.	45" x 36"			3	15" with the numeral 1
16" U.C. & 12" L.C.		45" x 38"		3	12" without the numeral 1
16" U.C. & 12" L.C.		45" x 38"		3	15" with the numeral 1
16" U.C. & 12" L.C.			42" x 36"	1 or 2	15"
16" U.C. & 12" L.C.			54" x 36"	3	15"
20" U.C. & 15" L.C.	42" x 42"			1 or 2	18"
20" U.C. & 15" L.C.	54" x 42"			3	18"
20" U.C. & 15" L.C.		48" x 48"		1 or 2	18"
20" U.C. & 15" L.C.		58" x 51"		3	18"
20" U.C. & 15" L.C.			49" x 42"	1 or 2	18"
20" U.C. & 15" L.C.			63" x 42"	3	18"

**Exceptions:**

1. For **G23 Signs**, use the 10" Numeral Size Shields.
2. For **G77 & G78 signs**, use the 10" Numeral Size Shields. However, when the shield is in line with the word message, the shield's numeral size should match the lower case letter height.

**Table 2D-102 (CA). Criteria for Supplemental Destination Signs**

Type of Destination	Specific Criteria	Major Metropolitan Areas	Urbanized Areas	Rural Areas
Post Secondary School, Public or Private	Minimum Enrollment (Single Campus Locations, See Note 5). Maximum Miles from a Freeway ( See Note 6).	1,000 2	1,000 4	1,000 5
Museum, Zoo, Stadium or Sports Arena	Public Owned and Non-Profit. Minimum Annual Attendance. Maximum Miles from Highway (See Note 2).	1,000,000 2	500,000 2	200,000 3
Convention Center	Public Owned and Non-Pofit. Minimum Annual Attendance. Maximum Miles from Highway (See Note 2).	500,000 3	250,000	--
Military Base	Number of Employees and Permanent Garrison. Maximum Miles from Highway.	5,000 2	5,000 4	5,000 7
National Guard Armory	Only Emergency Center in the Area. Easy Access to Primary Evacuation Route. (See Note 2).	--	--	--
Fairgrounds	Publicly Owned and Operated. Temporary Sign Only, Unless There are Year Round Activities. Minimum Annual Attendance. Maximum Miles from Highway (See Note 2).	500,000 2	200,000 4	200,000 5
Federal or State Hospitals, Prisons, and National Cemeteries	Maximum Miles from Highway (See Note 2).	1	3	5
Government Centers	Number of Employees. Maximum Miles from Highway (See Note 2).	5,000 2	2,000 3	1,000 5
California Welcome Centers	Easy Access from Nearest State Highway. (See Notes 2 and 7)	--	--	--
Airports	Maximum Miles from Highway (See Note 2).	1	3	5
Rail and Light Rail Stations	Easy Access from Nearest State Highway. (See Note 2).	--	--	--

NOTES: 1. Meeting the above criteria does not guarantee placement of a sign. Limitations on the spacing between sign and the number of messages permitted, specified in Sections 2A.16, 2D.07 and 2D.40, shall be observed and eligible destinations must compete for signing on the basis of traffic service.

2. Follow-up signing, if necessary, shall be installed by local agencies before signs are placed on the State Highway.
3. If a stadium is located at a school campus for which signs are already provided, separate stadium sign will not be placed.
4. Definitions of Area Classifications:
  - A. MAJOR METROPOLITAN AREA - An urbanized area, population density of at least 1,000 inhabitants per 2.6 km<sup>2</sup> (1 mi<sup>2</sup>), not necessarily related to county boundaries, with a total population of at least 1,000,000 and an included central city with a population of at least 250,000.
  - B. URBANIZED AREA - An urbanized area with a total population of at least 50,000 and an included central city with no minimum population.
  - C. RURAL AREA - All areas outside of an urbanized area.
5. Public or private postsecondary education institution shall have an enrollment of either 1,000 or more full-time students or an equivalent in part-time students. Refer to CVC Section 21375.
6. No signs to school will be erected until funds from private sources covering the cost of the signs and their installation. If a school, which previously had signs, relocates to contribute to the improvement of the school (as determined by the California Department of Transportation), signs will be erected at the new location at no cost to the school.
7. The California Department of Transportation will charge the Welcome Center directly for the cost of the signs and their installation on the State highway. Cost for sign installation on local roads is the responsibility of the Welcome Center and the local agency.



## CHAPTER 2E. GUIDE SIGNS – FREEWAYS AND EXPRESSWAYS

### 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 1A.13 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 and Markings” book (see Section 1A.11).

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

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 value to the road user.*

### Section 2E.03 Guide Sign Classification

Support:

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

- A. Route signs and Trailblazer Assemblies (see Section 2E.27),
- B. At-Grade Intersection signs (see Section 2E.29),
- C. Interchange signs (see Sections 2E.30 through 2E.39),
- D. Interchange Sequence signs (see Section 2E.40),

- E. Community Interchanges Identification signs (see Section 2E.41),
- F. NEXT XX EXITS signs (see Section 2E.42),
- G. Weigh Station signing (see Section 2E.54),
- H. Miscellaneous Information signs (see Section 2H.04)
- I. Reference Location signs (see Section 2H.05),
- J. General Service signs (see Chapter 2I),
- K. Rest and Scenic Area signs (see Section 2I.05),
- L. Tourist Information and Welcome Center signs (see Section 2I.08),
- M. Radio Information signing (see Section 2I.09)
- N. Carpool and Ridesharing signing (see Section 2I.11),
- O. Specific Service signs (see Chapter 2J), and
- P. Recreational and Cultural Interest Area signs (see Chapter 2M).

### **Section 2E.04 General**

#### **Support:**

<sup>01</sup> Signs are designed so that they are legible to road users approaching them and readable in time to permit proper responses. Desired design characteristics include: (a) long visibility distances, (b) large lettering, symbols, and arrows, and (c) short legends for quick comprehension.

#### **Standard:**

<sup>02</sup> **Standard shapes and colors shall be used so that traffic signs can be promptly recognized by road users.**

### **Section 2E.05 Color of Guide Signs**

#### **Standard:**

<sup>01</sup> **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:**

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

### **Section 2E.06 Retroreflection or Illumination**

#### **Standard:**

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

#### **Support:**

<sup>02</sup> Where there is no serious interference from extraneous light sources, retroreflectorized post-mounted signs usually provide adequate nighttime visibility.

<sup>03</sup> 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:**

<sup>04</sup> *Overhead sign installations should be illuminated unless an engineering study shows that retroreflectorization alone will perform effectively. The type of illumination chosen should provide effective and reasonably uniform illumination of the sign face and message.*

### **Section 2E.07 Characteristics of Urban Signing**

#### **Support:**

<sup>01</sup> Urban conditions are characterized not so much by city limits or other arbitrary boundaries, as by the following features:

- A. Mainline roadways with more than two lanes in each direction;
- B. High traffic volumes on the through roadways;
- C. High volumes of traffic entering and leaving interchanges;

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

<sup>02</sup> 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.40);
- B. Use of sign spreading to the maximum extent possible (see Section 2E.11);
- C. Elimination of General or Specific Service signing (see Chapters 2I and 2J);
- D. Reduction to a minimum of post-interchange signs (see Section 2E.38);
- E. Display of advance signs at distances closer to the interchange, with appropriate adjustments in the legend (see Section 2E.33);
- F. Use of overhead signs on roadway structures and independent sign supports (see Section 2E.25);
- G. Use of Overhead Arrow-per-Lane or Diagrammatic guide signs in advance of intersections and interchanges (see Sections 2E.21 and 2E.22); and
- H. Frequent use of street names as the principal message in guide signs.

<sup>03</sup> 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.08 Characteristics of Rural Signing**

Support:

<sup>01</sup> 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:*

<sup>02</sup> *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.09 Signing of Named Highways**

Support:

<sup>01</sup> Section 2D.53 contains information, which is also applicable to freeways and expressways, regarding the use of highway names on the signing for unnumbered highways to enhance route guidance and facilitate travel.

<sup>02</sup> Section 2M.10 contains information regarding memorial signing of routes, bridges, or highway components.

### **Section 2E.10 Amount of Legend on Guide Signs**

*Guidance:*

<sup>01</sup> *No more than two destination names or street names should be displayed on any Advance Guide sign or Exit Direction sign. A city name and street name on the same sign should be avoided. Where two or three signs are placed on the same supports, destinations or names should be limited to one per sign, or to a total of three in the display. Sign legends should not exceed three lines of copy, exclusive of the exit number and action or distance information.*

### **Section 2E.11 Number of Signs at an Overhead Installation and Sign Spreading**

*Guidance:*

<sup>01</sup> *If overhead signs are warranted, as set forth in Section 2A.17, the number of signs at these locations should be limited to only those essential in communicating pertinent destination information to the road user. Exit*

*Direction signs for a single exit and the Advance Guide signs should have only one 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.*

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 crossing roadway 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-1 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 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 Advance Guide sign to indicate the next interchange exit should be placed near the crossroad location. If the crossroad goes over the mainline, the Advance Guide sign should be placed on the overcrossing structure or on a separate structure immediately in front of the overcrossing structure.*

## **Section 2E.12 Pull-Through Signs (E6-2, E6-2a)**

Support:

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

01a See Figures 2E-34(CA), 2E-35(CA) and 2E-37(CA) through 2E-40(CA) for typical freeway signing and use of the Pull-Through (G24(CA) Series) signs.

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.*

Support:

03 Sections 2E.20 through 2E.24 contain information regarding the use of Overhead Arrow-per-Lane or Diagrammatic guide signs at multi-lane exits where there is a reduction in the number of through lanes and a through lane becomes an interior option lane for through or exiting traffic.

## **Section 2E.13 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.37). Successive freeway guide signs shall provide continuity in destination names and consistency with available map information. At any decision point, a given destination shall be indicated by way of only one route.**

Guidance:

- 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:**

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

<sup>04</sup> 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 (see Section 1A.11).

**Guidance:**

<sup>05</sup> *Each Department of Transportation District should determine its list of control cities in cooperation with adjacent districts and states to achieve continuity of signing for through traffic on State highways. Any given route should have the same control cities (in both directions of travel).*

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

**Standard:**

<sup>01</sup> **Except as provided in Section 2A.11, the sizes of freeway and expressway guide signs that have standardized designs shall be as shown in Table 2E-1.**

**Support:**

<sup>02</sup> Section 2A.11 contains information regarding the applicability of the various columns in Table 2E-1.

**Option:**

<sup>03</sup> Signs larger than those shown in Table 2E-1 may be used (see Section 2A.11).

**Standard:**

<sup>04</sup> **For all freeway and expressway signs that do not have a standardized design, the message dimensions shall be determined first, and the outside sign dimensions secondarily. Word messages in the legend of expressway guide signs shall be in letters at least 8 inches high. Larger lettering shall be used for major guide signs at or in advance of interchanges and for all overhead signs. Minimum numeral and letter sizes for expressway guide signs according to interchange classification, type of sign, and component of sign legend 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. All names of places, streets, and highways on freeway and expressway guide signs shall be composed of lower-case letters with initial upper-case letters. The letters and the numerals used shall be Series E(M) of the "Standard Highway Signs and Markings" book (see Section 1A.11). The nominal loop height of the lower-case letters shall be 3/4 of the height of the initial upper-case letter (see Paragraph 2 of Section 2D.05 for additional information on the specification of letter heights). Other word legends shall be composed of upper-case letters. Interline and edge spacing shall be as provided in Section 2E.15.**

<sup>05</sup> **Lettering size on freeway and expressway signs shall be the same for both rural and urban conditions.**

**Support:**

<sup>06</sup> 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.

<sup>07</sup> Designs for upper-case and lower-case alphabets together with Tables of recommended letter spacing, are shown in the "Standard Highway Signs and Markings" book (see Section 1A.11).

**Guidance:**

<sup>08</sup> *Freeway lettering sizes (see Tables 2E-4 and 2E-5) should be used when expressway geometric design is comparable to freeway standards.*

<sup>09</sup> *Other sign letter size requirements not specifically identified elsewhere in this Manual should be guided by these specifications. Abbreviations (see Section 2E.17) should be kept to a minimum.*

**Support:**

<sup>10</sup> 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.

**Standard:**

**<sup>11</sup> All capital letters shall be Standard Alphabet Series D 2000.**

**Support:**

<sup>12</sup> Standard Alphabets for traffic control devices are contained in FHWA's "Standard Highway Signs and Markings" book. See Section 1A.11 for information regarding this publication.

<sup>13</sup> Sections 2D.04, 2D.05 and 2D.06 also apply to freeways and expressways.

### **Section 2E.15 Interline and Edge Spacing**

*Guidance:*

<sup>01</sup> *Interline spacing of upper-case letters should be approximately three-fourths the average of upper-case letter heights in adjacent lines of letters.*

<sup>02</sup> *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.16 Sign Borders**

**Standard:**

**<sup>01</sup> Signs shall have a border of the same color as the legend in order to outline their distinctive shape and thereby give them easy recognition and a finished appearance.**

*Guidance:*

<sup>02</sup> *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, but the width should not exceed the stroke width of the lettering of the principal legend on the sign.*

<sup>03</sup> *Corner radii of sign borders should be 1/8 of the minimum sign dimension on guide signs, except that the radii should not exceed 12 inches on any sign.*

**Option:**

<sup>04</sup> The sign material in the area outside of the corner radius may be trimmed.

**Support:**

<sup>05</sup> Sign border details are contained in FHWA's "Standard Highway Signs and Markings" book and Department of Transportation's California Sign Specifications. See Section 1A.11 for information regarding these publications.

### **Section 2E.17 Abbreviations**

*Guidance:*

<sup>01</sup> *Abbreviations should be kept to a minimum; however, they are useful when complete destination messages produce excessively long signs. If used, abbreviations should be unmistakably recognized by road users (see Section 1A.15). Longer commonly used words that are not part of a proper name and are readily recognizable, such as Street, Boulevard, and Avenue, should be abbreviated to expedite recognition of the sign legend by reducing the amount and complexity of the legend.*

<sup>02</sup> *Periods, apostrophes, question marks, ampersands, or other punctuation or characters that are not letters, numerals, or hyphens should not be used in abbreviations, unless necessary to avoid confusion.*

<sup>03</sup> *The solidus (slanted line or forward slash) is intended to be used for fractions only and should not be used to separate words on the same line of legend. Instead, a hyphen should be used for this purpose, such as "CARS – TRUCKS."*

**Standard:**

**<sup>04</sup> The words NORTH, SOUTH, EAST, and WEST shall not be abbreviated when used with route signs to indicate cardinal directions on guide signs.**

## **Section 2E.18 Symbols**

### **Standard:**

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

### *Guidance:*

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

### *Option:*

**03 Educational plaques may be used below symbol signs where needed.**

## **Section 2E.19 Arrows for Interchange Guide Signs**

### **Standard:**

**01 Arrows used on interchange guide signs shall be of the types shown in Figure 2D-2 and 2D-2(CA) 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.21) and on Exit Direction signs for lane drops (see Section 2E.24), and except as provided in Paragraphs 3 and 4, directional arrows on all overhead and post-mounted Exit Direction signs shall point diagonally upward and shall be located on the side of the sign consistent with the direction of the exiting movement.**

### *Option:*

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

### **Standard:**

**04 Directional arrows on guide signs for multi-lane exits shall be positioned below the legend approximately over the center of each lane to which the arrow applies (see Figures 2E-4 and 2E-8).**

**05 On overhead signs where down arrows are used to indicate a lane to be followed, a down arrow shall be positioned approximately over the center of each lane and shall point vertically downward toward the 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:*

**07 Directional and down arrows for use on guide signs are shown in Figure 2D-2. Detailed drawings and standardized sizes based on ranges of letter heights for these arrows are provided in the “Standard Highway Signs and Markings” book (see Section 1A.11). Information on the dimensions for arrows used in Overhead Arrow-per-Lane and Diagrammatic guide signing is also provided in the “Standard Highway Signs and Markings” book.**

## **Section 2E.20 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 or Diagrammatic guide sign designs as provided in Sections 2E.21 and 2E.22 shall be used for all multi-lane exits at major interchanges (see Section 2E.32) that have an optional exit lane that also carries the through route (see Figures 2E-4, 2E-5, 2E-8, and 2E-9) and for all splits that include an option lane (see Figures 2E-6 and 2E-10). Overhead Arrow-per-Lane or Diagrammatic 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.**

*Guidance:*

*03 The Overhead Arrow-per-Lane guide sign design (see Section 2E.21) should also be considered for multi-lane exits with an option lane at intermediate interchanges (see Section 2E.32) 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 for multi-lane exits at minor interchanges (see Section 2E.32) that have an optional exit lane or at intermediate interchanges that have an optional exit lane at which it has been determined that the Overhead Arrow-per-Lane guide sign design is not warranted should use a combination of conventional guide signing and regulatory lane-use signing, in accordance with the provisions of Section 2E.23.*

## **Section 2E.21 Design of Overhead Arrow-per-Lane Guide Signs for Option Lanes**

**Support:**

**01** Overhead Arrow-per-Lane guide signs (see Figure 2E-3) 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 either conventional guide signs or Diagrammatic guide signs 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 shall be used on all new or reconstructed freeways and expressways as described in Section 2E.20.

**03** Where used, 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:**

**04** At existing or non-reconstructed locations where Exit Direction and Pull-Through signs exist at the theoretical gore, the existing sign support structure may remain in place, continuing to use Exit Direction and Pull-Through signs, in conjunction with a replacement of the advance signs using the Overhead Arrow-per-Lane guide sign design.

**Standard:**

**05** If existing Exit Direction and Pull-Through signs are being retained at an interchange as provided in Paragraph 4, an Overhead Arrow-per-Lane guide sign shall not be used at the location of the Exit Direction and Pull-Through signs 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:*

*06 Overhead Arrow-per-Lane guide signs should be located at approximately 1/2 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:**

**07** Overhead Arrow-per-Lane guide signs used on freeways and expressways shall include one arrow above each lane and shall be designed in accordance with the following criteria:

- A.** The sign shall include an upward-pointing arrow for each lane of the approach to the split or exit, and the shaft of each arrow shall be located approximately over the center of the lane to which it applies.
- B.** Arrows for continuing through lanes shall be vertically upward pointing (see Figure 2E-4) unless those lanes are on a significantly curved alignment beyond the theoretical gore, in which case the arrows for the continuing through lanes shall indicate the approximate degree of curvature (see Figure 2E-5).

- C. The arrow for a lane that must exit shall be curved in the direction of the exit and shall be accompanied by black-on-yellow EXIT (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.
- D. The arrow for an optional exit lane that also carries the through route shall have a single shaft that bifurcates into a vertically upward-pointing arrow and a curving arrow corresponding to the configuration of the through and exit lanes.
- E. For splits with an option lane, the arrow for the lane from which either direction of the split can be accessed shall have a single shaft that bifurcates into two upward-pointing curving arrows showing the approximate degrees of curvature of the two roadways beyond the theoretical gore (see Figure 2E-6).
- F. A vertical white line shall be used to separate the route shields and destinations for the two diverging movements from each other.
- G. The 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.
- H. 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 a sign location.
- I. For numbered exits, the Exit Number (E1-5P) or Left Exit Number (E1-5bP) plaque shall be used at the top of the sign in accordance with Section 2E.31. For unnumbered left exits, the LEFT (E1-5aP) plaque shall be used at the top left edge of the sign.

*Guidance:*

<sup>08</sup> *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-3).*

**Standard:**

<sup>09</sup> **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:**

<sup>10</sup> Specific guidelines for more detailed design of Overhead Arrow-per-Lane guide signs are contained in the "Standard Highway Signs and Markings" book (see Section 1A.11).

**Option:**

<sup>11</sup> Where extra emphasis of an especially low advisory ramp speed is needed, an EXIT XX MPH (E13-2) sign panel (see Figure 2E-27) may be placed below the applicable destination legend to supplement, but not to replace, the exit or ramp advisory speed warning signs.

## **Section 2E.22 Design of Freeway and Expressway Diagrammatic Guide Signs for Option Lanes**

### **Support:**

<sup>01</sup> Diagrammatic guide signs (see ~~Figure 2E-7~~) are guide signs that show a simplified graphic view of the exit arrangement in relationship to the main highway. While the use of such guide signs might be helpful for the purpose of conveying relative direction of each movement, Diagrammatic guide signs have been shown to be less effective than conventional or Overhead Arrow-per-Lane guide signs at conveying the destination or direction(s) that each approach lane serves, regardless of whether dedicated or option lanes are present.

### **Standard:**

<sup>02</sup> **Diagrammatic guide signs used where an option lane is present at a freeway or expressway split or multi-lane exit shall be designed in accordance with the following criteria:**

- A. The graphic legend shall be of a plan view showing the off-ramp arrangement.**
- B. No other symbols or route shields shall be used as a substitute for arrowheads.**
- C. They shall not be installed at the Exit Direction sign location (see Section 2E.36).**
- D. The EXIT ONLY sign panel shall not be used on diagrammatic 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 of the sign in accordance with Section 2E.31. For unnumbered left exits, the LEFT (E1-5aP) plaque shall be used at the top left edge of the sign.**
- F. The EXIT ONLY (E11-1e or E11-1f) sign panels shall be used on the Exit Direction sign at the theoretical gore, except at splits of two overlapping routes where neither of the routes is designated as an exit.**

### **Guidance:**

<sup>03</sup> *Diagrammatic guide signs used on freeways and expressways should be designed in accordance with the following additional criteria:*

- A. The graphic should not depict deceleration lanes.*
- B. No more than one destination should be displayed for each movement, and no more than two destinations should be displayed per sign.*
- C. 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 ~~Figures 2E-8 and 2E-9~~). Where the movements are freeway or expressway splits rather than exits, the arrowheads should be positioned at approximately the same height on the sign (see ~~Figure 2E-10~~).*
- D. ~~Arrow shafts should contain lane lines.~~ Arrow shafts should match the number of lanes.*
- E. 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 for the off movement.*
- F. 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.*

### **Standard:**

<sup>04</sup> **Diagrammatic guide signs shall not be used at cloverleaf interchanges for the purpose of depicting successive departures from the mainline or separate downstream departures from a collector-distributor roadway. The use of Diagrammatic guide signs at cloverleaf interchanges shall be limited to the following cases:**

- A. Where the outer (non-loop) exit ramp of the cloverleaf is a multi-lane exit having an optional exit lane that also carries the through route; and**
- B. At cloverleaf interchanges that include collector-distributor roadways, ~~such as those illustrated in Figure 2E-36~~, that are accessed from the mainline by a multi-lane exit having an optional exit lane that also carries the through route. In this case, the Diagrammatic guide sign shall only show the configuration of the lanes at the exit point to the collector-distributor roadway and not the entire interchange configuration.**

### **Support:**

<sup>05</sup> Specific guidelines for more detailed design of Diagrammatic guide signs are contained in the "Standard Highway Signs and Markings" book (see Section 1A.11).

<sup>05a</sup> Refer to Section 3B.05 for lane drop markings.

Option:

<sup>06</sup> Where extra emphasis of an especially low advisory ramp speed is needed, an EXIT XX MPH (E13-2) sign panel (see Figure 2E-27) may be placed below the applicable destination legend to supplement, but not to replace, the exit or ramp advisory speed warning signs.

## **Section 2E.23 Signing for Intermediate and Minor Interchange Multi-Lane Exits with an Option Lane**

Support:

<sup>01</sup> 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 or Diagrammatic guide signing described for option lanes in Sections 2E.21 and 2E.22 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:

<sup>02</sup> *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 the same basic principles as those for a conventional exit. In such cases, the option lane is not signed on the Advance Guide signs. For such exits that involve the addition of an auxiliary lane that is not present at the Advance Guide sign locations, but do not involve a lane drop (see Figure 2E-12), a sequence of post-mounted or overhead-mounted Advance Guide signs should be used, located in accordance with the interchange classification (see Section 2E.32). The Exit Direction sign should be located at the theoretical gore and 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.*

<sup>03</sup> *For such interchanges that also have a lane drop (see Figure 2E-11), the Advance Guide and Exit Direction signs should follow the provisions of Section 2E.24. The Exit Direction sign should be located at the theoretical gore and should contain the EXIT ONLY (E11-1e) sign panel.*

<sup>04</sup> *The presence of the option lane should be conveyed by the use of post-mounted lane-use (R3-8 Series) signs (see Section 2B.22). 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 Advance Guide signs, where the option and exit lanes have developed (see Figure 2E-11). 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-12).*

Support:

<sup>05</sup> 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:**

<sup>06</sup> **Advance Guide signs that are mounted overhead shall not display a down arrow over an option lane.**

## **Section 2E.24 Signing for Interchange Lane Drops**

**Standard:**

<sup>01</sup> **The provisions of this Section shall only apply to lane drops at exits that do not have an optional exit lane. At exits that have an optional exit lane in addition to the dropped lane, the provisions of Sections 2E.20 through 2E.23 shall apply.**

<sup>02</sup> **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 mainline.**

<sup>03</sup> **Except on Overhead Arrow-per-Lane and Diagrammatic guide signs (See Sections 2E.20 through 2E.22), the EXIT ONLY (down arrow) (E11-1 or E11-1f) sign panel (see Figure 2E-13 and 2E-13(CA)) shall be used on all signing of lane drops on all overhead Advance Guide signs (see Figures 2E-14 through 2E-16). 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.19.**

**Guidance:**

*04 For lane drops, the Exit Direction sign (see Section 2E.36 and Figure 2E-26 and 2E-26(CA)) ~~shall~~ should be of the format shown in Figures 2E-15 and 2E-16.*

**Standard:**

**04 The bottom portion of the Exit Direction sign shall be yellow with a black border and shall include a diagonally upward-pointing black directional arrow (left or right) for each lane dropped at the exit, with the sign designed and placed so that each arrow is located over the approximate center of each lane being dropped. The words EXIT and ONLY shall be positioned to the left and right, respectively, of the arrow on the E11-1d sign panel for a single-lane drop. For a two-lane drop, the words EXIT ONLY shall be located between the two arrows on the E11-1e sign panel. The number of arrows on the sign shall correspond to the number of dropped lanes at the location of the sign.**

**Guidance:**

*04a Separate Exit Only or Only (E11-1 Series or W61(CA) Series) panels (see Figures 2E-13 and 2E-13(CA)) should be used instead of making these panels part of the sign face at the bottom as shown in Figures 2E-15 and 2E-16.*

**Option:**

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

**Standard:**

**06 If used to retrofit an existing Advance Guide sign, the E11-1a and E11-1b sign panels (see Figure 2E-13 and 2E-13(CA)) shall be placed on either side of a white down arrow. The E11-1c sign panel, if used to retrofit an existing sign, shall be placed between the lower destination message and the white down arrow.**

**Guidance:**

*07 Except as provided in Paragraph 8 for an auxiliary lane, Advance Guide signs for lane drops within 1 mile of the interchange should not contain the distance message.*

*08 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 Advance Guide sign in the sequence downstream from the entrance ramp should contain the distance message.*

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

**Support:**

*10 Sections 2E.20 through 2E.23 contain information on the signing of lane drops at exits that also have an option lane.*

*11 Section 2B.23 contains information regarding regulatory signs that can also be used for freeway lane drop situations and Section ~~2C.42~~ 2C.43 contains information regarding warning signs that can also be used for freeway lane drop situations.*

**Standard:**

**12 The Exit Only (W61A(CA), W61B(CA), W61C(CA), W61D(CA), W61E(CA) and W61H(CA)) panels shall be used on overhead directional signs to identify lane/lanes that enter or exit a freeway.**

**13 The Only (W61F(CA), W61G(CA) and W61H(CA)) panels shall be used on overhead directional signs to identify lane/lanes that become a freeway to freeway connector.**

**Support:**

*14 Typical examples are shown in Figures 3B-8(CA) and 3B-10(CA).*

## **Section 2E.25 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. Factors justifying the installation of overhead signs are given in Section 2A.17. Vertical clearance of overhead signs is discussed in Section 2A.18.*

## Section 2E.26 Lateral Offset

### Standard:

**01 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 supports or shielded by appropriate crashworthy barriers.**

### Guidance:

*02 Where practical, 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 overhead sign supports cannot be placed sufficiently far away from the line of traffic or in an otherwise protected site, they should either be designed to minimize the impact forces, or be adequately shielded by a 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 Also refer to Section 2A.19 for more information on this topic.**

## Section 2E.27 Route Signs and Trailblazer Assemblies

### Standard:

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

### Guidance:

*02 Route signs (see Figure 2E-17) 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.*

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

### Option:

**04 The standard Trailblazer Assembly (see Section 2D.35) may be used on roads leading to the freeway or expressway. Component messages of the Trailblazer Assembly may be included on a single sign in accordance with the provisions of Section 2D.12. Independently mounted Route signs may be used instead of Pull-Through signs (see Section 2E.12) as confirmation information.**

### Support:

**05 Section 2H.07 contains information regarding the design of signs for Auto Tour Routes.**

### Option:

**06 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.

07 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:

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

### **Section 2E.28 Eisenhower Interstate System Signs (M1-10, M1-10a)**

Option:

01 The Eisenhower Interstate System (M1-10 and M1-10a) signs (see Figure 2E-18) may be used on Interstate highways at periodic intervals and in rest areas, scenic overlooks, or other similar roadside facilities on the Interstate Highway System.

Guidance:

02 *If used, the M1-10a sign should 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 sign should not be installed on Interstate highway mainlines, ramps, or other roadways where it can be viewed by vehicular traffic.*

**Standard:**

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.**

### **Section 2E.29 Signs for Intersections at Grade**

Guidance:

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

Option:

02 Advance Guide signs for intersections at grade may take the form of diagrammatic layouts depicting the geometrics of the intersection along with essential directional information.

### **Section 2E.30 Interchange Guide Signs**

**Standard:**

Guidance:

01 *The signs at interchanges and on their approaches shall should include Advance Guide signs and Exit Direction signs.*

**Standard:**

**Consistent destination messages shall be displayed on these signs.**

Guidance:

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

03 *Reference should be made to Section 2E.11 and Sections 2E.33 through 2E.42 for a detailed description of the signs in the order that they should appear at the approach to and beyond each interchange. Guide signs placed in advance of an interchange deceleration lane should be spaced at least 800 feet apart.*

04 *Supplemental guide signing should be used sparingly as provided in Section 2E.35.*

Support:

05 [Also refer to Section 2D.31.](#)

*Guidance:*

*06 The exits should be identified on signs by street names and/or route markers.*

*07 Community names should not be included on street name exit signs. If the interchange provides more than one exit to the street, cardinal directions should be included on the sign.*

*Option:*

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

*Support:*

*09 Typical use of the G8 Series (CA) signs in freeway interchange areas is shown in Figures 2E-34(CA), 2E-35(CA) and 2E-37(CA) through 2E-40(CA) for typical freeway signing.*

## **Section 2E.31 Interchange Exit Numbering**

**Support:**

**01 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:**

**02 Interchange numbering shall be used in signing each freeway interchange exit. Interchange exit numbers shall be displayed with each Advance Guide sign, Exit Direction sign, and Exit Gore sign. The exit number shall be displayed on a separate plaque at the top of the Advance Guide or Exit Direction sign. The exit number (E1-5P) plaque (see Figure 2E-22) shall be 30 inches in height and shall include the word EXIT and the appropriate exit number in a single-line format. Suffix letters shall be used for exit numbering at a multi-exit interchange. The suffix letter shall also be included on the exit number plaque and shall be separated from the exit number by a space having a width of between 1/2 and 3/4 of the height of the suffix letter. Exit numbers shall not include the cardinal initials corresponding to the directions of the cross route. Minimum numeral and letter sizes are given in Tables 2E-2 through 2E-5. If used, the interchange numbering system for expressways shall comply with the provisions prescribed for freeways.**

**03 At a multi-exit interchange 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.**

**04 Interchange exit numbering shall use the reference location sign exit numbering method. The consecutive exit numbering method shall not be used.**

**Support:**

**05 Reference location sign exit numbering assists road users in determining their destination distances and travel mileage, and assists highway agencies because the exit numbering sequence does not have to be changed if new interchanges are added to a route.**

**Option:**

**06 Exit numbers may also be used with Supplemental Guide signs and Motorist Service signs.**

*Guidance:*

*07 Exit number (E1-5P) plaques should be added to the top right-hand edge of the sign for an exit to the right.*

**Standard:**

**08 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) plaque (see Figure 2E-22) shall be added to the top left-hand edge of the sign for all left-hand exits (see Figures 2E-14 and 2E-15). The word LEFT on the E1-5bP plaque shall be a black legend on a yellow rectangular sign panel and shall be centered above the word EXIT.**

**Support:**

**09 Example exit number plaque designs are shown in Figure 2E-22 and 2E-22(CA). Figures 2E-3, 2E-7, 2E-22, 2E-22(CA), 2E-26, 2E-26(CA) and 2E-27 illustrate the incorporation of exit number plaques on guide signs.**

**10 The general plan for numbering interchange exits is shown in Figures 2E-19 through 2E-21. Figure 2E-19 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-20 shows a loop route, which is a route that departs from a mainline route and then rejoins the same mainline route at a subsequent point downstream, and a spur route, which is a route that departs from a mainline route and never rejoins the same mainline route. Figure 2E-21 shows two mainline routes that overlap each other.

**Standard:**

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

**12 For circumferential routes, interchange 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-19).**

**13 The interchange numbers on loop routes shall begin at the loop interchange nearest the south or west mainline junction and increase in magnitude toward the north or east mainline junction (see Figure 2E-20).**

**14 Spur route interchanges shall be numbered in ascending order starting at the interchange where the spur leaves the mainline route (see Figure 2E-20).**

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

**16 Where numbered routes overlap, continuity of interchange numbering shall be established for only one of the routes (see Figure 2E-21). If one of the routes is an Interstate and the other route is not an Interstate, the Interstate route shall maintain continuity of interchange numbering.**

*Guidance:*

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

**Standard:**

**18 The Department of Transportation shall utilize mileage based interchange exit numbering to identify the location of each interchange exit on the California Freeway System. The following web site shall provide the statewide listing of freeway exit numbers indexed by route and direction:**

<http://www.dot.ca.gov/hq/traffops/signtech/calnexuss/index.htm>

**19 The placement and location of interchange exit numbering on State highways shall conform to the database maintained by Department of Transportation's Division of Traffic Operations for reference posts. This database is different from the TASAS Highway database.**

**20 Interchange numbering shall be used in signing each freeway interchange exit. Each freeway interchange exit shall include a minimum of two numbered exit signs:**

- 1. One Advance Guide (G83(CA) Series) sign with exit number.**
- 2. One Exit Gore (E5-1 or G84-2(CA) or G84-3(CA)) sign with exit number and arrow or, if not available, an exit number shall be installed on an adjacent Exit Direction (G85-10(CA) or G85-11(CA)) sign at the gore.**

**21 To the extent practical, interchange exit numbers shall be displayed with each Advance Guide sign, Exit Direction sign, and Gore sign on freeways.**

**22 Exit numbers shall not include the cardinal initials corresponding to the directions of the cross route.**

*Guidance:*

*23 The exit number signs should take advantage of existing roadside and overhead signs. Where possible, add-on plaques or panels should be used. In areas where maximum wind loads or existing legends do not permit placement of an add-on plaque or panel, a new sign should be installed.*

*Support:*

*24 For new sign installations or if the existing sign is due for replacement, consider ordering a new sign with the exit number included as part of the sign.*

**Standard:**

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

Support:

<sup>26</sup> Where one or more lanes of traffic diverge from the main line at a single exit, the exit is numbered and signed at the main line diverge as one exit. Generally, there is adequate information displayed on guide signs downstream of the main line diverge to direct a road user to the desired destination, route or street.

Option:

<sup>27</sup> A multiple exit number add-on sign (such as E1-5 with message EXITS 33 A-B in Figure 2E-22) may be placed at the mainline diverge.

Guidance:

<sup>28</sup> *The multiple exit number add-on sign should only be placed when further clarification is needed to guide road users to the desired destination.*

**Standard:**

<sup>29</sup> **If multiple exit number add-on sign is used, exit numbers with the appropriate suffix letters shall be placed on guide signs downstream of the mainline diverge.**

Support:

<sup>30</sup> Exit numbers are not required for exits from auxiliary lanes, connectors or collector-distributors.

Option:

<sup>31</sup> The single line EXIT XX panel (G70-2(CA)) may be attached to an existing Advance Guide sign, Exit Direction sign, or Supplemental Guide sign that identifies an interchange that has been assigned a one or two digit exit number/suffix.

<sup>32</sup> The single line EXIT XXXX panel (G70-3(CA)) may be attached to an existing Advance Guide sign, Exit Direction sign, or Supplemental Guide sign that identifies an interchange that has been assigned a three or four digit exit number/suffix.

<sup>33</sup> The two line EXIT XX panel (G70-4(CA)) may be used as an alternate to the single line EXIT XX panel (G70-2(CA)) when an existing sign cannot accommodate the single line format. It may be attached to an existing Advance Guide sign, Exit Direction sign, or Supplemental Guide sign that identifies an interchange that has been assigned a one or two digit exit number/suffix.

<sup>34</sup> The two line EXIT XXXX panel (G70-5(CA)) may be used as an alternate to the single line EXIT XXXX panel (G70-3(CA)) when an existing sign cannot accommodate the single line format. It may be attached to an existing Advance Guide sign, Exit Direction sign, or Supplemental Guide sign that identifies an interchange that has been assigned a three or four digit exit number/suffix.

Guidance:

<sup>35</sup> *The EXIT panels (G70-2(CA), G70-3(CA), G70-4(CA) and G70-5(CA)) should be located toward the top left edge of the sign for a left exit and toward the top right edge for right exits.*

Option:

<sup>36</sup> The Exit Numbered Advance Guide (G83-4(CA)) sign with separate borders may be used for new sign installations or as an alternate to retrofitting an existing Advance Guide sign when the existing Advance Guide sign cannot accommodate an add-on plaque or panel.

<sup>37</sup> The Exit Numbered Advance Guide (G83-5(CA)) sign with a single border may be used as an alternate to the G83-4(CA) when the sign message requires additional space on the sign.

**Standard:**

<sup>38</sup> **If used, the G83-4(CA) and G83-5(CA) signs shall be placed on freeways to give motorists advance notice of the exit point to the principal destination served by the next interchange that has been assigned an exit number/suffix, and the distance to that interchange.**

<sup>39</sup> **The Exit Gore (E5-1) sign shall be used at exit ramp gores from expressways, from freeway to freeway connectors, and from collector distributors to identify the exiting point.**

<sup>40</sup> **The EXIT XX with Arrow Gore (G84-2(CA)) sign shall be used at exit ramp gores on freeways to identify the exiting point at an interchange that has been assigned a one or two digit exit number/suffix.**

<sup>41</sup> **The EXIT XXXX with Arrow Gore (G84-3(CA)) sign shall be used at exit ramp gores on freeways to identify the exiting point at an interchange that has been assigned a three or four digit exit number/suffix.**

Guidance:

<sup>42</sup> *On the Exit Gore (E5-1 and G84-2(CA) and G84-3(CA)) signs, the arrow should be aligned to approximate the angle of departure.*

**Standard:**

**43 The Exit Gore (E5-1 and G84-2(CA) and G84-3(CA)) signs shall be placed in the area between the main roadway and the exit ramp.**

**Option:**

44 The Exit Numbered Exit Direction (G85-10(CA)) sign with separate borders may be used for new sign installations or as an alternate to retrofitting an existing Exit Direction sign when the existing Exit Direction sign cannot accommodate an add-on plaque or panel.

45 The Exit Numbered Exit Direction (G85-11(CA)) sign with a single border may be used as an alternate to the G85-10(CA) sign when the sign message requires additional space on the sign.

**Standard:**

**46 If used, the G85-10(CA) and G85-11(CA) signs shall be placed on freeways to direct motorists to the exit ramp of an interchange that has been assigned an exit number/suffix.**

**Guidance:**

47 *The G85-10(CA) and G85-11(CA) signs should be placed in the area at the beginning of the deceleration lane of the exit ramp.*

**Option:**

48 The Exit Numbered Supplemental Guide (G86-12(CA)) sign with separate borders may be used for new sign installations or as an alternate to retrofitting an existing Supplemental Guide sign (G86(CA) Series) when the existing Supplemental Guide sign cannot accommodate an add-on plaque or panel.

49 The Exit Numbered Supplemental Guide (G86-13(CA)) sign with a single border may be used as an alternate to the G86-12(CA) sign when the sign message requires additional space on the sign.

50 The G86-12(CA) and G86-13(CA) signs may be placed on freeways to give motorists advance notice of the exit point to the principal destination served by the next interchange that has been assigned an exit number/suffix.

## **Section 2E.32 Interchange Classification**

**Support:**

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

A. Major interchanges are subdivided into two categories: (a) interchanges with other expressways or freeways, or (b) interchanges with high-volume multi-lane highways, principal urban arterials, or major rural routes where the volume of interchanging traffic is heavy or includes many road users unfamiliar with the area.

B. Intermediate interchanges are those with urban and rural routes not in the category of major or minor interchanges.

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

## **Section 2E.33 Advance Guide Signs**

**Support:**

01 An Advance Guide sign (see Figure 2E-22 and 2E-22(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.

**Guidance:**

02 *For major and intermediate interchanges (see Section 2E.32), Advance Guide signs should be placed at 1/2 mile and at 1 mile in advance of the exit with a third Advance Guide sign placed at 2 miles in advance of the exit if spacing permits. At minor interchanges, only one Advance Guide sign should be used. It should be located 1/2 to 1 mile from the exit gore. If the sign is located less than 1/2 mile from the exit, the distance displayed should be to the nearest 1/4 mile. Fractions of a mile, rather than decimals, should be displayed in all cases.*

**Standard:**

**03 For numbered exits to the left, a left exit number (E1-5bP) plaque (see Figure 2E-22) shall be added to the top left-hand edge of the sign.**

**04 For non-numbered exits to the left, a LEFT (E1-5aP) plaque (see Figure 2E-22) shall be added to the top left-hand edge of the sign.**

Support:

05 Section 2E.31 contains additional information regarding exit numbering.

**Standard:**

**06 Advance Guide signs for multi-lane exits having an optional exit lane that also carries the through route (see Figures 2E-4, 2E-5, 2E-8, and 2E-9) and for splits with an option lane (see Figures 2E-6 and 2E-10) shall be Overhead Arrow-per-Lane or diagrammatic signs designed in accordance with Sections 2E.20 through 2E.22.**

**07 Except as provided in Section 2E.24, Advance Guide signs, if used, shall contain the distance message. ~~Except as provided in Paragraph 8 of this Section, the legend on the Advance Guide signs shall be the same as the legend on the Exit Direction sign, except that the last line shall read EXIT XX MILES. If the interchange has two or more exit roadways, the bottom line shall read EXITS XX MILES.~~**

*Guidance:*

~~08 Where interchange exit numbers are used, the word EXIT(S) should be omitted from the bottom line.~~

Option:

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

*Guidance:*

10 *Where there is less than 800 feet between interchanges, Interchange Sequence Series signs (see Section 2E.40) should be used instead of Advance Guide signs for the affected interchanges.*

11 *The Advance Guide signs for the last exit from a highway before it becomes a facility on which toll payments are required should include the LAST EXIT BEFORE TOLL (W16-16P) plaque (see Section 2F.10 and Figure 2F-3). The plaque should be installed above the Advance Guide signs.*

Option:

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

**Standard:**

**13 Where the distance between interchanges is less than 2 mile, the Advance Guide (G83(CA) Series) sign shall be placed at the first available location with the mileage adjusted to the nearest 1/4 mile. The word EXIT (with distance) on the bottom line shall be used if the sign is the advance notice for an interchange with distance destinations.**

*Guidance:*

14 *In all other cases, the word EXIT should be omitted.*

15 *For major and intermediate interchanges (see Section 2E.32), two and preferably three Advance Guide signs should be used. At minor interchanges, only one Advance Guide sign should be used.*

16 *If only one Advance Guide sign is used, it should be placed 1 mile in advance of the exit.*

17 *If two Advance Guide signs are used, they should be placed 1 mile and 2 mile in advance of the exit.*

18 *If three Advance Guide signs are used, they should be placed 0.5 mile, 1 mile and 2 mile in advance of the exit.*

Support:

19 *See in Figures 2E-34(CA), 2E-35(CA) and 2E-37(CA) through 2E-40(CA) for typical freeway signing.*

## **Section 2E.34 Next Exit Plaques**

Option:

01 *Where the distance to the next interchange is unusually long, a Next Exit plaque (see Figure 2E-23) 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.*

**Standard:**

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

**Option:**

04 The legend for the Next Exit plaque may be displayed in either one or two lines as shown in Figure 2E-23.

**Support:**

05 The one-line message on the Next Exit plaque is the more desirable choice unless the message causes the sign to have a horizontal dimension greater than that of the Advance Guide sign.

**Section 2E.35 Other Supplemental Guide Signs**

**Support:**

01 Supplemental Guide signs 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 (see Page i for AASHTO's address).

**Guidance:**

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

03 *A Supplemental Guide sign (see Figure 2E-24) should not list more than two destinations. Destination names should be followed by the interchange number (and suffix), or if interchanges are not numbered, by the legend NEXT RIGHT or SECOND RIGHT or both, as appropriate. The Supplemental Guide sign should be installed as an independent guide sign assembly.*

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

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

**Standard:**

**06 Guide signs directing drivers to park - ride facilities shall be considered as Supplemental Guide signs (see Figure 2E-25).**

**Option:**

07 A pictograph (see definition in Section 1A.13) may be used on a Supplemental Guide sign in conjunction with a destination that is associated with governmental agencies, military bases, universities, or other government-approved institutions.

**Standard:**

**08 The maximum dimension (height or width) of a pictograph shall not exceed two times the upper-case letter height of the destination legend and shall not exceed the size of a route shield on the guide sign. If used, the pictograph shall be located to the left of the destination legend it represents, except as provided in Paragraph 9 for the park-ride Supplemental Guide sign.**

**09 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.**

**10 A pictograph representing a State, county, or municipal corporation or other incorporated or unincorporated community shall not be displayed on a Supplemental Guide sign.**

**11 Pictographs shall otherwise comply with the provisions of Section 2A.06.**

**Support:**

12 *Section 2D.37 also applies to freeways and expressways.*

Option:

<sup>13</sup> The Supplemental Destination (G86(CA) Series) signs may be omitted at low traffic volume interchanges or at major interchanges that are spaced 0.5 mile or less apart. They may also be omitted where interchanges are 1 mile or less apart and Interchange Sequence (G23(CA) Series) signs are used.

### Section 2E.36 Exit Direction Signs

Support:

<sup>01</sup> The Exit Direction sign (see Figure 2E-26 and 2E-26(CA)) repeats the route and destination information that was displayed on the Advance Guide sign(s) for the next exit, and thereby assures road users of the destination served and indicates whether they exit to the right or left for that destination.

**Standard:**

<sup>02</sup> **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:*

<sup>03</sup> *Exit Direction signs should be used at minor interchanges.*

<sup>04</sup> *post-mounted Exit Direction signs should be installed at the beginning of the deceleration lane. If there is less than 300 feet from the upstream end of the deceleration lane to the theoretical gore (see Figure ~~3B-8~~ 3B-8(CA)), the Exit Direction sign should be installed overhead over the exiting lane in the vicinity of the theoretical gore.*

**Standard:**

<sup>05</sup> **Except where Overhead Arrow-per-Lane guide signs are used (see Section 2E.21 and Paragraph 6 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-8 through 2E-11~~, and 2E-14 through 2E-16).**

<sup>06</sup> **Except as provided in Paragraph 4 in Section 2E.21, where Overhead Arrow-per-Lane guide signs are used for the Advance Guide sign(s) for a multi-lane exit having an optional exit lane that also carries the through route or for a split with an option lane (see Section 2E.21), an Overhead Arrow-per-Lane guide sign shall also be used instead of the Exit Direction sign. This Overhead Arrow-per-Lane guide sign shall include the appropriate exit number (E1-5P or E1-5bP) plaque (if a numbered exit) and it shall be located near, but not downstream from, the point where the outside edge of the dropped lane begins to diverge from the mainline (see Figures 2E-4 through 2E-6).**

<sup>07</sup> **The following provisions shall govern the design and application of overhead Exit Direction signs: A. The sign shall carry the exit number (if exit numbering is used), the route number, cardinal direction, and destination, as applicable, with a diagonally upward-pointing directional arrow (see Figure 2E-26 and 2E-22(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-8 through 2E-11~~). The sign shall comply with the provisions of Section 2E.24.**

*Guidance:*

<sup>08</sup> *For numbered exits to the right, an exit number (E1-5P) plaque (see Figure 2E-22) should be added to the top right-hand edge of the sign.*

**Standard:**

<sup>09</sup> **For numbered exits to the left, a left exit number (E1-5bP) plaque (see Figure 2E-22) shall be added to the top left-hand edge of the sign.**

<sup>10</sup> **For non-numbered exits to the left, a LEFT (E1-5aP) plaque (see Figure 2E-22) shall be added to the top left-hand edge of the sign.**

Support:

<sup>11</sup> Section 2E.31 contains additional information regarding exit numbering.

Option:

<sup>12</sup> In some cases, principally in urban areas, where restricted sight distance because of structures or unusual alignment make it impossible to locate the Exit Direction sign without violating the required minimum spacing (see Section 2E.33) between major guide signs, Interchange Sequence signs (see Section 2E.40) may be substituted for an Advance Guide sign.

*Guidance:*

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

*Option:*

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

*15 Where extra emphasis of an especially low advisory ramp speed is needed, an EXIT XX MPH (E13-2) sign panel (see Figure 2E-27) 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.*

*Guidance:*

*16 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-3) should be installed above the Exit Direction sign.*

*Option:*

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

*Support:*

*18 See in Figures 2E-34(CA), 2E-35(CA) and 2E-37(CA) through 2E-40(CA) for typical freeway signing.*

## **Section 2E.37 Exit Gore Signs (E5-1 Series)**

**Support:**

**01 The Exit Gore (E5-1 or E5-1a) sign (see Figure 2E-28 and 2E-28(CA)) in the gore indicates the exiting point or the place of departure from the main roadway. Consistent application of this sign at each exit is important.**

**Standard:**

**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. The Exit Gore sign shall be located in the gore and shall carry the word EXIT or EXIT XX (if interchange numbering is used) and an appropriate upward slanting arrow. If suffix letters are used for exit numbering at a multi-exit interchange, the suffix letter shall also be included on the Exit Gore sign and shall be separated from the exit number by a space having a width of between 1/2 and 3/4 of the height of the suffix letter. 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 Where extra emphasis of an especially low advisory ramp speed is needed, an E13-1P plaque indicating the advisory speed may be mounted below the Exit Gore sign (see Figure 2E-28 and 2E-28(CA)) to supplement, but not to replace, the exit or ramp advisory speed warning signs.*

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

~~*06 An Exit Number (E5-1bP) plaque (see Figure 2E-22) may be installed above an existing Exit Gore (E5-1) sign when a non-numbered exit is converted to a numbered exit.*~~

**Standard:**

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

*Option:*

*08 The Narrow Exit Gore (E5-1c) sign 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.19), such as for ramp departures that*

are nearly parallel to the mainline roadway where the Exit Gore sign would be mounted on a narrow island or barrier. Where the E5-1c sign is mounted at a height of 14 feet or more from the roadway, the directional arrow may point diagonally downward.

*Guidance:*

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

### **Section 2E.38 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.*

*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.39 Post-Interchange Distance Signs**

**Standard:**

**01 If used, the Post-Interchange Distance sign shall consist of a two- or three-line sign carrying the names of significant destination points and the distances to those points. The top line of the sign shall identify the next meaningful interchange with the name of the community ~~near or~~ through which the route passes, or if there is no community, the route number or name of the intersected highway (see Figure 2E-29).**

*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 "US XX," "State Route XX," or "County Route 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.41.*

*08 The Distance (G5(CA) Series) signs should be placed at approximate 10 mile intervals, unless the destinations have changed.*

## Section 2E.40 Interchange Sequence Signs

### Option:

01 If interchanges are closely spaced, particularly through large urban areas, so that guide signs cannot be adequately spaced, Interchange Sequence signs identifying the next two or three interchanges may be used.

### Guidance:

02 *If used, Interchange Sequence signs should be used over the entire length of a route in an urban area. Except as provided in Paragraph 3, they should not be used on a single interchange basis.*

03 *If there is less than 800 feet between interchanges, Interchange Sequence signs should be used instead of the Advance Guide signs for the affected interchanges.*

### Support:

04 Interchange Sequence signs are generally supplemental to Advance Guide signs. Signing of this type is illustrated in Figures 2E-30 and 2E-31 and 2E-31(CA), and is compatible with the sign spreading concept described in Paragraph 3 of Section 2E.11.

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

### Standard:

06 **If used, the first sign in the series shall be located in advance of the first 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-13 and 2E-13(CA)) 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 of the series, 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.18).**

### Option:

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

### Support:

12 See in Figures 2E-34(CA), 2E-35(CA) and 2E-37(CA) through 2E-40(CA) for typical freeway signing.

### Standard:

13 **If a destination name is used, it shall be followed by the word EXIT (for instance, SACRAMENTO EXIT).**

### Option:

14 ~~When two exit names are required at an interchange with a cross street named differently on opposite sides of a freeway, both names may be shown with a single distance; and, four messages may be used on the sign at these locations.~~

15 ~~The Interchange Sequence (G23(CA) Series) signs may include four lines where two exit names are required for a single interchange.~~

## Section 2E.41 Community Interchanges Identification Signs

### Support:

~~01 For suburban or rural communities served by two or three interchanges, Community Interchanges Identification signs are useful (see Figure 2E-32).~~

### 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 1/4 mile.~~

~~03 The sign should be located in advance of the first Advance Guide sign for the first interchange within the community.~~

**Option:**

~~04 If interchanges are not conveniently identifiable or if there are more than three interchanges to be identified, the NEXT XX EXITS sign (see Section 2E.42) may be used.~~

**Support:**

05 Use Interchange Sequence (Section 2E.40 and Figures 2E-31 and 2E-31(CA)) and NEXT X EXITS (Section 2E.42 and Figure 2E-33) signs, instead.

### **Section 2E.42 NEXT XX EXITS Sign**

**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 XX EXITS (G87(CA)) sign (see Figure 2E-33 and 2E-33(CA)) 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.*

### **Section 2E.43 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-34 through 2E-40~~ 2E-34(CA), 2E-35(CA) and 2E-37(CA) through 2E-40(CA) 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.45 contains information regarding the signing of the crossroad approaches and connecting roadways to freeways and expressways.

**Standard:**

02 **Interchange guide signing shall be consistent for each type of interchange along a route.**

**Guidance:**

03 *The signing layout for all interchanges having only one exit ramp in the direction of travel should be similar, regardless of the interchange type. For the sake of uniform application, the significant features of the signing plan for each of the more frequent kinds of interchanges (illustrated in Figures ~~2E-34 through 2E-40~~ 2E-34(CA), 2E-35(CA) and 2E-37(CA) through 2E-40(CA)) should be followed as closely as possible. Even when unusual geometric features exist, variations in signing layout should be held to a minimum.*

### **Section 2E.44 Freeway-to-Freeway Interchange**

**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. Figure ~~2E-34~~ 2E-34(CA) shows examples of guide signs at a freeway-to-freeway interchange.

**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 signs are used in accordance with the provisions of Sections 2E.20 through 2E.22.*

**Support:**

03 At splits where the off-route movement is to the left or where there is an optional lane split, expectancy problems usually result.

**Standard:**

04 **At splits where the off-route movement is to the left, the Left Exit Number (E1-5bP) plaque shall be added at the top left-hand edge of the guide sign (see Section 2E.31). Overhead Arrow-per-Lane or Diagrammatic guide signs (see Sections 2E.21 and 2E.22) shall be used for freeway splits with an option lane and for multi-lane freeway-to-freeway exits having an option lane.**

**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 guide signs are used, they shall comply with the provisions of Sections 2E.21 and 2E.22.**

Option:

06 Overhead signs may also be used at the 1/2-mile and 2-mile locations.

07 The arrow and/or the name of the control city may be omitted on signs that indicate the straight-ahead continuation of a route on a Pull-Through sign (see Section 2E.12).

08 An Advisory Exit Speed sign may be used where an engineering study shows that it is necessary to display a speed reduction message for ramp signing (see Section 2C.14).

09 Where extra emphasis of an especially low advisory ramp speed is needed, an EXIT XX MPH (E13-2) sign panel (see Figure 2E-27) 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.

### **Section 2E.45 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. Examples of guide signs for cloverleaf interchanges are shown in Figure ~~2E-35~~ 2E-35(CA).

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 shall be placed at the theoretical gore of the first exit ramp, with a diagonally upward-pointing directional arrow on the Exit Direction sign for that exit and the message XX MILES, or EXIT XX MILES if interchange numbering is not used, on the Advance Guide sign for the second exit, as shown in Figure ~~2E-35~~ 2E-35(CA). The second exit shall be indicated by an overhead Exit Direction sign over the auxiliary lane. An Exit Gore sign shall also be used at each gore (see Section 2E.37).**

04 **Interchanges with more than one exit from the main line shall be numbered as described in Section 2E.31 with an appropriate suffix.**

05 **Diagrammatic signs shall not be used for cloverleaf interchanges except as otherwise provided in Section 2E.22.**

Guidance:

06 *Where the mainline passes under the crossroad and the exit roadway is located beyond the overcrossing structure, the overhead Exit Direction sign for the second exit should be placed either on the overcrossing structure (see Figure ~~2E-35~~ 2E-35(CA)) or on a separate structure located immediately in front of the overcrossing structure.*

### **Section 2E.46 Cloverleaf Interchange with Collector-Distributor Roadways**

Support:

01 ~~Examples of guide signs for full cloverleaf interchanges with collector-distributor roadways are shown in Figure 2E-36. Contact Department of Transportation's Division of Traffic Operations for further guidance regarding this figure.~~

Guidance:

02 *Signing on the collector-distributor roadways should be the same as the signing on the mainline of a cloverleaf interchange.*

Standard:

03 **Guide signs at exits from the collector-distributor roadways shall be overhead and located at the theoretical gore of the collector-distributor roadway and the exit ramp.**

Option:

04 ~~Exits from the collector-distributor roadways may be numbered with an appropriate suffix. If the exits from a collector-distributor roadway are numbered with suffixes, the Advance Guide signs on the mainline may include two place names and their corresponding exit numbers with the plural EXITS. If only the exit from the mainline~~

~~is numbered or if interchange numbering is not used, the Advance Guide signs on the mainline may use the singular EXIT. Refer to Sections 2E.31 and 2E.33.~~

~~05 The Advance Guide signs may include two place names and their corresponding exit numbers.~~

### **Section 2E.47 Partial Cloverleaf Interchange**

Support:

01 Examples of guide signs for partial cloverleaf interchanges are shown in Figure ~~2E-37~~ 2E-37(CA).

Guidance:

02 *Where the mainline 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-37~~ 2E-37(CA)) or on a separate structure located immediately in front of the overcrossing structure.*

**Standard:**

03 **A post-mounted Exit Gore sign shall also be installed in the ramp gore.**

Support:

04 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.45).

### **Section 2E.48 Diamond Interchange**

Support:

01 Examples of guide signs for diamond interchanges are shown in Figure ~~2E-38~~ 2E-38(CA).

**Standard:**

02 **For numbered exits, the singular message EXIT shall be used on the Exit Number plaques (see Section 2E.31) with the Advance Guide and Exit Direction signs. For non-numbered exits, the singular message EXIT shall be used as part of the distance message on the Advance Guide signs.**

Support:

03 The typical diamond interchange ramp departs from the mainline roadway such that a speed reduction generally is not necessary in order for a driver to negotiate an exit maneuver from the mainline onto the ramp roadway.

Guidance:

04 *When a speed reduction is not necessary, an exit speed sign should not be used.*

Option:

05 An Advisory Exit Speed sign may be used where an engineering study shows that it is necessary to display a speed reduction message for ramp signing (see Section 2C.14).

Guidance:

06 *The Advisory Exit Speed sign should be located along the deceleration lane or along the ramp such that it is visible to the driver far enough in advance to allow the driver to decelerate before reaching the curve associated with the exiting maneuver.*

Option:

07 A Stop Ahead or Signal Ahead warning sign may be placed, where engineering judgment indicates a need, along the ramp in advance of the cross street, to give notice to the driver (see Section 2C.36).

Guidance:

08 *When used on two-lane ramps, Stop Ahead or Signal Ahead signs should be used in pairs with one sign on each side of the ramp.*

### **Section 2E.49 Diamond Interchange in Urban Area**

Support:

01 Examples of guide signs for diamond interchanges in an urban area are shown in Figure ~~2E-39~~ 2E-39(CA). This example includes the use of the Community Interchanges Identification sign (see Section 2E.41), 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 properly locate the Advance Guide signs, they may be placed closer to the exit with the distances displayed adjusted accordingly.

### **Section 2E.50 Closely-Spaced Interchanges**

Support:

01 Section 2E.11 contains information regarding sign spreading where the Exit Direction sign and the 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.

Guidance:

02 *Interchange Sequence signs (see Section 2E.40) 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-30.*

Standard:

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

### **Section 2E.51 Minor Interchange**

Option:

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

Support:

02 Examples of guide signs for minor interchanges are shown in Figure ~~2E-40~~ 2E-40(CA).

Standard:

03 **At least one Advance Guide sign and an Exit Gore sign shall be used at a minor interchange.**

Guidance:

04 *An Exit Direction sign should also be used.*

### **Section 2E.52 Signing on Conventional Road Approaches and Connecting Roadways**

Support:

01 Section 2D.45 contains information regarding the signing on conventional roads on the approaches to interchanges and the signing on connecting roadways.

### **Section 2E.53 Wrong-Way Traffic Control at Interchange Ramps**

Support:

01 Section 2B.41 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.46 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.

### **Section 2E.54 Weigh Station Signing**

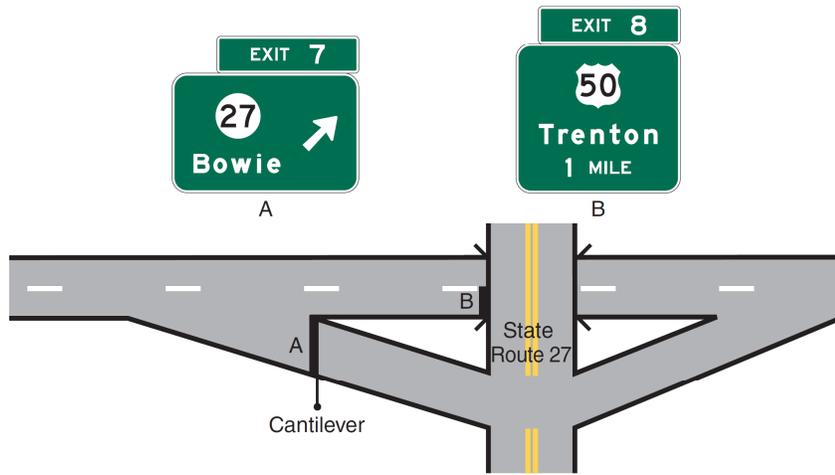
Standard:

01 **Weigh Station signing on freeways and expressways shall be the same as that provided in Section 2D.49, except for lettering size and the advance posting distance for the Exit Direction sign, which shall be located a minimum of 1,500 feet in advance of the gore.**

Support:

02 Weigh Station sign layouts for freeway and expressway applications are shown in the "Standard Highway Signs and Markings" book (see Section 1A.11).

**Figure 2E-1. Example of Guide Sign Spreading**



**Figure 2E-2. Pull-Through Signs**



**Figure 2E-2 (CA). California Pull-Through Signs**

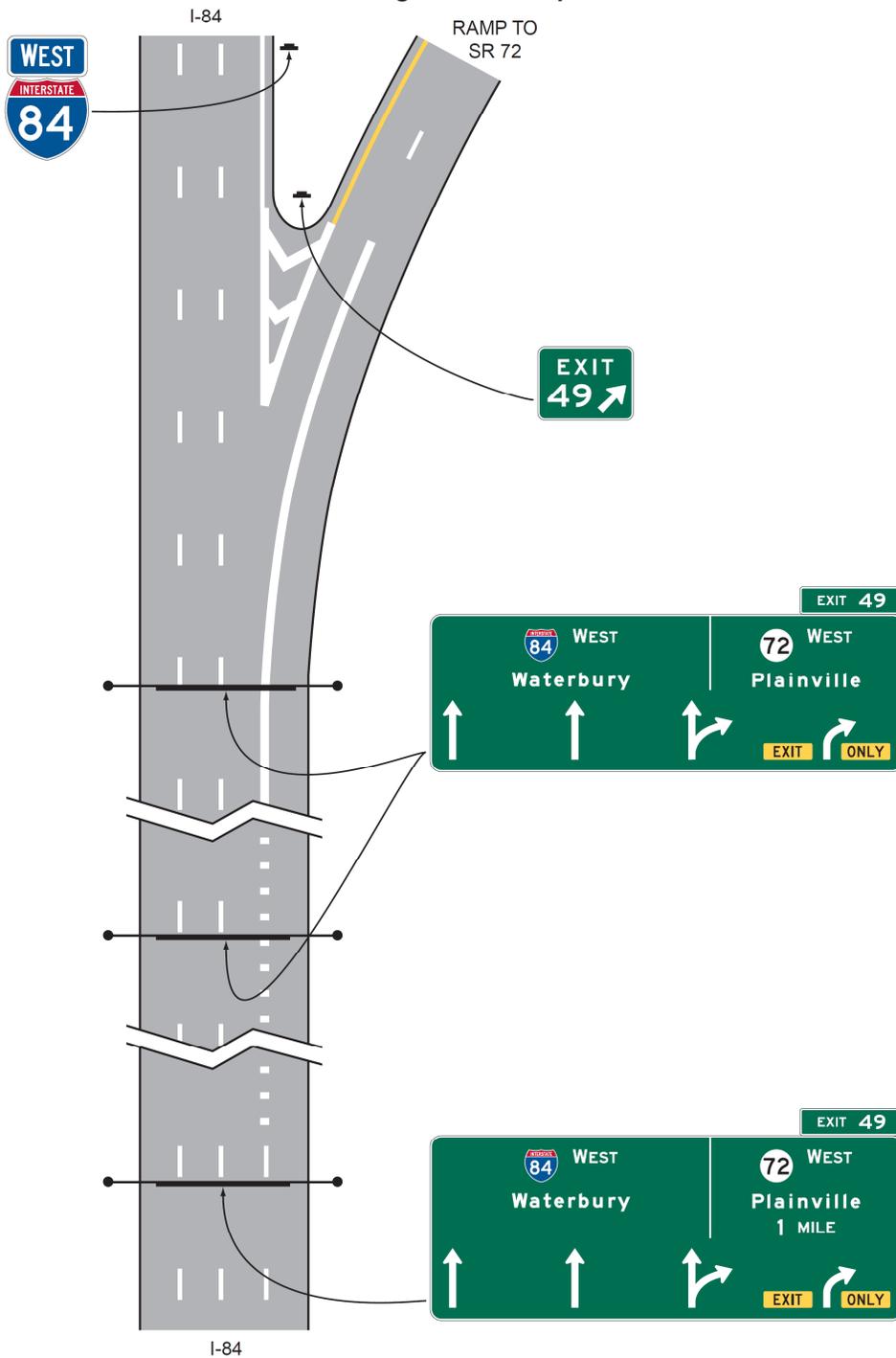


**Figure 2E-3. Overhead Arrow-per-Lane Guide Sign for a Multi-Lane Exit with an Option Lane**



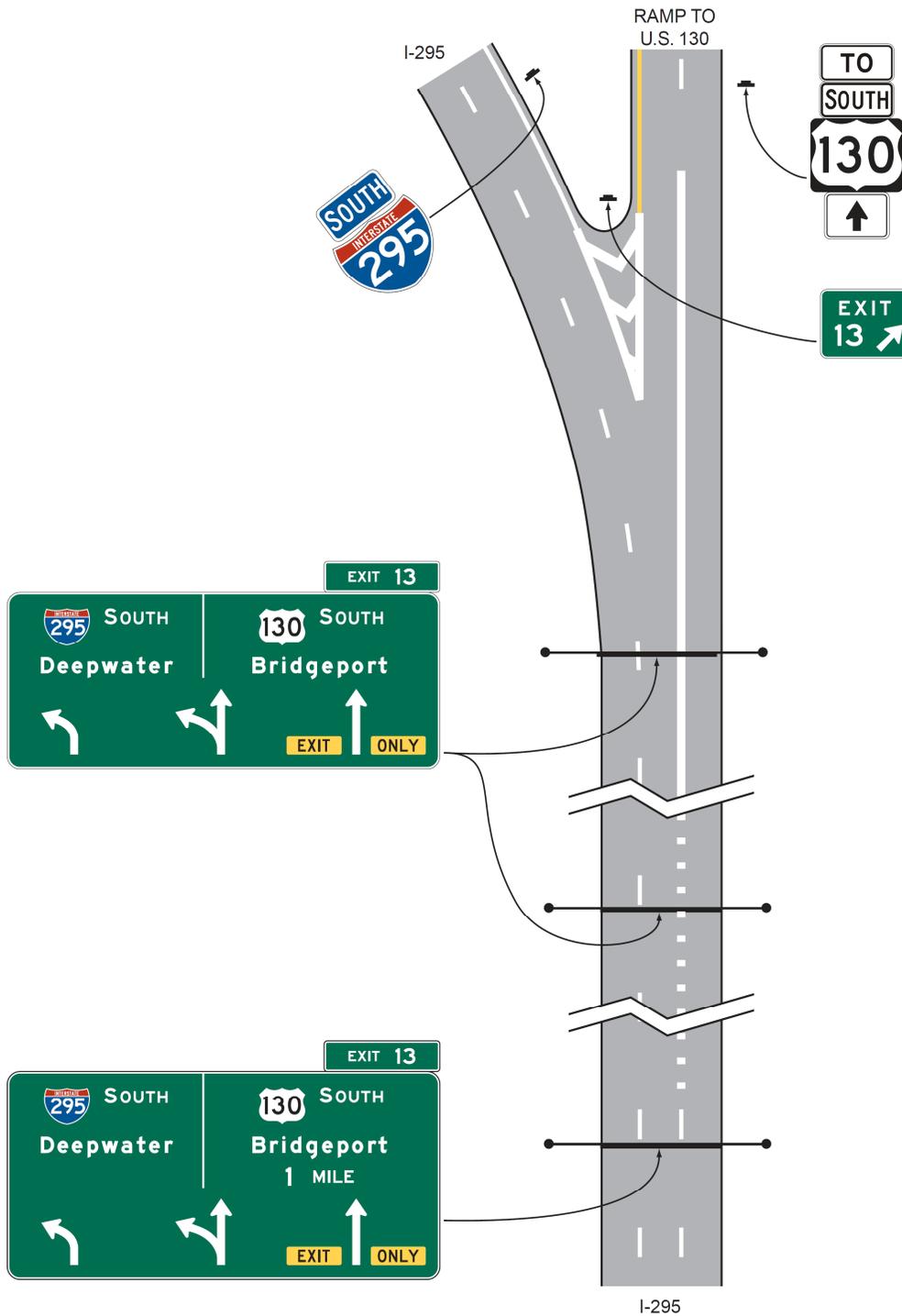
NOTE: The black-on-yellow EXIT (E11-1a) and ONLY (E11-1b) sign panels are used to retrofit existing signs. See Section 2E.24.

**Figure 2E-4. Overhead Arrow-per-Lane Guide Signs for a Two-Lane Exit to the Right with an Option Lane**



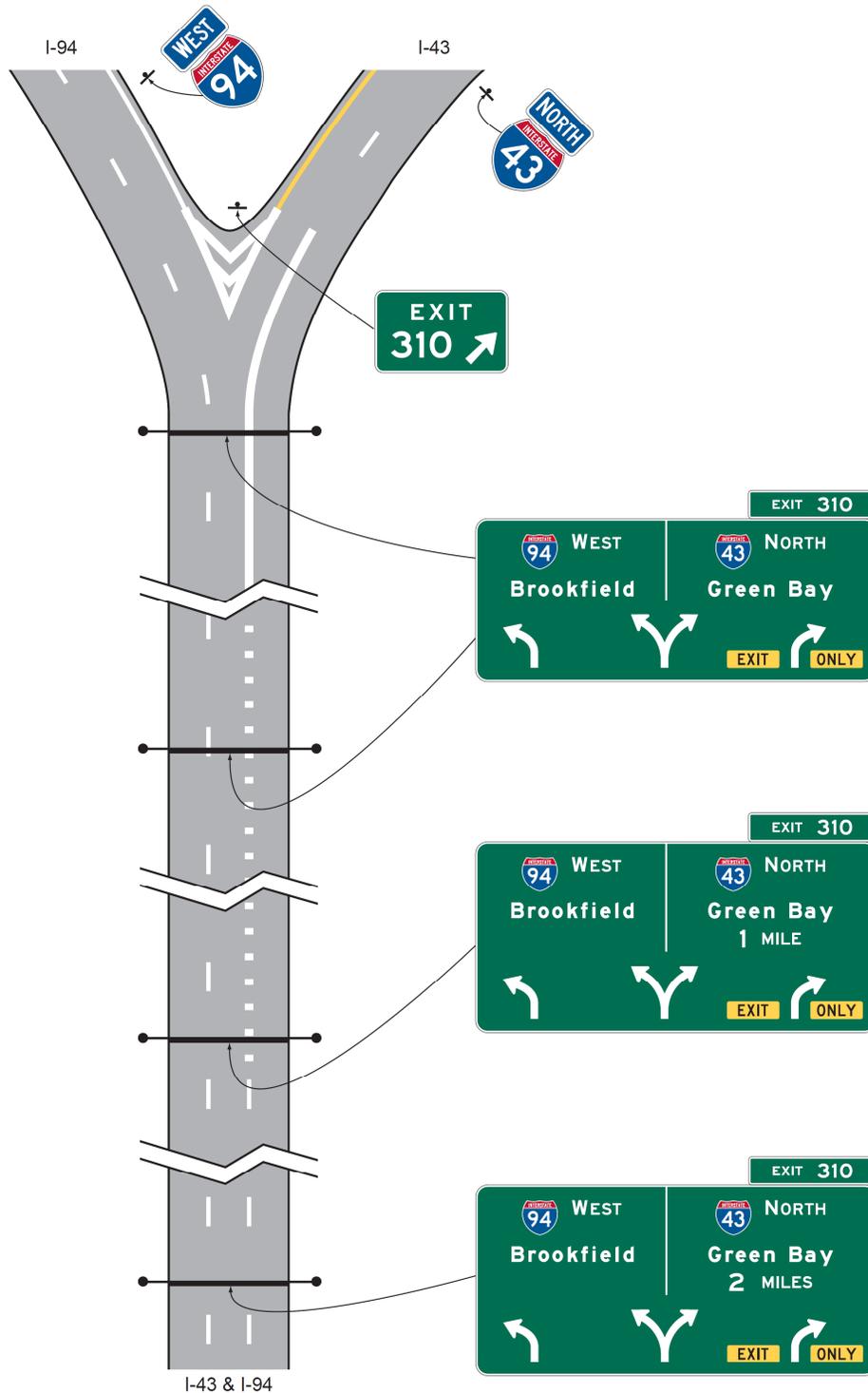
NOTE: The black-on-yellow EXIT (E11-1a) and ONLY (E11-1b) sign panels are used to retrofit existing signs. See Section 2E.24.

**Figure 2E-5. Overhead Arrow-per-Lane Guide Signs for a Two-Lane Exit to the Right with an Option Lane (Through Lanes Curve to the Left)**



NOTE: The black-on-yellow EXIT (E11-1a) and ONLY (E11-1b) sign panels are used to retrofit existing signs. See Section 2E.24.

Figure 2E-6. Overhead Arrow-per-Lane Guide Signs for a Split with an Option Lane

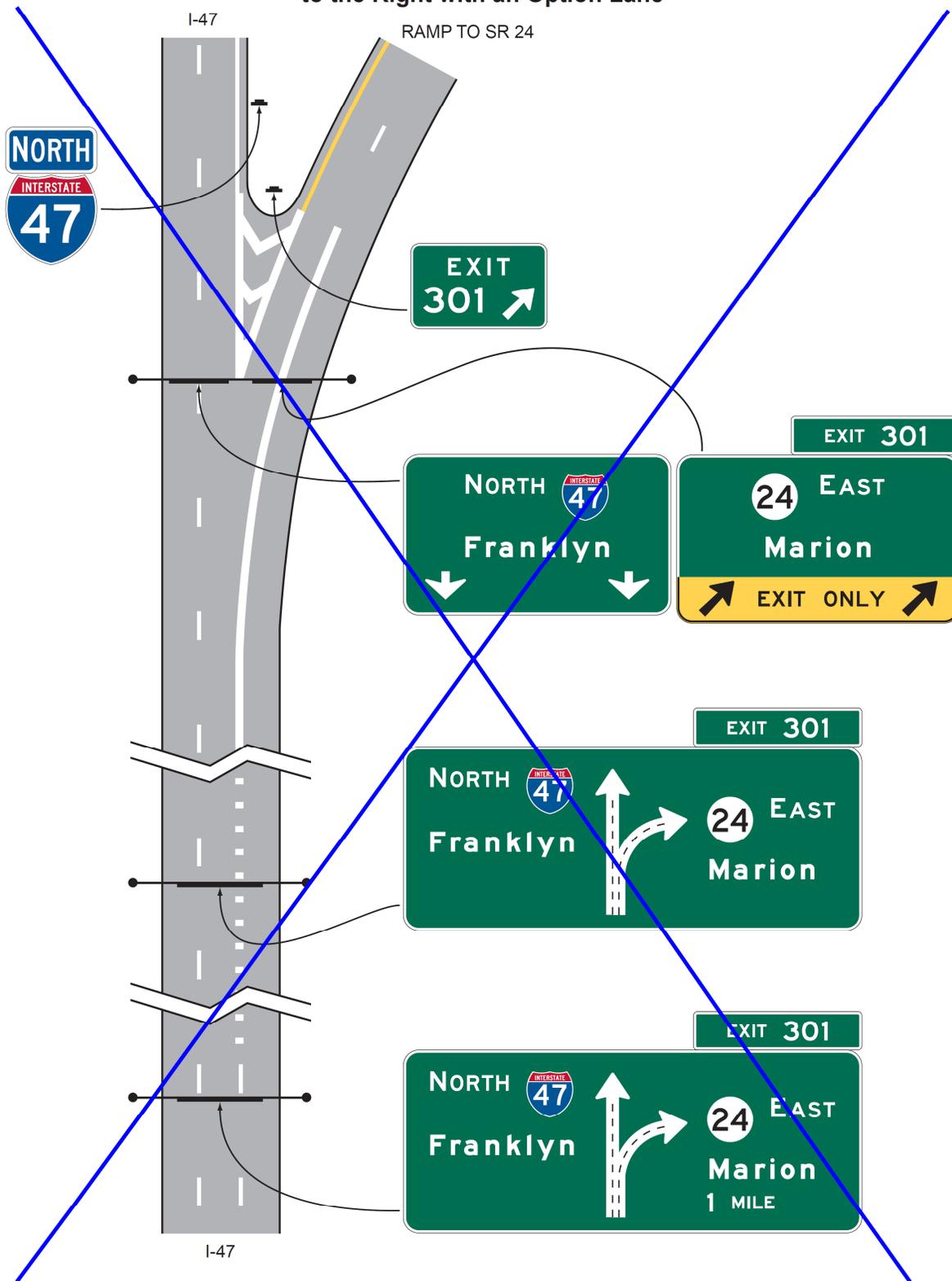


NOTE: The black-on-yellow EXIT (E11-1a) and ONLY (E11-1b) sign panels are used to retrofit existing signs. See Section 2E.24.

Figure 2E-7. Diagrammatic Guide Sign for a Multi-Lane Exit with an Option Lane



Figure 2E-8. Diagrammatic Guide Signs for a Two-Lane Exit to the Right with an Option Lane



**Figure 2E-9. Diagrammatic Guide Signs for a Two-Lane Exit to the Right with an Option Lane (Through Lanes Curve to the Left)**

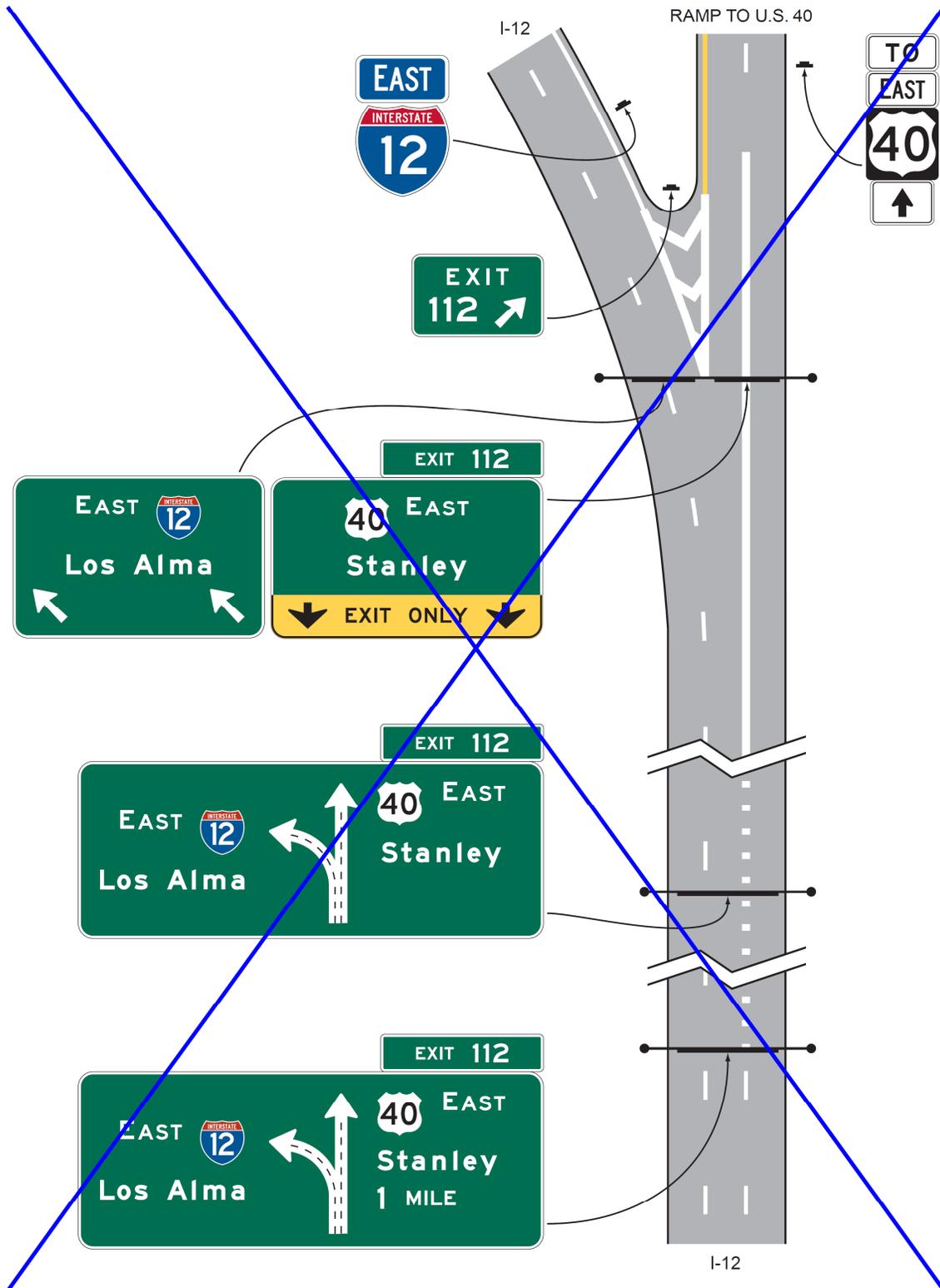
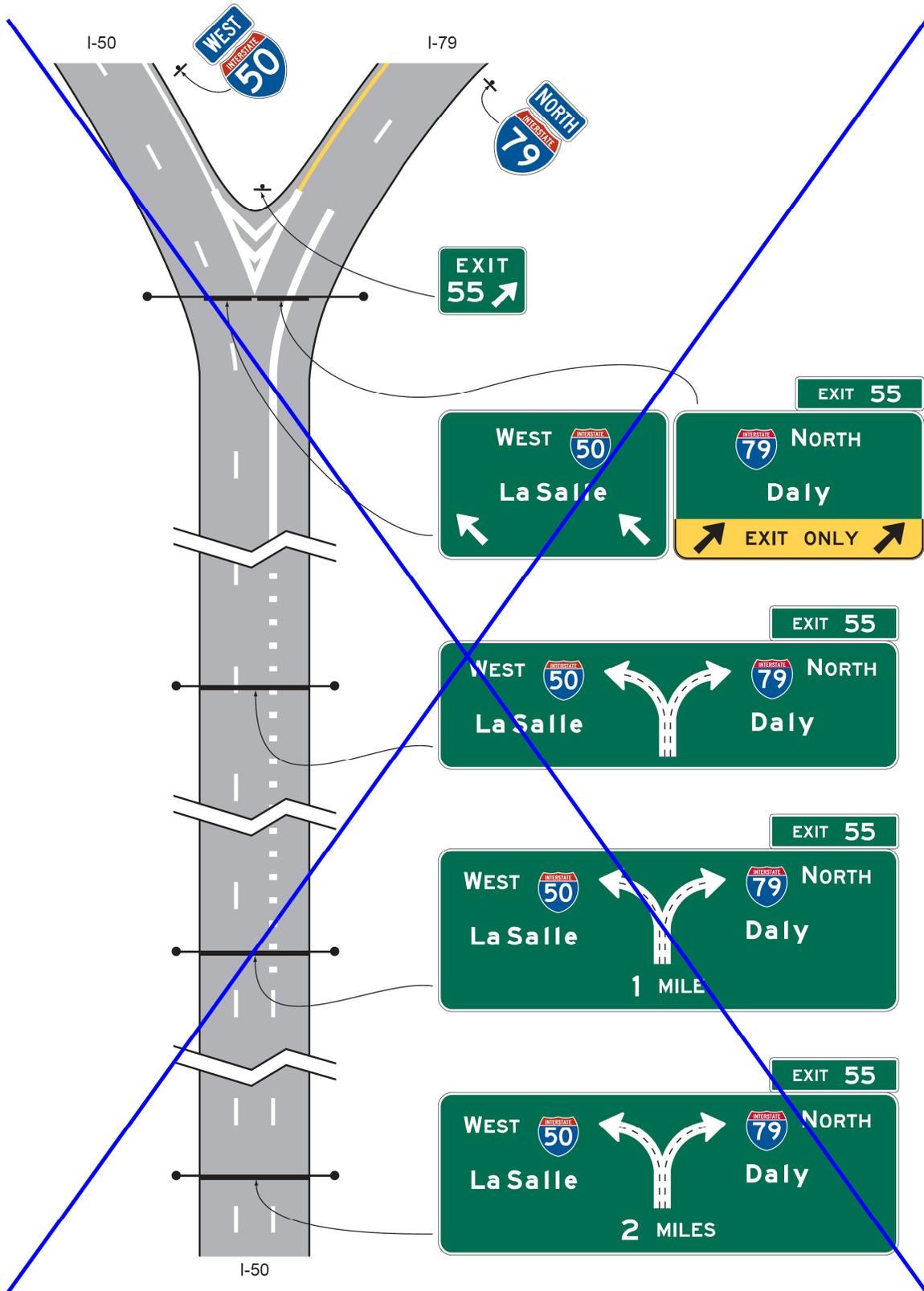
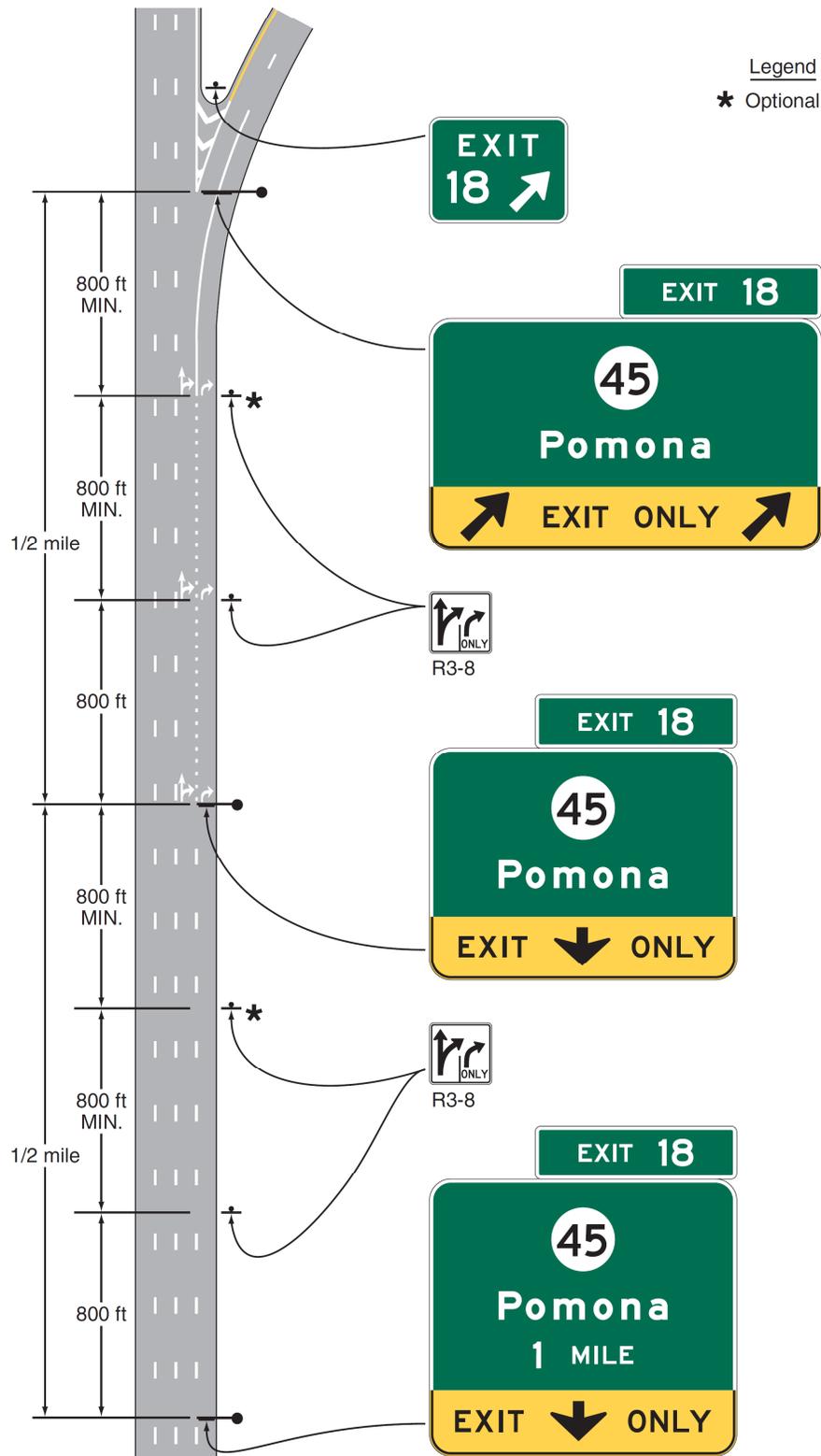


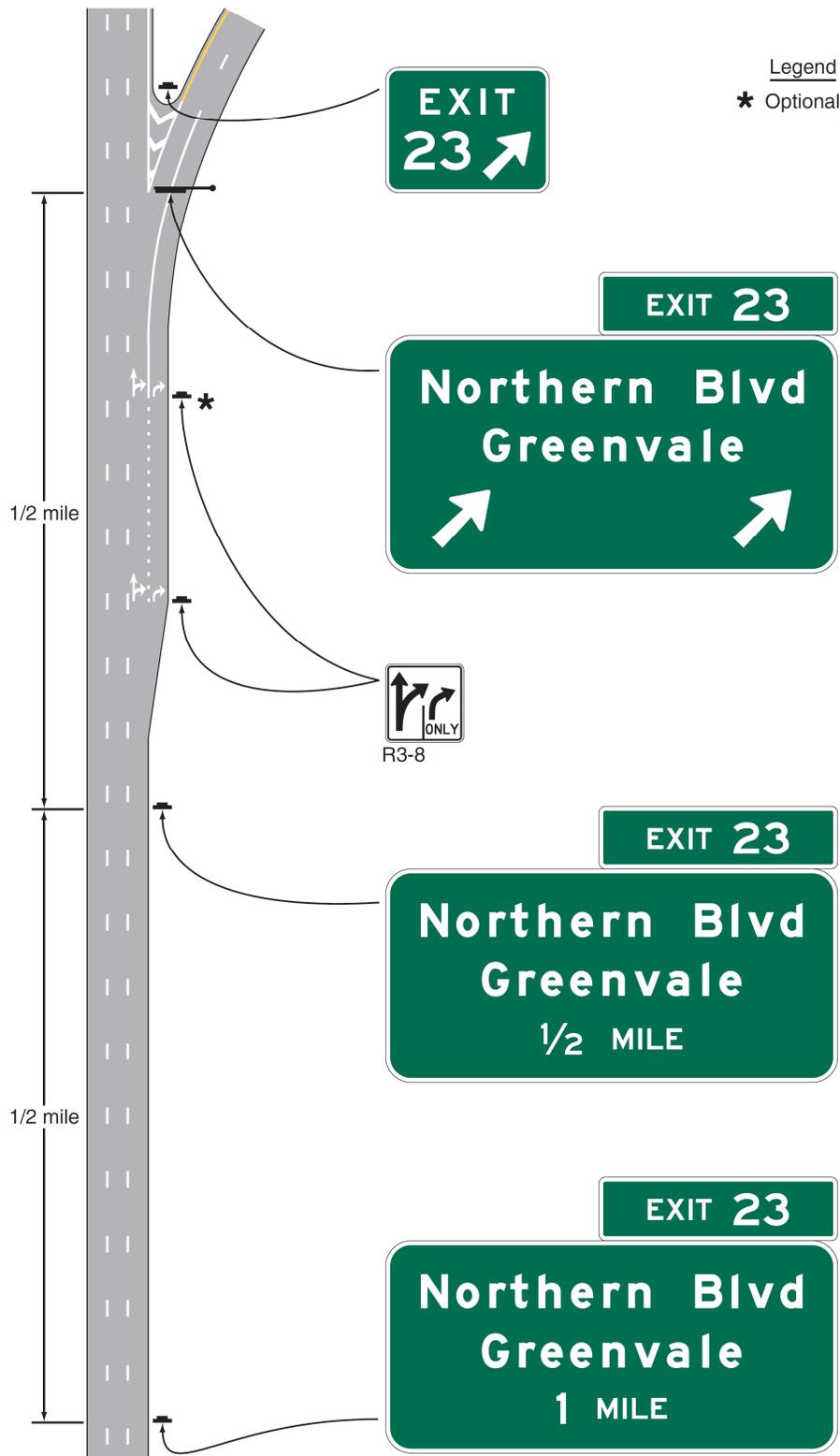
Figure 2E-10. Diagrammatic Guide Signs for a Split with an Option Lane



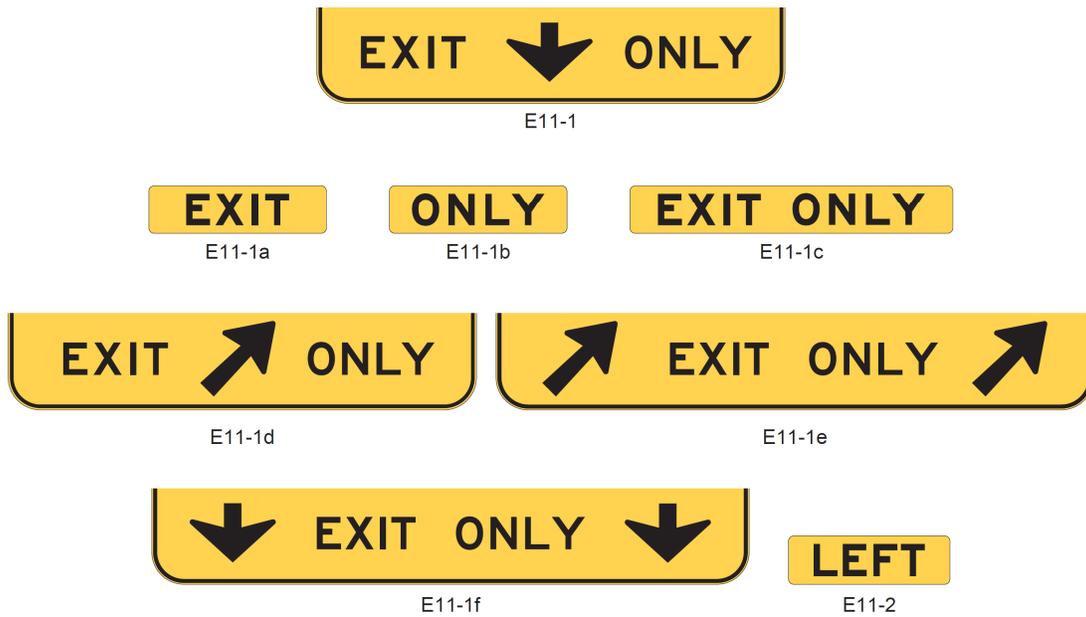
**Figure 2E-11. Example of Signing for a Two-Lane Intermediate or Minor Interchange Exit with an Option Lane and a Dropped Lane**



**Figure 2E-12. Example of Signing for a Two-Lane Intermediate or Minor Interchange Exit with Option and Auxiliary Lanes**



**Figure 2E-13. EXIT ONLY and LEFT Sign Panels**



NOTE: The black-on-yellow EXIT (E11-1a) and ONLY (E11-1b) sign panels are used to retrofit existing signs. See Section 2E.24.

**Figure 2E-13 (CA). EXIT ONLY and LEFT Sign Panels**



**Figure 2E-14. Guide Signs for a Split with Dedicated Lanes**

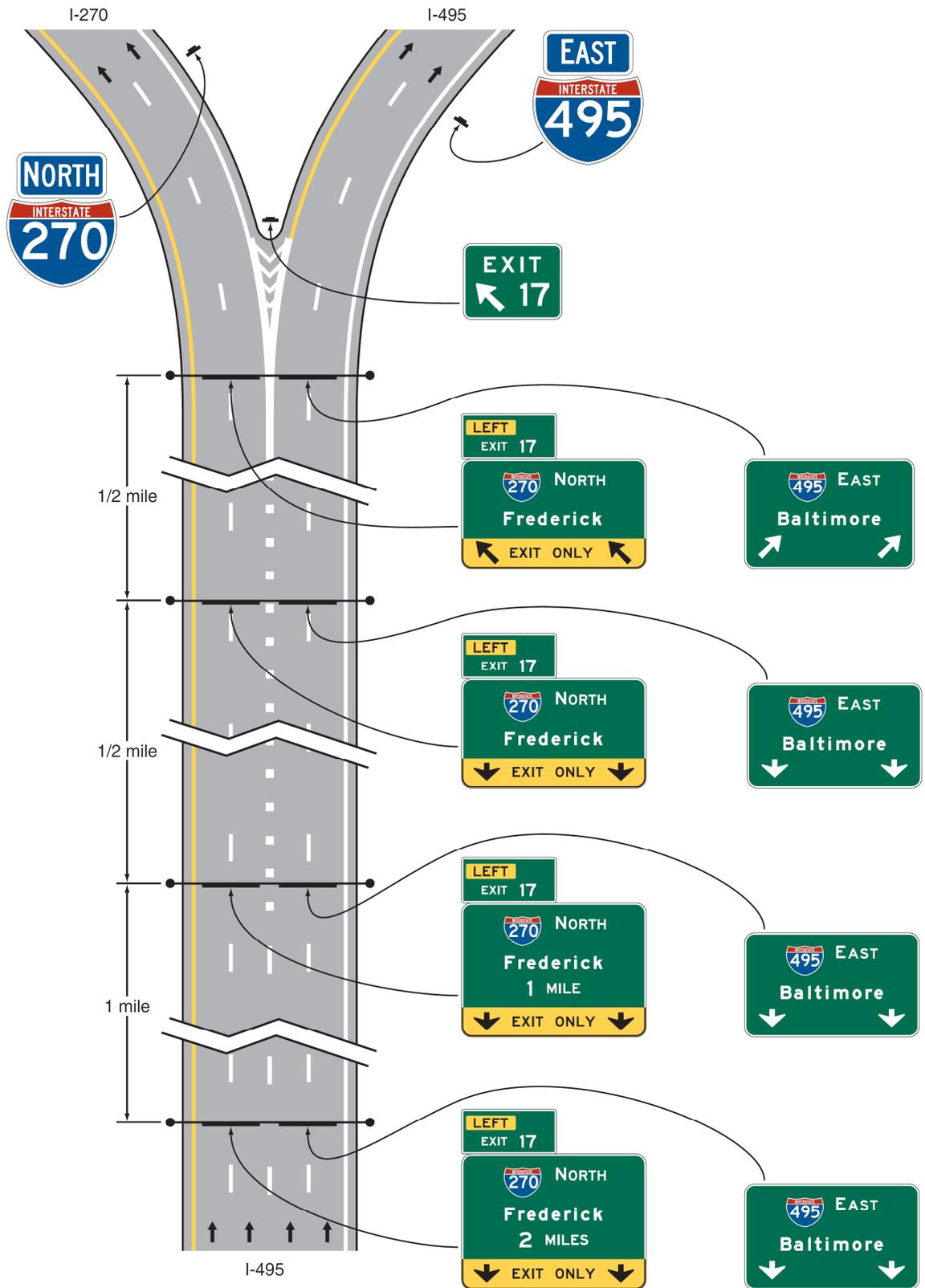
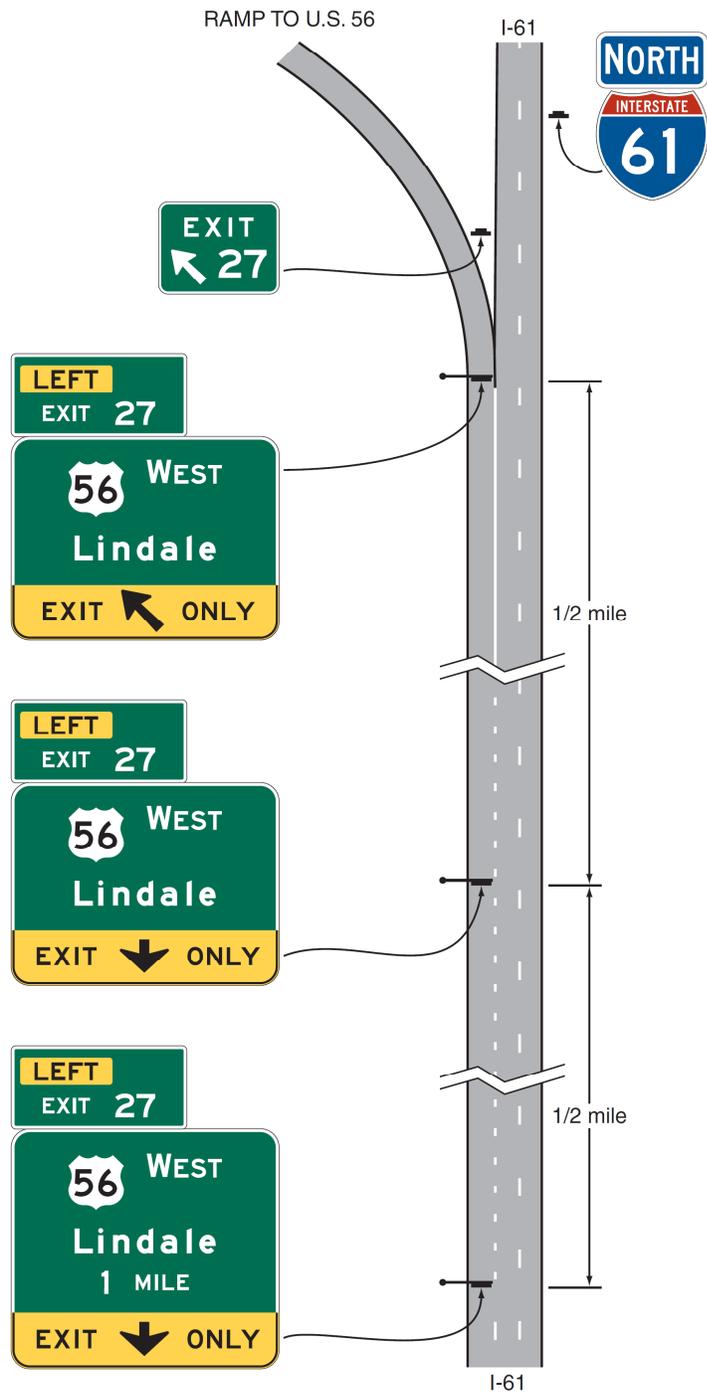
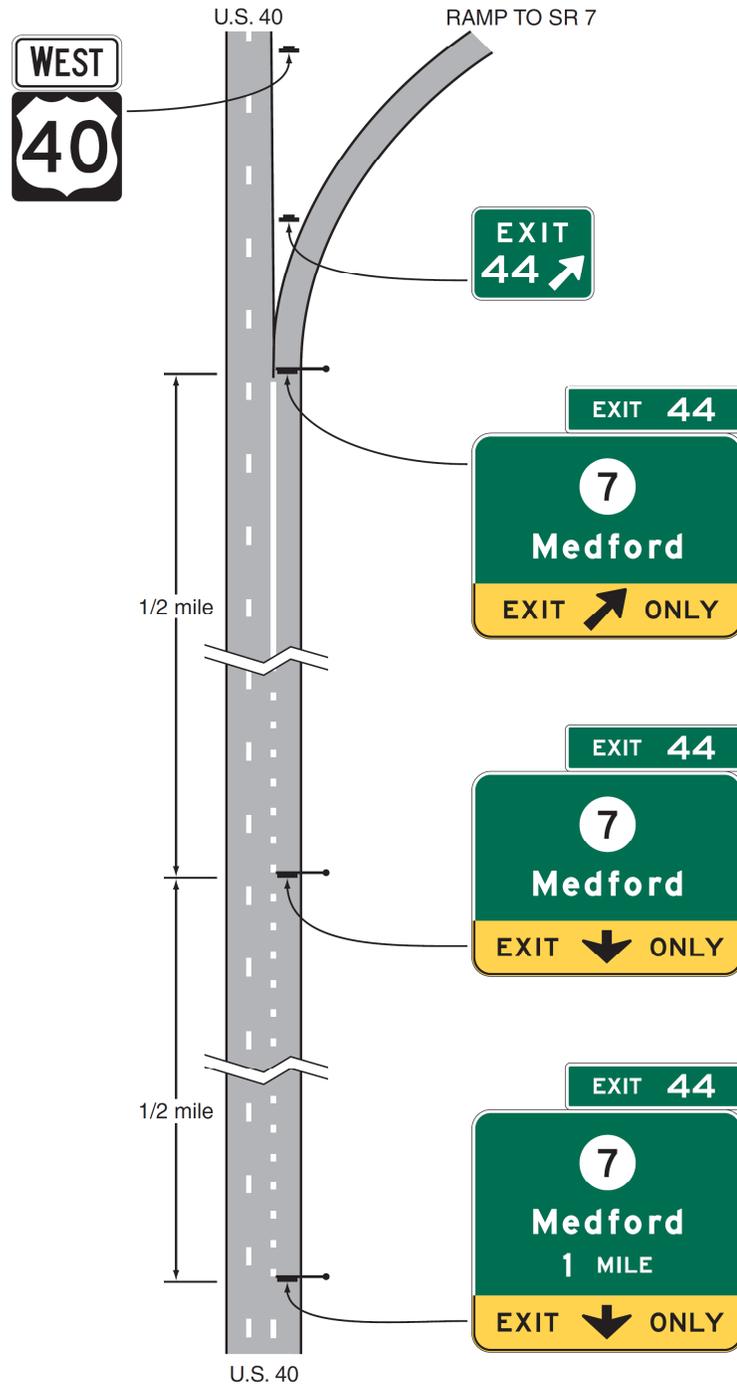


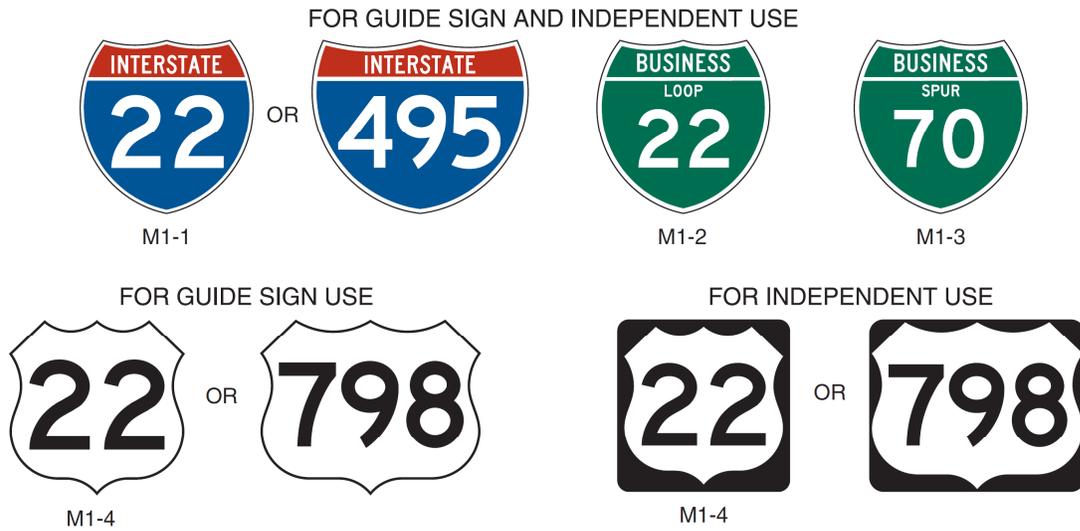
Figure 2E-15. Guide Signs for a Single-Lane Exit to the Left with a Dropped Lane



**Figure 2E-16. Guide Signs for a Single-Lane Exit to the Right with a Dropped Lane**



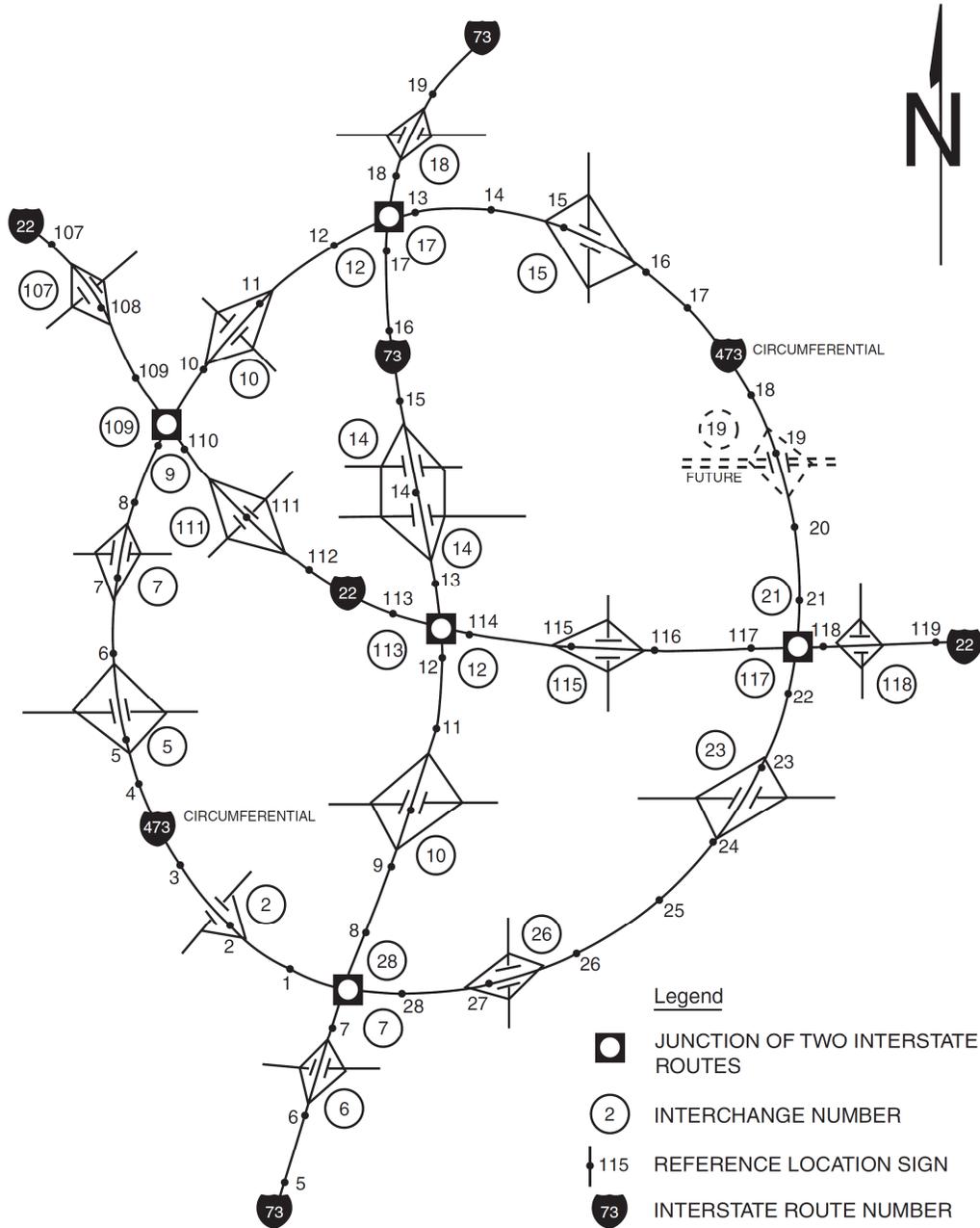
**Figure 2E-17. Interstate, Off-Interstate, and U.S. Route Signs**



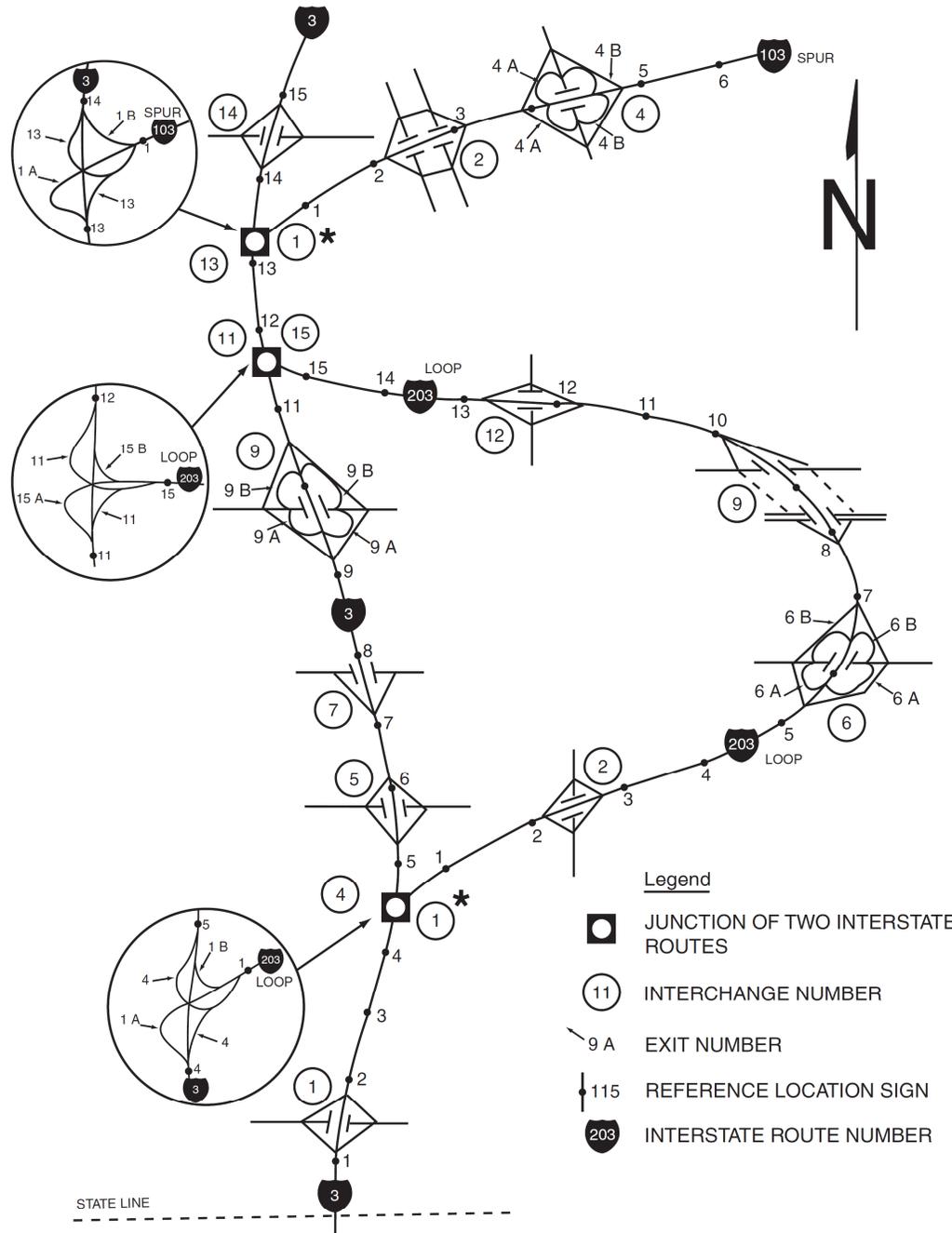
**Figure 2E-18. Eisenhower Interstate System Signs**



**Figure 2E-19. Example of Interchange Numbering for Mainline and Circumferential Routes**

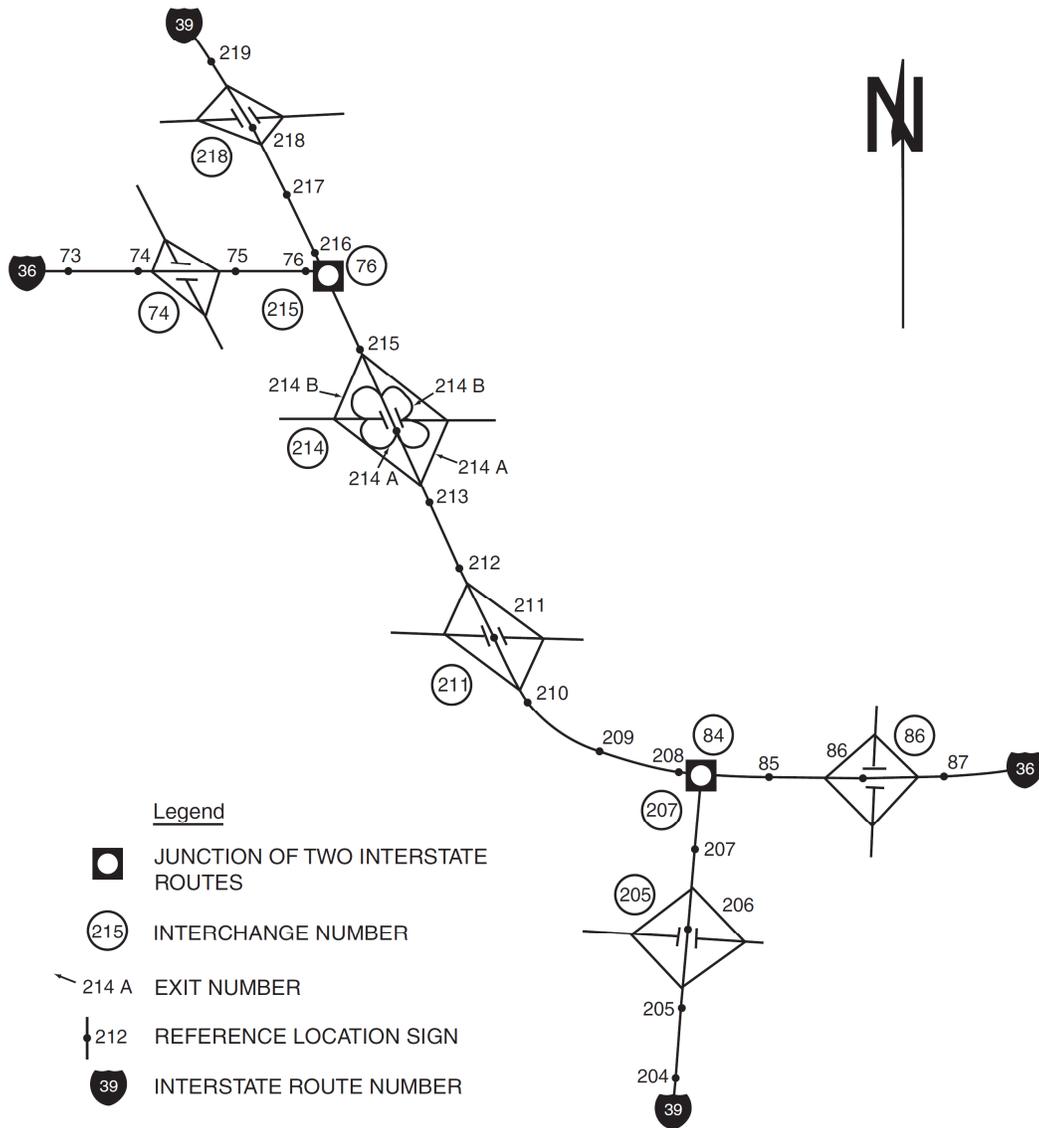


**Figure 2E-20. Example of Interchange Numbering for Mainline, Loop, and Spur Routes**



★ 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.

**Figure 2E-21. Example of Interchange Numbering for Overlapping Routes**



**Figure 2E-22. Examples of Interchange Advance Guide Signs, Exit Number Plaques, and LEFT Plaque**



**Figure 2E-22 (CA). Examples of Interchange Advance Guide Signs, Exit Number Plaques, and LEFT Plaque**



**Figure 2E-23. Next Exit Plaques**



**Figure 2E-24. Supplemental Guide Sign for a Multi-Exit Interchange**



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**Figure 2E-25. Supplemental Guide Sign for a Park – Ride Facility**

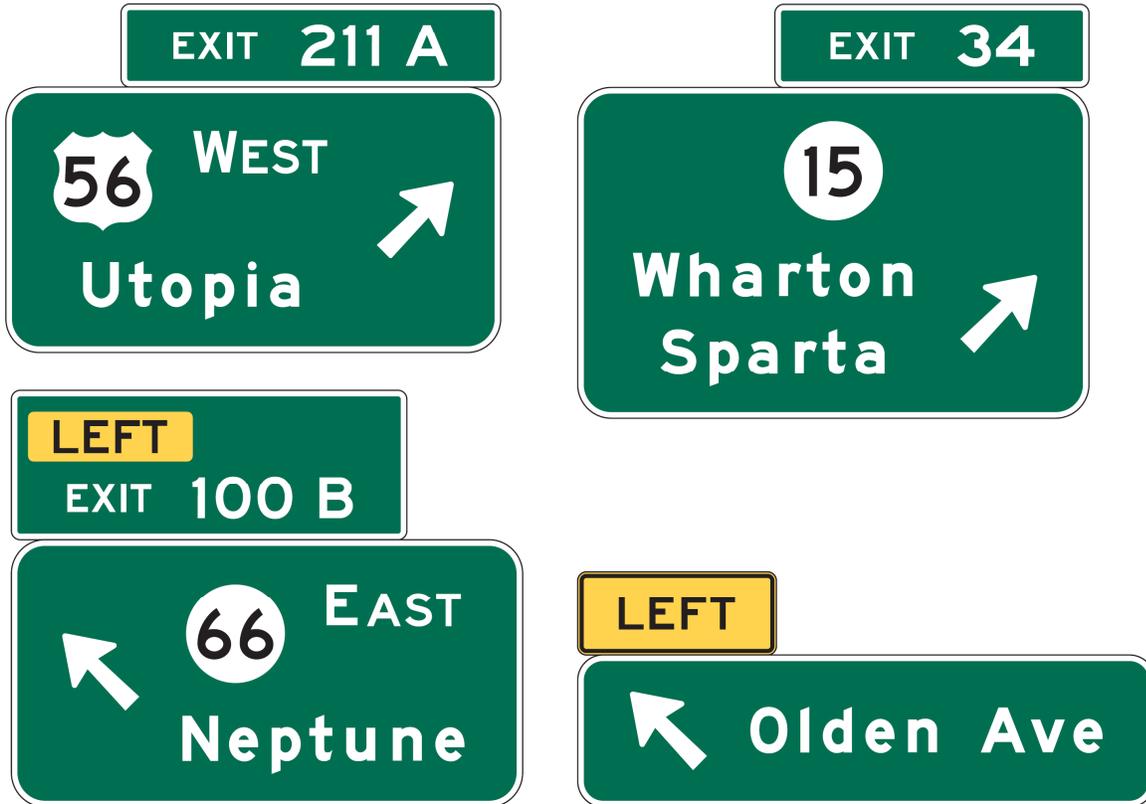
**A – ROUTE WITHOUT EXIT NUMBERING**



**B – ROUTE WITH EXIT NUMBERING**



Figure 2E-26. Examples of Interchange Exit Direction Signs



**Figure 2E-26 (CA). Examples of Interchange Exit Direction Signs**



**Figure 2E-27. Interchange Exit Direction Sign with an Advisory Speed Panel**

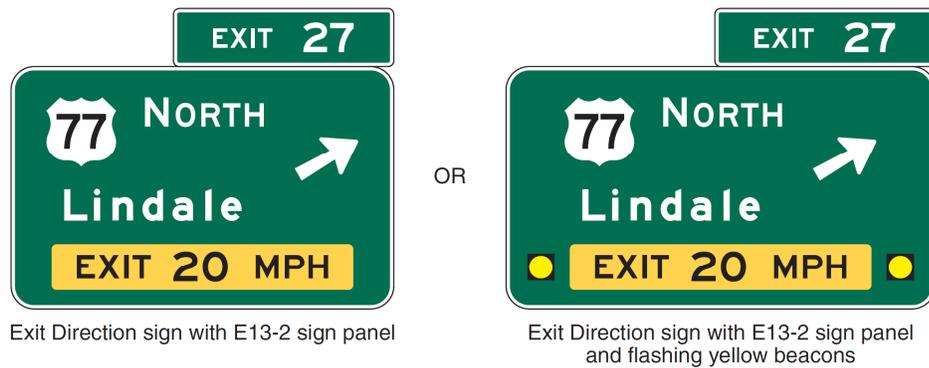


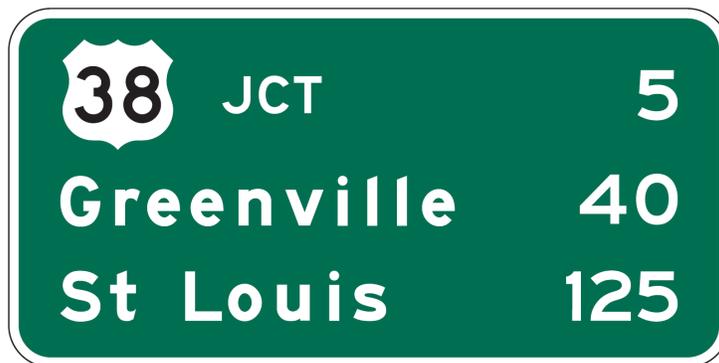
Figure 2E-28. Exit Gore Signs



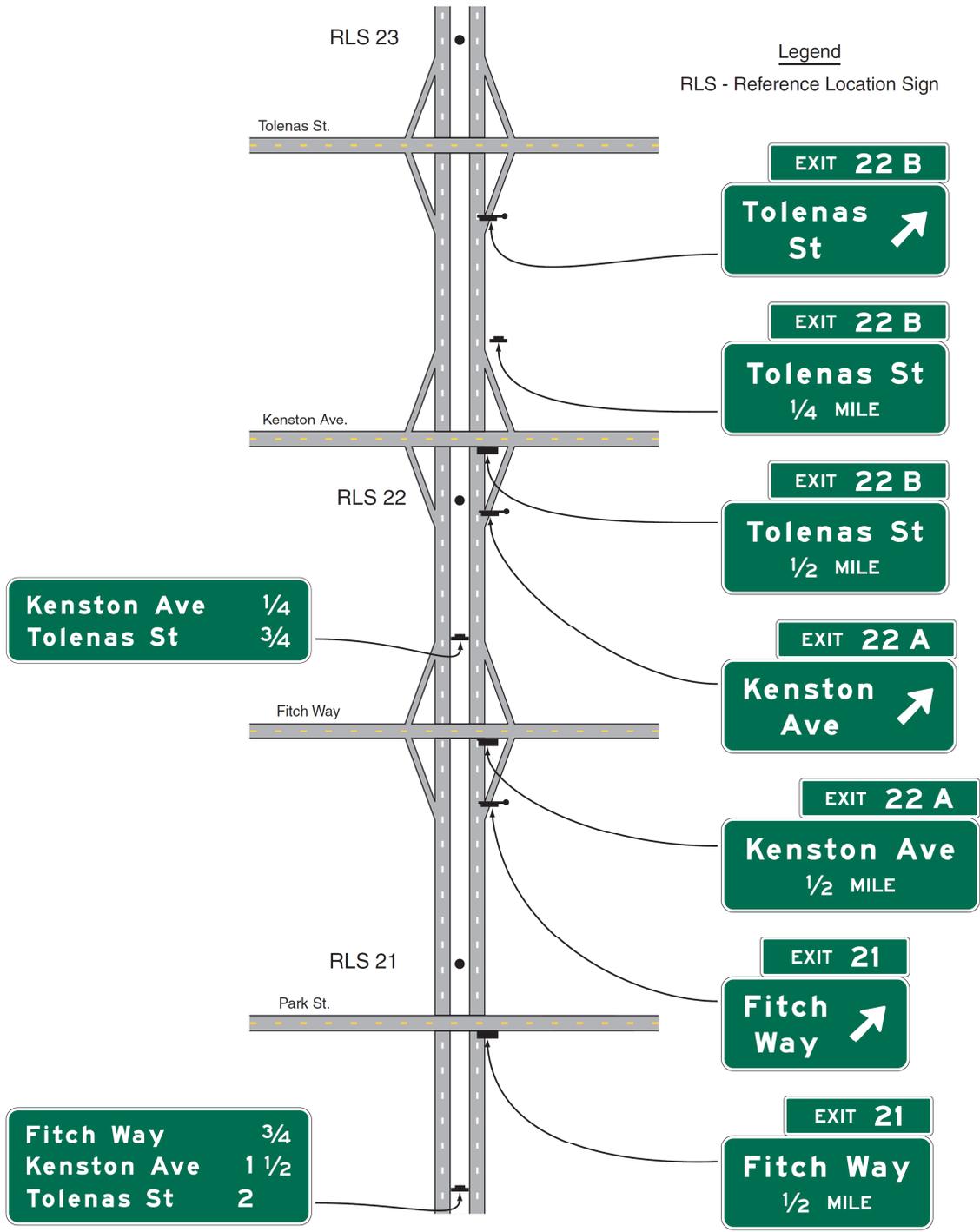
Figure 2E-28 (CA). Exit Gore Signs



**Figure 2E-29. Post-Interchange Distance Sign**



**Figure 2E-30. Example of Using an Interchange Sequence Sign for Closely-Spaced Interchanges**



**Figure 2E-31. Interchange Sequence Sign**



*Figure 2E-31 (CA). Interchange Sequence Signs*



G23-1 (CA)



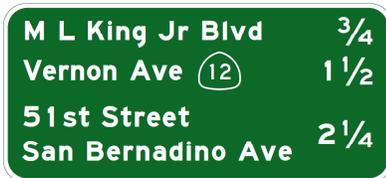
G23-2 (CA)



G23-3 (CA)



G23-4 (CA)



G23-5 (CA)



G23-6 (CA)

Figure 2E-32. Community Interchanges Identification Sign



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Figure 2E-33. NEXT EXITS Sign



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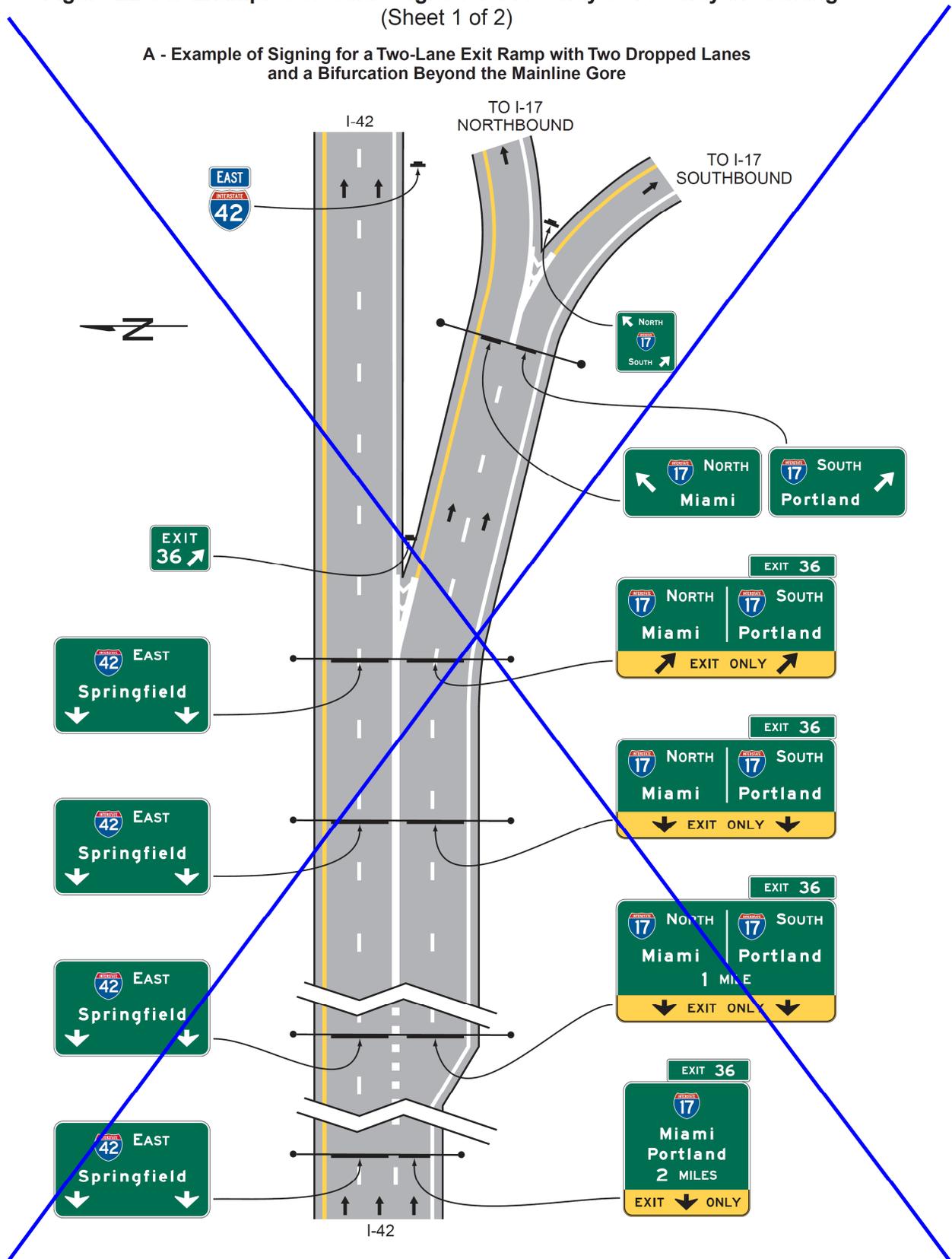
*Figure 2E-33 (CA). NEXT EXITS Sign*



G87 (CA)

**Figure 2E-34. 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-34. 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**

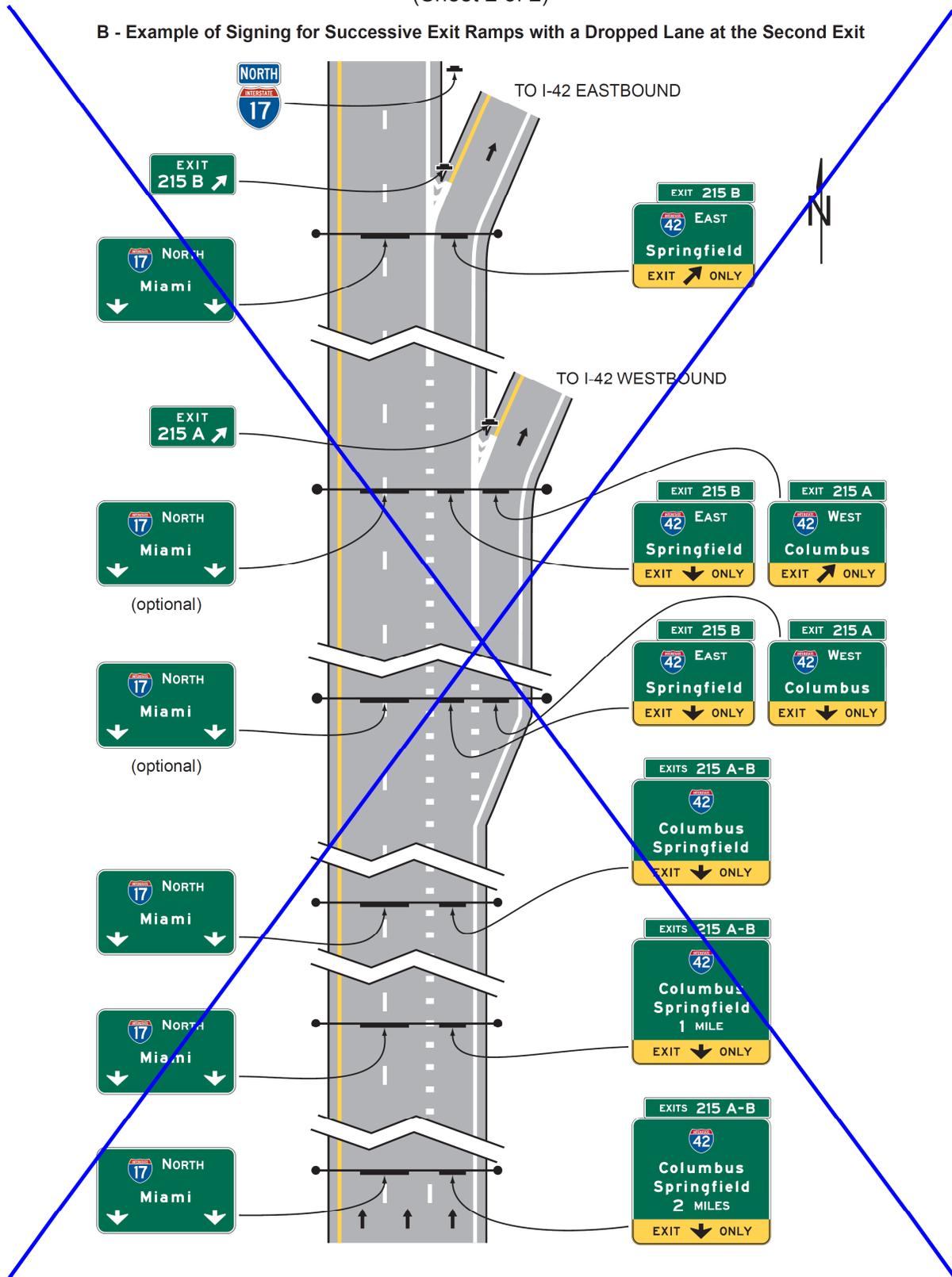
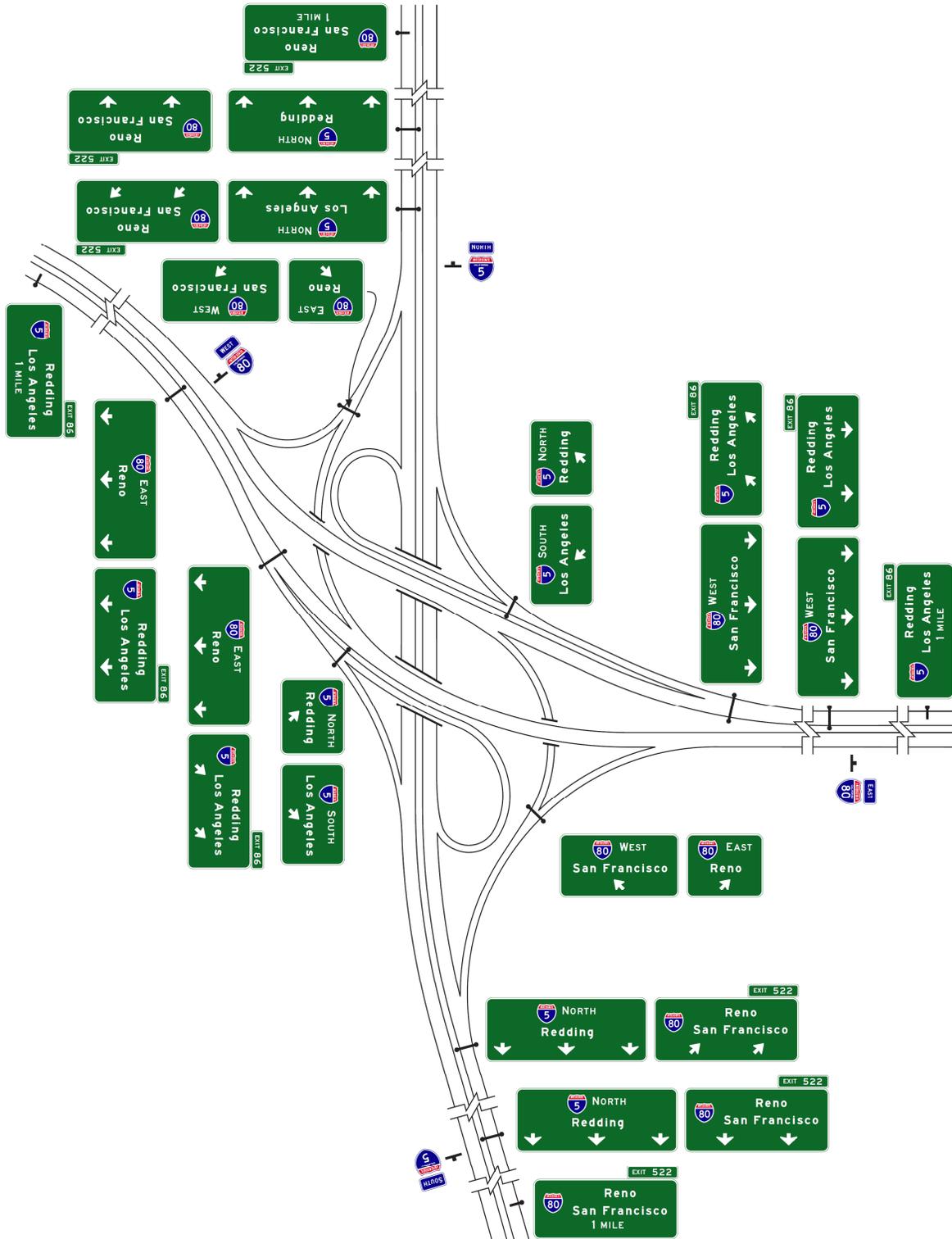
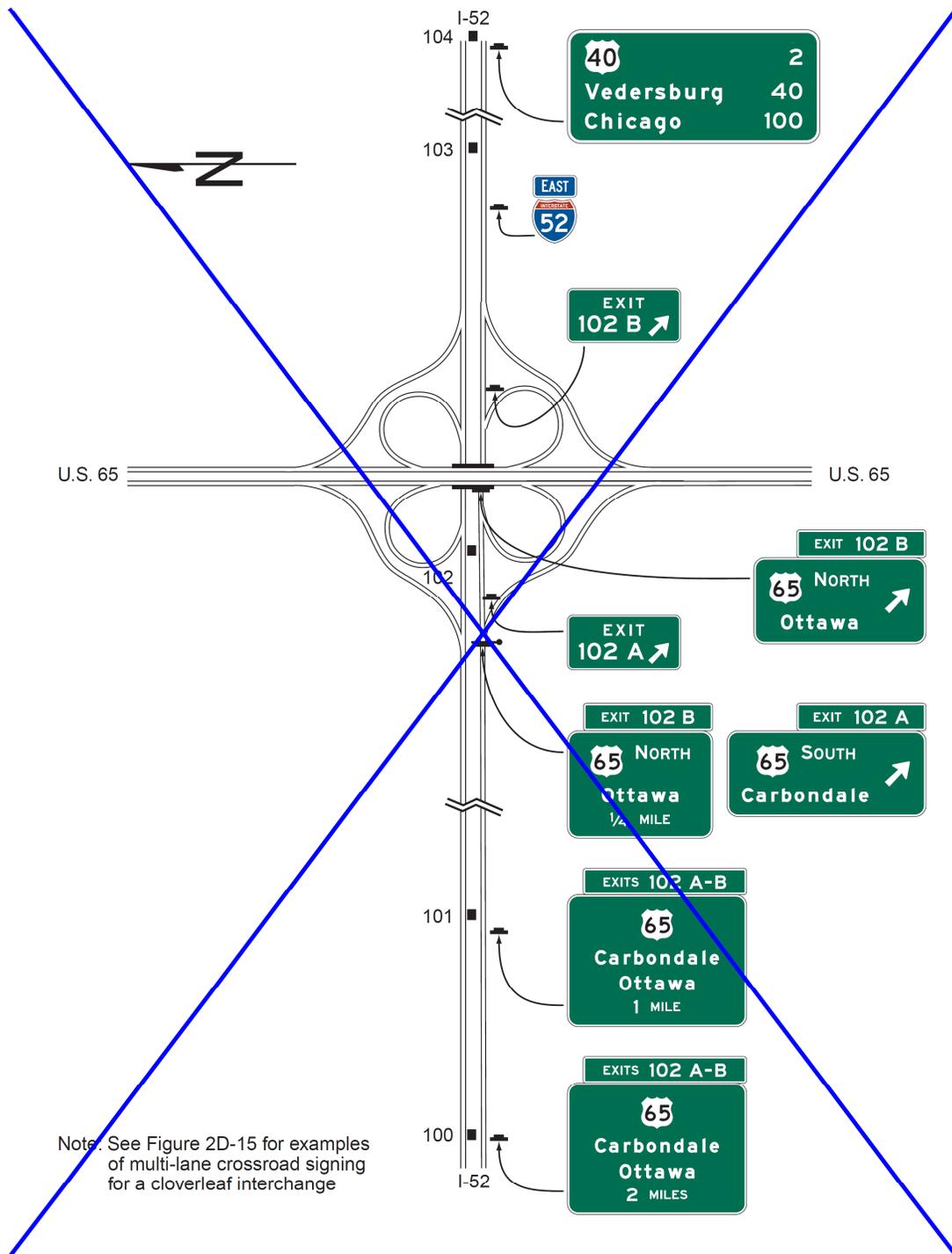


Figure 2E-34 (CA). Examples of Guide Signs for a Freeway-to-Freeway Interchange



**Figure 2E-35. Examples of Guide Signs for a Full Cloverleaf Interchange**



Note: See Figure 2D-15 for examples of multi-lane crossroad signing for a cloverleaf interchange



**Figure 2E-36. Examples of Guide Signs for a Full Cloverleaf Interchange with Collector-Distributor Roadways**

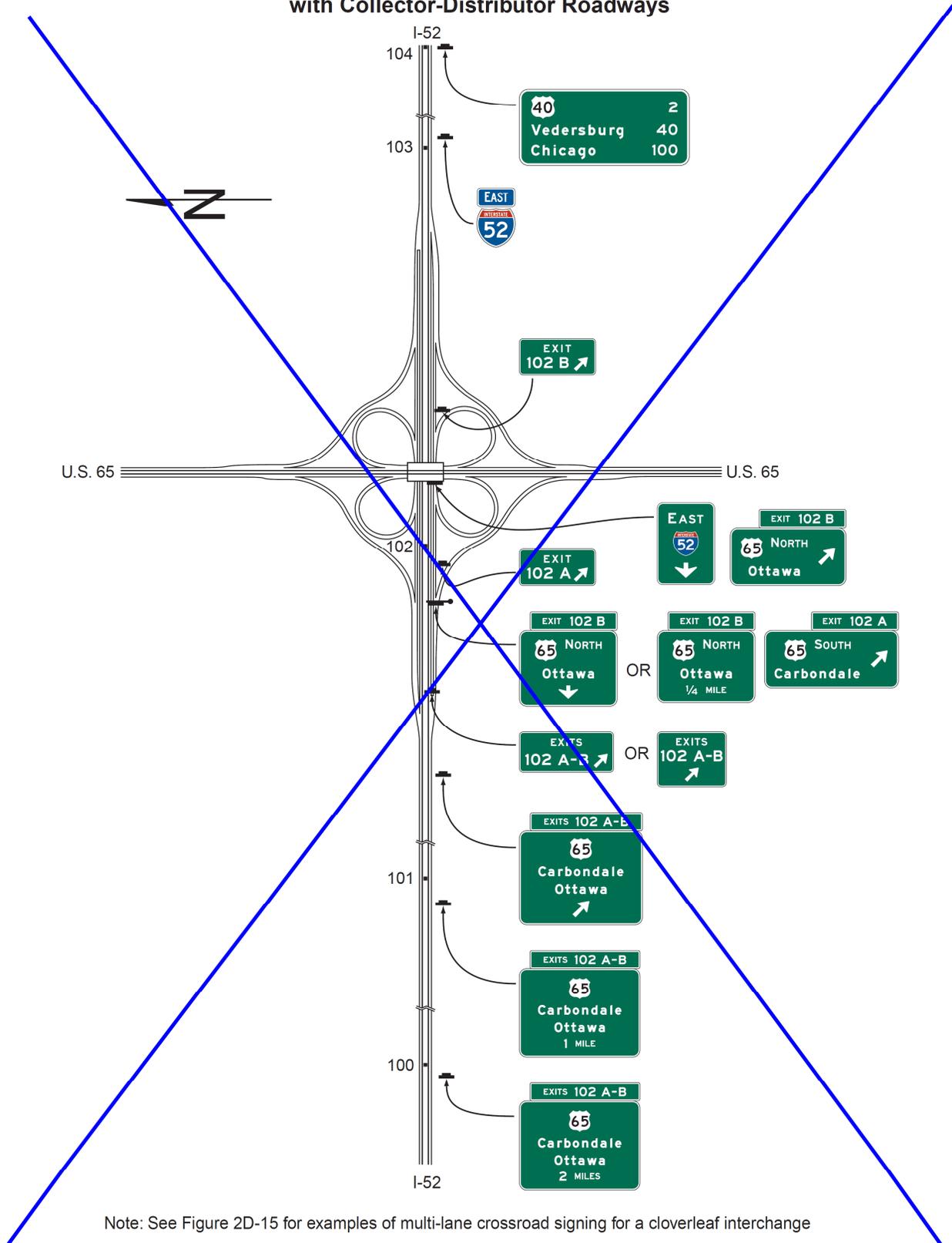
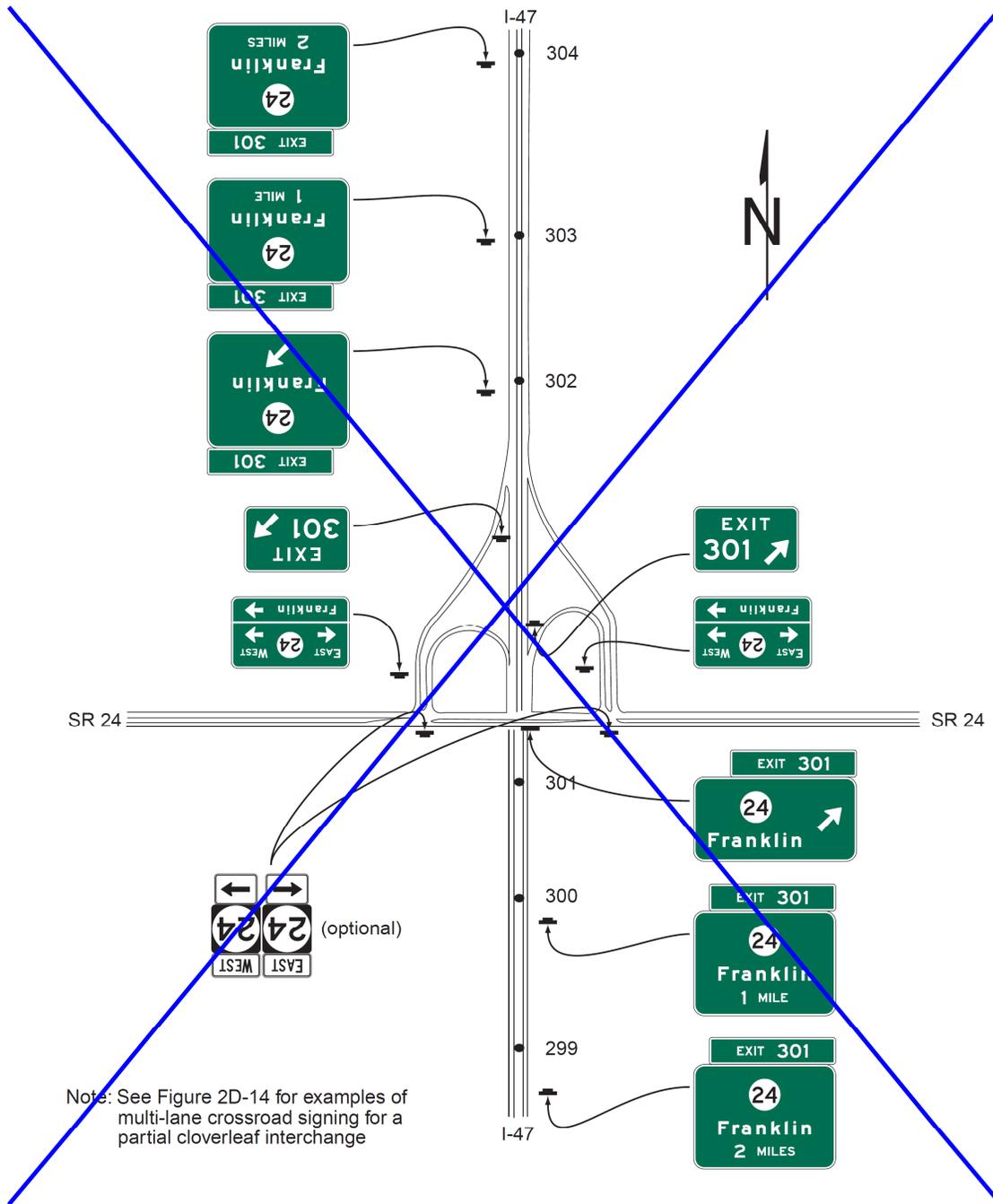


Figure 2E-37. Examples of Guide Signs for a Partial Cloverleaf Interchange



**Figure 2E-37 (CA). Examples of Guide Signs for a Partial Cloverleaf Interchange**

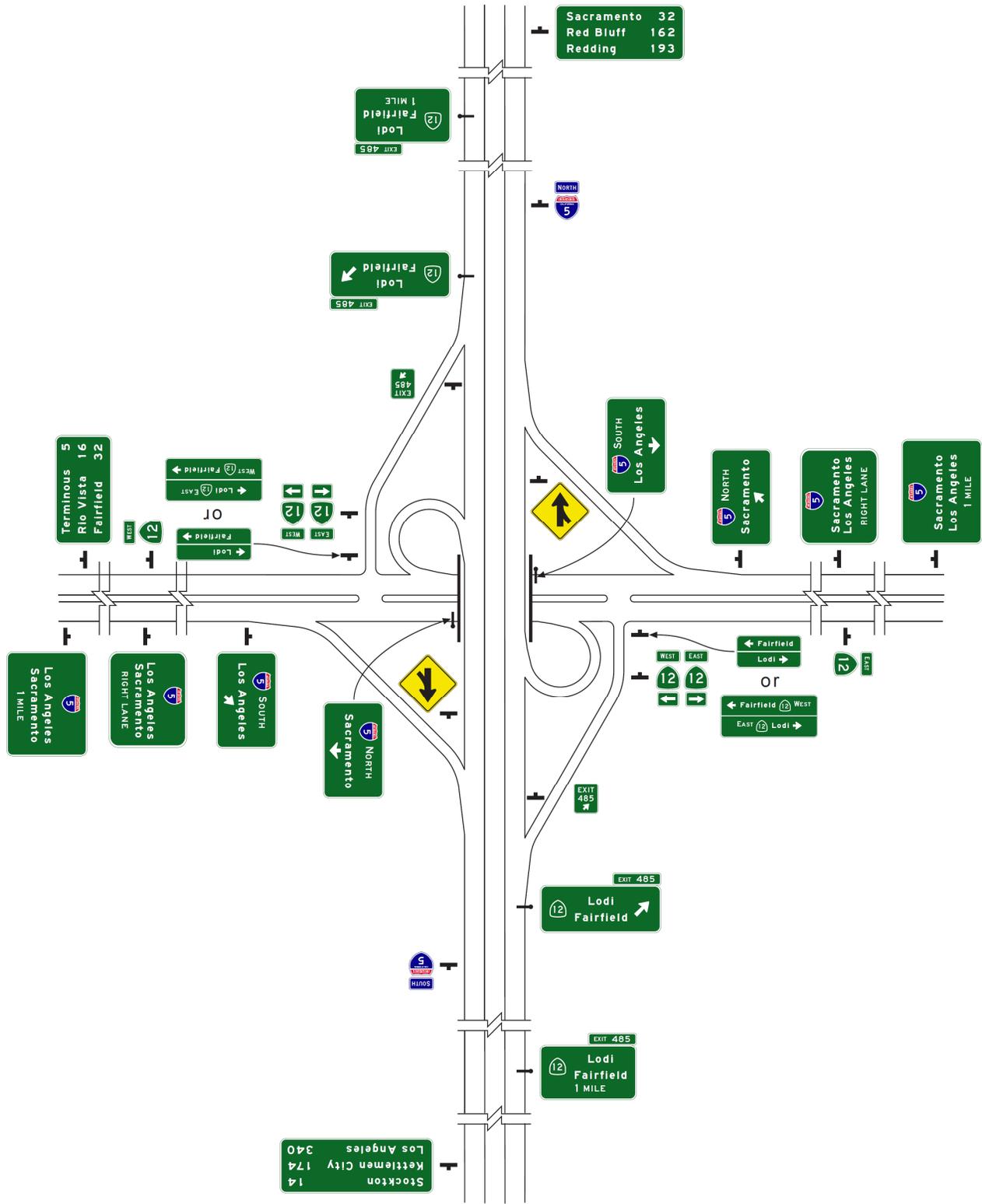
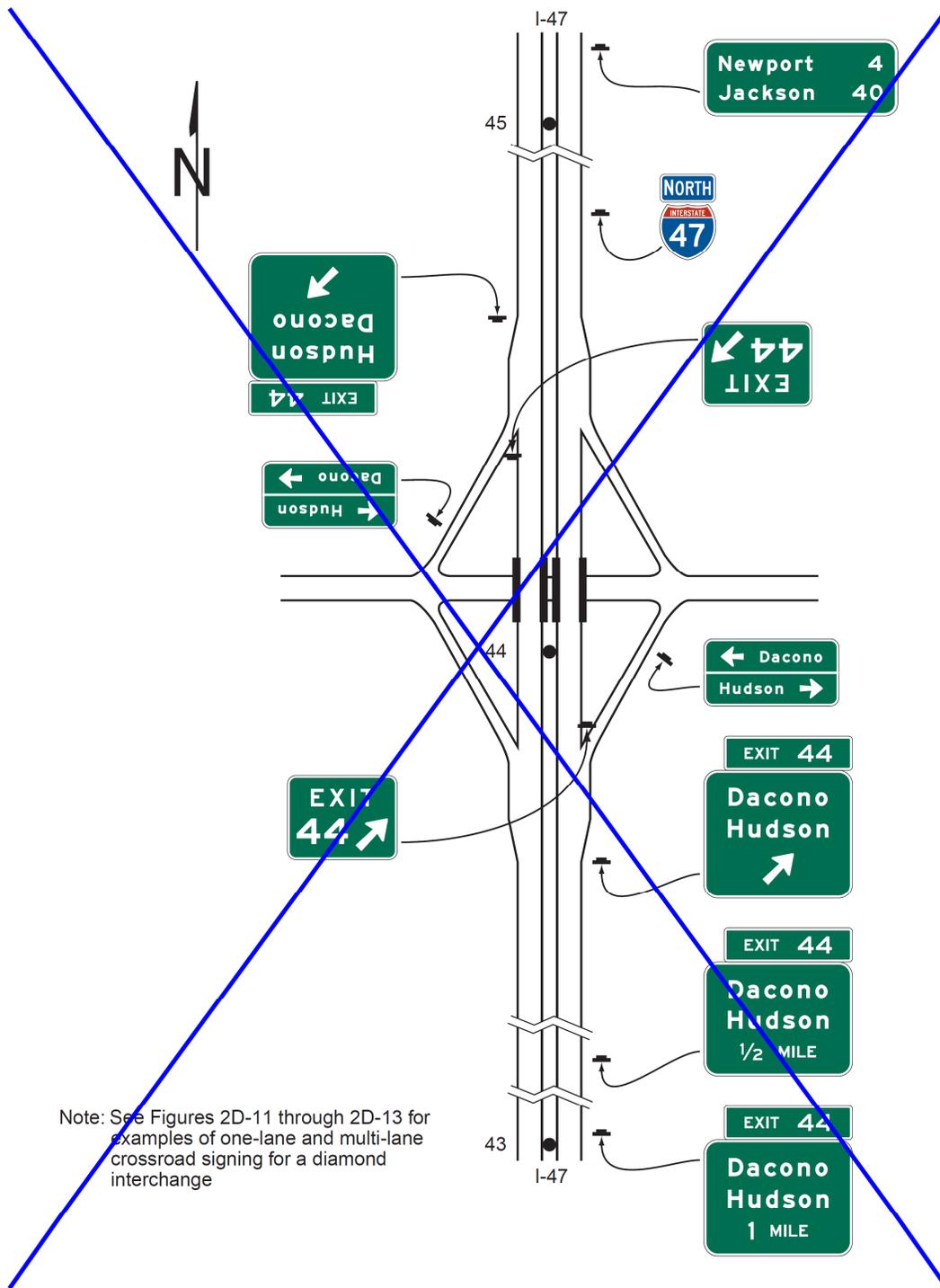
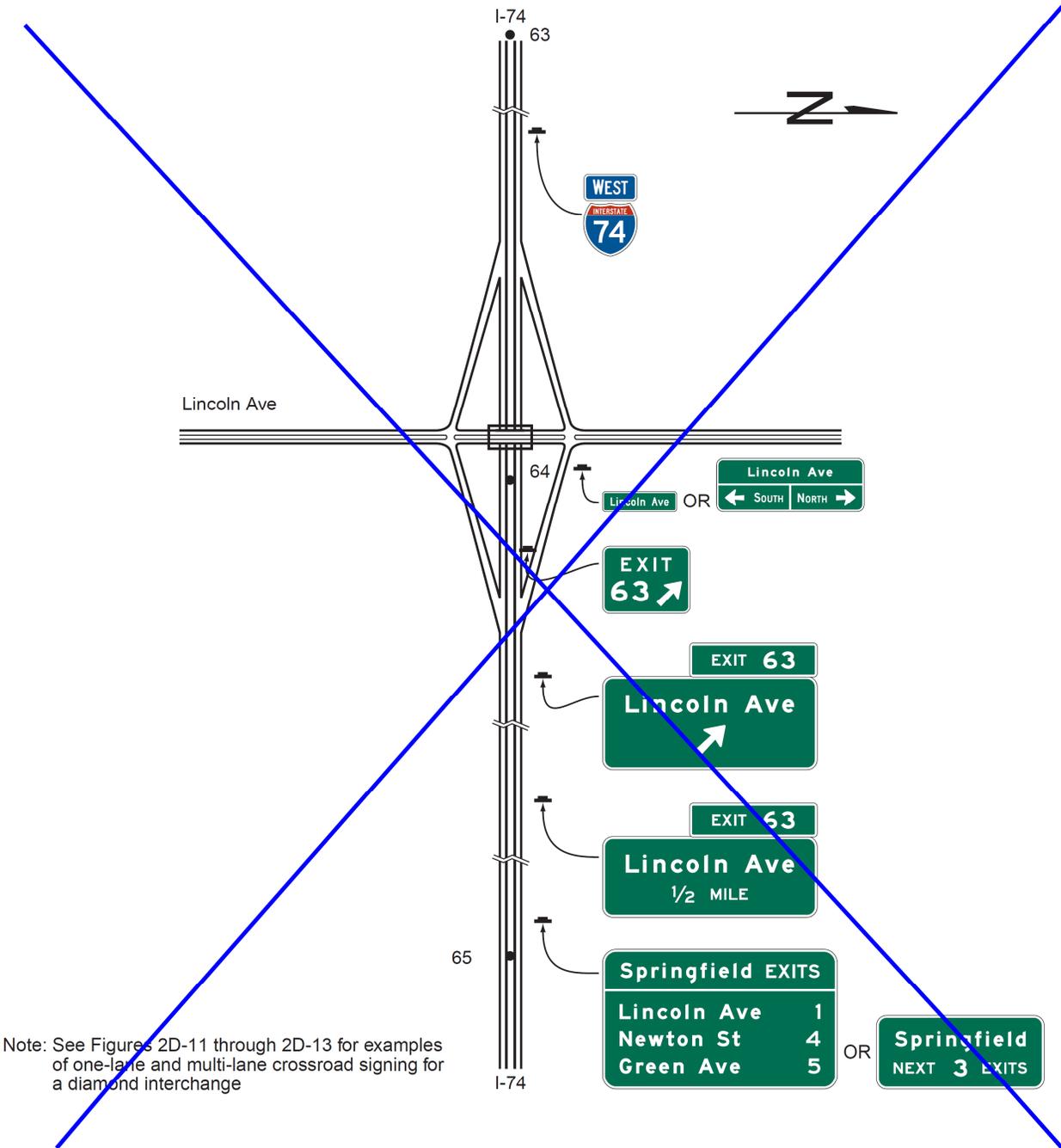


Figure 2E-38. Examples of Guide Signs for a Diamond Interchange

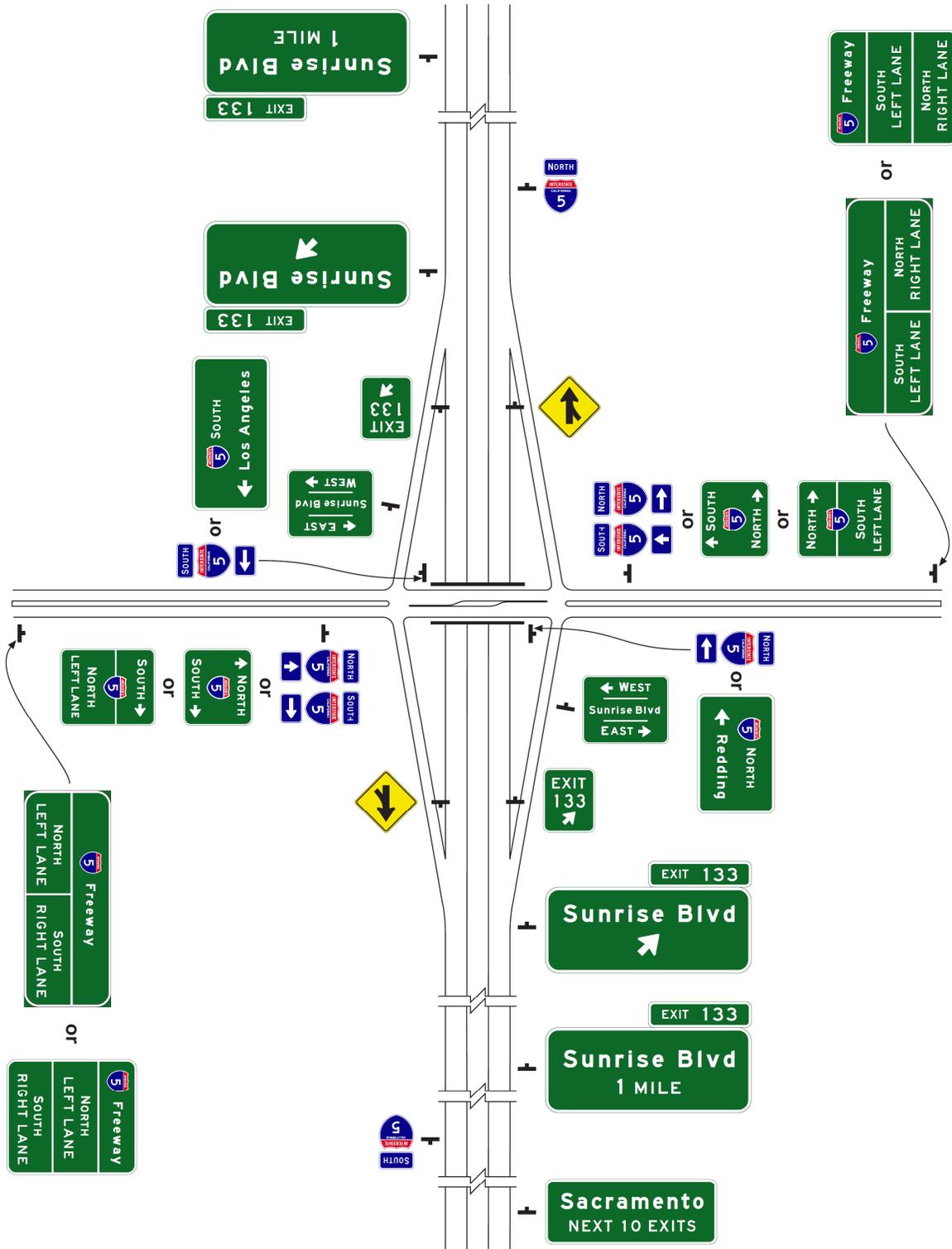




**Figure 2E-39. Examples of Guide Signs for a Diamond Interchange in an Urban Area**



**Figure 2E-39 (CA). Examples of Guide Signs for a Diamond Interchange in an Urban Area**







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

Sign or Plaque	Sign Designation	Section	Minimum Size
<b>Exit Number (plaque)</b>			
1-, 2-Digit Exit Number	E1-5P	2E.31	114 x 30
3-Digit Exit Number	E1-5P	2E.31	132 x 30
1-, 2-Digit Exit Number (with single letter suffix)	E1-5P	2E.31	138 x 30
3-Digit Exit Number (with single letter suffix)	E1-5P	2E.31	156 x 30
1-, 2-Digit Exit Number (with dual letter suffix)	E1-5P	2E.31	168 x 30
3-Digit Exit Number (with dual letter suffix)	E1-5P	2E.31	186 x 30
Left (plaque)	E1-5aP	2E.33	72 x 30
<b>Left Exit Number (plaque)</b>			
1-, 2-Digit Exit Number	E1-5bP	2E.31	114 x 54
3-Digit Exit Number	E1-5bP	2E.31	132 x 54
1-, 2-Digit Exit Number (with single letter suffix)	E1-5bP	2E.31	138 x 54
3-Digit Exit Number (with single letter suffix)	E1-5bP	2E.31	156 x 54
1-, 2-Digit Exit Number (with dual letter suffix)	E1-5bP	2E.31	168 x 54
3-Digit Exit Number (with dual letter suffix)	E1-5bP	2E.31	186 x 54
Next Exit XX Miles (1 line)	—	2E.34	Varies x 24
Next Exit XX Miles (2 lines)	—	2E.34	Varies x 36
Exit Gore (no exit number)	E5-1	2E.37	72 x 60
<b>Exit Gore (with exit number)</b>			
1-, 2-Digit Exit Number	E5-1a	2E.37	78 x 60
3-Digit Exit Number	E5-1a	2E.37	96 x 60
1-Digit Exit Number (with single letter suffix)	E5-1a	2E.37	90 x 60
2-Digit Exit Number (with single letter suffix)	E5-1a	2E.37	108 x 60
3-Digit Exit Number (with single letter suffix)	E5-1a	2E.37	126 x 60
1-Digit Exit Number (with dual letter suffix)	E5-1a	2E.37	120 x 60
2-Digit Exit Number (with dual letter suffix)	E5-1a	2E.37	138 x 60
3-Digit Exit Number (with dual letter suffix)	E5-1a	2E.37	156 x 60
<b>Exit Number (plaque)</b>			
1-, 2-Digit Exit Number	E5-1bP	2E.37	42 x 30
3-Digit Exit Number	E5-1bP	2E.37	60 x 30
1-Digit Exit Number (with single letter suffix)	E5-1bP	2E.37	48 x 30
1-Digit Exit Number (with dual letter suffix)	E5-1bP	2E.37	72 x 30
2-Digit Exit Number (with single or dual letter suffix)	E5-1bP	2E.37	72 x 30
3-Digit Exit Number (with single or dual letter suffix)	E5-1bP	2E.37	72 x 30
Narrow Exit Gore	E5-1c	2E.37	60 x 90*
Pull-Through	E6-2	2E.12	Varies x 120*
Pull-Through	E6-2a	2E.12	Varies x 90*
Exit Only (with arrow)	E11-1,1d	2E.24	174** x 36
Exit	E11-1a	2E.24	66 x 18
Only	E11-1b	2E.24	66 x 18
Exit Only	E11-1c	2E.24	120 x 18
Exit Only (with two arrows)	E11-1e,1f	2E.24	222** x 36
Left	E11-2	2E.40	60 x 18
Exit Gore Advisory Speed (plaque)	E13-1P	2E.37	72 x 24
Exit Direction Advisory Speed	E13-2	2E.36	162 x 24
Interstate Route Sign (1 or 2 digits)	M1-1	2E.27	36 x 36
Interstate Route Sign (3 digits)	M1-1	2E.27	45 x 36
Off-Interstate Route Sign (1 or 2 digits)	M1-2,3	2E.27	36 x 36
Off-Interstate Route Sign (3 digits)	M1-2,3	2E.27	45 x 36
U.S. Route Sign (1 or 2 digits)	M1-4	2E.27	36 x 36
U.S. Route Sign (3 digits)	M1-4	2E.27	45 x 36
State Route Sign (1 or 2 digits)	M1-5	2D.11	36 x 36

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

Sign or Plaque	Sign Designation	Section	Minimum Size
State Route Sign (3 digits)	M1-5	2D.11	45 x 36
County Route Sign (1, 2, or 3 digits)	M1-6	2D.11	36 x 36
Forest Route (1, 2, or 3 digits)	M1-7	2D.11	36 x 36
Eisenhower Interstate System	M1-10,10a	2E.28	36 x 36
Junction	M2-1	2D.13	30 x 21
Combination Junction (2 route signs)	M2-2	2D.14	60 x 48*
Cardinal Direction	M3-1,2,3,4	2D.15	36 x 18
Alternate	M4-1,1a	2D.17	36 x 18
By-Pass	M4-2	2D.18	36 x 18
Business	M4-3	2D.19	36 x 18
Truck	M4-4	2D.20	36 x 18
To	M4-5	2D.21	36 x 18
End	M4-6	2D.22	36 x 18
Temporary	M4-7,7a	2D.24	36 x 18
Begin	M4-14	2D.23	36 x 18
Advance Turn Arrow	M5-1,2,3	2D.26	30 x 21
Lane Designation	M5-4,5,6	2D.27	36 x 24
Directional Arrow	M6-1,2,2a,3,4,5,6,7	2D.28	30 x 21
Destination (1 line)	D1-1	2D.37	Varies x 30
Destination and Distance (1 line)	D1-1a	2D.37	Varies x 30
Destination (2 lines)	D1-2	2D.37	Varies x 54
Destination and Distance (2 lines)	D1-2a	2D.37	Varies x 54
Destination (3 lines)	D1-3	2D.37	Varies x 72
Destination and Distance (3 lines)	D1-3a	2D.37	Varies x 72
Distance (1 line)	D2-1	2D.41	Varies x 30
Distance (2 lines)	D2-2	2D.41	Varies x 54
Distance (3 lines)	D2-3	2D.41	Varies x 72
Street Name	D3-1,1a	2D.43	Varies x 18
Advance Street Name (2 lines)	D3-2	2D.44	Varies x 42*
Advance Street Name (3 lines)	D3-2	2D.44	Varies x 66*
Advance Street Name (4 lines)	D3-2	2D.44	Varies x 84*
Park - Ride	D4-2	2D.48	36 x 48
National Scenic Byways	D6-4	2D.55	24 x 24
National Scenic Byways	D6-4a	2D.55	24 x 12
Weigh Station XX Miles	D8-1	2E.54	96 x 72 (F) 78 x 60 (E)
Weigh Station Next Right	D8-2	2E.54	108 x 90 (F) 84 x 72 (E)
Weigh Station (with arrow)	D8-3	2E.54	84 x 78 (F) 66 x 60 (E)
Crossover	D13-1,2	2D.54	78 x 42
Freeway Entrance	D13-3	2D.46	48 x 30
Freeway Entrance (with arrow)	D13-3a	2D.46	48 x 42
Combination Lane Use / Destination	D15-1	2D.33	Varies x 96
Next Truck Lane XX Miles	D17-1	2D.51	60 x 66
Truck Lane XX Miles	D17-2	2D.51	60 x 54
Slow Vehicle Turn-Out XX Miles	D17-7	2D.52	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	VAR x 30
Advance Lane Assignment	G20-3(CA)	2D.31	VAR x 42
Advance Lane Assignment	G20-5(CA)	2D.31	VAR x 54
Advance Lane Assignment	G20-7(CA)	2D.31	VAR x 60
Interchange Sequence	G23-1(CA)	2E.35, 2E.40	VAR x 90
Interchange Sequence	G23-2(CA)	2E.35, 2E.40	VAR x 100
Interchange Sequence	G23-3(CA)	2E.35, 2E.40	VAR x 100
Interchange Sequence	G23-4(CA)	2E.35, 2E.40	VAR x 100
Interchange Sequence	G23-5(CA)	2E.35, 2E.40	VAR x 120
Interchange Sequence	G23-6(CA)	2E.35, 2E.40	VAR x 90
Pull-Through	G24-1(CA)	2D.03, 2E.12	VAR x 80
Pull-Through	G24-3(CA)	2D.03, 2E.12	VAR x 110
Pull-Through	G24-4(CA)	2D.03, 2E.12	VAR x 120
Pull-Through	G24-5(CA)	2D.03, 2E.12	VAR x 110
Pull-Through	G24-6(GA)	2D.03, 2E.12	VAR x 110
Single Line EXIT XX	G70-2(CA)	2E.31	36 x 12
Single Line EXIT XXXX	G70-3(CA)	2E.31	48 x 12
Two Line EXIT XX	G70-4(CA)	2E.31	24 x 24
Two Line EXIT XXXX	G70-5(CA)	2E.31	36 x 24
Advance Guide	G83-1(CA)	2E.33	VAR x 78
Advance Guide	G83-2(CA)	2E.33	VAR x 110
Exit Numbered Advance Guide	G83-4(CA)	2E.31, 2E.33	VAR x 84
Exit Numbered Advance Guide	G83-5(CA)	2E.31, 2E.33	VAR x 78
EXIT (XX) with Arrow	G84-2(CA)	2E.31, 2E.33	54 x 48
EXIT (XXX) with Arrow	G84-3(CA)	2E.31, 2E.33	48 x 60
Exit Direction	G85-1(CA)	2D.03, 2E.36	VAR x 78
Exit Direction	G85-2(CA)	2D.03, 2E.36	VAR x 48
Exit Direction	G85-3(CA)	2D.03, 2E.36	VAR x 114
Exit Direction	G85-4(CA)	2D.03, 2E.36	VAR x 138
Exit Direction	G85-5(CA)	2D.03, 2E.36	VAR x 80
Exit Direction	G85-6(CA)	2D.03, 2E.36	VAR x 80
Exit Numbered Exit Direction	G85-10(CA)	2D.03, 2E31	VAR x 84
Exit Numbered Exit Direction	G85-11(CA)	2D.03, 2E31	VAR x 84
NEXT XX EXITS	G87(CA)	2E.42	VAR x 54
Exit Only	W61A(CA)	2E.24	44 x 20
Exit Only	W61B(CA)	2E.24	44 x 20
Exit Only	W61C(CA)	2E24	84 x 20
Exit Only	W61D(CA)	2E.24	126 x 20
Exit Only	W61E(CA)	2E.24	174 x 20
Only	W61F(CA)	2E.24	84 x 20
Only	W61G(CA)	2E.24	174 x 20
Exit Only	W61H(CA)	2E.24	44 x 20

**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.32)				Overhead
	Major		Intermediate	Minor	
	Category a	Category b			
<b>A. Advance Guide, Exit Direction, and Overhead Guide Signs</b>					
Exit Number Plaques					
Words	10	10	10	8	10
Numerals & Letters	15	15	15	12	15
Interstate Route Signs					
Numerals	18	—	—	—	18
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 Words	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>B. Gore Signs</b>					
Words	10	10	10	8	—
Numerals & Letters	12	12	12	10	—

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
<b>A. Pull-Through Signs</b>	
Destinations — Upper-Case Letters	13.33
Destinations — Lower-Case Letters	10
Route Signs	
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>B. Supplemental Guide Signs</b>	
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	12
1- or 2-Digit Shield	24 x 24
3-Digit Shield	30 x 24
<b>C. Interchange Sequence or Community Interchanges Identification Signs</b>	
Words — Upper-Case Letters	10.67
Words — Lower-Case Letters	8
Numerals	10.67
Fraction Numerals	8
Route Signs	
Numerals	12
1- or 2-Digit Shield	24 x 24
3-Digit Shield	30 x 24
<b>D. Next XX Exits Sign</b>	
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
<b>E. Distance Signs</b>	
Words — Upper-Case Letters	8
Words — Lower-Case Letters	6
Numerals	8
Route Signs	
Numerals	9
1- or 2-Digit Shield	18 x 18
3-Digit Shield	22.5 x 18
<b>F. General Services Signs (see Chapter 2I)</b>	
Exit Number — Words	8
Exit Number — Numerals and Letters	12
Services	8
<b>G. Rest Area, Scenic Area, and Roadside Area Signs (see Chapter 2I)</b>	
Words	10
Distance Numerals	12
Distance Fraction Numerals	8
Distance Words	8
Action Message Words	10
<b>H. Reference Location Signs (see Chapter 2H)</b>	
Words	4
Numerals	10
<b>I. Boundary and Orientation Signs (see Chapter 2H)</b>	
Words — Upper-Case Letters	8
Words — Lower-Case Letters	6
<b>J. Next Exit and Next Services Signs</b>	
Words and Numerals	8
<b>K. Exit Only Signs</b>	
Words	12
<b>L. Overhead Arrow-Per-Lane and Diagrammatic Signs</b>	
See Table 2E-5	

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.32)				Overhead
	Major		Intermediate	Minor	
	Category a	Category b			
<b>A. Advance Guide, Exit Direction, and Overhead Guide Signs</b>					
Exit Number Plaques					
Words	10	10	10	10	10
Numerals & Letters	15	15	15	15	15
Interstate Route Signs					
Numerals	24/18	—	—	—	18
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>B. Gore Signs</b>					
Words	12	12	12	8	—
Numeral & Letters	18	18	18	12	—

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
<b>A. Pull-Through Signs</b>	
Destinations — Upper-Case Letters	16
Destinations — Lower-Case Letters	12
Route Signs	
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>B. Supplemental Guide Signs</b>	
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	12
1- or 2-Digit Shield	24 x 24
3-Digit Shield	30 x 24
<b>C. Interchange Sequence or Community Interchanges Identification Signs</b>	
Words — Upper-Case Letters	13.33
Words — Lower-Case Letters	10
Numerals	13.33
Fraction Numerals	10
Route Signs	
Numerals	12
1- or 2-Digit Shield	24 x 24
3-Digit Shield	30 x 24
<b>D. Next XX Exits Sign</b>	
Place Names — Upper-Case Letters	13.33
Place Names — Lower-Case Letters	10
NEXT XX EXITS — Words	10
NEXT XX EXITS — Number	15
<b>E. Distance Signs</b>	
Words — Upper-Case Letters	8
Words — Lower-Case Letters	6
Numerals	8
Route Signs	
Numerals	9
1- or 2-Digit Shield	18 x 18
3-Digit Shield	22.5 x 18
<b>F. General Services Signs (see Chapter 2I)</b>	
Exit Number Words	10
Exit Number Numerals and Letters	15
Services	10

Type of Sign	Minimum Size
<b>G. Rest Area, Scenic Area, and Roadside Area Signs (see Chapter 2I)</b>	
Words	12
Distance Numerals	15
Distance Fraction Numerals	10
Distance Words	10
Action Message Words	12
<b>H. Reference Location Signs (see Chapter 2H)</b>	
Words	4
Numerals	10
<b>I. Boundary and Orientation Signs (see Chapter 2H)</b>	
Words — Upper-Case Letters	8
Words — Lower-Case Letters	6
<b>J. Next Exit and Next Services Signs</b>	
Words and Numerals	8
<b>K. Exit Only Signs</b>	
Words	12
<b>L. Overhead Arrow-Per-Lane Signs</b>	
Arrowhead (Type D Directional Arrow)	21.625
Arrow Shaft Width	8
Arrow Height	
Through	72
Left Only	48
Right Only	48
Optional-Diverge (Through with Left or Right)	72
Optional-Split (Left and Right)	66
Vertical Separator Width	2
Vertical Space between Vertical Separator and Top of Nearest Arrow	8
Horizontal Space between Vertical Separator and Top of Nearest Through Arrow	15
Horizontal Space between Arrow Shaft and EXIT and ONLY plaques	10
EXIT and ONLY Panels	60 x 18
<b>M. Diagrammatic Signs</b>	
Arrowhead (Type D Directional Arrow)	13.5*
Lane Widths	5
Lane Line Segments	1 x 6
Spacing between Lane Line Segments	6
Stem Height to Upper Point of Departure	30
Horizontal Space between Arrowhead and Route Shield or Destination	12

\* The size shown is the arrowhead width per lane depicted on the corresponding arrow shaft

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

## CHAPTER 2F. TOLL ROAD SIGNS

### Section 2F.01 Scope

**Support:**

<sup>01</sup> 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. 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 necessitate additional modifications to the typical signing.

<sup>02</sup> 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:**

<sup>03</sup> **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

**Standard:**

<sup>01</sup> **Except as provided in Section 2A.11, the sizes of toll road signs that have standardized designs shall be as shown in Table 2F-1.**

**Support:**

<sup>02</sup> Section 2A.11 contains information regarding the applicability of the various columns in Table 2F-1.

**Option:**

<sup>03</sup> Signs larger than those shown in Table 2F-1 may be used (see Section 2A.11).

### Section 2F.03 Use of Purple Backgrounds and Underlay Panels with ETC Account Pictographs

**Standard:**

<sup>01</sup> **Use of the color purple on any sign shall comply with the provisions of Sections 1A.12 and 2A.10. Except as provided in Sections 2F.12 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 1A.12 and 2A.10 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.**

<sup>02</sup> **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 signs for such lanes or highways shall incorporate the pictograph (see Chapter 2A) 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.**

<sup>03</sup> **If an ETC pictograph is used on a separate plaque with a guide sign 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 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.04 contains provisions regarding the size of pictographs for ETC accounts.

## **Section 2F.04 Size of ETC Pictographs**

**Standard:**

**01 The ETC pictograph (see Chapter 2A) 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:*

02 *An ETC pictograph that is in the shape of a horizontal rectangle should have a minimum height between approximately 1.5 and 2 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 two and three times the height of the pictograph. 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 horizontal rectangular ETC pictograph should be consistent with that of a route shield prescribed for the particular application and type of sign.*

03 *For ETC pictographs whose shape is square, circular, or otherwise similar in height and width, or is a vertical rectangle, the same basic principles for conspicuity and placement should be followed. ETC pictographs whose shape is not in that of a horizontal rectangle should be suitably sized to facilitate conspicuity as described in Paragraph 1 and should be of a similar approximate area as the horizontal rectangular pictographs designed in accordance with the height and width as provided in Paragraph 2.*

## **Section 2F.05 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 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.13 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.13) should be installed in the locations provided in Paragraph 8 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 plaza and the lanes and 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.*

Option:

08 Speed limit signs may be installed over the applicable 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. Down arrows or diagonally downward-pointing directional arrows may be used to supplement the speed limit signs if an engineering study or engineering judgment indicates that the arrow is needed 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 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.06 Pay Toll Advance Warning Sign (W9-6)**

**Standard:**

**01 The Pay Toll Advance Warning (W9-6) sign shall be a horizontal rectangle with a black legend and border on a yellow background. The legend shall include the distance to the toll plaza and, except for toll-ticket facilities, the toll for passenger or 2-axle vehicles (see Figure 2F-3). 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. For toll plazas where road users entering a toll-ticket facility are issued a toll ticket, the legend PAY TOLL shall be replaced with a suitable legend such as TAKE TICKET.**

Guidance:

*02 The Pay Toll Advance Warning sign should be installed overhead at approximately 1 mile and 1/2 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).*

Option:

<sup>03</sup> If there is insufficient space for the W9-6 sign at the 1-mile or 1/2-mile advance locations, the Pay Toll Advance Warning (W9-6P) plaque (see Section 2F.07) may be installed at those advance locations above the appropriate guide sign(s) that relate to toll payment types.

<sup>04</sup> An additional W9-6 sign may be installed approximately 2 miles in advance of a mainline toll plaza. This sign may be either overhead or post-mounted.

<sup>05</sup> 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 is limited, the W9-6 sign may also be installed in advance of the ramp toll plaza.

**Section 2F.07 Pay Toll Advance Warning Plaque (W9-6P)**

Option:

<sup>01</sup> The Pay Toll Advance Warning (W9-6P) plaque (see Figure 2F-3) may be installed above the appropriate guide sign(s) relating to toll payment types at the 1-mile and/or 1/2-mile advance locations on the approach to a toll plaza if there is insufficient space for the W9-6 sign (see Section 2F.06) at those advance locations.

**Standard:**

<sup>02</sup> **The W9-6P plaque shall be a horizontal rectangle with black legend and border on a yellow background. The legend shall include 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 W9-6P plaque to display the toll in effect. For toll plazas where road users entering a toll-ticket facility are issued a toll ticket, the legend PAY TOLL shall be replaced with a suitable legend such as TAKE TICKET.**

Option:

<sup>03</sup> The distance to the toll plaza may be omitted from the W9-6P plaque if the distance is displayed on the guide sign that the plaque accompanies.

<sup>04</sup> The toll for passenger or 2-axle vehicles may be omitted from the W9-6P plaque if the toll information is displayed on the guide sign that the plaque accompanies.

**Section 2F.08 Stop Ahead Pay Toll Warning Sign (W9-6a)**

**Standard:**

<sup>01</sup> **The Stop Ahead Pay Toll (W9-6a) sign shall be a horizontal rectangle with a black legend and border on a yellow background. The legend shall include STOP AHEAD PAY TOLL and, except for toll-ticket facilities, the toll for passenger or 2-axle vehicles (see Figure 2F-3). 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. For toll plazas where road users entering a toll-ticket facility are issued a toll ticket, the legend PAY TOLL shall be replaced with a suitable legend such as TAKE TICKET.**

*Guidance:*

<sup>02</sup> *The Stop Ahead Pay Toll sign should be installed overhead downstream from the W9-6 sign that is 1/2 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). 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.*

<sup>03</sup> *Where open-road tolling is used in addition to a toll plaza at a particular location, the W9-6a 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:

<sup>04</sup> If there is insufficient space for the W9-6a sign at the recommended location, the Stop Ahead Pay Toll (W9-6aP) plaque (see Section 2F.09) may be installed at that location above the appropriate guide sign that relates to toll payment types.

<sup>05</sup> 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 is limited, the W9-6a sign may also be installed in advance of the ramp toll plaza.

### **Section 2F.09 Stop Ahead Pay Toll Warning Plaque (W9-6aP)**

**Option:**

01 The Stop Ahead Pay Toll (W9-6aP) plaque (see Figure 2F-3) 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.

**Standard:**

02 **The W9-6aP plaque shall be a horizontal rectangle with black legend and border on a yellow background. The legend shall include STOP AHEAD PAY TOLL 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 W9-6aP plaque to display the toll in effect. For toll plazas where road users entering a toll-ticket facility are issued a toll ticket, the legend PAY TOLL shall be replaced with a suitable legend such as TAKE TICKET.**

**Option:**

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

### **Section 2F.10 LAST EXIT BEFORE TOLL Warning Plaque (W16-16P)**

**Guidance:**

01 *The LAST EXIT BEFORE TOLL (W16-16P) plaque (see Figure 2F-3) 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 or below the appropriate guide signs for the exit (see Sections ~~2E.30~~ 2E.33 and ~~2E.33~~ 2E.36).*

**Standard:**

02 **The W16-16P plaque shall have a black legend and border on a yellow background.**

### **Section 2F.11 TOLL Auxiliary Sign (M4-15)**

**Standard:**

01 **The TOLL (M4-15) auxiliary sign (see Figure 2F-4) 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 directions from a non-toll highway to the toll highway or to a segment of a highway on which the payment of a toll is required.**

### **Section 2F.12 Electronic Toll Collection (ETC) Account-Only Auxiliary Signs (M4-16 and M4-20)**

**Standard:**

01 **In any route sign assembly providing directions from a non-toll highway 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 (M4-20) auxiliary sign (see Figure 2F-4) shall be mounted directly below the route sign of the numbered or named toll facility. The M4-20 auxiliary 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 (M4-16) auxiliary sign (see Figure 2F-4) with a black legend and border on a white background may be used in a route sign assembly directly below the M4-20 auxiliary sign.

### **Section 2F.13 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.

<sup>03</sup> Chapter 3E contains information regarding pavement markings for certain toll plaza applications.

**Standard:**

<sup>04</sup> **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. The TOLL (M4-15) auxiliary sign (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.**

<sup>05</sup> **A rectangular panel with the black legend TOLL on a yellow background shall be incorporated into the guide signs leading road users to a toll highway (see Figure 2F-5).**

<sup>06</sup> **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.13 through 2F.16.**

**Option:**

<sup>07</sup> Where conditions do not permit separate signs, or where it is important to associate a particular regulatory or warning message with specific guidance information, regulatory and/or warning messages may be combined with guide signs for toll plazas using plaques, header panels, or rectangular regulatory or warning panels incorporated within the guide signs, as long as the proper legend and background colors are preserved.

**Standard:**

<sup>08</sup> **When regulatory messages are incorporated within a guide sign, they shall be on a rectangular panel with black legend on a white background. When warning messages are incorporated within a guide sign, they shall be on a rectangular panel with black legend on a yellow background.**

**Support:**

<sup>09</sup> Figure 2F-5 shows examples of guide signs for entrances to various types of toll highways and for ETC account-only entrances to non-toll highways.

**Standard:**

<sup>10</sup> **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 (see Figure 2F-6).**

<sup>11</sup> **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, 2F-5, and 2F-6). The use, size, and placement of the ETC pictograph shall comply with the provisions of Sections 2F.03 and 2F.04.**

**Support:**

<sup>12</sup> Sections 2F.11, 2F.12, and 2F.17 contain additional provisions regarding signs for toll highways that only accept ETC payments.

<sup>13</sup> Sections 2G.16 through 2G.18 contain additional provisions regarding signs for priced managed lanes that only accept ETC payments.

**Option:**

<sup>14</sup> Where a toll highway on which tolls are collected only electronically also accepts payments from registered toll account users and those road users not registered in a toll account program are assessed a nominal surcharge in addition to the toll, or registered toll account users are assessed a discounted toll, such information may be displayed on a separate information sign near the entrance to such a facility (see Figure 2F-6).

**Support:**

<sup>15</sup> Figure 2F-7 shows an example of guide signs for alternative toll and non-toll ramp connections to a non-toll highway.

<sup>16</sup> Many different ETC payment systems are used by the various toll facility operators. Some of these systems accept payment from other systems' accounts.

**Option:**

<sup>17</sup> 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.

*Guidance:*

<sup>18</sup> *Guide signs for toll plazas should be designed in accordance with the general principles of guide signs and the specific provisions of Chapter 2E.*

<sup>19</sup> *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:**

<sup>20</sup> **Signs for attended lanes at toll plazas shall include word messages such as FULL SERVICE, CASH, CHANGE, or RECEIPTS (see Figures 2F-8 through 2F-11).**

**Option:**

<sup>21</sup> Signs for Attended lanes at toll plazas may incorporate the Toll Taker (M4-17) symbol (see Figures 2F-8 and 2F-9), in a size that makes the symbol the predominant feature of the sign, to supplement the required word message.

**Standard:**

<sup>22</sup> **Signs for Exact Change lanes at toll plazas shall incorporate an appropriate word message, such as EXACT CHANGE and the amount of the toll for passenger vehicles (see Figures 2F-8 through 2F-11).**

**Option:**

<sup>23</sup> Signs for Exact Change lanes at toll plazas may include the Exact Change (M4-18) symbol (see Figures 2F-8 and 2F-9), in a size that makes the symbol the predominant feature of the sign, to supplement the required word message.

**Standard:**

<sup>24</sup> **If used, the M4-17 and M4-18 symbols shall be used only as panels within guide signs that accompany the required word messages. The M4-17 and M4-18 symbols shall not be used as an independent sign or within a sign assembly.**

<sup>25</sup> **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, 2F-8, 2F-9, and 2F-11). The use, size, and placement of the ETC pictograph shall comply with the provisions of Sections 2F.03 and 2F.04.**

**Option:**

<sup>26</sup> 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 (see Figure 2F-9).

## **Section 2F.14 Advance Signs for Conventional Toll Plazas**

*Guidance:*

<sup>01</sup> *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 1/2 mile in advance of the toll plaza, and farther if practical.*

<sup>02</sup> *Additional guide signs with lane information for the toll payment types should be provided between approximately 1/4 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-10 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-11). 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 1/2 mile in advance of the divergence point. Both the 1-mile and 1/2-mile advance signs should include:*

- A. The ETC (pictograph) Account-Only guide sign (see Figures 2F-8 and 2F-11) with a down arrow over the 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.13, 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-8 and 2F-11) with a down arrow over the center of each Open-Road ETC lane;*
- B. Guide signs conforming to the provisions of Section 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 shall comply with the provisions of Section 2D.08.**

Support:

*06 Figure 2F-11 shows an example of advance signs for toll plazas on a diverging alignment from Open-Road ETC Account-Only Lanes.*

*07 Section 4K.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.13 shall be provided above the 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-9).**

Option:

03 Where vehicles are required to have a registered ETC account to use the lane, one or two flashing yellow beacons (see Section 4K.04) 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-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-9).**

**06 For multi-lane toll plazas, lane-use control signals (see Section 4K.02) shall be provided above the 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-9 shows examples of toll plaza canopy signs.

### **Section 2F.17 Guide Signs for Entrances to ETC Account-Only Facilities**

Support:

01 Some toll highways, bridges, and tunnels are restricted to use only by vehicles with a specific registered ETC account.

**Standard:**

**02 Where vehicles are required to have a registered ETC account to use an ETC Account-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.**

**03 Guide signs for the entrance ramps to such ETC Account-Only facilities shall 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-5).**

Support:

04 Section 2F.12 contains information regarding ETC-Only auxiliary signs for use with route signs in route sign assemblies.

### **Section 2F.18 ETC Program Information Signs**

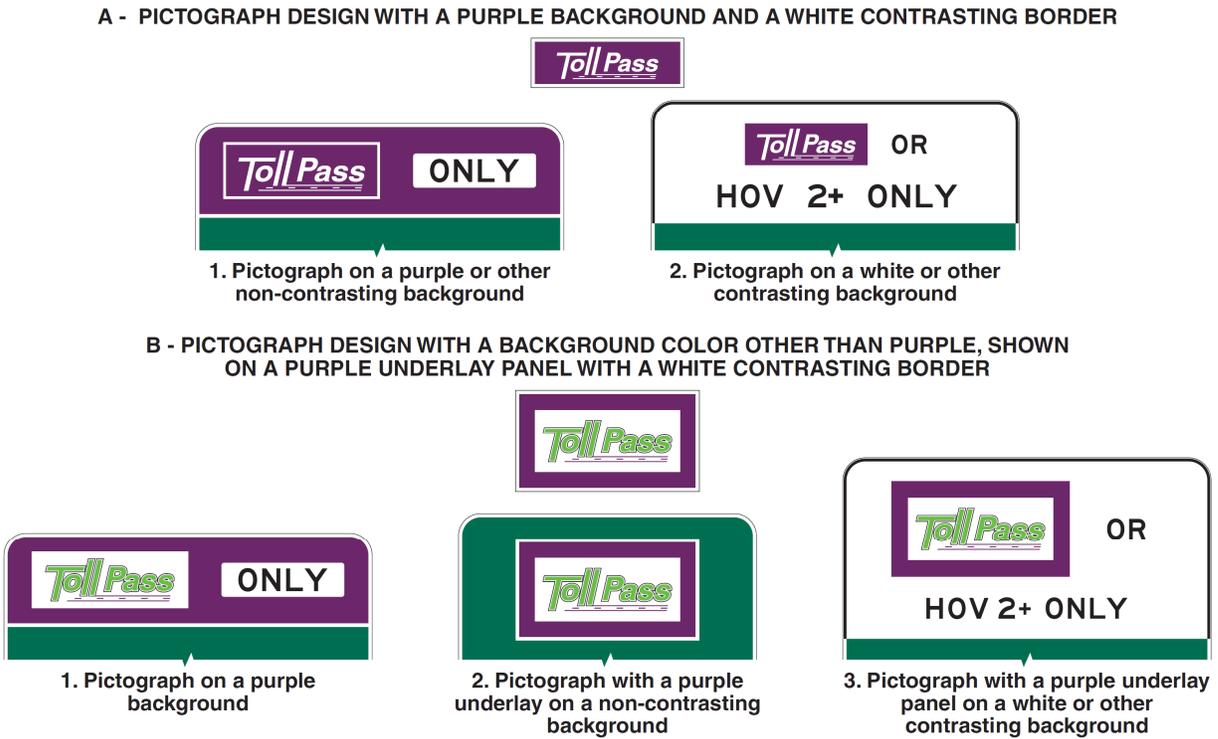
**Standard:**

**01 Except as provided in Paragraph 2, 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 program of a toll facility or managed lane, obtaining an ETC transponder, and/or obtaining ETC 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 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.

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



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



Figure 2F-3. Toll Plaza Warning Signs and Plaques



W9-6



W9-6a



W9-6P



W9-6aP



W16-16P

Figure 2F-4. ETC Account-Only Auxiliary Signs for Use in Route Sign Assemblies



M4-20



M4-16



M4-15



M3-2



M1-4



M4-20



M5-1

Example Route Sign Assembly

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

### Figure 2F-5. 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



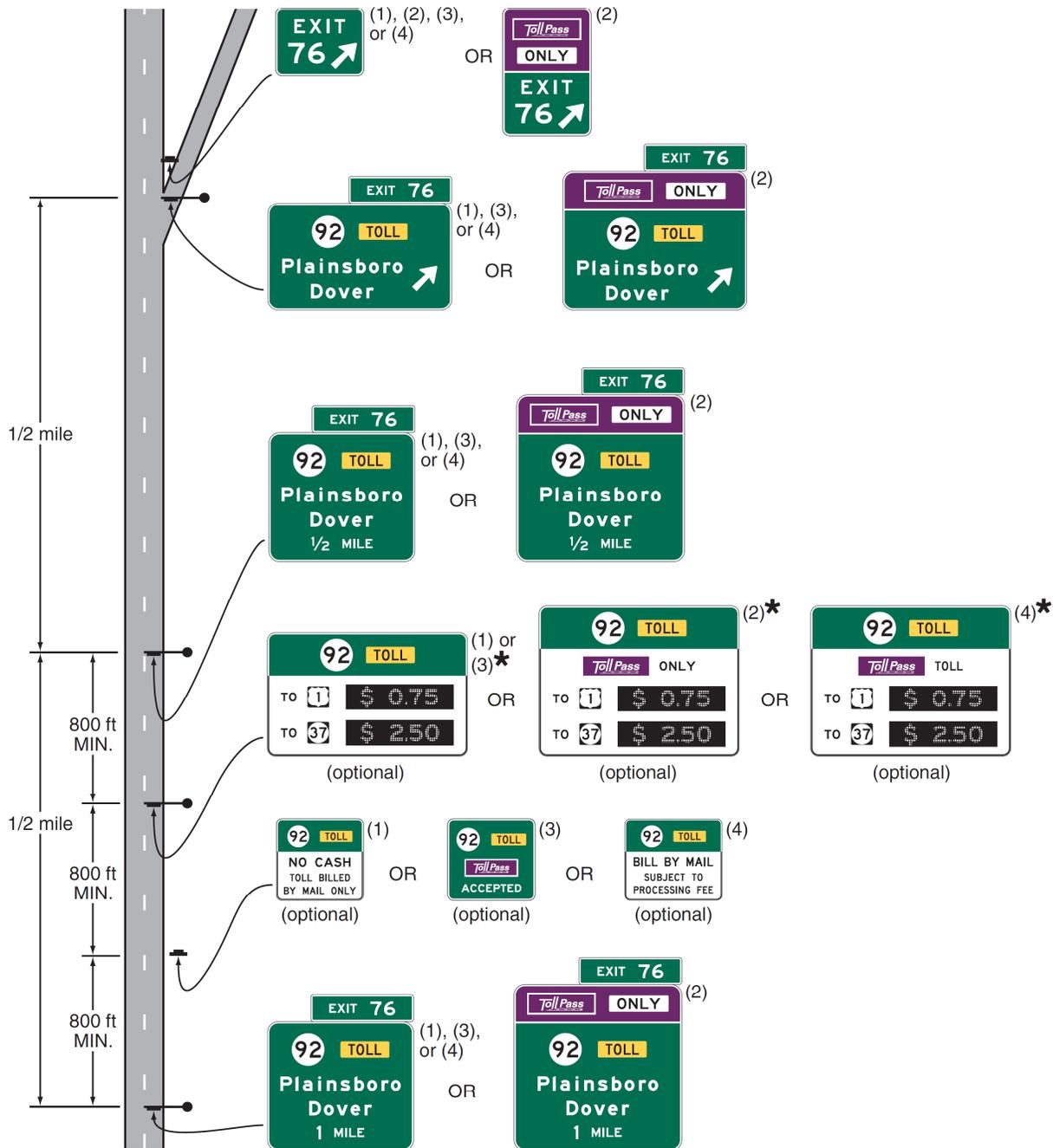
(the toll entrance is the only  
connection provided in the vicinity)



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

Note: The ETC pictographs shown are examples only. The pictograph for the toll facility's adopted ETC system shall be used.

**Figure 2F-6. Examples of Guide Signs for the Entrance to a Toll Highway on which Tolls are Collected Electronically Only**



- (1) All tolls are billed through license plate recognition only. A registered toll account or ETC device is not needed.
- (2) All tolls are billed through registered toll accounts only. All vehicles must be registered in an ETC account program.
- (3) Tolls are billed through license plate recognition in which registration in a toll account program is not required. Toll payments are also accepted from registered toll accounts. Registered toll accounts might receive a discount from the toll amount displayed on the signs.
- (4) Tolls are billed through license plate character recognition or registered toll accounts. Vehicles not registered in a toll account program are assessed a nominal processing fee in addition to the toll amount displayed on the signs.
- \* For managed toll highways only (see Chapter 2G)



**Figure 2F-8. Examples of Conventional Toll Plaza Advance Signs**



Notes:

1. The M4-17 symbol is optional for an attended lane.
2. The M4-18 symbol is optional for an exact change lane.
3. The ETC pictograph that is shown is only an example. The pictograph for the toll facility's adopted ETC system shall be used.

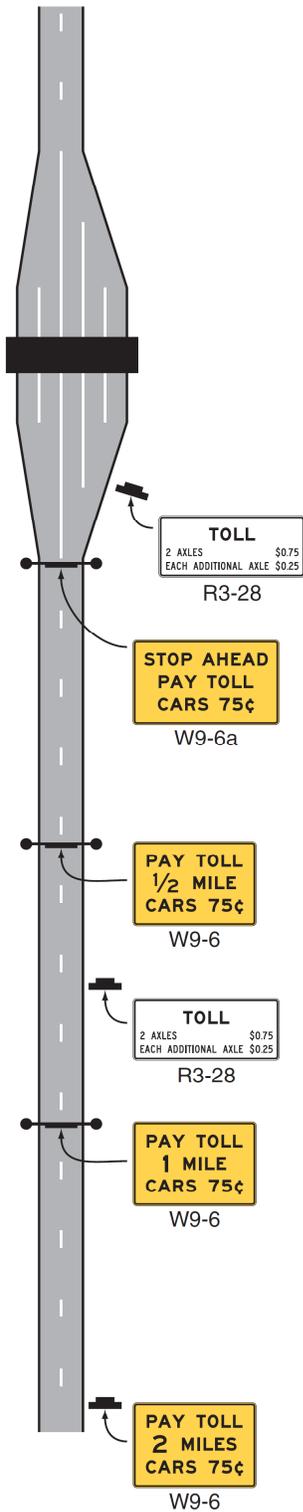
**Figure 2F-9. Examples of Toll Plaza Canopy Signs**



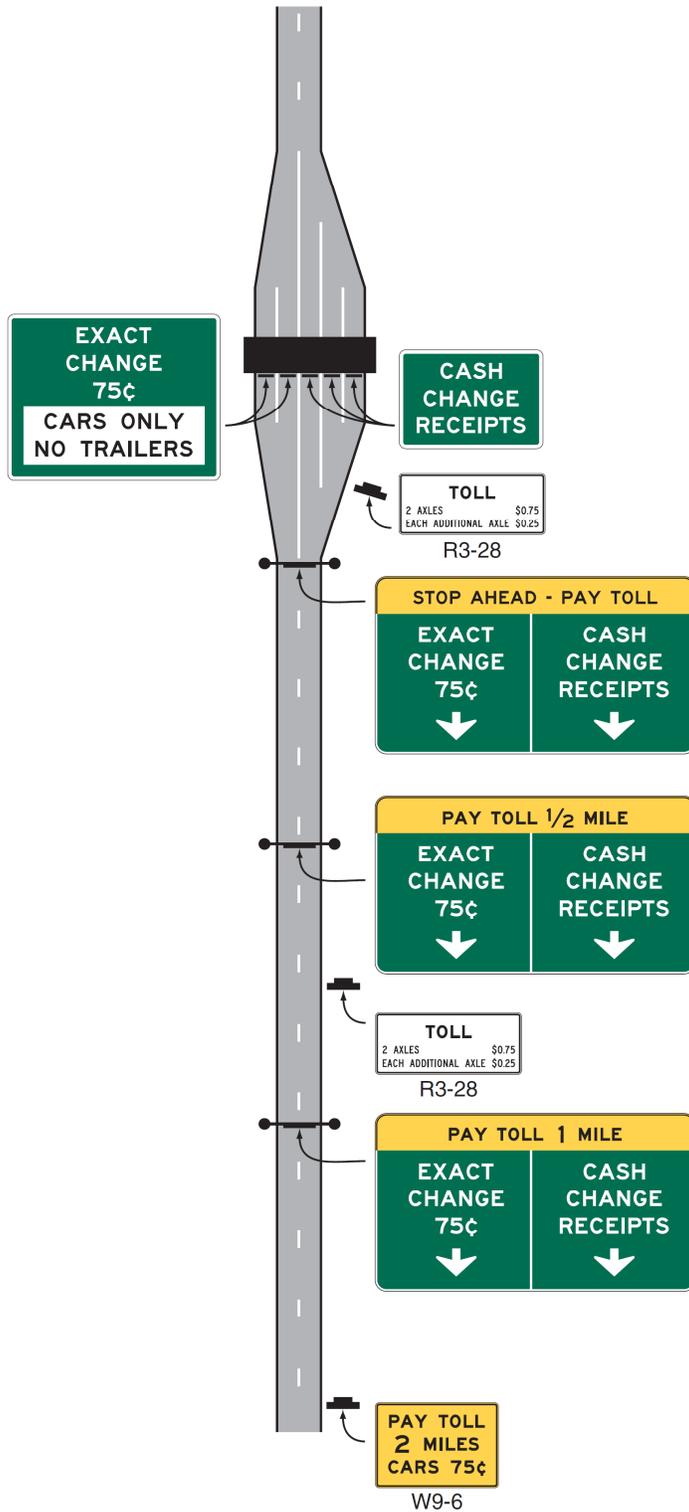
- \* Optional flashing yellow beacons that are separated from any lane-use control signals for the lane (see Section 2F.16)
- \*\* The ETC pictographs that are shown are only examples. The pictograph for the toll facility's adopted ETC system shall be used.

**Figure 2F-10. Examples of Mainline Toll Plaza Approach and Canopy Signing**

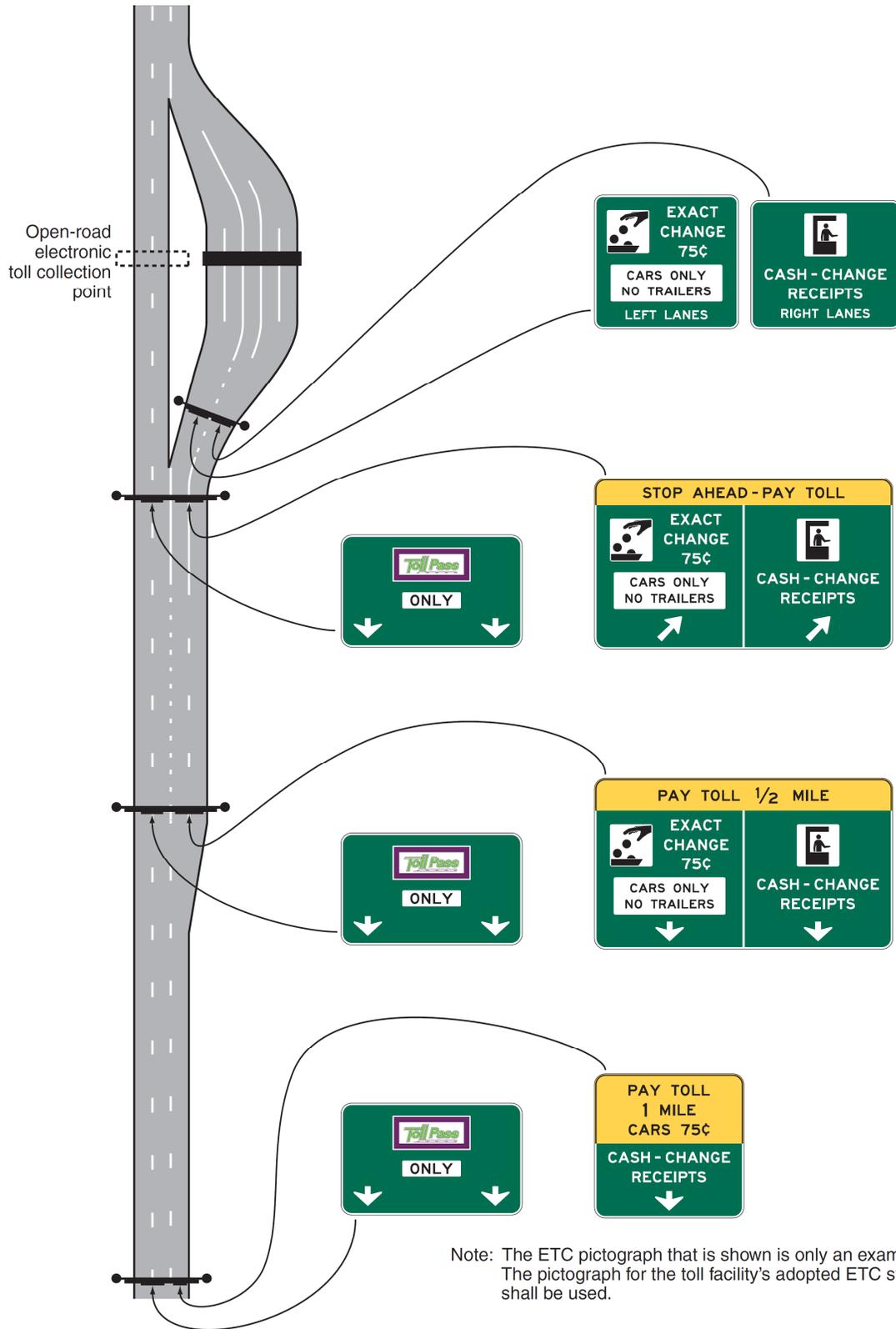
**A - ALL TOLL PLAZA LANES ATTENDED  
 (NO AUTOMATIC OR ELECTRONIC  
 COLLECTION EQUIPMENT)**



**B - EXACT CHANGE AND ATTENDED TOLL LANES**



**Figure 2F-11. Examples of Guide Signs for a Mainline Toll Plaza on a Diverging Alignment from Open-Road ETC Lanes**



**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.05	—	—	114 x 48	114 x 48	—	—
Pay Toll (plaque)	R3-29P	2F.05	—	—	24 x 18	24 x 18	—	—
Take Ticket (plaque)	R3-30P	2F.05	—	—	24 x 18	24 x 18	—	—
Pay Toll XX Miles Cars (price)	W9-6	2F.06	96 x 66	96 x 66	96 x 66	96 x 66	—	—
Pay Toll XX Miles Cars (price) (plaque)	W9-6P	2F.07	288* x 36	288* x 36	288* x 36	288* x 36	—	—
Stop Ahead Pay Toll Cars (price)	W9-6a	2F.08	114 x 66	114 x 66	114 x 66	114 x 66	—	—
Stop Ahead Pay Toll (plaque)	W9-6aP	2F.09	252* x 36	252* x 36	252* x 36	252* x 36	—	—
Last Exit Before Toll (plaque)	W16-16P	2F.10	—	—	252* x 36	252* x 36	—	—
Toll	M4-15	2F.11	24 x 12	24 x 12	36 x 18	36 x 18	24 x 12	36 x 18
No Cash	M4-16	2F.12	24 x 12	24 x 12	36 x 18	36 x 18	24 x 12	36 x 18
Toll Collector Symbol	M4-17	2F.13	—	—	48 x 48	48 x 48	—	—
Exact Change Symbol	M4-18	2F.13	—	—	48 x 48	48 x 48	—	—
ETC Only	M4-20	2F.12	24 x 24	24 x 24	36 x 36	36 x 36	24 x 24	36 x 36

\* 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

## CHAPTER 2G. PREFERENTIAL AND MANAGED LANE SIGNS

### Section 2G.01 Scope

#### Support:

01 Preferential lanes are lanes designated for special traffic uses such as high-occupancy vehicles (HOVs), light rail, buses, taxis, or bicycles. 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.16 through 2G.18 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 bike lanes.

### Section 2G.02 Sizes of Preferential and Managed Lane Signs

#### Standard:

01 **Except as provided in Section 2A.11, the sizes of preferential and managed lane signs that have standardized designs shall be as shown in Table 2G-1.**

#### Support:

02 Section 2A.11 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.11).

### 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 pavement markings (see Chapter 3D) for these lanes shall be used to advise road users.**

#### Support:

02 Preferential Lane (~~R3-10 series~~ [R3-11 series](#) through R3-15 series, [R82B\(CA\) through R88\(CA\)](#), [R91\(CA\) series through R94\(CA\)](#), [SR50\(CA\) series](#) and the [SR60\(CA\) series](#)) regulatory signs consist of several different general types of regulatory signs as follows (see Figure 2G-1 and [Figure 2G-1\(CA\)](#)):

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 ILEVVs) that are allowed to use an HOV lane (see Section 2G.04).

- B. Periods of 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.

**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 practical 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,~~ and R87(CA) 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 14 feet above any portion of the pavement and shoulders.

**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.18 for overhead mounting.**

*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).**

*Option:*

*19 Agencies may select from either the HOV abbreviation or the diamond symbol, or use both, to reference the HOV lane designation.*

**Standard:**

**20 When the diamond symbol (or HOV abbreviation) is used without text on the post-mounted Preferential Lane (~~R3-10 series~~, R3-11 series, and R3-12 series, **R93-2(CA)**, and **SR50-2(CA)**) regulatory signs, it shall be centered on the top line of the sign. When the diamond symbol (or HOV abbreviation) is used with associated text on the post-mounted Preferential Lane (~~R3-10 series~~, R3-11 series, and R3-12 series, **R82-1(CA)**, **R84-2(CA)**, **R86(CA) series**, **R88(CA)**, and **R91(CA) series**) regulatory signs, it shall appear to the left of the associated text. When the diamond symbol is used on the overhead Preferential Lane (R3-13, R3-13a, R3-14, and R3-14a, and **R87(CA) series**) regulatory signs, it shall appear in the top left quadrant. The diamond symbol for the R3-15, R3-15a, R3-15b, and R3-15c, and **SR50-1(CA)** signs shall appear on the left side of the sign. The diamond symbol shall not be used on the bus, taxi, or bicycle Preferential Lane signs.**

**21 Vehicle Occupancy Definition, Periods of 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 or the diamond symbol.**

*Support:*

*22 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 lanes 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" (see Section 1A.11).*

**Standard:**

**23 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.**

**24 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.**

**25 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 vehicle occupancy in effect.**

Support:

26 See Section 2G.17 for regulatory signs for managed lanes that use tolling or pricing as a congestion management strategy, either exclusively or with other management strategies.

27 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.

Support:

28 For State highways, see Department of Transportation's High Occupancy Vehicle (HOV) Guidelines. See Section 1A.11 for information regarding this publication.

29 Refer to CVC 21655.5 for Exclusive- or Preferential-Use Lanes for High Occupancy Vehicles.

30 Refer to Figure 2G-1(CA) for Preferential Lane Regulatory Signs and Plaques.

### **Section 2G.04 Preferential Lane Vehicle Occupancy Definition Regulatory Signs (R3-10 Series and R3-13 Series)**

**Standard:**

01 **The R3-10, R3-13, and R3-13a, and R93-2(CA) Vehicle Occupancy Definition signs (see Figure 2G-1 and Figure 2G-1(CA)) 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 to be used with other preferential lane applications.*

Support:

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(e).

*Guidance:*

03a *The VEHICLES WITH DMV CLEAN AIR DECALOK (R93A(CA)) sign should be used when it is permissible for a properly labeled and certified low or zero emission vehicle, regardless of the number of occupants, to use an HOV lane. Refer to CVC 21655.9.*

03b *The R93A(CA) should be used in advance of and at intervals along the HOV lane based on engineering judgment.*

**Standard:**

03c **When used, the R93A(CA) sign shall be placed below the R93-2(CA) sign.**

**Option:**

03d The AUTOS/PICKUPS 2 SEATERS WITH 2 PERSONS OK (R91B(CA)) sign may be placed below the R93-2(CA) sign for preferential lane facilities at toll plazas that require 3 or more persons per vehicle but can also be utilized by vehicles designed by the manufacturer to be occupied by no more than 2 persons. Refer to Streets & Highways Code, Section 30101.8.

*Guidance:*

04 *The legend format of the ~~R3-10~~ and R3-13 signs should have the following sequence:*

A. *Top Line: "HOV 2+ ONLY" (or 3+ or 4+ if appropriate)*

B. *Bottom Lines: "2 OR MORE PERSONS PER VEHICLE" (or 3 or 4 if appropriate)*

05 *The legend format of the R3-13a sign should have the following sequence:*

A. *Top Line: "HOV 2+ ONLY" (or 3+ or 4+ if appropriate)*

B. *Middle Lines: "2 OR MORE PERSONS PER VEHICLE" (or 3 or 4 if appropriate)*

C. *Bottom Lines: Times and days the occupancy restriction is in effect*

05a *The legend format of the R93-2(CA) sign should have the following sequence:*

A. *Top Line: "HOV 2+ IS" (or 3+ or 4+ if appropriate)*

B. *Bottom Lines: "2 OR MORE PERSONS PER VEHICLE" (or 3 or 4 if appropriate)*

Support:

06 Section 2G.17 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:**

07 **For barrier- or buffer-separated or contiguous preferential lanes where access between the preferential and general-purpose lanes is restricted to designated locations, an overhead Vehicle Occupancy Definition (R3-13 or R3-13a) sign shall be installed at least 1/2 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 entry point to HOV lanes.~~**

*Guidance:*

07a *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 are allowed to legally access the access-restricted preferential lanes.*

Option:

08 For barrier-separated HOV lanes, the sequence of a post-mounted Periods of Operation (R3-11a or R86(CA) series) sign followed by a post-mounted Vehicle Occupancy Definition (~~R3-10~~) (R93-2(CA)) sign may be located at intervals of approximately 1/2 mile along the length of the HOV lane, at intermediate entry points, and at ~~designated enforcement areas as defined by the operating agency~~ downstream of direct access ramps.

**Standard:**

09 **For buffer-separated or contiguous HOV lanes where access is restricted to designated locations, the sequence of a post-mounted Periods of Operation (R3-11a or R86(CA) series) sign followed by a post-mounted Vehicle Occupancy Definition (~~R3-10~~) (R93-2(CA)) sign shall be located at intervals not greater than 1/2 mile along the length of the access-restricted HOV lane, at designated gaps where vehicles are allowed to legally access the HOV lane, and ~~within designated enforcement areas as defined by the operating agency.~~ downstream of direct access ramps.**

10 **~~For buffer-separated or contiguous HOV lanes where continuous access with the adjacent general-purpose lanes is provided, the sequence of a post-mounted Periods of Operation (R3-11a or R86(CA) series) sign followed by a post-mounted Vehicle Occupancy Definition (~~R3-10~~) (R93-2(CA)) sign, and HLEV (R3-10a) signs if appropriate, shall be located at intervals not greater than 1/2 mile along the length of the HOV lane.~~**

*Guidance:*

11 *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.*

**Standard:**

12 **For all types of direct access ramps that provide access to or lead to HOV lanes, a post-mounted Vehicle Occupancy Definition (~~R3-10~~) (R93-2(CA)) sign, and an HLEV (~~R3-10a~~) sign if appropriate, shall be used at the beginning or initial entry point for the direct access ramp.**

Option:

12a *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, where incidences of trucks or vehicles with trailers in the HOV lanes have commonly occurred and on surface streets approaching direct access ramps that provide access to or lead to HOV lanes.*

## **Section 2G.05 Preferential Lane Periods of Operation Regulatory Signs (R3-11 Series and R3-14 Series)**

*Guidance:*

01 *The sizes of post-mounted Periods of Operation (R3-11 series, R86(CA) series, and SR60-3(CA) through SR60-7(CA)) signs should remain consistent to accommodate any manual addition or removal of a single line of text for each sign.*

**Support:**

<sup>02</sup> Consistent sign sizes are beneficial for agencies when ordering sign materials, as well as when making text changes to existing signs if changes occur to operating times or occupancy restrictions in the future. For example, the R3-11c sign has space for one line located below "24 HOURS" if an agency determines that it is appropriate to display additional information (such as "MON-FRI"), yet the R3-11c sign has the same dimensions as the other R3-11 series signs.

**Standard:**

<sup>03</sup> When used, the post-mounted Periods of Operation (R3-11 series, R86(CA) series, and SR60-3(CA) through SR60-7(CA)) signs shall be located adjacent to the preferential lane, and the overhead Periods of Operation (R3-14 series, R3-14c, R87-3(CA), SR60-8(CA) and SR60-9(CA)) signs shall be mounted directly over the lane.

<sup>04</sup> The legend format of the post-mounted Periods of Operation (R3-11 series, R86(CA) series, and SR60-3(CA) through SR60-7(CA)) signs shall have the following sequence:

- A. Top Lines: Lanes applicable, such as "RIGHT LANE" or "2 RIGHT LANES" or "THIS LANE"
- B. Middle Lines: Eligible uses, such as "HOV 2+ ONLY" (or 3+ or 4+ if appropriate) or "BUSES 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".

<sup>05</sup> The legend format of the overhead Periods of Operation (R3-14 series and R87-3(CA)) signs shall have the following sequence:

- A. Top Line: Eligible uses, such as "HOV 2+ ONLY" (or 3+ or 4+ if appropriate) or "BUSES 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.)

<sup>06</sup> For preferential lanes that are in effect on a full-time basis, either the full-time Periods of Operation (R3-11b and R3-14b R3-14b, R86-4(CA) and SR60-4(CA) through SR60-6(CA)) signs shall be used, or the legends of the part-time Periods of Operations (R3-11, R3-11a, R3-14, R3-14a) signs shall be modified to display the legend 24 HOURS. The R3-11a, R3-14, R3-14a, R3-14c, R86-3(CA), R87-3(CA), and SR60-3(CA) signs shall be used for preferential lanes that are in effect on a part-time basis.

<sup>07</sup> The full-time Periods of Operation (R3-14b R3-14c, R86-4(CA) and SR60-4(CA) through SR60-6(CA)) signs shall not be used where the preferential lane is in effect only on a part-time basis.

**Option:**

<sup>08</sup> Where additional movements are permitted from a preferential lane on an approach to an intersection, the format and words used in the legend in the middle lines on the post-mounted Periods of Operation (R3-11 series and R86(CA) series) signs and on the top line of the overhead Periods of Operation (R3-14 series and R87-3(CA)) signs may be modified to accommodate the permitted movements (such as "HOV 2+ AND RIGHT TURNS ONLY").

<sup>08a</sup> 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.

<sup>09</sup> A MOTORCYCLES ALLOWED (R3-11P) plaque may be used where motorcycles, regardless of the number of occupants, are allowed to use an HOV lane.

**Standard:**

<sup>10</sup> ~~If used, the MOTORCYCLES ALLOWED plaque shall be mounted below a post-mounted Preferential Lane Periods of Operation (R3-11, R3-11a, or R3-11c) sign.~~

<sup>11</sup> For all barrier- or buffer-separated or contiguous preferential lanes where access is restricted to designated locations, an overhead Periods of Operation (R3-14 series, R87-3(CA), SR60-8(CA) or SR60-9(CA)) sign shall be used at the beginning or initial entry point, and at any intermediate entry points or gaps in the barrier where vehicles are allowed to legally access the access-restricted preferential lanes. For all barrier-separated and buffer-separated preferential lanes, post-mounted Periods of Operation (R3-11 series, R86(CA) series and SR60-3(CA) through SR60-7(CA)) signs shall be used only as a supplement to the overhead

**signs at the beginning or initial entry point, or at any intermediate entry points or gaps in the barrier or buffer.**

**12 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 Periods of Operation (R3-14 series or R87-3(CA)) sign shall be used at the beginning or initial entry point of the preferential lane.**

*Guidance:*

**Option:**

**13 Overhead (R3-14 series, R87-3(CA), SR60-8(CA) and SR60-9(CA)) or post-mounted (R3-11 series, R86(CA) series and SR60-3(CA) through SR60-7(CA)) Periods of Operation signs ~~should~~ may be installed at periodic intervals along the length of a contiguous ~~or buffer-separated~~ preferential lane where continuous access with the adjacent general-purpose lanes is provided.**

**Option:**

**14 Additional overhead (R3-14 series, R87-3(CA), SR60-8(CA) and SR60-9(CA)) or post-mounted (R3-11 series, R86(CA) series and SR60-3(CA) through SR60-7(CA)) Periods of Operation signs may be provided along the length of any type of preferential lane.**

**15 On conventional roads, the overhead Periods of Operation (R3-14 series, R87-3(CA), SR60-8(CA) and SR60-9(CA)) signs may be installed at the beginning or entry points and/or at intermediate points along preferential lanes in any geometric configuration.**

**Standard:**

**16 For all types of direct access ramps that provide access to or lead to preferential lanes, ~~a post-mounted~~ an overhead Periods of Operation (R3-11 series R87-4(CA) or R87-5(CA)) sign shall be used at the beginning or initial entry point of the direct access ramp.**

**Option:**

**17 ~~For direct access ramps to preferential lanes, an overhead Periods of Operation (R3-14 series) sign may be used at the beginning or initial entry point to supplement the required post-mounted signs.~~**

**18 Lane-use control signals (see Chapter 4M) 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-14).**

## **Section 2G.06 Preferential Lane Advance Regulatory 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 ~~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 and continuous access with the adjacent general-purpose lanes is provided (see Figure ~~2G-12~~ 2G-2).**

**02 The Preferential Lane Advance (R3-12e and R3-15a) signs ~~should~~ shall be used for advance notification of a general-purpose lane that becomes a preferential lane and continuous access with the adjacent general-purpose lanes is provided (see Figure ~~2G-13~~ 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 (R82A(CA) or R82B(CA)) Plaque shall be used to designate the periods of operation for preferential lanes that operate on a part-time basis.**

Guidance:

*08 The Specific Hours/Days plaque, when used, 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 Regulatory 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 shall be installed at least 1/2 mile in advance of the termination of a preferential lane.**

**02 Except as provided in Paragraph 6, a post-mounted Preferential Lane Ends (R3-12a or R3-12g or SR60-7(CA)) 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 shall be installed at least 1/2 mile in advance of the point where a preferential lane restriction ends and the lane becomes a general-purpose lane.**

**04 Except as provided in Paragraph 7, 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.**

Option:

*05 The legends on the R3-12g and R3-15e signs may be modified to suit the type of preferential lane.*

*06 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.*

*07 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.*

### **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 vertical rectangular shape. For a High Occupancy Vehicle lane, such signs may be used instead of using the HOV Plaque (W16-11P) (see Section 2G.09) with a standard diamond-shaped warning sign.*

**Standard:**

**02 When a vertical 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 14 feet above any portion of the pavement and shoulders.

**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.18 for overhead mounting.**

*Guidance:*

06 *The HOV Lane Reduction (W11-1(CA)) sign (see Figure 2G-4(CA)) should be used to warn of a reduction in the number of HOV lanes.*

07 *The HOV Merge (W59-1(CA)) sign (see Figure 2G-4(CA)) 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 *The HOV Advisory Exit (Ramp) Speed (W72B(CA)) sign when used, 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 drop ramp or freeway to freeway connector can be comfortably negotiated.*

09 *The HOV THRU TRAFFIC MERGE LEFT (RIGHT) (W74-1(CA)) sign (see Figure 2G-4(CA)) should be used to inform motorists that the outside or inside 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 for a lane reduction.*

**Option**

10 *The HOV Lane Selection SW54(CA) and SW54-1(CA) signs (see Figure 2G-4(CA)) may be used as an advance warning that motorists will have to choose whether or not to be in an HOV lane. These signs may be used where geometrics make entrapment likely or where there is a history of vehicles being entrapped in an HOV lane.*

*Guidance:*

11 *The SW54(CA) and SW54-1(CA) signs should not be used at the entrance of an HOV lane.*

12 *The SW54C(CA) sign (see Figure 2G-4(CA)) should be used in conjunction with the Lane Selection sign so that motorists can determine if they are eligible to use the HOV lane.*

**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, a 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 specific for 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.

**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:**

<sup>03</sup> Consistency in signs and pavement markings for preferential lanes plays a critical role in building public awareness, understanding, and acceptance, and makes enforcement more effective.

<sup>04</sup> Additional guidance and standards related to the designation, operational considerations, signs, pavement markings, and other considerations for preferential lanes is provided in Sections 2G.03 through 2G.07, and 2G.09, and Chapter 3D.

**Guidance:**

<sup>05</sup> *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.*

<sup>06</sup> *If overhead signs applicable only to a preferential lane are located in approximately the same longitudinal position along the highway as overhead signs applicable only to the general-purpose lanes, the signs for the preferential lane should be separated laterally from the signs for the general-purpose lanes to the maximum extent practical to minimize conflicting information.*

<sup>07</sup> *The Preferential Lane signs should be designed and located to avoid overloading the road user. Based on the importance of the sign, regulatory signs should be given priority over guide signs. 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:**

<sup>08</sup> **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:**

<sup>09</sup> The symbol and/or word message that appears on a particular guide sign applicable only to a preferential lane will vary based on the specific type of allowed traffic and on other related operational constraints that have been established for a particular lane, such as an HOV lane, a bus lane, or a taxi lane.

**Standard:**

<sup>10</sup> **For HOV lanes, the diamond symbol shall appear on each Advance Guide sign, Preferential Lane Entrance Direction sign, and Preferential Lane Entrance Gore sign, as shown in Figures 2G-5 through 2G-7 for the designated entry and exit points for barrier- and buffer-separated geometric configurations and direct access ramps to or from such lanes. The diamond symbol shall not be used with preferential lanes for other types of traffic, such as bus lanes or taxi lanes.**

<sup>11</sup> **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.**

<sup>12</sup> **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- and 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 for the preferential lane.**

<sup>13</sup> **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.**

<sup>14</sup> **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-12 and 2G-13). The design and placement of the regulatory signs shall comply with the provisions of Sections 2G.03 through 2G.07.**

<sup>15</sup> **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:

<sup>16</sup> When post-mounted guide signs applicable only to a preferential lane are installed on a median barrier with limited lateral clearance to the adjacent travel lanes or shoulders, the guide signs may have a vertical rectangular shape.

**Standard:**

<sup>17</sup> **When vertical rectangular shaped guide signs applicable only to a preferential lane are installed on a median barrier, the top portion of the signs shall be comprised of the applicable white symbol or white word message that identifies the type of preferential lane (such as the diamond symbol for an HOV lane) on a black background with a white border, and the bottom portion of the sign shall be comprised of the appropriate guide sign legend on a green background with a white border (see Figures 2G-3, 2G-6, and 2G-7).**

*Guidance:*

<sup>18</sup> *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:

<sup>19</sup> 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 14 feet above any portion of the pavement and shoulders.

**Standard:**

<sup>20</sup> **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.18 for overhead mounting.**

Option:

<sup>21</sup> Lane-use control signals (see Chapter 4M) 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.

<sup>22</sup> Changeable message signs may supplement, substitute for, or be incorporated into static guide signs where travel conditions change or where multiple types of operational strategies (such as variable occupancy requirements, vehicle types, or pricing policies) are used and varied throughout the day or week to manage the use of, control of, or access to preferential lanes.

**Standard:**

<sup>23</sup> **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 corresponds to the type of roadway facility and design speed.**

<sup>24</sup> **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:*

<sup>25</sup> *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.*

<sup>26</sup> *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:**

<sup>27</sup> **When the entry point is on the left-hand side of the general-purpose lanes, a LEFT (E1-5aP) plaque (see Figure 2E-22) shall be added to the top left edge of the Advance Guide and Preferential Lane Entrance Direction signs. The LEFT plaque shall not be used on a preferential lane regulatory sign.**

## **Section 2G.11 Guide Signs 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 1/2 mile prior to the initial entry point to all types of preferential lanes in any type of geometric configuration. A Preferential Lane Entrance Direction sign shall also be provided at the initial entry point. Advance Guide and Preferential Lane Entrance Direction signs for such entry points shall not include the word "EXIT" (see Section 2G.10).**

### *Guidance:*

#### **Option:**

**02 An Advance Guide sign ~~should~~ may also be installed and located approximately 1 mile in advance of the initial entry point to a preferential lane that restricts access with the adjacent general-purpose lanes to designated locations.**

#### **Option:**

**03 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.**

### **Standard:**

**04 For barrier-separated, buffer-separated, or contiguous preferential lanes where entry is restricted to only designated points, the Advance Guide and Preferential Lane Entrance Direction signs shall be mounted overhead.**

### *Guidance:*

#### **Option:**

**05 Preferential Lane Exit Destination guide signs, identifying final destination and downstream exit locations accessible from the preferential lane (see Figures 2G-8, ~~2G-13~~, 2G-14, and 2G-16), ~~should~~ may be installed in advance of the initial entry points to access-restricted preferential lanes (such as barrier- and buffer-separated).**

### *Guidance:*

*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:**

**06 Advance destination guide signs for preferential lanes shall include an upper section displaying a black legend that includes the type of preferential lane and the word "EXITS," such as "HOV EXITS," on a white background. For preferential lanes that incorporate a vehicle occupancy requirement, the white diamond symbol on a black background shall be displayed at the left edge of this upper section (see Figure 2G-8). Advance destination guide signs for preferential lanes shall only list direct exits from the preferential lane to another highway.**

### **Support:**

**07 Figure 2G-8 shows an example of signs for the initial entry point to a preferential lane.**

## **Section 2G.12 Guide Signs 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- and buffer-separated preferential lanes where intermediate entry from the general-purpose lanes is provided via a separate lane or ramp (see Figure 2G-9), 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 1/2 and 1/4 of the length of the designated entry area, as measured from the downstream end of the entry area (see Figure 2G-10).*

**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 1/2 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:*

**Option:**

*07 Exit Destination guide signs, identifying the final destination and downstream exit locations accessible from the preferential lane, should may 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-9 and 2G-10 show examples of signs for various geometric configurations of intermediate entry to a barrier- or buffer-separated preferential lane where access is restricted to designated locations.*

### **Section 2G.13 Guide Signs for Egress from Preferential Lanes to General-Purpose Lanes**

**Standard:**

**01 For barrier-separated, buffer-separated, and contiguous preferential lanes where egress is restricted only to designated points, post-mounted Advance Guide and post-mounted Intermediate Egress Direction signs (see Figure 2G-11) 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-9).**

**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-9 and 2G-12 show examples of signs for various geometric configurations of intermediate egress from a barrier- 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-12).*

**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 Guide Signs 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 - 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-13).**

01a **The HOV Advance Lane Assignment (G20-9(CA)) sign (see Figure 2G-6(CA)) shall be used on a multilane cross street approaching a direct access ramp to an HOV lane to direct traffic into the proper lane to access the ramp.**

01b **The HOV LANE ENTRANCE (G92-1(CA)) sign (see Figure 2G-6(CA)) shall be used at the entrance to a direct access ramp to an HOV lane. The G92-1(CA) sign is similar to the FREEWAY ENTRANCE (G92 (CA)) sign and shall be installed similarly. Refer to Section 2A18 and 2B.41.**

### **Support:**

02 **Figure 2G-14 2G-13 provides examples of recommended uses and layouts of signs for HOV lanes for direct access ramps, park - ride lots, and access from surface streets.**

## **Section 2G.15 Guide Signs 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 signs (see Figure 2G-14 and Figure 2G-14(CA)) specifically applicable to the preferential lanes shall be used for exits to direct access ramps, such as HOV lane ramps (see Figure 2G-15 2G-15(CA)) or ramps to park - 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-15 2G-15(CA) and 2G-16).**

02a **The HOV Supplemental Destination (G86-15(CA)) and HOV Advance Guide (G83-6(CA)) signs shall be used for Advance Guide signs for exits to direct access ramps from an HOV lane.**

02b **The HOV Exit Direction (G85-12(CA)) sign shall be used as the Exit Direction sign for exits to direct access ramps from an HOV lane.**

### **Option:**

02c **If an auxiliary lane is not used in advance of the direct access ramp, the G83-6(CA) sign and the W61C(CA) panel on the G85-12(CA) sign may be eliminated.**

### **Standard:**

02d **The HOV Exit with Arrow (E8-4) sign shall be used as the Exit Gore sign for exits to direct access ramps from an HOV lane.**

### **Guidance:**

02e *The arrow on the E8-4 sign should be aligned to approximately the angle of departure and should be positioned to avoid confusion that the exit may serve general purpose 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 should be used with the Exit Direction sign at exits to direct access ramps.*

### **Standard:**

03a **Exit Direction signs for exits to direct access ramps from a preferential lane shall be mounted overhead.**

**04 Post-mounted guide signs in a vertical rectangular shape installed on a median barrier shall not be used for the Advance Guide and Exit Direction signs for exits to direct access ramps.**

**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-16).**

*Guidance:*

*06 The use of guide signs for preferential lanes at freeway interchanges should comply with the provisions for guide signs established in 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.**

## **Section 2G.16 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 Bike 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 become more prevalent as an operational strategy, it will be important to establish a uniform naming convention to distinguish those lanes that are an alternative to travel on 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). 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- 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- 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- 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).**

**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-7), 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).**

**07 The diamond symbol shall be reserved exclusively for preferential lanes whose operational strategy is occupancy-based only (see Sections 2G.03 through 2G.14) and shall not be used to designate a managed lane in which other operational strategies, such as tolling and pricing, are employed to allow general-purpose traffic to use the lane.**

## **Section 2G.17 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-17.**

**03 Regulatory signs shall be used to indicate the toll charged. If the toll varies, regulatory signs that include changeable message elements, such as the R3-48 and R3-48a signs that are shown in Figure 2G-17, shall be used to display the actual toll amount in effect at any given time.**

**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.18 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.03 and 2F.04 as shown in Figures 2G-17 and 2G-18.**

**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 (R93-2(CA)) 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-17).**

**06 A priced managed lane Periods of Operation (R3-44 or R3-44a) sign (see Figure 2G-17) 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.**

**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.**

### **Guidance:**

*08a No more than two destinations should be shown on the R3-48 or R3-48a sign. If multiple destinations are used, one of these destinations should be the furthest destination on the facility; the other destination(s) should be an intermediate interchange. The particular intermediate interchange to be shown on the R3-48 or R3-48a sign should be determined on a case-by-case basis, depending upon local factors including the relative importance of the intermediate interchanges.*

**Standard:**

**09 R3-42 Series and R3-45 Series signs (see Figure 2G-17) 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.18 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.03, 2F.04, and 2F.17 regarding the use, size, and placement of ETC-account pictographs.**

**Support:**

**03 Figure 2G-18 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.**

*Guidance:*

*Option:*

**04 Exit Destination supplemental guide signs, identifying final destination and downstream exit locations accessible from the managed lane (see Figure 2G-19), ~~should~~ **may** 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 5 of Section 2G.11.~~**

*Guidance:*

**04a *Exit Destination supplemental guide signs should be located in accordance with the provisions of Paragraphs 5 and 6 of Section 2G.11.***

*Option:*

**05 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-20) ~~should~~ **may** be installed in advance of the initial and intermediate entry points to the managed lanes.**

*Option:*

**06 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:**

**07 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 or EXPRESS LANE(S). 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.03, 2F.04, 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).**

**08 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.**

Support:

<sup>09</sup> Figures 2G-21 through 2G-24 show examples of guide signs for various configurations of initial and intermediate entrances to a priced managed lane.

**Standard:**

<sup>10</sup> **The use and locations of guide signs for intermediate egress locations and direct exits from a priced managed lane (see Figures 2G-24 through 2G-27) 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 Figures 2G-24 and 2G-25).**
- 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 Figures 2G-24 and 2G-25).**
- 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-26).**
- 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-25, 2G-26, and 2G-27).**

Support:

<sup>11</sup> Section 2G.13 contains information on the use of overhead-mounted guide signs for intermediate egress to the general-purpose lanes.

<sup>12</sup> Figures 2G-28 and 2G-29 show examples of guide signing for direct entrances to a priced managed lane from a crossroad or surface street.

**Standard:**

<sup>12a</sup> **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.101(CA) Preferential Lane Enforcement Signing (SR50(CA)) series**

*Guidance:*

<sup>01</sup> *The HOV VIOLATION \$\_\_ MINIMUM FINE (SR50-2(CA)) sign should be placed near the beginning of all HOV facilities and may be placed at intermediate entry point or gaps in the barrier or buffer for all barrier- or buffer-separated HOV lanes.*

<sup>02</sup> *The SR50-2(CA) sign should also be used on priced managed lane facilities that charge HOV users no toll or a discounted toll.*

*Option:*

<sup>03</sup> *The SR50-2(CA) sign may be repeated at 2-mile intervals or as needed at locations experiencing high violation rates.*

<sup>04</sup> *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:*

<sup>05</sup> *The SR50-1(CA) is normally placed onto an existing overhead sign structure if it can adequately support the additional sign.*

**Standard:**

<sup>06</sup> **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:*

<sup>01</sup> *For State highways, see Department of Transportation's Ramp Metering Design Manual. See Section 1A.11 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.56 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 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 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.**

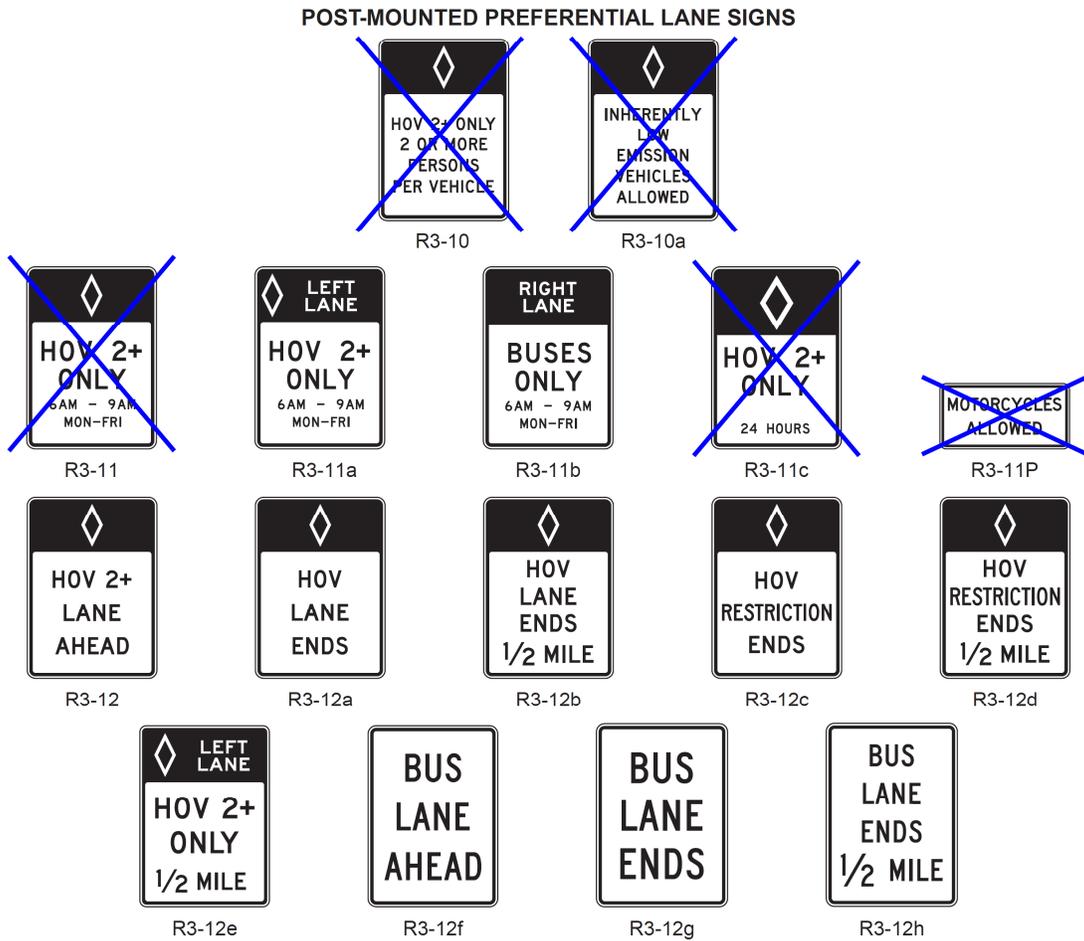
*Option:*

12 *An alternate 1 line message, such as "BUSES OK" may also 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 Plaques (Sheet 1 of 2)**

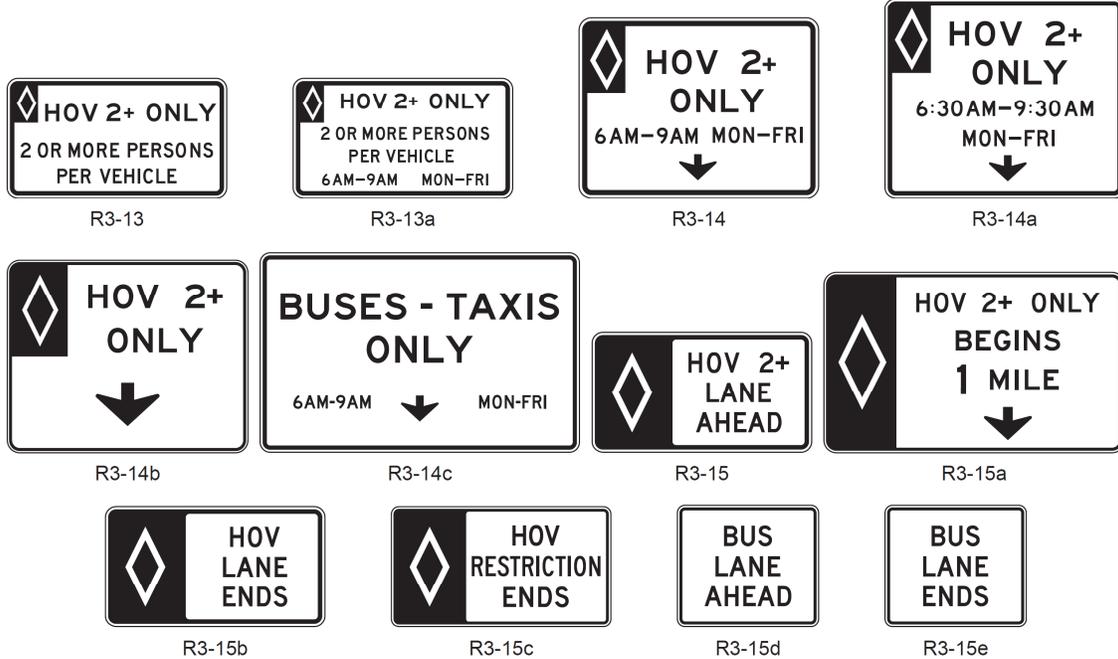


**Notes:**

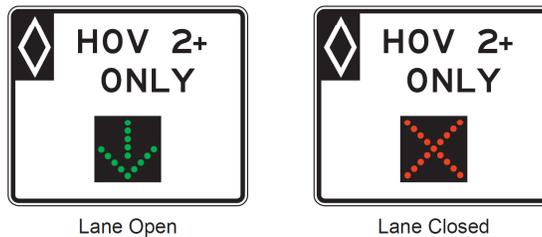
1. The minimum vehicle occupancy requirement may vary for each facility (such as 2+, 3+, 4+).
2. The occupancy requirement may be added to the first line of the R3-12a, R3-12b, R3-12c, and R3-12d signs.
3. Some of the legends shown on these signs are for example purposes only. The specific legend for a particular application should be based upon local conditions, ordinances, and State statutes.

**Figure 2G-1. Preferential Lane Regulatory Signs and Plaques (Sheet 2 of 2)**

**OVERHEAD PREFERENTIAL LANE SIGNS**



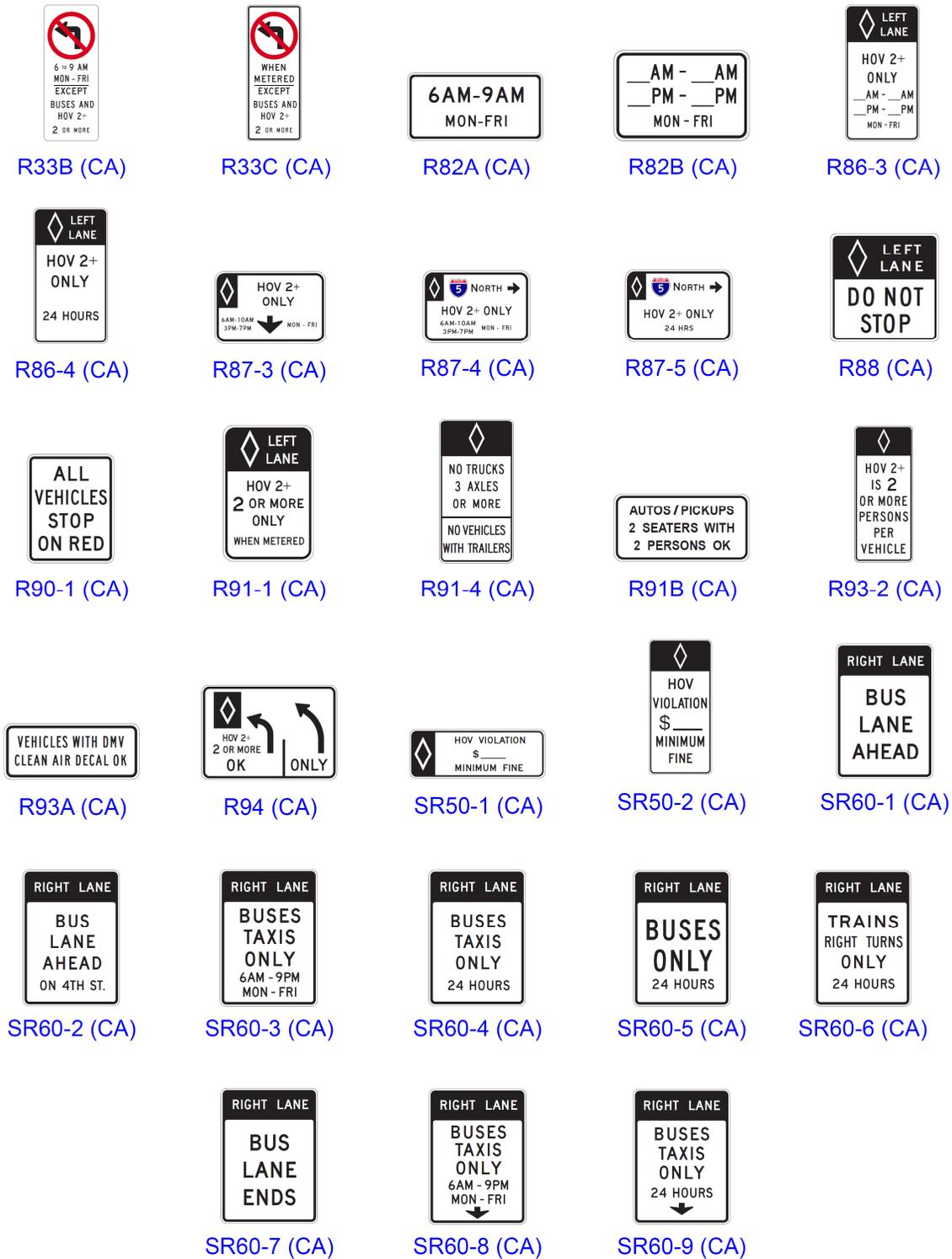
A lane-use control signal may be incorporated into an overhead preferential lane regulatory sign to indicate the status of a reversible operation as shown in the following example:



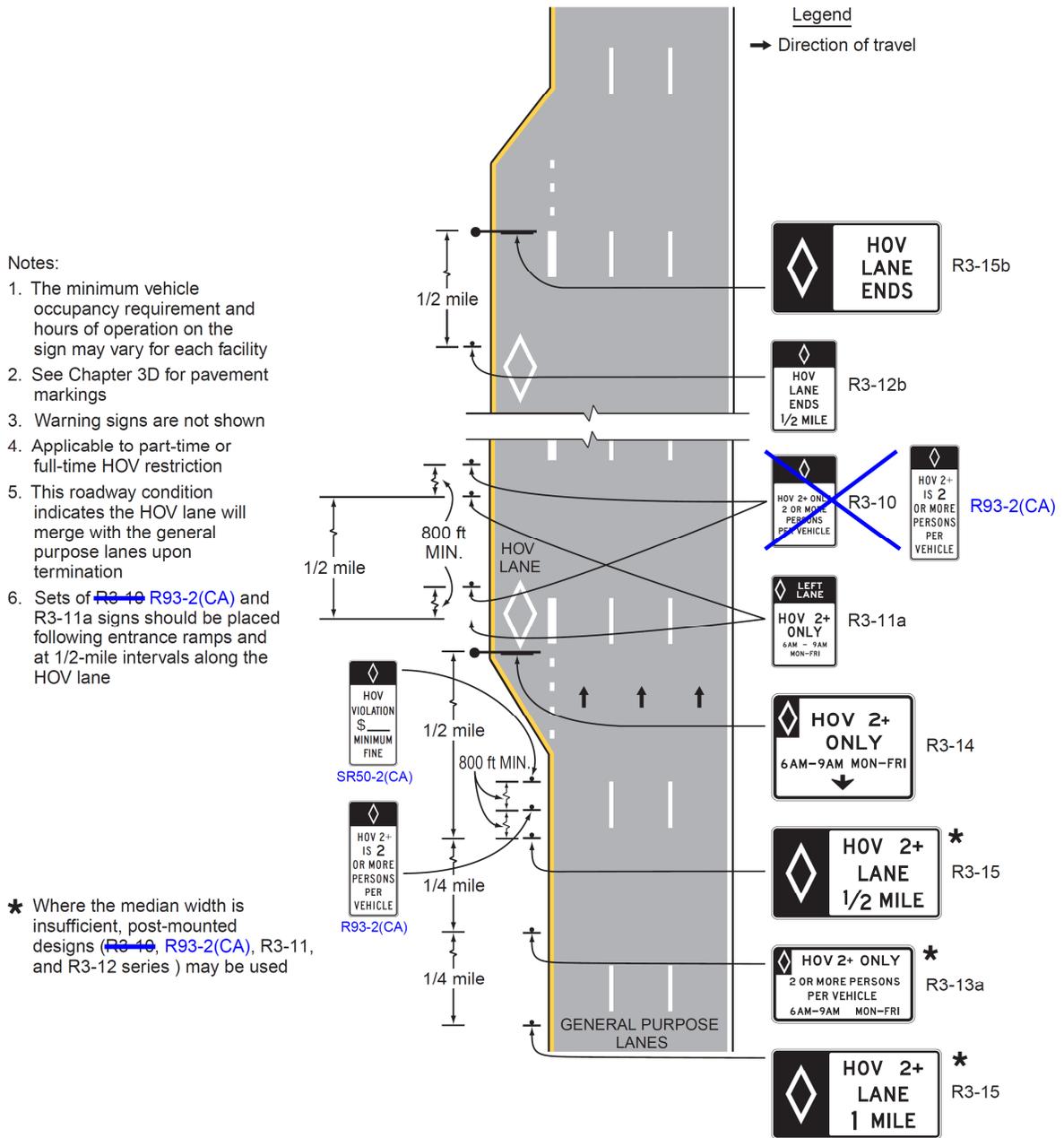
**Notes:**

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.

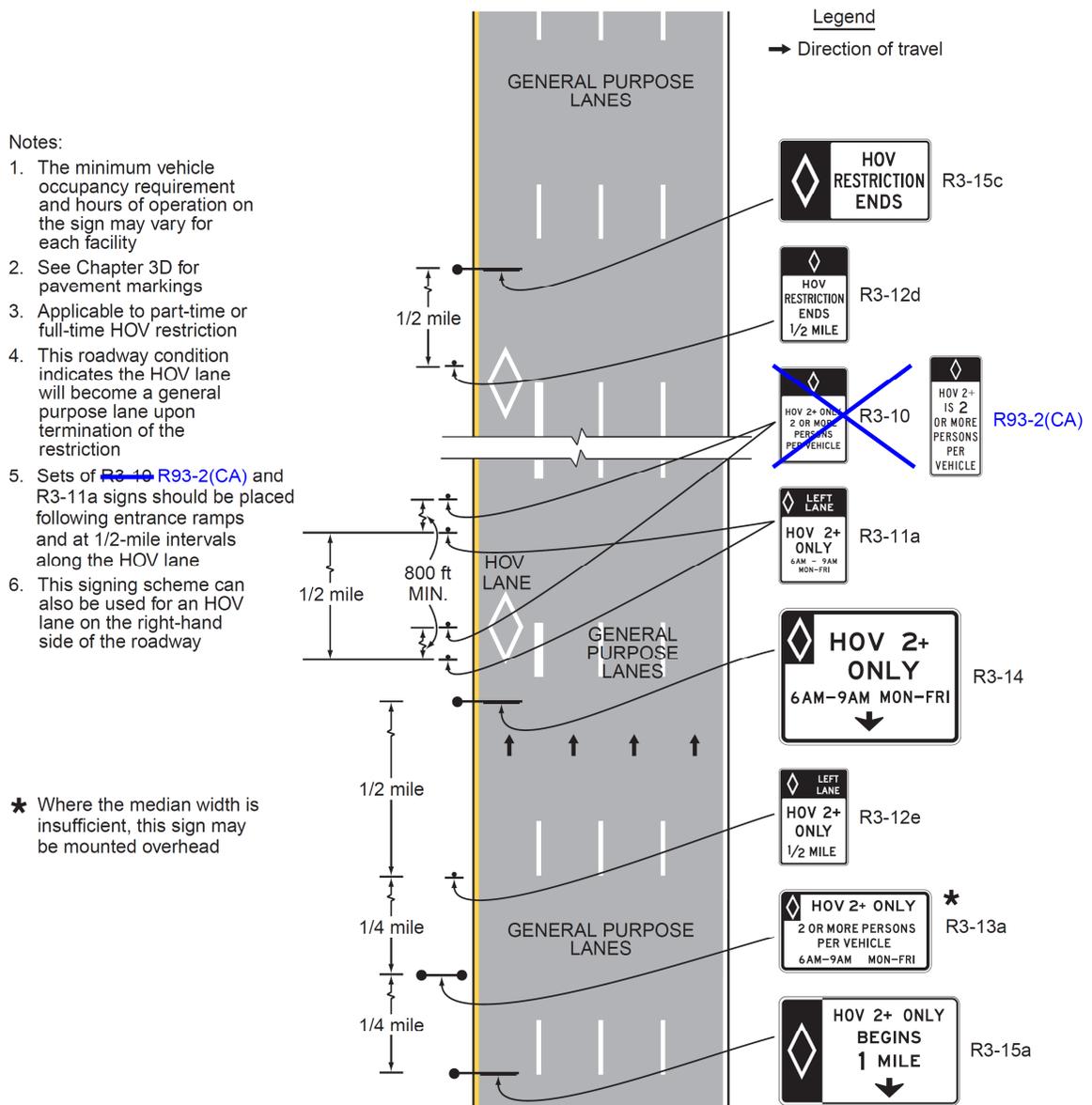
**Figure 2G-1 (CA). Preferential Lane Regulatory Signs and Plaques**



**Figure 2G-2. Example of Signing for an Added Continuous-Access Contiguous or Buffer-Separated HOV Lane**

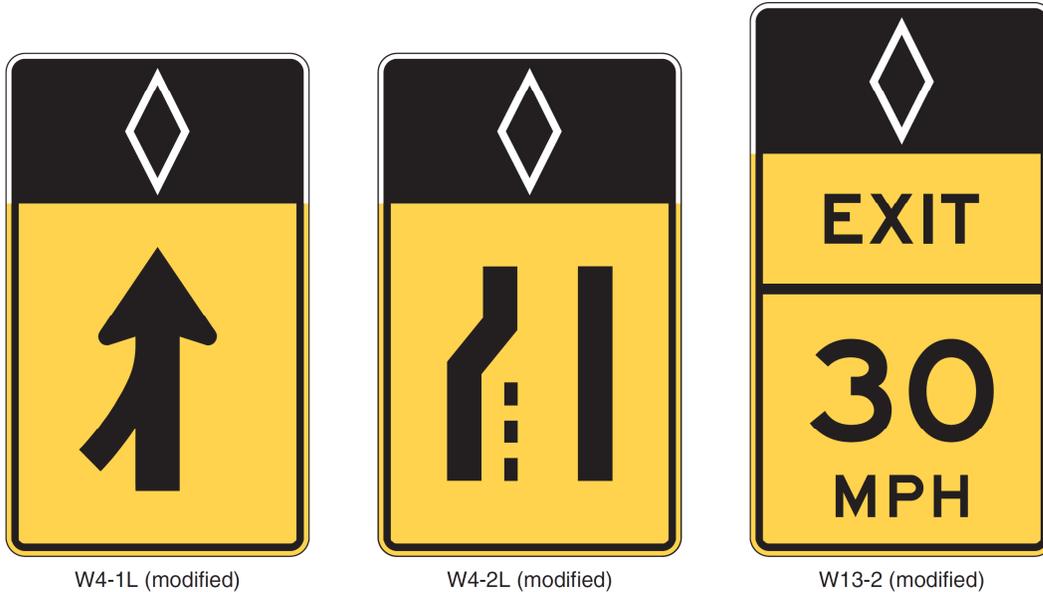


**Figure 2G-3. Example of Signing for a General-Purpose Lane that Becomes a Continuous-Access Contiguous or Buffer-Separated HOV Lane**



**Figure 2G-4. Examples of Warning Signs and Plaques Applicable Only to Preferential Lanes**

**A - BARRIER-MOUNTED RECTANGULAR WARNING SIGNS**



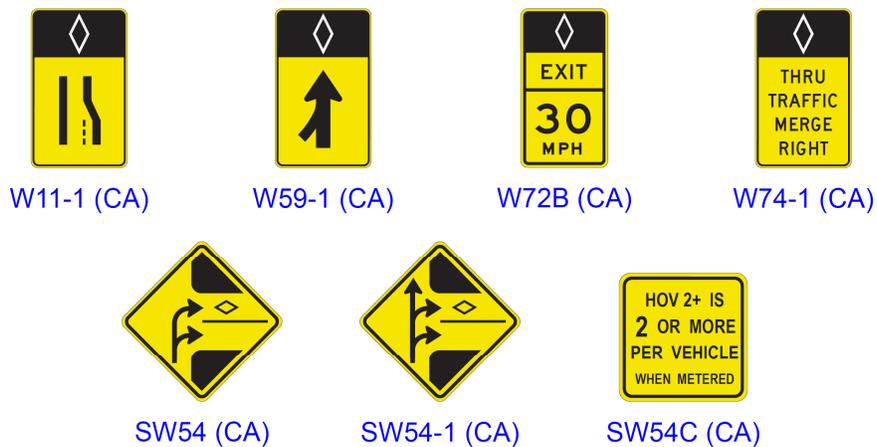
**B - WARNING PLAQUE FOR USE ABOVE STANDARD DIAMOND-SHAPED WARNING SIGNS**



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-4 (CA). Examples of Warning Signs and Plaques Applicable Only to Preferential Lanes**



**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). Guide Signs for Direct Entrances to Preferential Lanes From Another Highway**



G92-1 (CA)



G20-9 (CA)

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**Figure 2G-7. Entrance Gore Signs for Barrier-Separated Preferential Lanes**



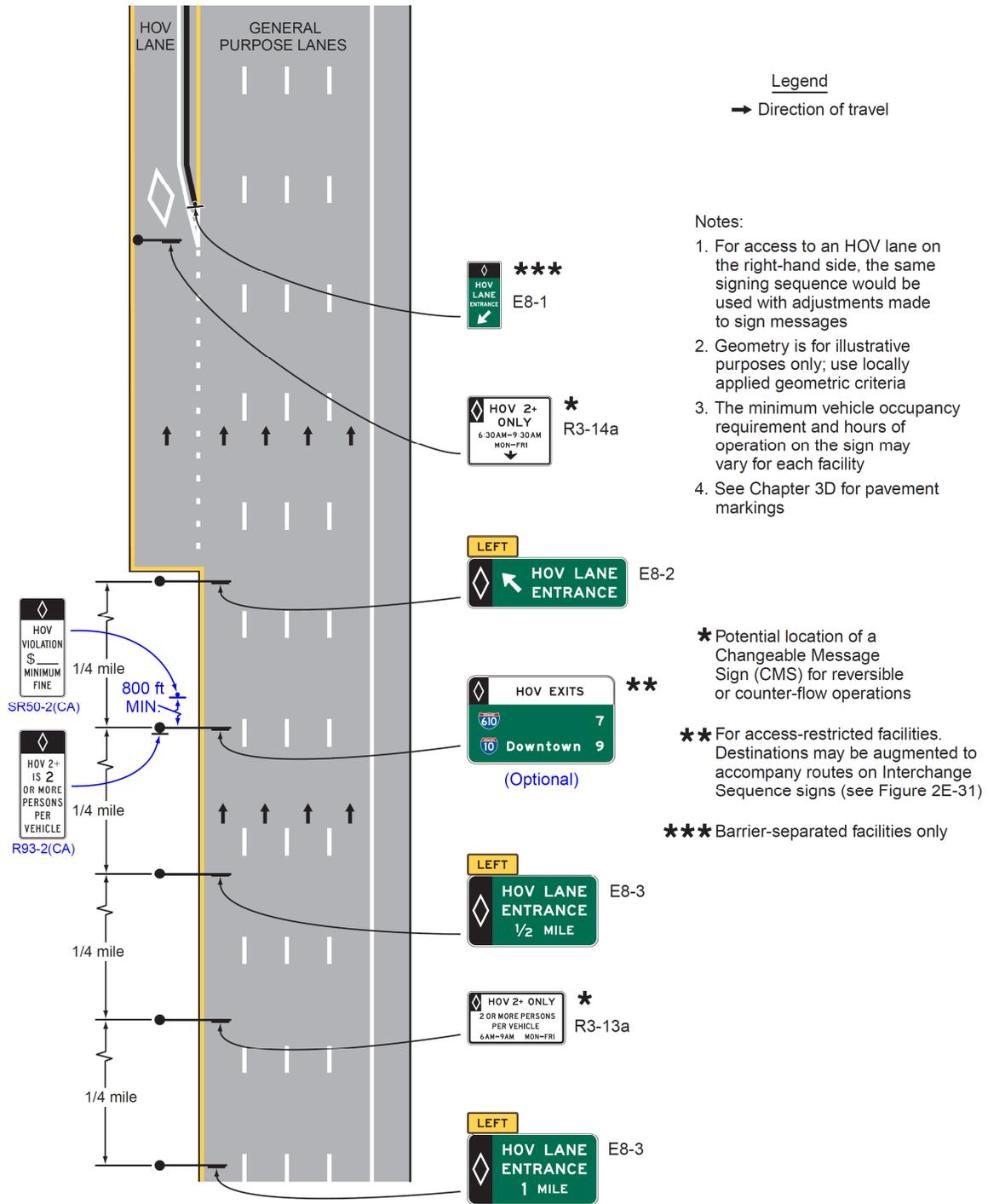
E8-1



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.

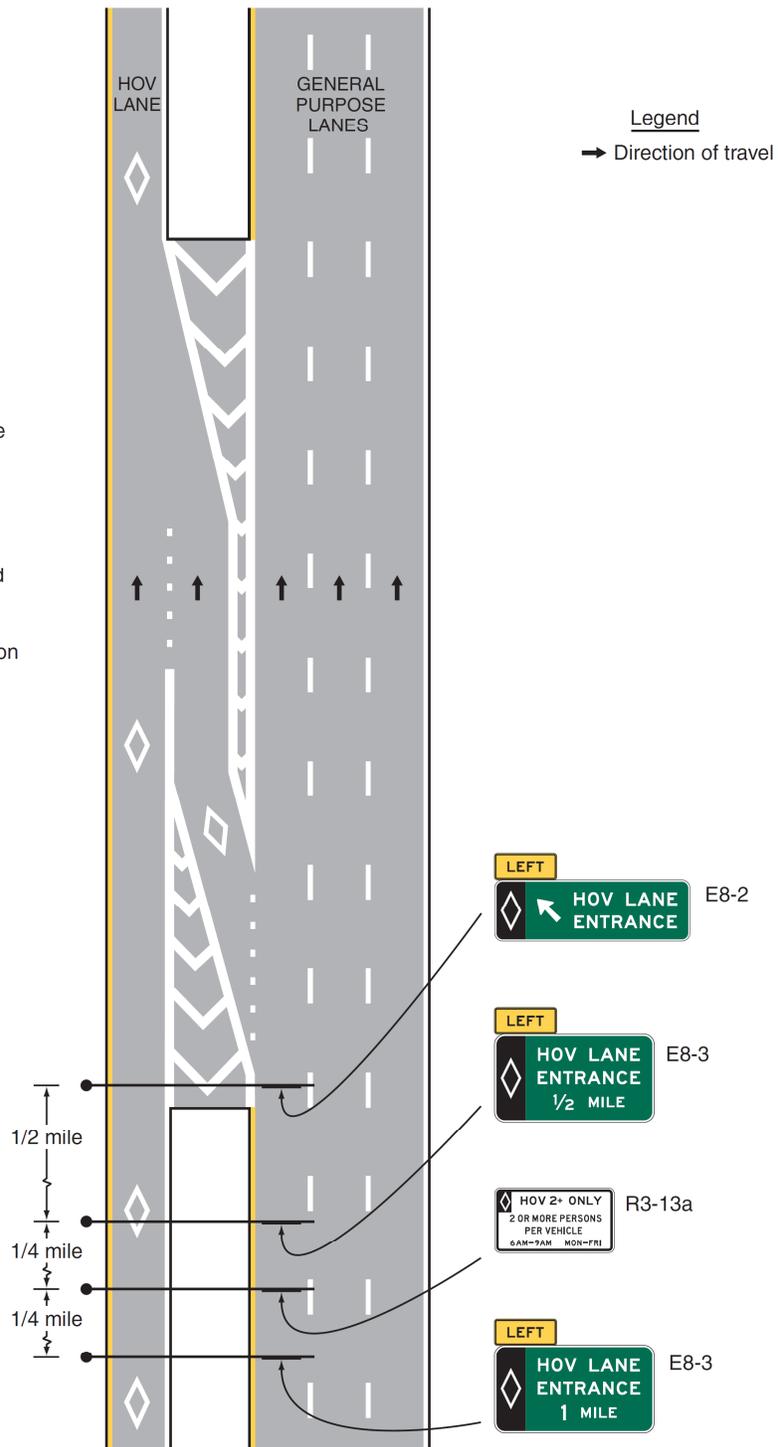
**Figure 2G-8. Example of Signing for an Entrance to Access-Restricted HOV Lanes**



**Figure 2G-9. Example of Signing for an Intermediate Entry to a Barrier- 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 3D for pavement markings.
5. Warning signs are not shown

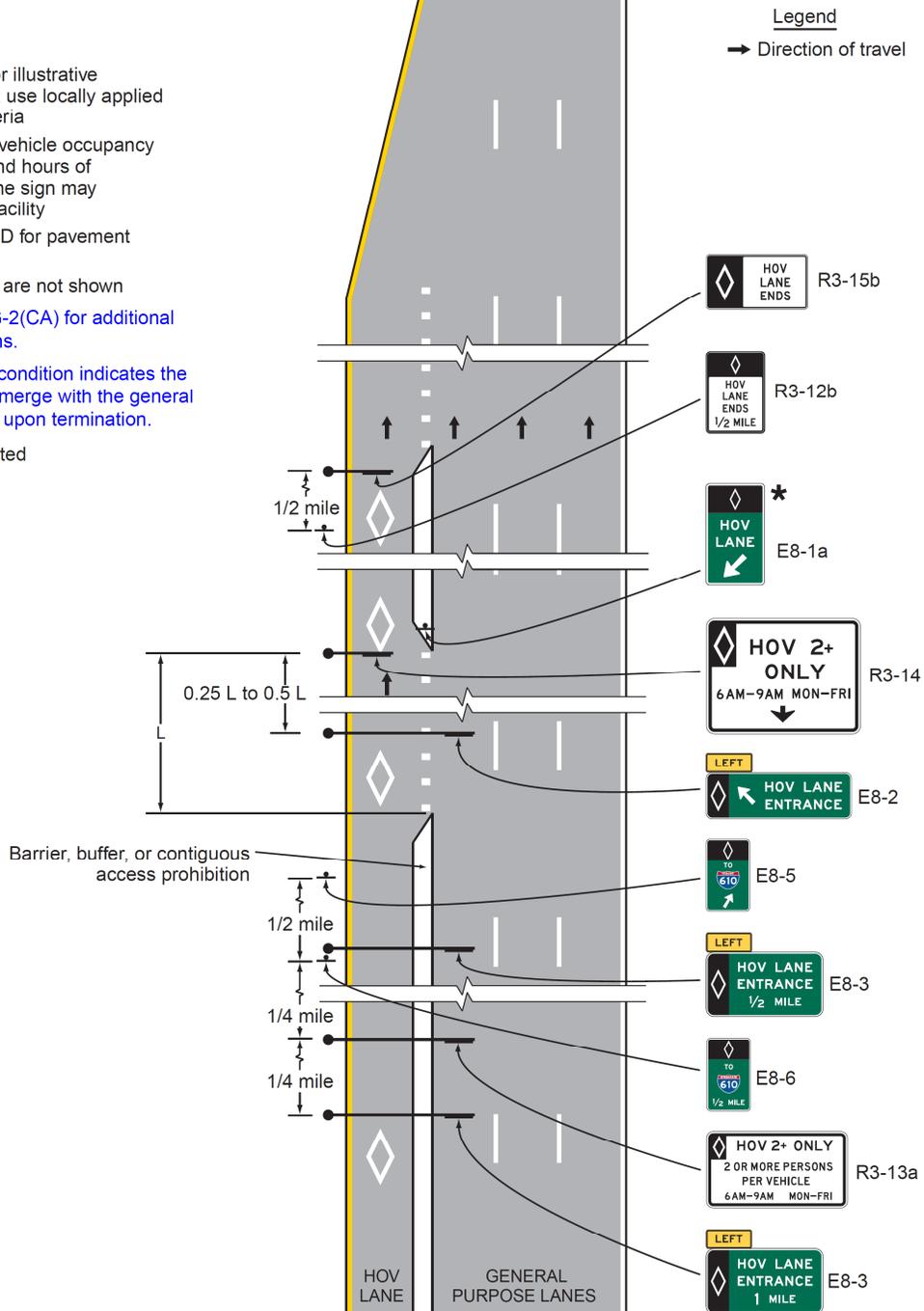


**Figure 2G-10. Example of Signing for the Intermediate Entry to, Egress from, and End of Access-Restricted HOV Lanes**

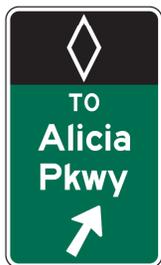
Notes:

1. Geometry is for illustrative purposes only; use locally applied geometric criteria
2. The minimum vehicle occupancy requirement and hours of operation on the sign may vary for each facility
3. See Chapter 3D for pavement markings
4. Warning signs are not shown
5. See Figure 2G-2(CA) for additional regulatory signs.
6. This roadway condition indicates the HOV lane will merge with the general purpose lanes upon termination.

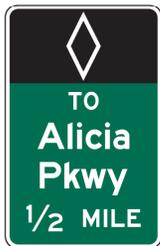
\* Barrier-separated facilities only



**Figure 2G-11. Examples of Barrier-Mounted Guide Signs for an Intermediate Egress from Preferential Lanes**



E8-5



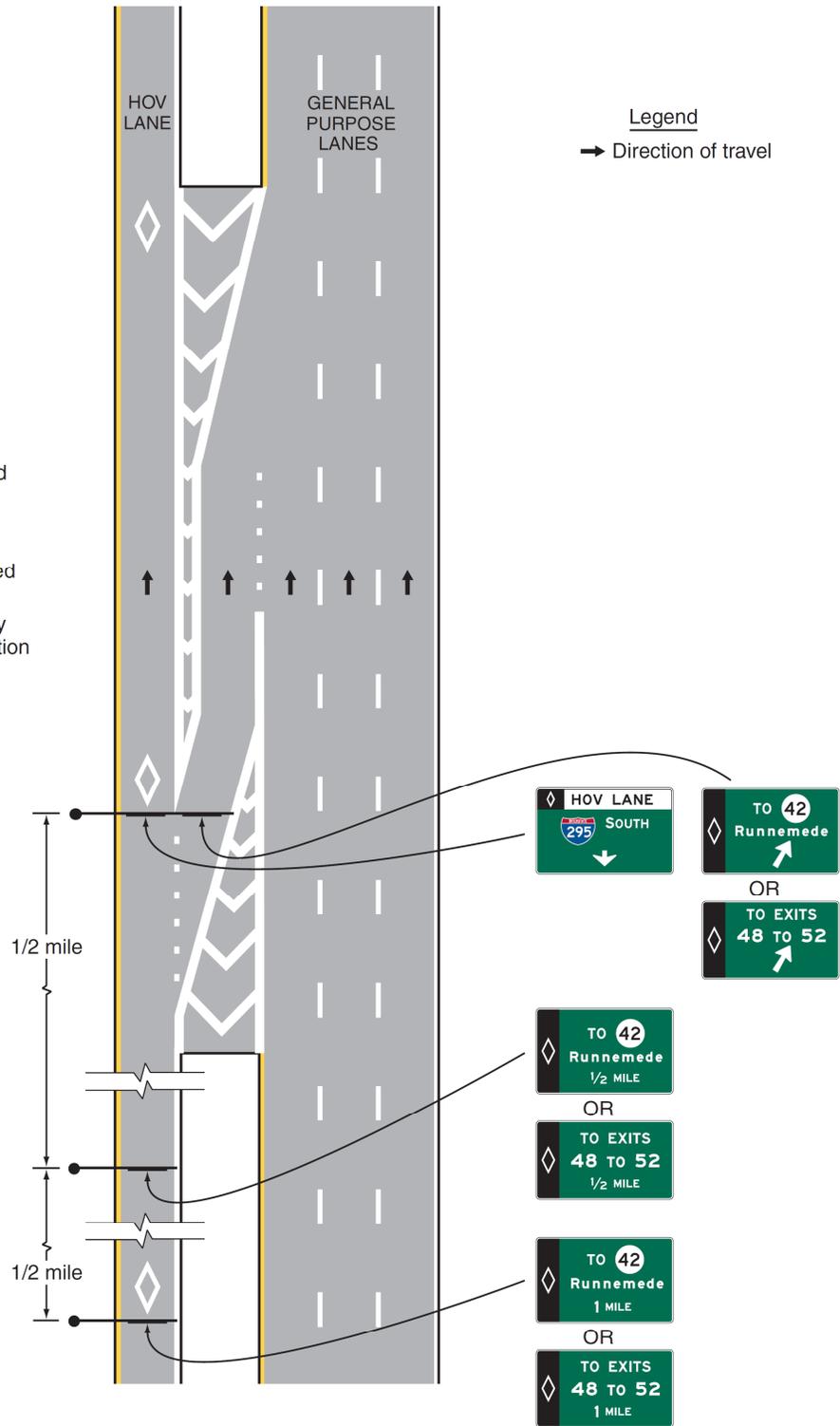
E8-6

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.

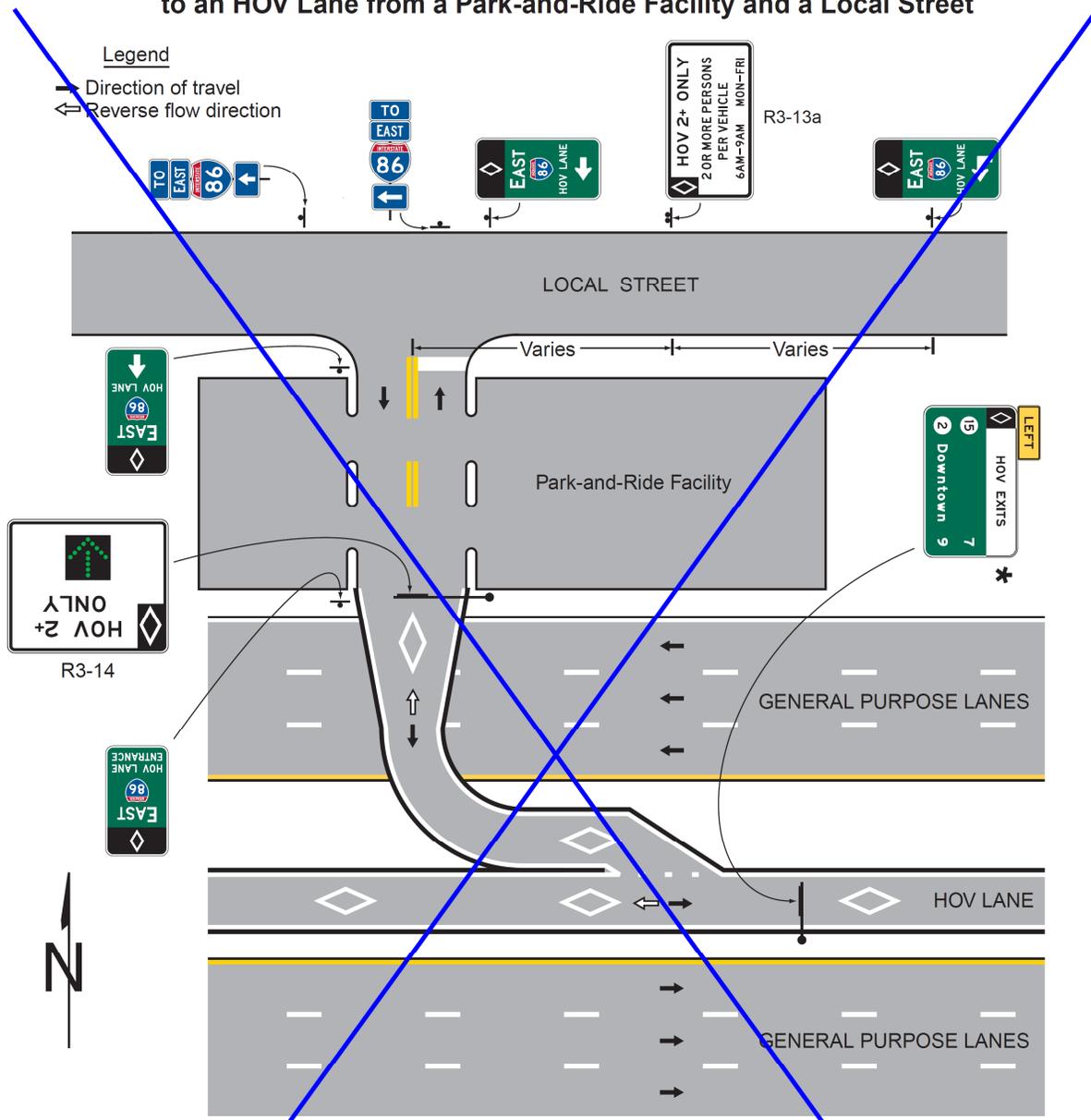
**Figure 2G-12. Examples of Signs for an Intermediate Egress from a Barrier- or Buffer-Separated HOV Lane**

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 Sections Chapter 3D for pavement markings
5. Warning signs are not shown



**Figure 2G-13. Example of Signing for a Direct Entrance Ramp to an HOV Lane from a Park-and-Ride Facility and a Local Street**



**Notes:**

1. The minimum vehicle occupancy requirement on the sign may vary for each facility
  2. See Chapter 3D 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
- \* For access-restricted facilities; destinations may be augmented to accompany routes on Interchange Sequence signs (see Figure 2E-31)

**Figure 2G-14. 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.

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**Figure 2G-14 (CA). Advanced Guide and Exit Direction Sign for a Direct Exit from a Preferential lane**



G83-6 (CA)

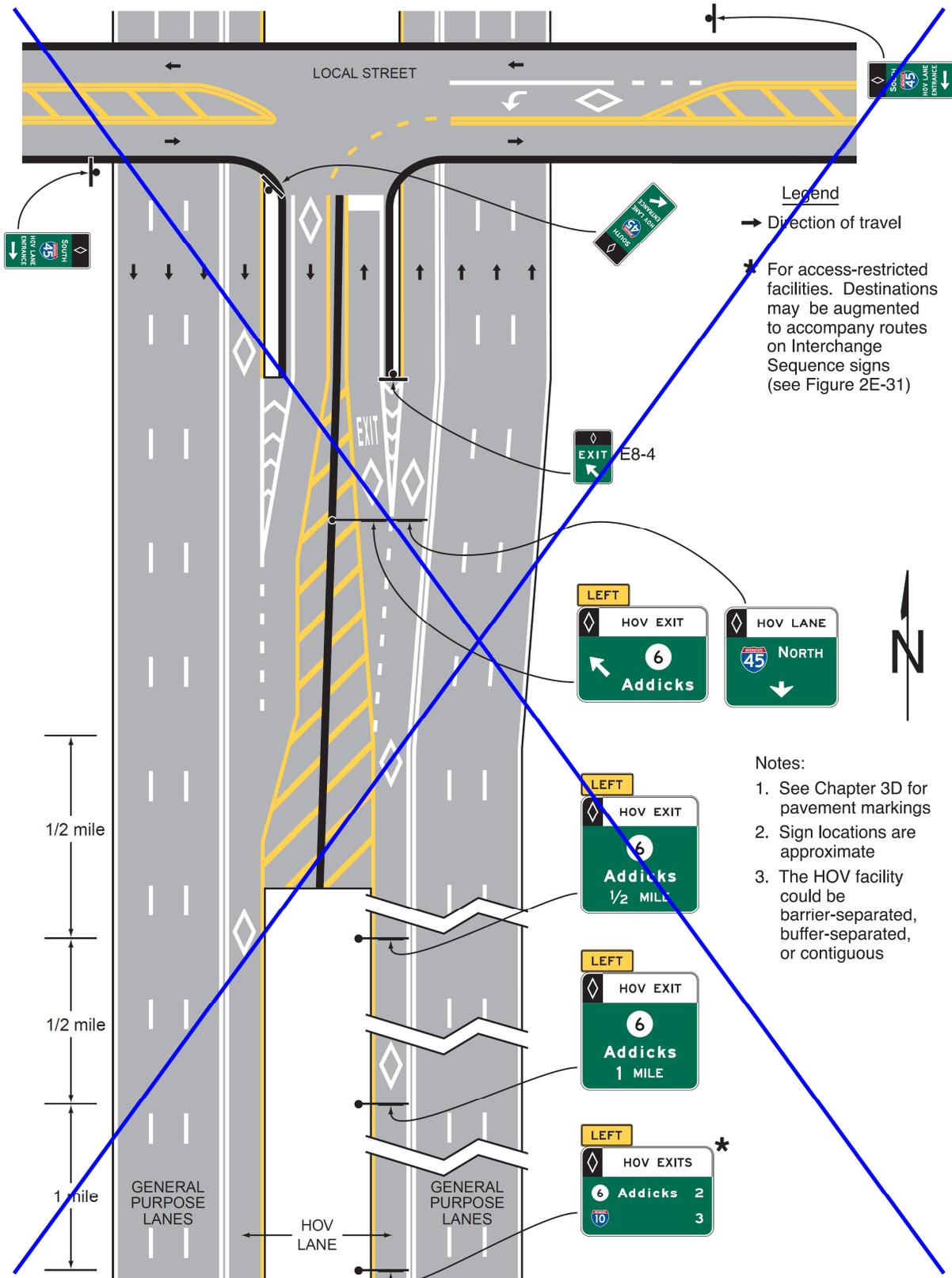


G85-12 (CA)

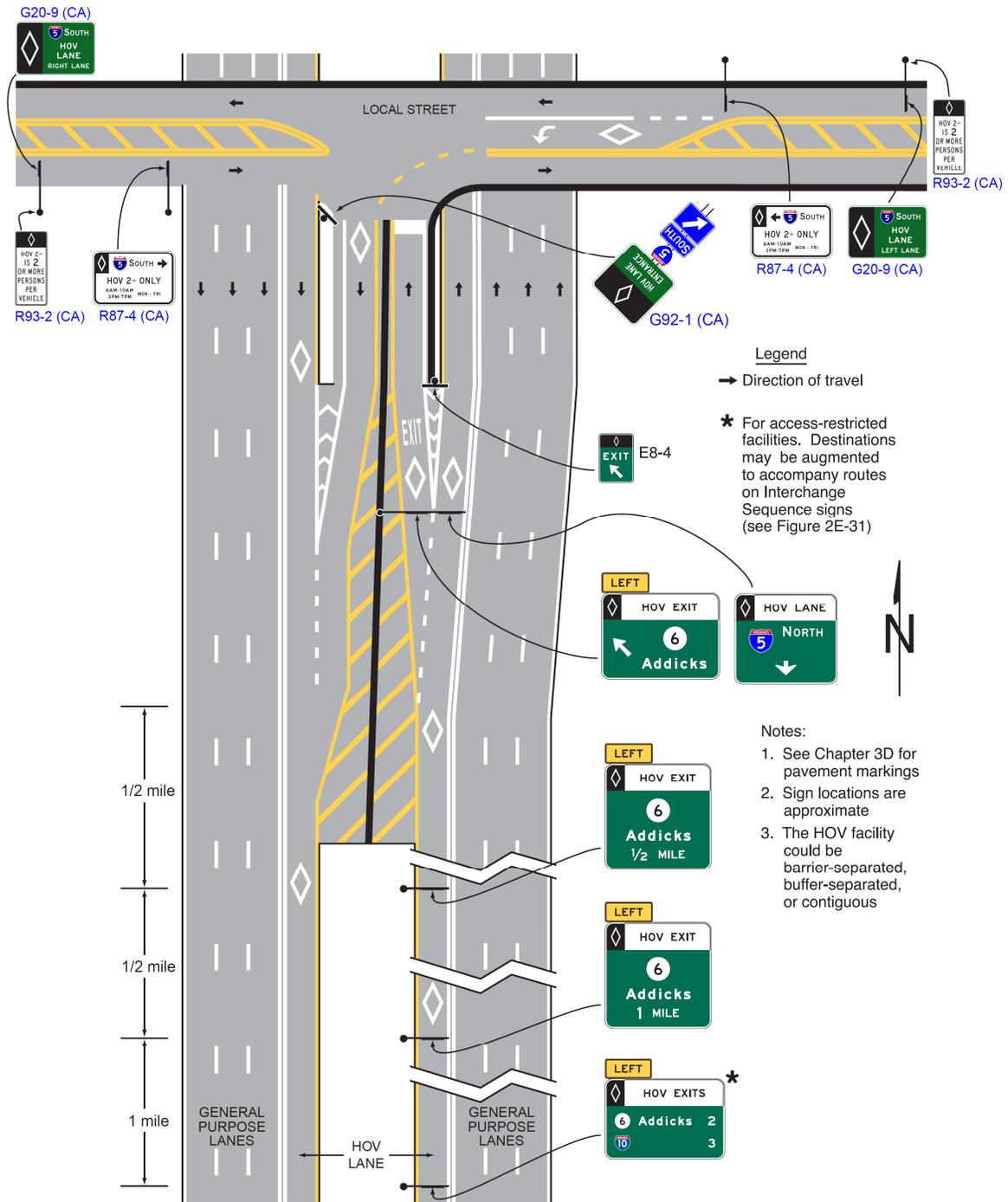


G86-15 (CA)

Figure 2G-15. Examples of Guide Signs for Direct HOV Lane Entrance and Exit Ramps



**Figure 2G-15 (CA). Example of Guide Signs for Direct HOV Lane Entrance and Exit Ramps**



**Figure 2G-16. Examples of Guide Signs for a Direct Access Ramp between HOV Lanes on Separate Freeways**

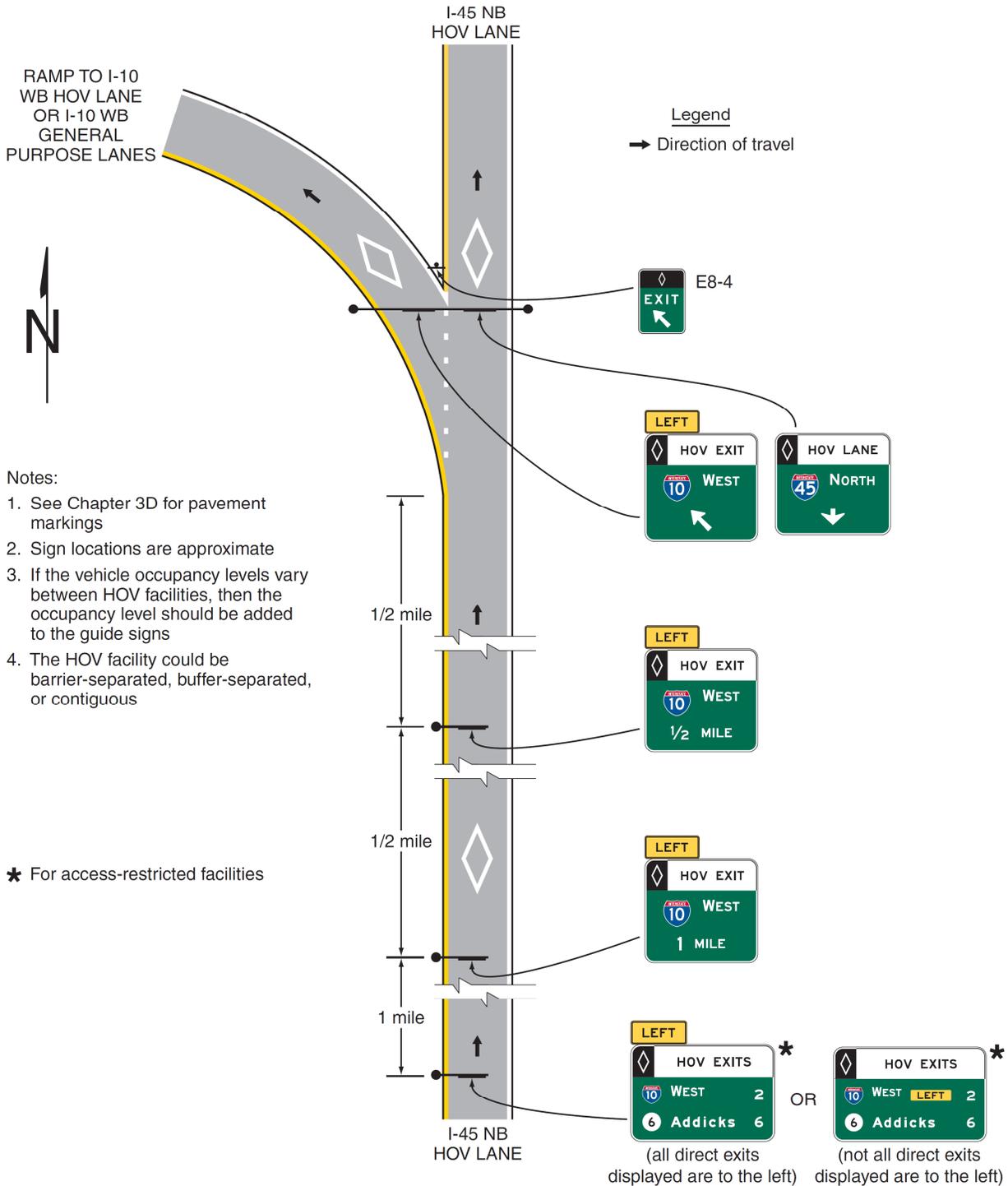
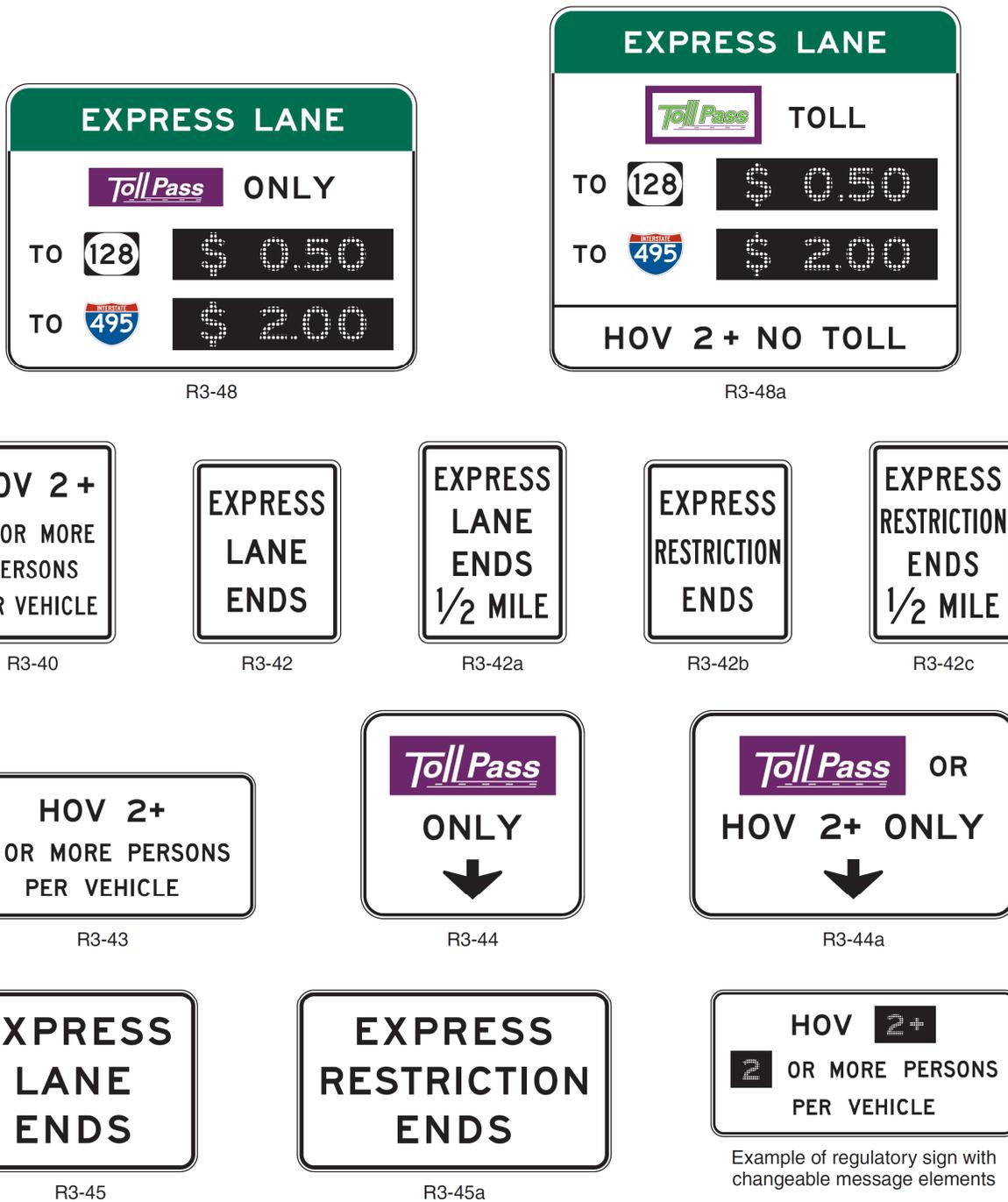


Figure 2G-17. Regulatory Signs for Managed Lanes



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.

**Figure 2G-18. 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**



Note: 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-19. Example of an Exit Destinations Sign for a Managed Lane**



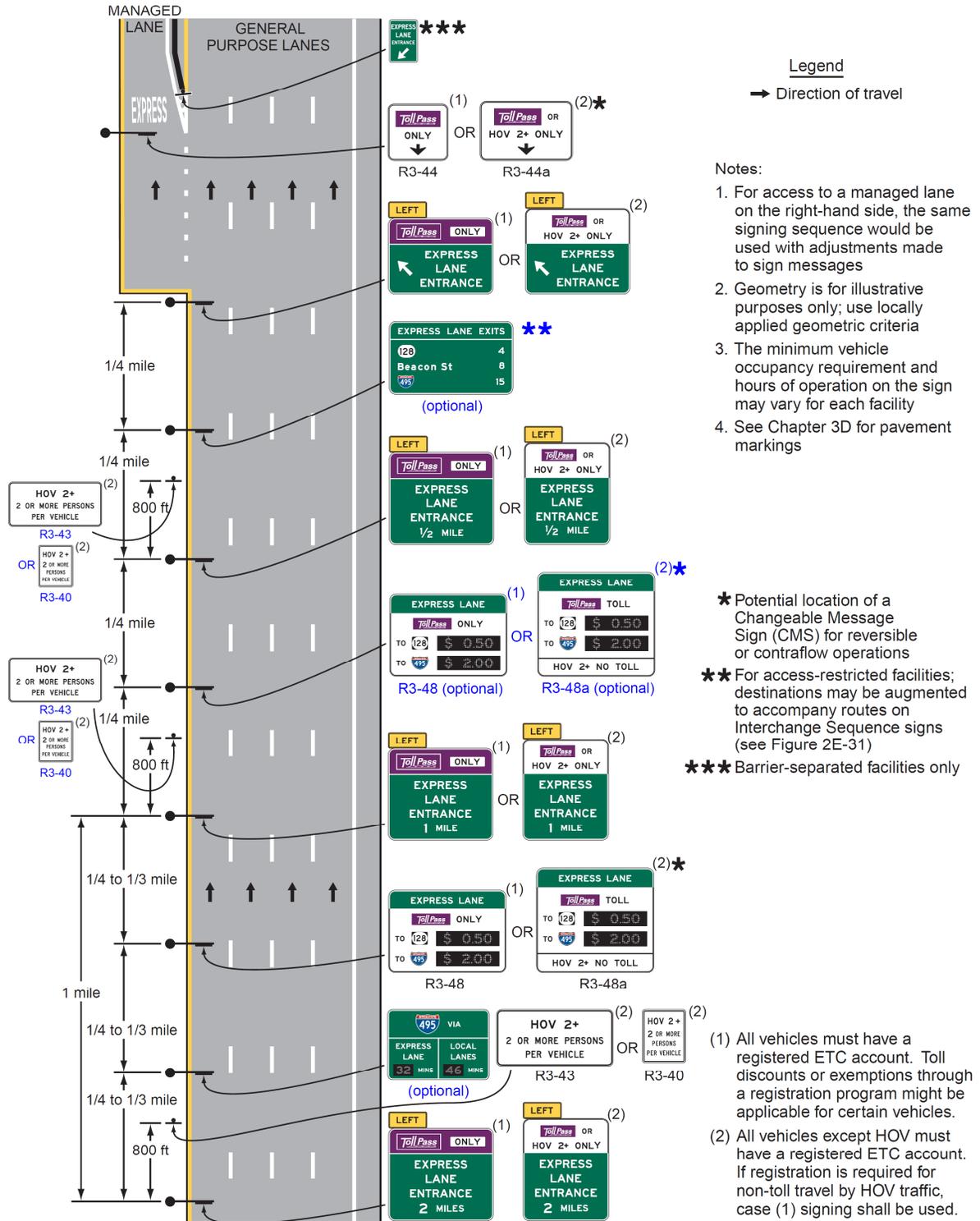
**Figure 2G-20. Example of a Comparative Travel Time Information Sign for Preferential or Managed Lanes**



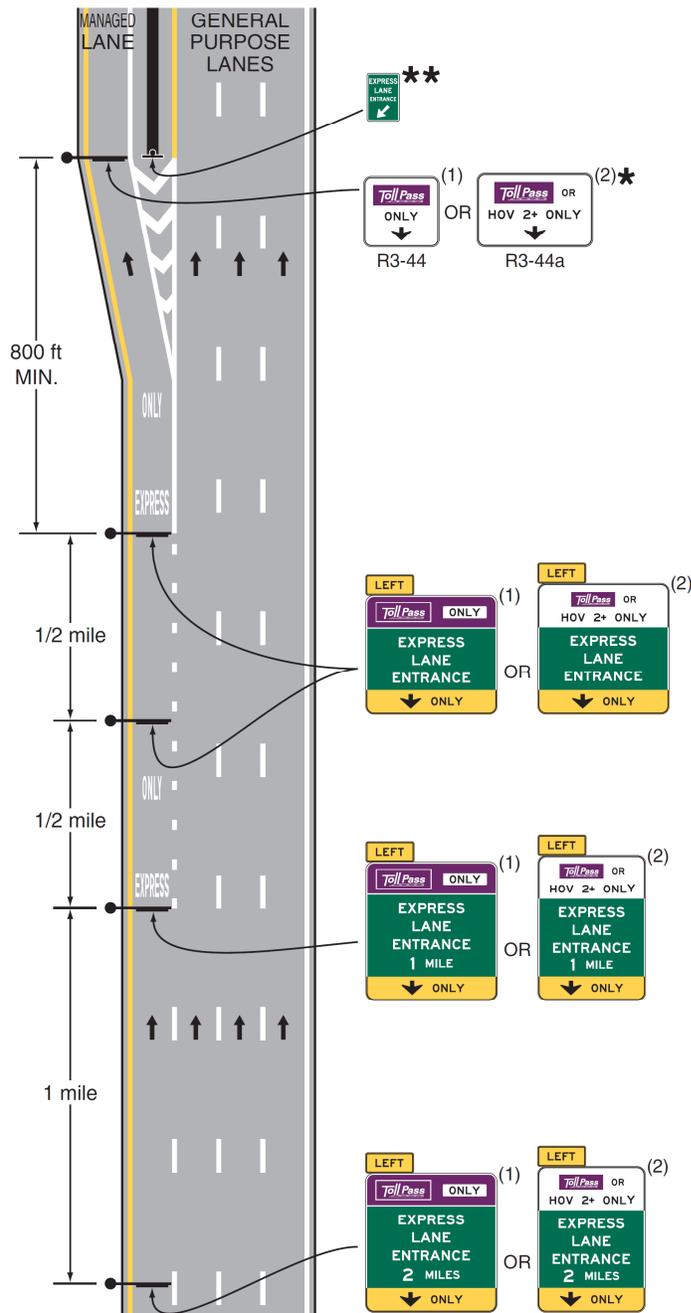
Notes:

1. The ETC pictograph shown is an example only. The pictograph for the toll facility's adopted ETC system shall be used.
2. CMS elements shall be used for the numerals displayed for the estimated travel times.

**Figure 2G-21. Example of Signing for the Entrance to an Access-Restricted Priced Managed Lane**



**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**



**Legend**  
 → Direction of travel

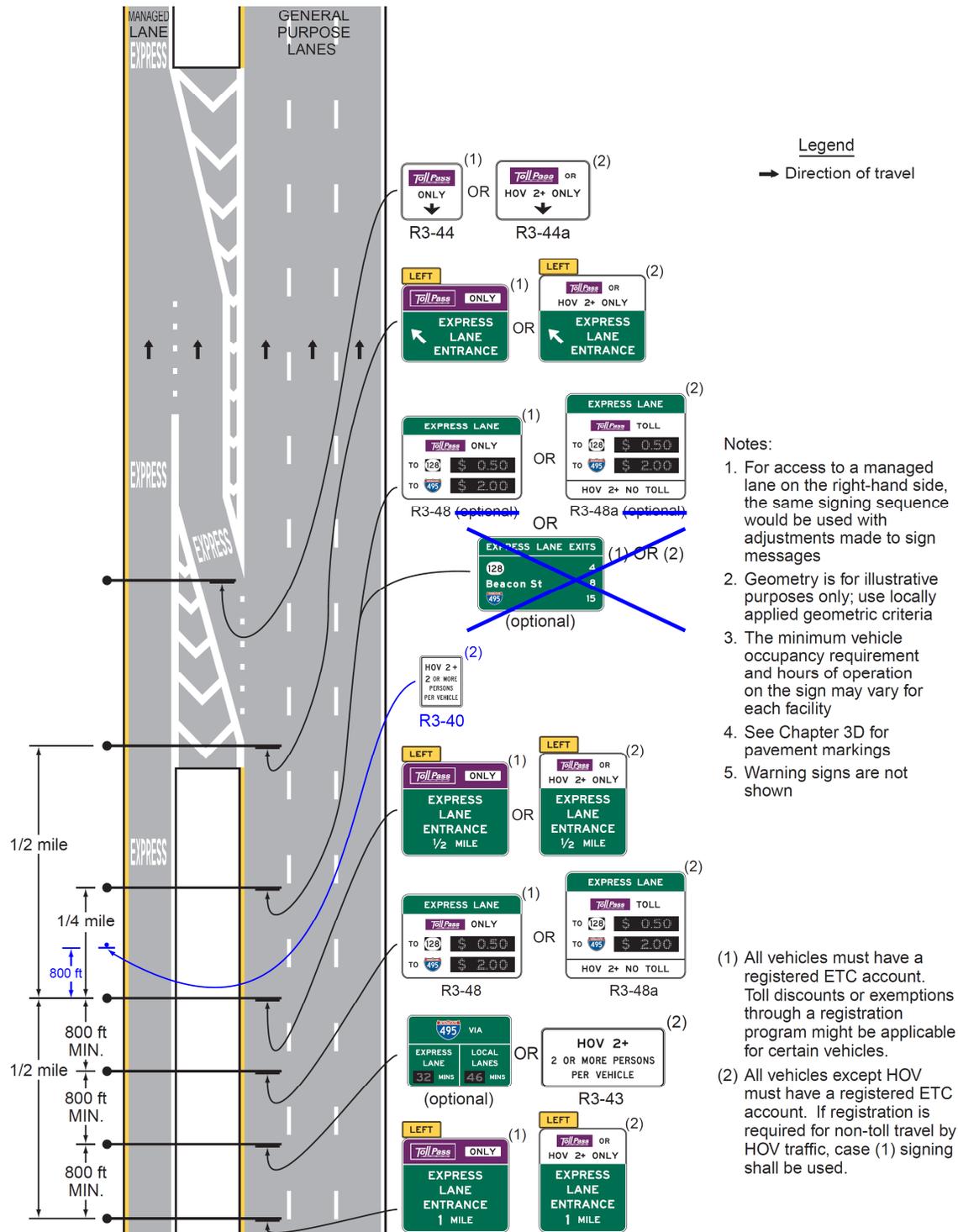
**Notes:**

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 3D for pavement markings
5. See Figure 2G-21 for additional signing

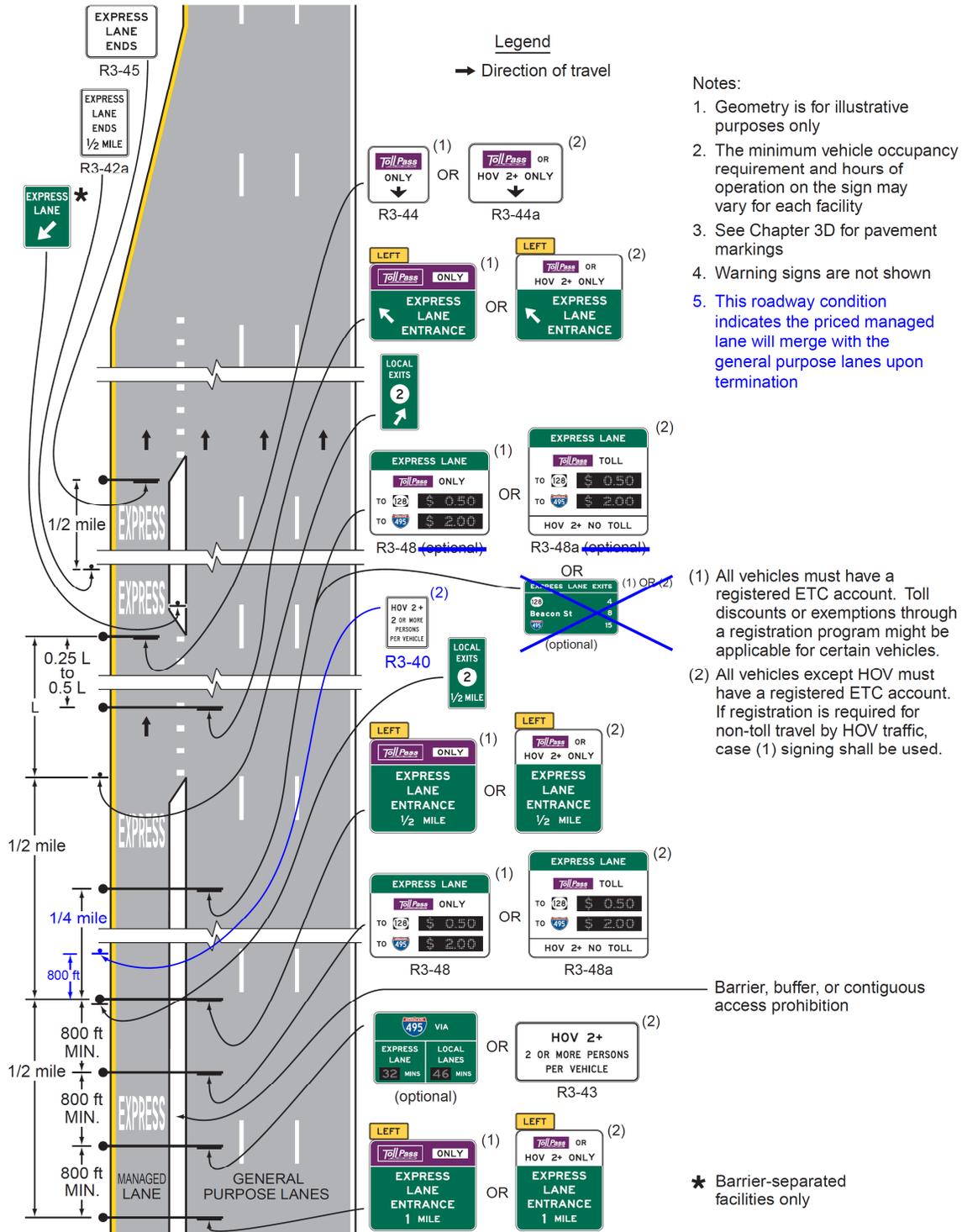
- ★ Potential location of a Changeable Message Sign (CMS) for reversible or contraflow operations
- ★★ Barrier-separated facilities only

- (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 HOV must have a registered ETC account. If registration is required for non-toll travel by HOV traffic, case (1) signing shall be used.

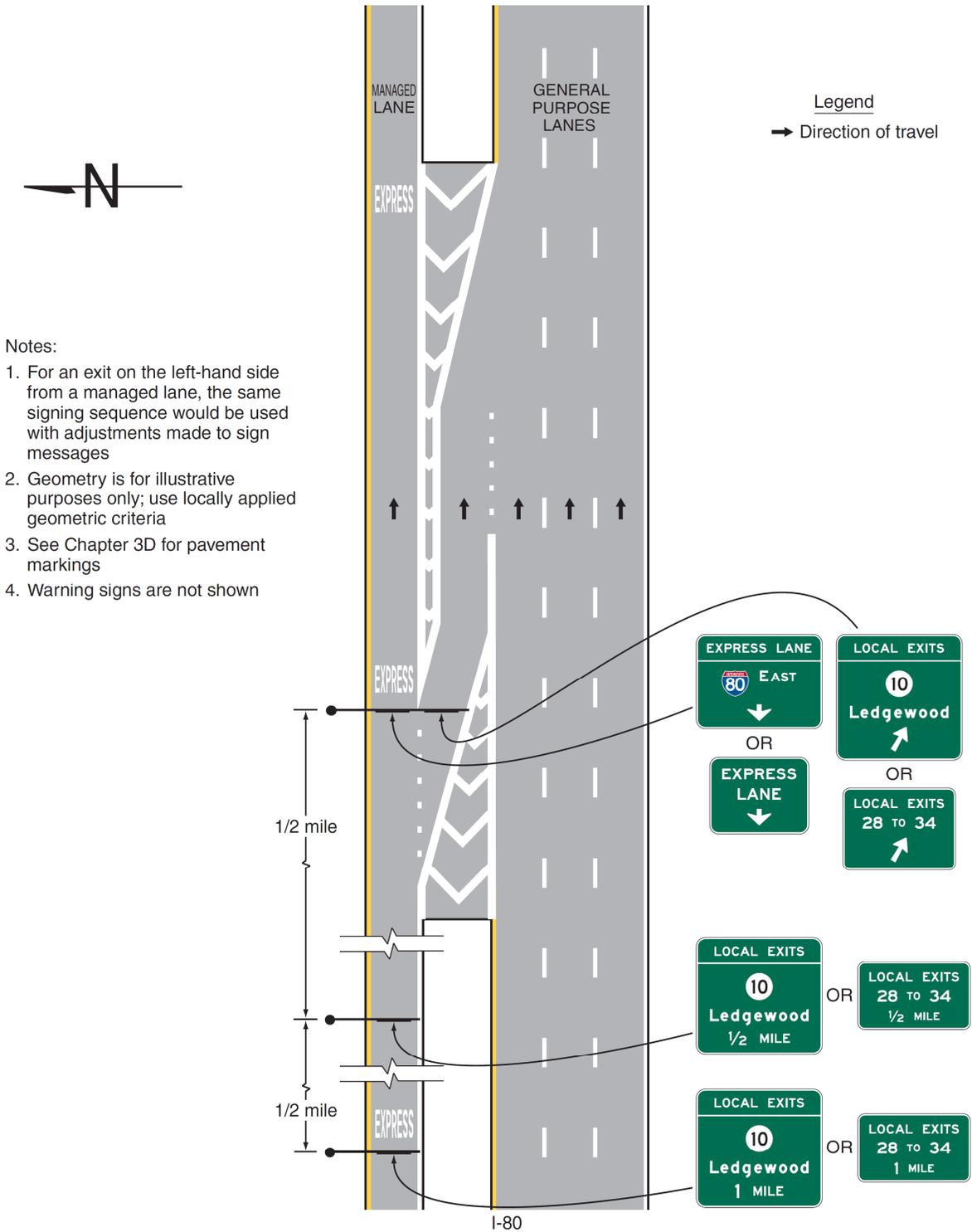
**Figure 2G-23. Example of Signing for an Intermediate Entry to a Barrier- or Buffer-Separated Priced Managed Lane**



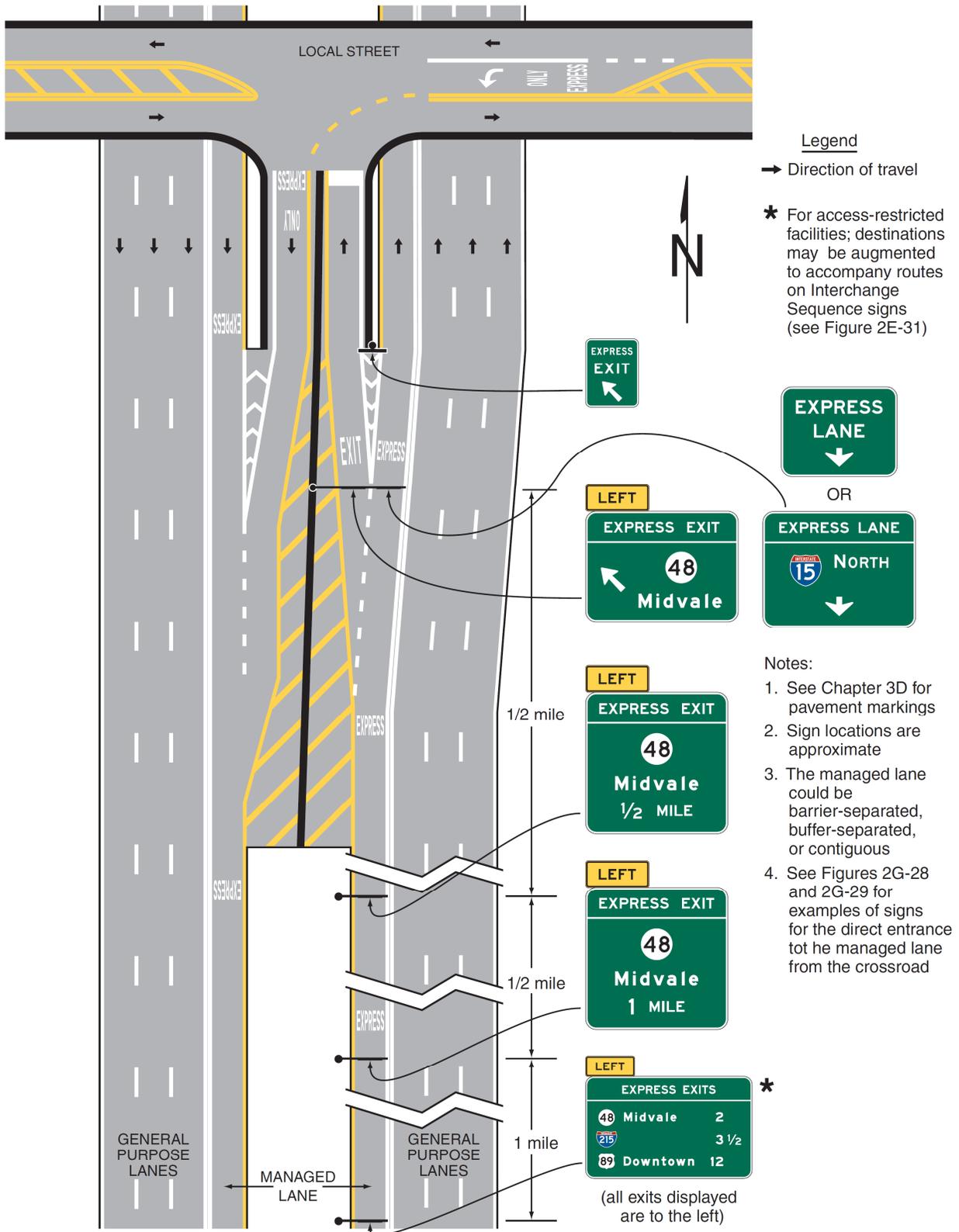
**Figure 2G-24. Example of Signing for the Intermediate Entry to, Egress from, and End of Access-Restricted Priced Managed Lanes**



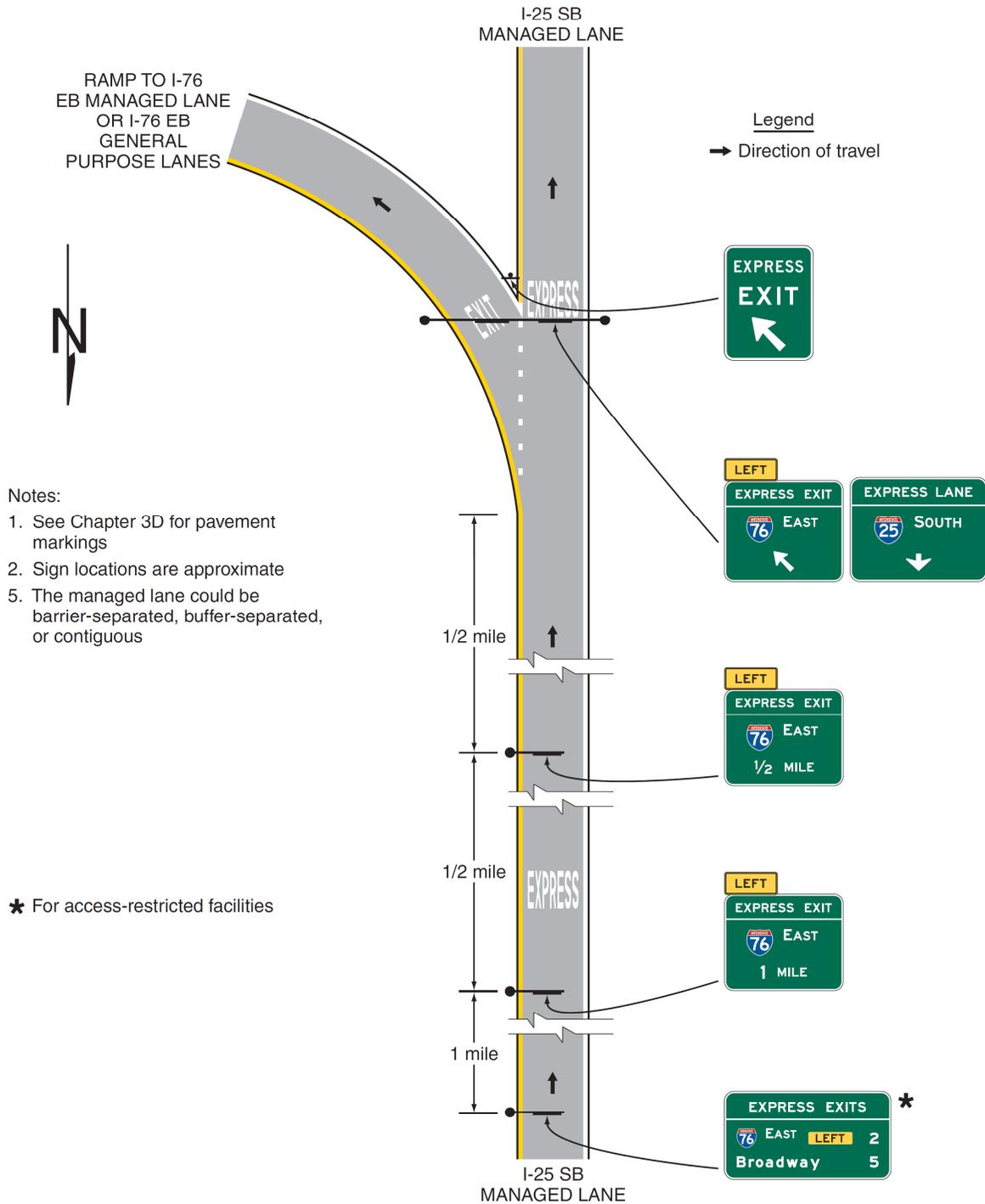
**Figure 2G-25. Examples of Guide Signs for an Intermediate Egress from a Barrier- or Buffer-Separated Managed Lane**



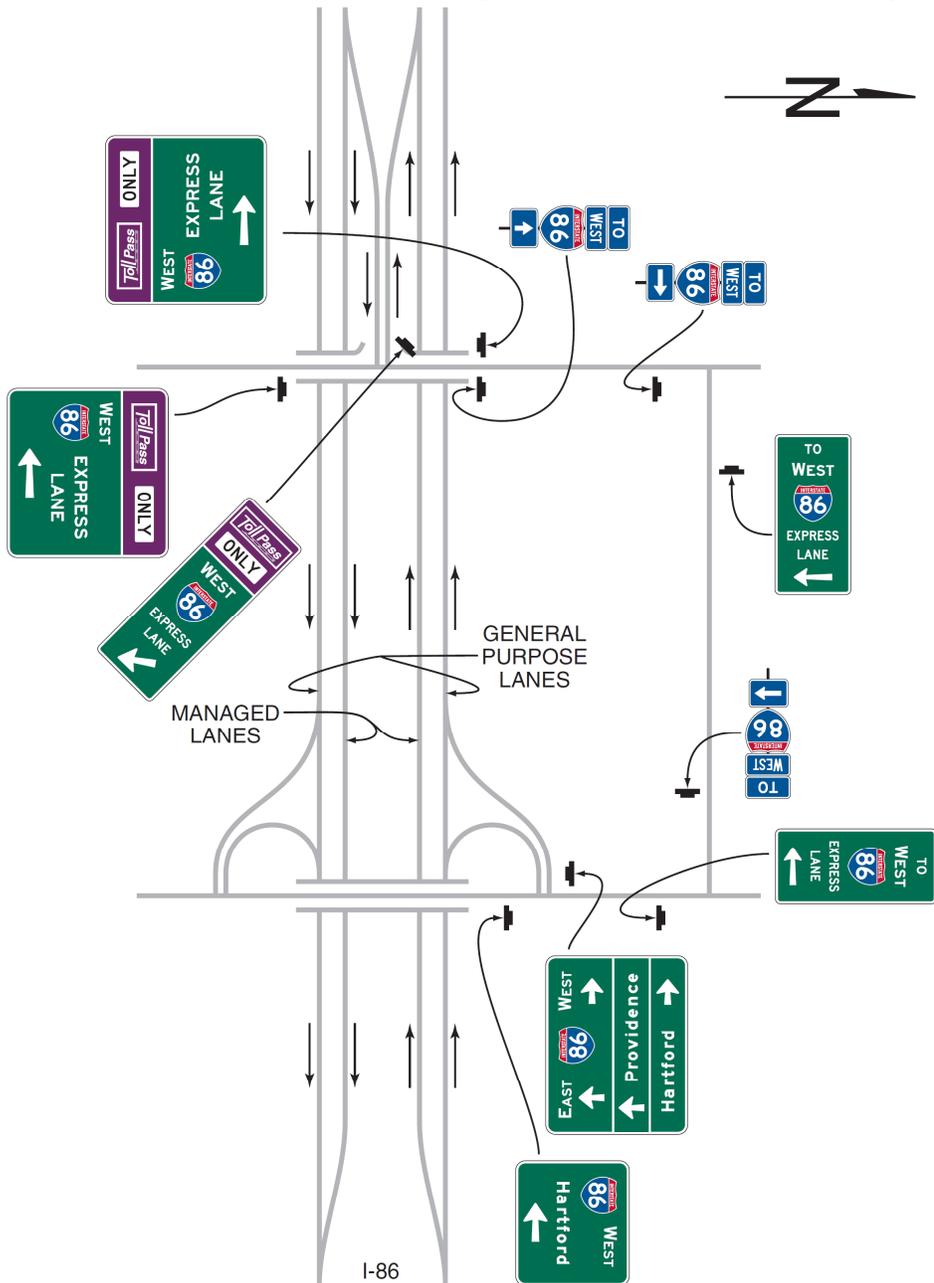
**Figure 2G-26. Examples of Guide Signs for Direct Managed Lane Entrance and Exit Ramps**



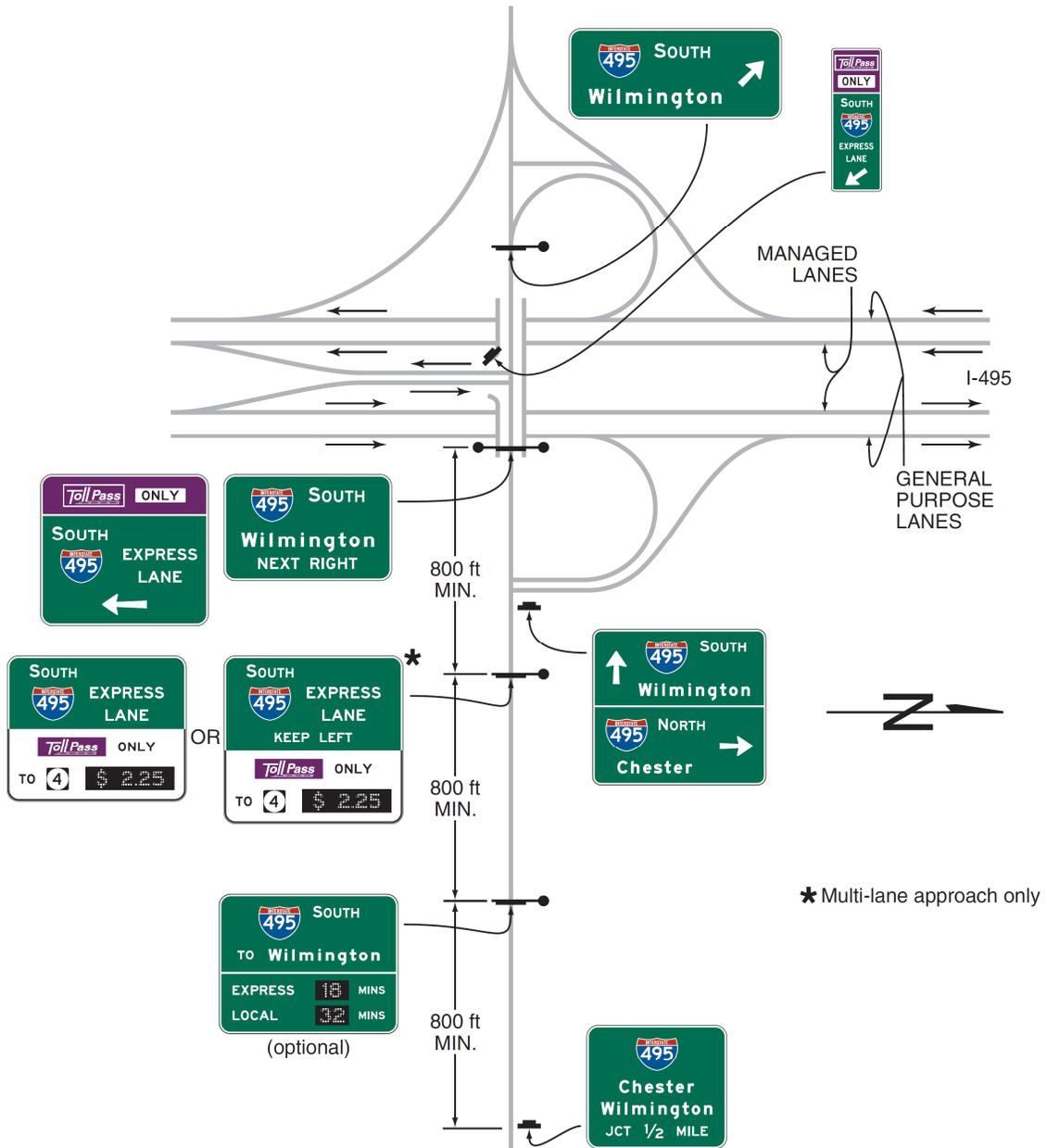
**Figure 2G-27. Examples of Guide Signs for a Direct Access Ramp between Managed Lanes on Separate Freeways**



**Figure 2G-28. Examples of Guide Signs for a Direct Entrance Ramp to a Priced Managed Lane and Trailblazing to a Nearby Entrance to the General-Purpose Lanes**



**Figure 2G-29. Examples of Guide Signs for Separate Entrance Ramps to General-Purpose and Priced Managed Lanes from the Same Crossroad**



**Table 2G-1. Managed and Preferential Lanes Sign and Plaque Minimum Sizes**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Oversized
			Single Lane	Multi-Lane			
<del>Preferential Lane Vehicle Occupancy Definition (post-mounted)</del>	<del>R3-10,10a</del>	<del>2G.04</del>	<del>30 x 42</del>	<del>30 x 42</del>	<del>36 x 60</del>	<del>70 x 96</del>	<del>70 x 96</del>
Preferential Lane Periods of Operation (post-mounted)	R3-11 series	2G.05	30 x 42	30 x 42	36 x 60	<del>70 x 96</del> 36 x 60	78 x 96
<del>Motorcycles Allowed (plaque)</del>	<del>R3-11P</del>	<del>2G.05</del>	<del>30 x 42</del>	<del>30 x 42</del>	<del>36 x 60</del>	<del>70 x 96</del>	<del>70 x 96</del>
Preferential Lane Ahead or Ends (post-mounted)	R3-12 series	2G.06	30 x 42	30 x 42	36 x 60	<del>48 x 84</del> 36 x 60	48 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 Periods of Operation (overhead)	R3-14,14a,14b	2G.05	72 x 60	72 x 60	96 x 72	144 x 108	144 x 108
Preferential Lane Periods of Operation (overhead)	R3-14c	2G.05	90 x 60	90 x 60	108 x 72	156 x 102	168 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 42	78 x 42	102 x 54	132 x 72	132 x 72
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.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.17	—	—	54 x 66	54 x 66	66 x 78
Priced Managed Lane Ends (post-mounted)	R3-42,42b	2G.17	—	—	48 x 60	48 x 60	60 x 78
Priced Managed Lane Ends Advance (post-mounted)	R3-42a,42c	2G.17	—	—	48 x 66	48 x 66	60 x 84
Priced Managed Lane Vehicle Occupancy Definition	R3-43	2G.17	—	—	138 x 66	138 x 66	—
Priced Managed Lane Periods of Operation (overhead)	R3-44	2G.17	—	—	90 x 84	90 x 84	—
Priced Managed Lane Periods of Operation (overhead)	R3-44a	2G.17	—	—	132 x 84	132 x 84	—
Priced Managed Lane Ends (overhead)	R3-45	2G.17	—	—	90 x 66	90 x 66	—
Priced Managed Lane Ends (overhead)	R3-45a	2G.17	—	—	114 x 66	114 x 66	—
Priced Managed Lane Toll Rate	R3-48	2G.17	—	—	Varies	Varies	—
Priced Managed Lane Toll Rate	R3-48a	2G.17	—	—	Varies	Varies	—
HOV (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.11	—	—	222 x 72	222 x 72	—
Preferential Lane Entrance Direction (post-mounted)	E8-2a	2G.11	—	—	186 x 108	186 x 108	—
Preferential Lane Entrance Advance	E8-3	2G.11	—	—	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 in inches are shown as width x height

**Table 2G-1(CA). California 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			
HOV Advance Lane Assignment	G20-9(CA)	2G.14	108 x 72	108 x 72	108 x 72	---	---
HOV Advance Guide	G83-6(CA)	2G.15	---	---	---	---	---
HOV Exit Direction	G85-12(CA)	2G.15	---	---	---	---	---
HOV Supplemental Destination	G86-15(CA)	2G.15	---	---	---	---	---
HOV LANE ENTRANCE	G92-1(CA)	2G.14	36 x 36	36 x 36	48 x 42	---	---
No Left Turn Specific Hours EXCEPT BUSES AND HOV ___+	R33B(CA)	2G.102(CA)	24 x 60	24 x 60	---	---	---
No Left Turn WHEN METERED EXCEPT BUSES AND HOV ___+	R33C(CA)	2G.102(CA)	24 x 60	24 x 60	---	---	---
Specific Hours/Days Plaque	R82A(CA)	2G.06	30 x 12	30 x 12	36 x 18	36 x 18	48 x 24
Specific Hours/Days Plaque	R82B(CA)	2G.06	30 x 24	30 x 24	36 x 24	36 x 24	48 x 36
LEFT LANE HOV ___+ ONLY Specific Hours/Days	R86-3(CA)	2G.05	30 x 66	30 x 66	36 x 66	36 x 66	48 x 78
LEFT LANE HOV ___+ ONLY 24 HOURS	R86-4(CA)	2G.05	30 x 66	30 x 66	36 x 66	36 x 66	48 x 78
HOV ___+ ONLY Specific Hours/Days	R87-3(CA)	2G.05	90 x 60	90 x 60	108 x 70	108 x 70	108 x 70
Route Shield HOV ___+ ONLY Specific Hours/Days	R87-4(CA)	2G.05	104 x 70	104 x 70	---	---	---
Route Shield HOV ___+ ONLY 24 HOURS	R87-5(CA)	2G.05	104 x 70	104 x 70	---	---	---
LEFT (CENTER OR RIGHT) LANE DO NOT STOP (BUSES ONLY)	R88(CA)	2G.102(CA)	30 x 30	30 x 30	---	---	---
ALL VEHICLES STOP ON RED	R90-1(CA)	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.102(CA)	30 x 54	30 x 54	---	---	---
(HOV) NO TRUCKS 3 AXLES OR MORE - NO VEHICLES WITH TRAILERS	R91-4(CA)	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	R91B(CA)	2G.04	30 x 18	36 x 18	36 x 18	36 x 18	48 x 24
HOV ___+ IS ___ OR MORE PERSONS PER VEHICLE	R93-2(CA)	2G.04	30 x 72	30 x 72	36 x 84	36 x 84	---
VEHICLES WITH DMV CLEAN AIR DECAL OK	R93A(CA)	2G.04	30 x 12	30 x 12	36 x 15	36 x 15	---
Mandatory/Optional HOV Movement Lane Control	R94(CA)	2G.05	60 x 42	60 x 42	---	---	---
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 Specific Hours/Days	SR60-3(CA)	2G.05	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	30 x 42	---	---
RIGHT LANE BUSES ONLY 24 HOURS	SR60-5(CA)	2G.05	30 x 42	30 x 42	30 x 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 BUS LANE ENDS	SR60-7(CA)	2G.07	30 x 42	30 x 42	30 x 42	---	---
RIGHT LANE BUSES TAXIS ONLY Specific Hours/Days w/Downward Arrow	SR60-8(CA)	2G.05	30 x 42	30 x 42	30 x 42	---	---
RIGHT LANE BUSES TAXIS ONLY 24 HOURS w/Downward Arrow	SR60-9(CA)	2G.05	30 x 42	30 x 42	30 x 42	---	---
(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

**Table 2G-1(CA). California 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			
(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
(HOV) Lane Selection (Left or Right Arrow)	SW54(CA)	2G.08	36 x 36	36 x 36	48 x 48	---	---
(HOV) Lane Selection (Left or Right and Vertical Arrow)	SW54-1(CA)	2G.08	36 x 36	36 x 36	48 x 48	---	---
HOV ___ + IS ___ OR MORE PER VEHICLE WHEN METERED (24 HOURS)	SW54C(CA)	2G.08	30 x 30	30 x 30	36 x 36	---	---



## CHAPTER 2H. GENERAL INFORMATION SIGNS

### Section 2H.01 Sizes of General Information Signs

**Standard:**

**01 Except as provided in Section 2A.11, the sizes of General Information signs that have a standardized design shall be as shown in Table 2H-1.**

**Support:**

02 Section 2A.11 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.11).

### Section 2H.02 General Information Signs (I Series)

**Support:**

01 Of interest to the traveler, though not directly necessary for guidance, are numerous kinds of information that can properly be conveyed by General Information signs (see Figure 2H-1 and 2H-1(CA)) or miscellaneous information signs (see Section 2H.04). They include such items as State lines, city limits, other political boundaries, time zones, stream names, elevations, landmarks, and similar items of geographical interest, and safety and transportation-related messages. Chapter 2M contains recreational and cultural interest area symbol signs that are sometimes used in combination with General Information signs.

**Guidance:**

02 *General Information signs should not be installed within a series of guide signs or at other equally critical locations, unless there are specific reasons for orienting the road user or identifying control points for activities that are clearly in the public interest. On all such signs, the designs should be simple and dignified, devoid of any advertising, and in general compliance with other guide signing.*

**Standard:**

**03 Except for political boundary signs, General Information signs shall have white legends and borders on green rectangular-shaped backgrounds.**

**Option:**

04 An information symbol sign (I-5 through I-9 and SG60(CA)) may be used to identify a route leading to a transportation or general information facility, or to provide additional guidance to the facility. The symbol sign may be supplemented by an educational plaque where necessary; also, the name of the facility may be used if needed to distinguish between similar facilities.

05 The Advance Turn (M5 series) or Directional Arrow (M6 series) auxiliary signs shown in Figure 2H-1 with white arrows on green backgrounds may be used with General Information symbol signs to create a General Information Directional Assembly.

06 Guide signs for commercial service airports and non-carrier 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 (I-5) symbol sign along with a supplemental plaque may be used to indicate the specific name of the airport. An Airport symbol sign, with or without a supplemental name plaque or the word AIRPORT, and an arrow may be used as a trailblazer.

**Standard:**

**07 Adequate trailblazer signs shall be in place prior to installing the ~~airport~~ transportation or general information facility guide signs.**

**Support:**

08 Location and placement of all ~~airport~~ transportation or general information facility guide signs depends upon the availability of longitudinal spacing on highways.

**Option:**

08a The POST OFFICE SG60(CA) sign with Symbol and Arrow may be used to indicate direction to a local post office which is located off the arterial network.

09 The Recycling Collection Center (I-11) symbol sign may be used to direct road users to recycling collection centers.

*Guidance:*

10 *The Recycling Collection Center symbol sign should not be used on freeways and expressways.*

**Standard:**

11 **If used on freeways or expressways, the Recycling Collection Center symbol sign shall be considered one of the supplemental sign destinations.**

12 **When a sign is used to display a safety or transportation-related message, the display format shall not be of a type that would be considered similar to advertising displays. Messages and symbols that resemble any official traffic control device shall not be used on safety or transportation-related message signs.**

*Option:*

13 The pictograph of a political jurisdiction (such as a State, county, or municipal corporation) may be displayed on a political boundary General Information sign.

**Standard:**

14 **If used, the height of a pictograph on a political boundary General Information sign shall not exceed two times the height of the upper-case letters of the principal legend on the sign. The pictograph shall comply with the provisions of Section 2A.06.**

**Unincorporated Community and City Limit (G9-2(CA) and G9-5(CA)) Signs**

**Standard:**

15 **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 S&H Section 101.1.**

*Guidance:*

16 *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.*

17 *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:*

18 The population may be obtained from:

- A. Federal census
- B. California Dept. of Finance
- C. County Board of Supervisors
- D. County Planning Commission

19 The elevation shown may be that of the courthouse, post office, railroad station, or benchmark in the central district of the city.

**Standard:**

20 **See Section 101.1 of the Streets and Highways Code, which makes these changes mandatory, and Section 101.2 and 101.4, which provides that the Department of Transportation, under certain conditions, shall replace any city limit signs.**

*Guidance:*

21 *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 Department 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.

**County Line (G10(CA)) Sign**

Guidance:

- 22 The County Line (G10(CA)) sign should be used at the point where the county boundary line crosses the State highway.*
- 23 The G10(CA) sign should be placed on the right, as close as practical to the outer limits of the county, facing traffic entering the named county.*

Option:

*24 The County Line (G10-3(CA)) sign may be used in lieu of G10(CA) sign to include wording "WHERE WE HONOR VETERANS". The WHERE WE HONOR VETERANS (G10-4(CA)) sign may be used below the G10(CA) sign. Refer to Streets & Highways Code, Section 1978.*

**Welcome to California (G10B(CA)) Sign**

Guidance:

*25 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.*

**River Name (I-3) Sign**

Option:

*26 The River Name (I-3) 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:

- 27 The I-3 sign should be used on freeways to identify major river crossings.*

Option:

*28 The Watershed Boundary (S36(CA)) sign may be installed to identify the boundary of recognized watershed areas, by its appropriate name (before "WATERSHED"). The sign assembly may provide road user orientation with the directional information plaque, ENTERING (S36A(CA)), or LEAVING (S36B(CA)), as appropriate, included above the S36(CA) sign.*

Support:

*29 The Watershed Boundary (S36(CA)) sign provides information for road users to be aware of the geographic boundary of the geographically-named watershed, as recognized by the United States Geological Survey, and promotes environmental stewardship of watersheds by the community. The purpose of the sign is to serve as a reminder to road users that they are traveling through a watershed, and to promote awareness that the responsibility of preserving the cleanliness of our watersheds is shared by all in the community.*

**Standard:**

***30 The agency installing the Watershed Boundary (S36(CA)) sign, with or without the ENTERING (S36A(CA)) or LEAVING (S36B(CA)) supplemental plaque, shall be responsible for furnishing, installing, maintaining and replacing the signs, as needed. The agency installing the signs shall receive approval from the agency having jurisdiction of the roadway prior to installation of these signs.***

**Elevation (G16(CA) and G17(CA)) Signs**

Option:

*31 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:

- 32 The G16(CA) sign should be placed facing traffic in each direction on the right.*

Option:

*33 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:

- 34 The G17(CA) sign should be placed facing traffic in each direction on the right.*

### **Conventional Airport (G94-1(CA)) Sign**

**Support:**

<sup>35</sup> The Conventional Airport (G94-1(CA)) sign typifies smaller conventional type aircraft.

**Guidance:**

<sup>36</sup> *The G94-1(CA) sign should be used in lieu of the Airport (I-5) sign to direct to airports, which do not accommodate large commercial jet aircraft.*

### **Coastal Access (SG28(CA)) Sign**

**Option:**

<sup>37</sup> The Coastal Access (SG28(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 Department of Transportation dated April, 30, 1980.

### **USING RECLAIMED WATER (S28(CA)) Sign**

**Standard:**

<sup>38</sup> **The USING RECLAIMED WATER (S28(CA)) sign shall be placed to identify locations where reclaimed water is being used for irrigating landscaped areas and other maintenance operations. Refer to Department of Transportation's Maintenance Manual Chapter 8, Section 8.45. See Section 1A.11 for information regarding this publication.**

## **Section 2H.03 Traffic Signal Speed Sign (I1-1)**

**Option:**

<sup>01</sup> The Traffic Signal Speed (I1-1) sign (see Figure 2H-1), reading 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.

<sup>02</sup> If different system progression speeds are set for different times of the day, a changeable message element may be used for the numerals of the Traffic Signal Speed (I1-1) sign. If the system is operated in coordinated mode only during certain times, a blank-out version of the Traffic Signal Speed (I1-1) sign may be used to display the message only during those times.

**Guidance:**

<sup>03</sup> *If used, the sign should be mounted as near as practical to each intersection where the timed speed changes, and at intervals of several blocks throughout any section where the timed speed remains constant.*

**Standard:**

<sup>04</sup> **The Traffic Signal Speed sign shall be a minimum of 24 x 36 inches with the longer dimension vertical. It shall have a white message and border on a green background.**

**Option:**

<sup>05</sup> The local authorities may set traffic signal timing for speeds in slight variance from the posted speed limits.

**Guidance:**

<sup>06</sup> *The Traffic Signal Speed (I1-1) sign should not display a speed above the posted speed limit because of the enticement to exceed that posted speed limit. Refer to CVC 22401.*

## **Section 2H.04 Miscellaneous Information Signs**

**Support:**

<sup>01</sup> Miscellaneous information are used to point out geographical features, such as rivers and summits, and other jurisdictional boundaries (see Section 2H.02). Figure 2H-1 and 2H-1(CA) shows examples of miscellaneous information (I-2 and I-3) signs.

**Option:**

<sup>02</sup> Miscellaneous information signs may be used if they do not interfere with signing for interchanges or other critical points.

**Guidance:**

<sup>03</sup> *Miscellaneous information signs should not be installed unless there are specific reasons for orienting the road users or identifying control points for activities that are clearly in the public interest. If Miscellaneous information signs are to be of value to the road user, they should be consistent with other guide signs in design*

*and legibility. On all such signs, the design should be simple and dignified, devoid of any ~~tendency toward flamboyant~~ advertising, and in general compliance with other signing.*

## **Section 2H.05 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, 2, and 3) signs show an integer distance point along a highway, and

B. Intermediate Reference Location (D10-1a, 2a, and 3a) signs also show a decimal between integer distance points along a highway.

### **Standard:**

#### **Option:**

02 ~~Except when Enhanced Reference Location signs (see Section 2H.06) are used instead,~~ Reference Location (D10-1 through D10-3) signs ~~shall~~ **may** 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 to D10-3) signs (see Figure 2H-2) 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 to D10-3a) signs (see Figure 2H-3), which show the tenth of a mile with a decimal point, may be installed at one tenth of a mile intervals, or at some other regular spacing.

### **Standard:**

05 **When Intermediate Reference Location (D10-1a to D10-3a) signs are used to augment the reference location sign system, the reference location sign at the integer mile point shall display a decimal point and a zero numeral.**

06 **When placed on freeways or expressways, reference location signs shall contain 10-inch white numerals on a 12-inch wide green background with a white border. The signs shall be 24, 36, or 48 inches in height for one, two, or three digits, respectively, and shall contain the word MILE in 4-inch white letters.**

07 **When placed on conventional roads, reference location signs shall contain 6-inch white numerals on a green background that is at least 10 inches wide with a white border. The signs shall contain the word MILE in 4-inch white letters.**

08 **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.18.**

09 **The distance numbering shall be continuous for each route within a State, except where overlaps occur (see Section 2E.31). Where routes overlap, reference location sign continuity shall be established for only one of the routes. If one of the overlapping routes is an Interstate route, that route shall be selected for continuity of distance numbering.**

#### *Guidance:*

10 *The route selected for continuity of distance numbering should also have continuity in interchange exit numbering (see Section 2E.31).*

11 *On a route without reference location sign continuity, the first reference location sign beyond the overlap should indicate the total distance traveled on the route so that road users will have a means of correlating their travel distance between reference location signs with that shown on their odometer.*

### **Standard:**

12 **For divided highways, the distance measurement shall be made on the northbound and eastbound roadways. The reference location signs for southbound or westbound roadways shall be set at locations directly opposite the reference location signs for the northbound or eastbound roadways.**

*Guidance:*

<sup>13</sup> Zero distance should begin at the south and west State lines, or at the south and west terminus points where routes begin within a State.

**Standard:**

<sup>14</sup> **Except as provided in Paragraph 15, reference location signs shall be installed on the right-hand side of the roadway.**

*Option:*

<sup>15</sup> 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.

<sup>16</sup> 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:*

<sup>17</sup> If a reference location sign cannot be placed within 50 feet of the correct location, it should be omitted.

**Standard:**

<sup>18</sup> In California, reference posts shall be mileage based.

<sup>19</sup> Reference posts shall be mounted so that the bottom of the sign is a minimum of 2 feet above the near roadway edge. For lateral position, see Section 2A.16, 2A.19 and Figure 2A-2(CA).

<sup>20</sup> The placement and location of reference posts on State highways shall conform to the database maintained by Department of Transportation's Division of Traffic Operations for reference posts. This database is different from the TASAS Highway database.

## **Section 2H.06 Enhanced Reference Location Signs (D10-4, D10-5)**

*Support:*

<sup>01</sup> There are two types of enhanced reference location signs:

- A. Enhanced Reference Location signs (D10-4), and
- B. Intermediate Enhanced Reference Location signs (D10-5).

*Option:*

<sup>02</sup> Enhanced Reference Location (D10-4) signs (see Figure 2H-4), which enhance the reference location sign system by identifying the route, may be placed on freeways or expressways (instead of Reference Location signs) or on conventional roads.

<sup>03</sup> To augment an enhanced reference location sign system, Intermediate Enhanced Reference Location (D10-5) signs (see Figure 2H-4), which show 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 intervals, or at some other regular spacing.

**Standard:**

<sup>04</sup> **If enhanced reference location signs are used, they shall be vertical signs having blue or green backgrounds with white numerals, letters, and borders, except for the route shield, which shall be the standard color and shape. The top line shall consist of the cardinal direction for the roadway. The second line shall consist of the applicable route shield for the roadway. The third line shall identify the 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. The bottom line of the Intermediate Enhanced Reference Location sign shall contain a decimal point. The height of the legend on enhanced reference location signs shall be a minimum of 6 inches. The height of the route shield on enhanced reference location signs shall be a minimum of 12 inches.**

<sup>05</sup> **The background color shall be the same for all enhanced reference location signs within a jurisdiction.**

*Support:*

<sup>06</sup> The provisions in Section 2H.05 regarding mounting height, distance numbering and measurements, sign continuity, and placement with respect to the right-hand shoulder and/or median for reference location signs also apply to enhanced reference location signs.

## Section 2H.07 Auto Tour Route Signs

### Support:

01 Auto Tour Route signs are informational signs, plaques, or shields designed to provide road users with route guidance in following an auto tour route of particular cultural, historical, or educational significance.

02 Signed auto tour routes are used in some cases to generally follow the historical route of a trail, such as the National Historic Trails administered by the National Park Service. Examples include auto tour routes that parallel the Lewis and Clark National Historic Trail, the Oregon National Historic Trail, and the Santa Fe National Historic Trail.

### Guidance:

03 *If shields or other similar signs are used to provide route guidance in following an auto tour route, they should be designed in accordance with the sizes and other design principles for route signs, such as those described in Sections 2D.10 through 2D.12.*

### Option:

04 Auto Tour Route signs may be installed on a highway if they have been approved by the appropriate transportation agency.

### Standard:

05 **Auto Tour Route signs shall not be installed on freeways or expressways, except as necessary to provide continuity between discontinuous segments of conventional roadways that are designated as auto tour routes, for which the freeway or expressway provides the only connection between the segments. If installed on freeways or expressways, Auto Tour Route signs shall be installed as independent trailblazer assemblies (see Sections 2D.35 and 2E.27) and shall not be installed with other Route signs or confirmation assemblies or on guide signs. If installed on freeways or expressways, Auto Tour Route trailblazer assemblies shall be installed at less frequent intervals than route confirmation assemblies.**

## Section 2H.08 Acknowledgment Signs

### Support:

01 Acknowledgment signs are a way of recognizing ~~a company, business, or volunteer group~~ **an entity** that provides a highway-related service. Acknowledgment signs include ~~sponsorship~~ **courtesy** signs for ~~the Department's adopt-a-highway program, 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 an acknowledgment sign program should develop an acknowledgment sign policy. The policy should require that eligible sponsoring organizations comply with State laws prohibiting discrimination based on race, religion, color, age, sex, national origin, and other applicable laws. The acknowledgment sign policy should include all of the provisions regarding sign placement and sign design that are described in this Section.*

### Standard:

03 **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.**

04 **Acknowledgment signs shall not be installed at any of the following locations:**

- A. On the front or back of, adjacent to, or around any other traffic control device, including traffic signs, highway traffic signals, and changeable message signs;**
- B. On the front or back of, adjacent to, or around the supports or structures of other traffic control devices, or bridge piers; or**
- C. At key decision points where a road user's attention is more appropriately focused on other traffic control devices, roadway geometry, or traffic conditions, including exit and entrance ramps, intersections, grade crossings, toll plazas, temporary traffic control zones, and areas of limited sight distance.**

*Guidance:*

<sup>05</sup> *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.

<sup>06</sup> *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:*

<sup>07</sup> State or local highway agencies may develop their own acknowledgment sign designs and may also use their own pictograph (see definition in Section 1A.13) and/or a brief jurisdiction-wide program slogan as part of any portion of the acknowledgment sign, provided that the signs comply with the provisions for shape, color, and lettering style in this Chapter and in Chapter 2A.

*Guidance:*

<sup>08</sup> *Acknowledgment signs should clearly indicate the type of highway services provided by the sponsor.*

**Standard:**

<sup>09</sup> **In addition to the general provisions for signs described in Chapter 2A and the sign design principles covered in the “Standard Highway Signs and Markings” book (see Section 1A.11), acknowledgment sign designs developed by State or local highway agencies shall comply with the following provisions:**

- A. Neither the sign design nor the sponsor acknowledgment logo shall contain any contact information, directions, slogans (other than a brief jurisdiction-wide program slogan, if used), telephone numbers, or Internet addresses, including domain names and uniform resource locators (URL);**

*Option:*

Entities that operate exclusively on the Internet and whose legal name is the same as appears in their Internet web address' domain name, may be permitted to display their name on their recognition panel.

**Standard:**

- B. Except for the lettering, if any, on the sponsor acknowledgment logo, all of the lettering shall be in upper-case letters or a combination of lower-case letters with initial upper-case letters as provided in the “Standard Highway Signs and Markings” book or Department’s California Sign Specifications (see Section 1A.11). Combining large and small upper-case letters or displaying some letters in all uppercase and some in upper- and lowercase shall not be permitted.;**
- C. In order to keep the main focus on the highway-related service and not on the sponsor acknowledgment logo, the area reserved for the sponsor acknowledgment logo shall not exceed 1/3 of the total area of the sign and shall be a maximum of 8 square feet, and shall not be located at the top of the sign;**
- D. The entire sign display area shall not exceed 24 square feet;**
- E. The sign shall not contain any messages, lights, symbols, or trademarks that resemble any official traffic control devices;**
- F. The sign shall not contain any external or internal illumination, light-emitting diodes, luminous tubing, fiber optics, luminescent panels, or other flashing, moving, or animated features; and**
- G. The sign shall not distract from official traffic control messages such as regulatory, warning, or guidance messages.**

*Support:*

<sup>10</sup> Examples of acknowledgment sign designs are shown in Figure 2H-5 and Adopt-A-Highway program signs are shown in Figure 2H-5(CA).

**[Adopt-A-Highway Program Signs \(S32\(CA\) Series\)](#)**

*Support:*

<sup>11</sup> Refer to Streets and Highways Code Section 91.5 and Department of Transportation's Maintenance Manual. See Section 1A.11 for information regarding this publication.

Option:

<sup>12</sup> The Adopt-A-Highway (S32(CA)) sign (see Figure 2H-5(CA)) may be installed near the beginning of each section of State highway that is being maintained under the Department's Encroachment Permit (Adopt-A-Highway), form TR-0121.

**Standard:**

<sup>13</sup> **The Adopt-A-Highway Symbol (S32A(CA)) sign shall be installed on the Adopt-A-Highway (S32(CA)) sign.**

Support:

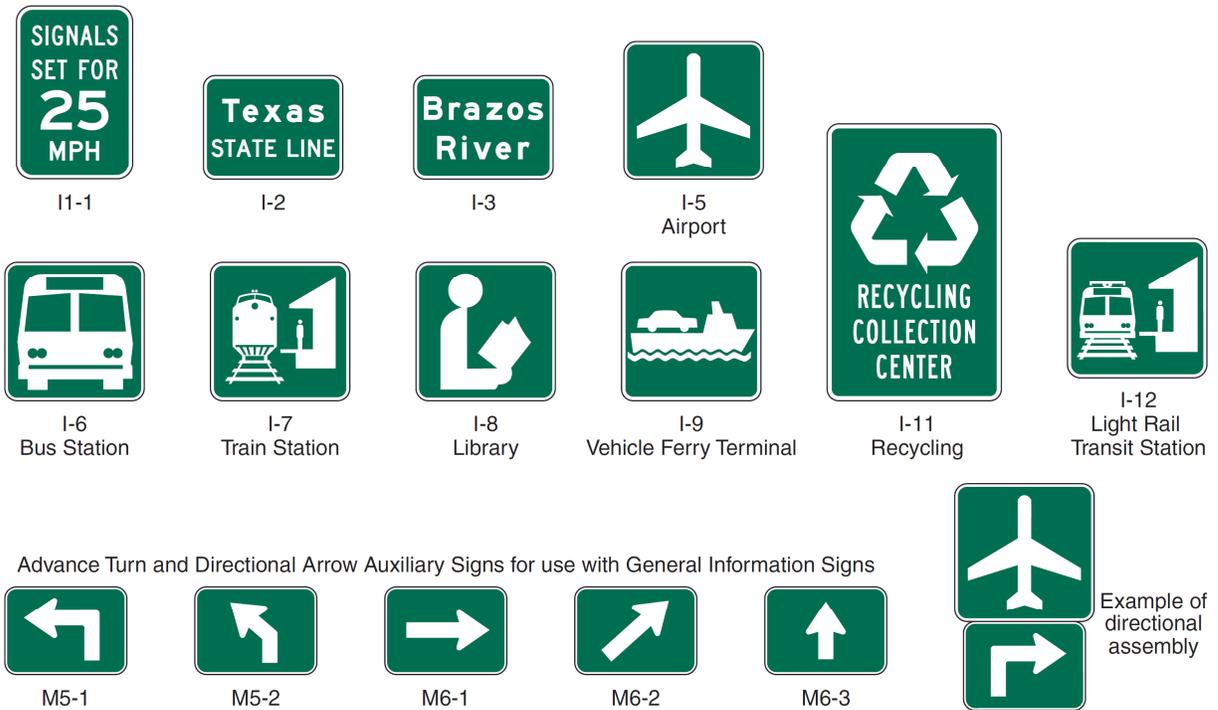
<sup>14</sup> The 10 x 12 inch symbol size is used on the 36 x 30 inch size S32(CA) sign and the 15 x 18 inch symbol size is used on the 54 x 42 inch size S32(CA) sign.

<sup>15</sup> The Adopt-A-Highway Recognition Panel (S32B(CA)) with a participant's name and/or logo is placed over the information area of the S32(CA) sign when a section of State highway has been adopted.

**Standard:**

<sup>16</sup> **When used, the Litter Removal (S32-1(CA)), Wildflower Planting (S32-2(CA)), Tree Planting (S32-3(CA)), Graffiti Removal (S32-4(CA)) or Vegetation Control (S32-5(CA)) signs shall be placed below the S32(CA) sign.**

**Figure 2H-1. General Information and Miscellaneous Information Signs**



**Figure 2H-1 (CA). General Information and Miscellaneous Information Signs**



**Figure 2H-2. Reference  
Location Signs**



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**Figure 2H-3. Intermediate  
Reference Location Signs**



**Figure 2H-4. Enhanced Reference  
Location Signs**



D10-4

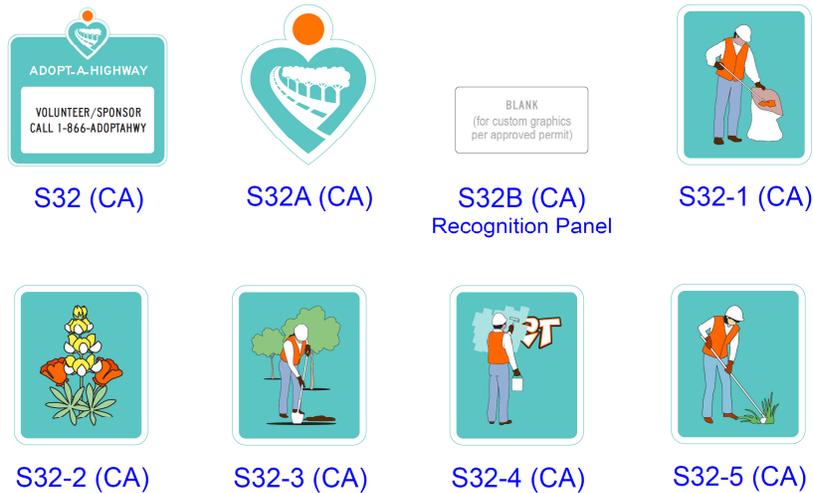


D10-5

**Figure 2H-5. Examples of Acknowledgment Sign Designs**



**Figure 2H-5 (CA). Examples of Adopt-A-Highway Sign Designs**



**Table 2H-1. General Information Sign Sizes**

Sign	Sign Designation	Section	Conventional Road	Freeway or Expressway
Reference Location (1 digit)	D10-1	2H.05	10 x 18	12 x 24
Intermediate Reference Location (2 digits)	D10-1a	2H.05	10 x 27	12 x 36
Reference Location (2 digits)	D10-2	2H.05	10 x 27	12 x 36
Intermediate Reference Location (3 digits)	D10-2a	2H.05	10 x 36	12 x 48
Reference Location (3 digits)	D10-3	2H.05	10 x 36	12 x 48
Intermediate Reference Location (4 digits)	D10-3a	2H.05	10 x 48	12 x 60
Enhanced Reference Location	D10-4	2H.06	18 x 54	18 x 54
Intermediate Enhanced Reference Location	D10-5	2H.06	18 x 60	18 x 60
Acknowledgement	D14-1	2H.08	36 x 30*	72 x 48*
Acknowledgement	D14-2	2H.08	36 x 30*	72 x 48*
Acknowledgement	D14-3	2H.08	42 x 24*	96 x 36*
Signals Set for XX MPH	I1-1	2H.03	24 x 36	—
Jurisdictional Boundary	I-2	2H.04	Varies x 18**	Varies x 36**
Geographical Features	I-3	2H.04	Varies x 18**	Varies x 36**
Airport	I-5	2H.02	24 x 24	30 x 30
Bus Station	I-6	2H.02	24 x 24	30 x 30
Train Station	I-7	2H.02	24 x 24	30 x 30
Library	I-8	2H.02	24 x 24	30 x 30
Vehicle Ferry Terminal	I-9	2H.02	24 x 24	30 x 30
Recycling Collection Center	I-11	2H.02	30 x 48	—
Light Rail Transit Station	I-12	2H.02	24 x 24	—

\* The size shown is the maximum size for the corresponding roadway classification. The size of the sign and acknowledgement 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 amount of legend required for the sign.

Notes: 1. Larger signs may be used when appropriate, except for the D14 series signs  
2. Dimensions in inches are shown as width x height

**Table 2H-1(CA). California General Information Sign Sizes**

Sign or Plaque	Sign Designation	Section	Conventional Road	Freeway or Expressway
Unincorporated Community	G9-2(CA)	2H.02	VAR x 18	VAR x 30
City Limit	G9-5(CA)	2H.02	VAR x 24	VAR x 42
County Line	G10(CA)	2H.02	VAR x 24	VAR x 36
Welcome To California	G10B(CA)	2H.02	60 x 36	132 x 84
County Line	G10-3(CA)	2H.02	60 x 30	90 x 42
WHERE WE HONOR VETERANS	G10-4(CA)	2H.02	60 x 9	90 x 12
Mountain Pass Elevation	G16(CA)	2H.02	VAR x 18	VAR x 36
Elevation	G17(CA)	2H.02	36 x 18	72 x 36
Conventional Airport	G94-1(CA)	2H.02	24 x 24	30 x 30
Coastal Access	SG28(CA)	2H.02	30 x 30	48 x 48
POST OFFICE with Symbol and Arrow	SG60(CA)	2H.02	42 x 30	---
USING RECLAIMED WATER	S28(CA)	2H.02	36 x 24	54 x 36
Watershed Boundary	S36(CA)	2H.02	48 x 54	48 x 54
ENTERING	S36A(CA)	2H.02	48 x 12	48 x 12
LEAVING	S36B(CA)	2H.02	48 x 12	48 x 12
Adopt-A-Highway	S32(CA)	2H.08	36 x 30*	54 x 42*
Adopt-A-Highway Symbol	S32A(CA)	2H.08	10 x 12*	15 x 18*
Adopt-A-Highway Recognition Panel	S32B(CA)	2H.08	30 x 15*	45 x 21*
Litter Removal	S32-1(CA)	2H.08	15 x 18*	15 x 18*
Wildflower Planting	S32-2(CA)	2H.08	15 x 18*	15 x 18*
Tree Planting	S32-3(CA)	2H.08	15 x 18*	15 x 18*
Graffiti Removal	S32-4(CA)	2H.08	15 x 18*	15 x 18*
Vegetation Control	S32-5(CA)	2H.08	15 x 18*	15 x 18*

\* The size shown is the maximum size for the corresponding roadway classification. The size of the sign and Adopt-A-Highway logo should be appropriately reduced where shorter legends are used.



## CHAPTER 2I. GENERAL SERVICE SIGNS

### Section 2I.01 Sizes of General Service Signs

**Standard:**

<sup>01</sup> Except as provided in Section 2A.11, the sizes of General Service signs that have a standardized design shall be as shown in Table 2I-1.

**Support:**

<sup>02</sup> Section 2A.11 contains information regarding the applicability of the various columns in Table 2I-1.

**Option:**

<sup>03</sup> Signs larger than those shown in Table 2I-1 may be used (see Section 2A.11).

### Section 2I.02 General Service Signs for Conventional Roads

**Support:**

<sup>01</sup> On conventional roads, commercial services such as gas-fuel, food, and lodging generally are within sight and are available to the road user at reasonably frequent intervals along the route. Consequently, on this class of road there usually is no need for special signs calling attention to these services. Moreover, General Service signing is usually not required in urban areas except for hospitals, law enforcement assistance, tourist information centers, and camping.

**Option:**

<sup>02</sup> General Service signs (see Figure 2I-1 and 2I-1(CA)) may be used where such services are infrequent and are found only on an intersecting highway or crossroad.

**Standard:**

<sup>03</sup> All General Service signs and supplemental sign panels shall have white letters, symbols, arrows, and borders on a blue background.

**Guidance:**

<sup>04</sup> General Service signs should be installed at a suitable distance in advance of the turn-off point or intersecting highway.

<sup>05</sup> 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:**

<sup>06</sup> Individual States may sign for whatever alternative fuels are available at appropriate locations.

**Standard:**

<sup>07</sup> General Service signs, if used at intersections, shall be accompanied by a directional message.

**Option:**

<sup>08</sup> The Advance Turn (M5 series) or Directional Arrow (M6 series) auxiliary signs with white arrows on blue backgrounds as shown in Figure 2I-1 may be used with General Service symbol signs to create a General Service Directional Assembly.

<sup>08a</sup> The NEXT RIGHT/LEFT (G58(CA)) Auxiliary sign may also be used in conjunction with the General Service signs.

<sup>09</sup> The General Service sign legends may be either symbols or word messages.

**Standard:**

<sup>10</sup> Symbols and word message General Service legends shall not be intermixed on the same sign. ~~The Pharmacy (D9-20) sign shall only be used to indicate the availability of a pharmacy that is open, with a State-licensed pharmacist present and on duty, 24 hours per day, 7 days per week, and that is located within 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.~~

**Support:**

<sup>11</sup> Formats for displaying different combinations of these services are described in Section 2I.03.

**Option:**

<sup>12</sup> If the distance to the next point at which services are available is 10 miles or more, a NEXT SERVICES XX MILES (D9-17P) plaque (see Figure 2I-2) may be installed below the General Service sign.

13 The International Symbol of Accessibility for the Handicapped (D9-6) sign may be used beneath General Service signs where paved ramps and rest room facilities accessible to, and usable by, the physically handicapped are provided.

*Guidance:*

14 *When the D9-6 sign is used in accordance with Paragraph 13, 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:*

15 The Recreational Vehicle Sanitary Station (D9-12) sign may be used as needed to indicate the availability of facilities designed for the use of dumping wastes from recreational vehicle holding tanks.

16 The Litter Container (D9-4) sign may be placed in advance of roadside turnouts or rest areas, unless it distracts the driver's attention from other more important regulatory, warning, or directional signs.

17 The Emergency Medical Services (D9-13) symbol sign may be used to identify medical service facilities that have been included in the Emergency Medical Services system under a signing policy developed by the State and/ or local highway agency.

**Standard:**

18 **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 identifying the type of service provided.**

*Option:*

19 The Emergency Medical Services symbol sign may be used above the HOSPITAL (D9-13aP) sign plaque or Hospital (D9-2) symbol sign plaque or above a sign 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), or POLICE (D9-14) signs.

**Standard:**

20 **The legend EMERGENCY MEDICAL CARE shall not be used for services other than qualified free-standing emergency medical treatment centers.**

*Guidance:*

21 *Each State should develop guidelines for the implementation of the Emergency Medical Services symbol sign.*

22 *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.32) and in urban areas.

**Standard:**

**<sup>02</sup> General Service signs shall have white letters, symbols, arrows, and borders 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. 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.**

**Option:**

<sup>03</sup> For numbered interchanges, the exit number may be incorporated within the sign legend (D9-18b) or displayed on an Exit Number (E1-5P) plaque (see Section 2E.31).

**Guidance:**

<sup>04</sup> *Distance to services should be displayed on General Service signs where distances are more than ± 0.5 mile.*

<sup>05</sup> *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.*

<sup>06</sup> *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 availability of the various types of services. The criteria should consider the following:*

A. ~~Gas-Fuel~~, Diesel, LP ~~Gas-Fuel~~, EV Charging, and/or other alternative fuels if all of the following are available:

1. Vehicle services such as ~~gas fuel~~, oil, and water;
2. Modern sanitary facilities and drinking water;
3. Continuous operations at least 16 hours per day, 7 days per week; and
4. Public telephone.

B. Food if all of the following are available:

1. Licensing or approval, where required;
2. Continuous operation to serve at least two meals per day, at least 6 days per week;
3. Public telephone; and
4. Modern sanitary facilities.

C. Lodging if all of the following are available:

1. Licensing or approval, where required;
2. Adequate sleeping accommodations;
3. Public telephone; and
4. Modern sanitary facilities.

D. Public Telephone if continuous operation, 7 days per week is available.

E. Hospital if continuous emergency care capability, with a physician on duty 24 hours per day, 7 days per week is available. A physician on duty would include the following criteria and should be signed in accordance with the priority as follows:

1. Physician on duty within the emergency department;
2. Registered nurse on duty within the emergency department, with a physician in the hospital on call; or
3. Registered nurse on duty within the emergency department, with a physician on call from office or home.

F. ~~24-Hour Pharmacy if a pharmacy is open, with a State-licensed pharmacist present and on duty, 24 hours per day, 7 days per week and is located within 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:**

<sup>07</sup> **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.**

~~<sup>08</sup> **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:**

<sup>08a</sup> The General Service signs may be located between the Advance Guide sign and the Exit Direction sign, in advance of the exit leading to the available services.

**Guidance:**

<sup>09</sup> The General Service sign should contain the interchange number, if any, as shown in Figure 2I-3.

**Option:**

<sup>10</sup> If the distance to the next point where services are available is greater than 10 miles, a NEXT SERVICES XX MILES (D9-17P) plaque (see Figure 2I-2) may be installed below the ~~Exit Direction sign~~ Advance Guide sign.

<sup>10a</sup> The NEXT RIGHT/LEFT (G58(CA)) Auxiliary sign may also be used in conjunction with the General Service signs.

**Standard:**

<sup>11</sup> 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 carry the legends for one or more of the following services: Food, Gas Fuel, Lodging, Camping, Phone, Hospital, ~~24-Hour Pharmacy~~, or Tourist Information.

<sup>12</sup> The qualified services available shall be displayed at specific locations on the sign.

<sup>13</sup> To provide flexibility for the future when the service might become available, the sign space normally reserved for a given service symbol or word shall be left blank when that service is not present.

**Guidance:**

<sup>14</sup> The standard display of word messages should be FOOD and PHONE in that order on the top line, and ~~GAS FUEL~~ and LODGING on the second line. If used, HOSPITAL and CAMPING should be on separate lines (see Figure 2I-3).

**Option:**

<sup>15</sup> Signing for DIESEL, LP-Gas Fuel, or other alternative fuel services may be substituted for any of the general services or appended to such signs. The International Symbol of Accessibility for the Handicapped (D9-6) sign (see Figure 2I-1) may be used for facilities that qualify.

**Guidance:**

<sup>16</sup> When symbols are used for the road user services, they should be displayed as follows:

A. Six services:

1. Top row—~~GAS~~ FUEL, FOOD, and LODGING
2. Bottom row—PHONE, HOSPITAL, and CAMPING

B. Four services:

1. Top row—~~GAS~~ FUEL and FOOD
2. Bottom row—LODGING and PHONE

C. Three services:

1. Top row—~~GAS~~ FUEL, FOOD, and LODGING

**Option:**

<sup>17</sup> Substitutions of other services for any of the services described in Paragraph 16 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 Fuel (D9-15) symbol may be substituted for the symbol representing fuel or appended to such assemblies. The Tourist Information (D9-10) symbol ~~or the 24-Hour Pharmacy (D9-20 and D9-20aP) symbol~~ may be substituted on any of the configurations provided in Paragraph 16.

**Guidance:**

<sup>18</sup> 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 supplemental plaque displaying one to three services (words or symbols) ~~may~~ should be appended below a post-mounted interchange guide sign.

**Standard:**

<sup>19</sup> ~~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 18 shall be removed and replaced with an independently mounted General Service sign as described in this Section.~~

**19a If more than four services become available, any appended sign panel shall be removed and replaced with an independently mounted General Service sign as described in this Section.**

**Option:**

20 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.

21 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.

22 In some locations, signs may be used to indicate that services are not available.

23 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.

**Option:**

24 General Service signs may be placed where appropriate, on freeways and expressways and for bypassed communities reasonably accessible from the highway.

**Guidance:**

25 *General Service signs should be considered only when there is an easy route for the road user to return to the freeway from the service facility.*

**Support:**

26 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.

27 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 predominately 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:**

28 **The following criteria shall apply to General Service signs:**

1. **The business shall be within 1,000 feet of the intersection.**
2. **Only Fuel, Food and Lodging symbol (G66(CA)) signs shall be used.**
3. **All other qualifying criteria for Fuel, Food and Lodging listed below shall be met.**
4. **New installations shall be mounted on existing sign supports.**

**Support:**

29 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:**

30 **General Service signs shall have a white retroreflective symbol or legend and border on a blue retroreflective background. Letter and numeral sizes shall conform to the minimum requirements of Table 2E-1 through 2E-5. Approved symbol signs shall be used in lieu of word messages, but symbol and word service message shall not be intermixed.**

31 **Follow-up signing, if necessary, shall be placed by local jurisdictions before General Service signs are placed on the State highway.**

**Guidance:**

32 *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:**

33 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 (G58(CA)) plaque.

*Guidance:*

<sup>34</sup> To avoid misleading the road user, those services that are more than 0.5 mile from the access point on the major route to the service, should have a distance plaque installed below the service sign.

*Support:*

<sup>35</sup> 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:*

<sup>36</sup> 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.

<sup>37</sup> Only services that fulfill the needs of the road user should be shown on General Service signs.

**Standard:**

<sup>38</sup> **Symbol signs shall be used for all new installations of the General Service signs and for all routine maintenance replacements.**

*Guidance:*

<sup>39</sup> The symbols should be placed below the first ground mounted Advance Guide (G83(CA) Series) sign.

*Option:*

<sup>40</sup> Where it is not possible to place them below an existing guide sign, they may be used individually on conventional highways or at the terminus of exit ramps.

*Guidance:*

<sup>41</sup> If placed separately, the NEXT RIGHT/LEFT (G58(CA)) auxiliary sign should be used with the symbol sign.

**Fuel (Gasoline, Diesel and Alternative Fuels) Signs (D9-7, D9-11, G66-11(CA), G66-11A(CA), G66-22A(CA), G66-22B(CA), G66-22C(CA), G66-22D(CA), G66-22E(CA), G66-22F(CA), G66-22G(CA), G66-22H(CA), G66-22J(CA), G66-22K(CA) and G81-52(CA))**

**Standard:**

- 1. The maximum distance to a service station shall be 0.5 mile and have reasonably direct access from and return to the highway.**

*Option:*

2. 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:**

- 3. Fuel, oil, compressed air, air gauge, radiator water, drinking water, telephone and restrooms shall be available during all service hours.**

*Guidance:*

4. The station should be open at least 12 hours a day.

**Standard:**

- 5. Where gasoline is available, the Gas (D9-7) symbol sign shall be used.**
- 6. Where gasoline and diesel is available, the Diesel Fuel (D9-11) symbol sign (with a superimposed "D") shall be used.**

*Option:*

7. The DIESEL (G66-12A(CA)) plaque may be used in addition to other appropriate service signs. Where neat (B100) Biodiesel (BD) fuel is available, the Biodiesel (G66-22C(CA)) symbol sign and BIODIESEL (G66-22D(CA)) supplemental plaque may be used in addition to the other appropriate signs.
8. Where liquefied petroleum gas is available; a LP GAS (G81-52(CA)) plaque may be used below either D9-7 or D9-11 sign.
9. Where methanol fuel is available, the Methanol Fuel (G66-11(CA)) symbol sign and METHANOL (G66-11A(CA)) plaque may be used in addition to other appropriate service signs.
10. The Compressed Natural Gas (G66-22A(CA)) sign may be used for Compressed Natural Gas Refueling Stations within 3 mile of a State highway and be available to the public at least 16 hours a day.
11. The Liquefied Natural Gas (G66-22B(CA)) sign may be used for Liquefied Natural Gas Refueling Stations within 3 mile of a State highway and be available to the public at least 16 hours a day.

12. Where ethanol E85 fuel is available, the Ethanol E85 (G66-22E(CA)) symbol sign and ETHANOL (G66-22F(CA)) supplemental plaque may be used in addition to the other appropriate signs.
13. Where hydrogen (H) fuel is available, the Hydrogen (G66-22G(CA)) symbol sign and HYDROGEN (G66-22H(CA)) supplemental plaque may be used in addition to the other appropriate signs.
14. Where only alternative fuels are available and gasoline and diesel fuels are not, the Alternative ALT (G66-22J(CA)) symbol sign (with superimposed "ALT") may be used with an Alternative Fuels (G66-22K(CA)) supplemental plaque mounted below.
15. Beneath the standard fuel symbol sign, per #5 or #6 above, or, the Alternative-ALT (G66-22J(CA)) symbol sign, the Alternative Fuels (G66-22K(CA)) supplemental plaque may list alternative fuels available with one fuel name or abbreviation per line. This supplemental plaque height may vary from 2 to 6 lines of text; and, may intentionally leave space(s) for an alternate fuel legend overlay(s) to be added at a future time.

**Standard:**

**16. Follow-up signing, if necessary, shall be placed by local agencies before signs are placed on the State highway.**

**Support:**

<sup>42</sup> The Department of Transportation may develop signs for future requests for alternative fuel signs, then share the signs with the California Traffic Control Devices Committee (CTCDC) in a subsequent meeting for informational purposes.

**Electric Vehicle Charging Station Signs (G66-21(CA))**

**Option:**

<sup>43</sup> The ELECTRIC VEHICLE CHARGING STATION (G66-21(CA)) sign may be used for Electric Vehicle Charging Stations within 3 mile of a State highway and be available to the public at least 16 hours a day.

**Standard:**

**<sup>44</sup> Follow-up signing, if necessary, shall be placed by local agencies before signs are placed on the State highway.**

**Option:**

<sup>45</sup> The Distance with Arrow (G66-21A(CA)) plaque may be used to supplement the G66-21(CA) sign to provide distance and directional information to the motorist.

**Food or Lodging Signs (D9-8 and D9-9)**

**Standard:**

**<sup>46</sup> 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 mile	2 Points
2 – 5 mile	1 Point
More than 5 mile	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 mile or more | 3 Points |
| 7 – 15 mile     | 2 Points |
| 3 – 7 mile      | 1 Point  |
| 3 mile 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 and D9-3a)**

**Option:**

<sup>47</sup> The Camping (D9-3 and D9-3a) signs may be placed for campgrounds providing individual service and utility hookups for one-night stops for travel trailers, campers and other recreational vehicles.

**Standard:**

<sup>48</sup> **To qualify for Camping (D9-3 and D9-3a) signs, 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 mile 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.**
6. **Follow-up signing shall be installed and maintained by local agencies where required for the logical direction of traffic.**

**Hospital Sign (D9-2 and D9-13)**

**Option:**

<sup>49</sup> Hospitals, as defined in California Code of Regulations, Title 22, Division 5, Chapter 1, Article 1, Section 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.

<sup>50</sup> 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.

<sup>51</sup> The D9-2 signs may be provided for hospitals in rural areas within 3 mile of a highway, accept emergency cases and have a doctor on call 24 hours a day.

<sup>52</sup> Exceptions to the distance requirement may be made in areas where hospitals are a great distance apart.

**Telephone Signs (D9-1, D9-1a and D9-1b)**

**Option:**

<sup>53</sup> The Telephone (D9-1, D9-1a and D9-1b) signs are 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))**

**Option:**

<sup>54</sup> The STAA Truck Service (G66-55(CA)) and STAA Truck Terminal Access (G66-56(CA)) signs may be placed by the Department of Transportation 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:

<sup>55</sup> More information on the National Network and State Terminal Access routes is available from the Office of Truck Services in Department of Transportation's 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/trucks/>

**STAA Definitions**

Support:

- **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 (KPRI) 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 KPRI 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 Truck Services in Department of Transportation's 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-semi-trailer 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:

<sup>56</sup> 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:**

<sup>57</sup> **STAA trucks shall not exit the STAA Network to obtain services unless the G66-55(CA) sign indicates egress.**

<sup>58</sup> **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:**

<sup>59</sup> 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 highways.) Highways 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.

##### **Standard:**

<sup>60</sup> STAA Truck Terminal Access (G66-56(CA)) signs shall be provided as follows:

1. **On State Highways:**
  - State route segments under consideration for Terminal Access shall meet all geometric criteria 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 designated system.
2. **On Local Highways:**
  - Signing of egress from a State Terminal Access route to a local Terminal Access route shall be done only if requested by the local jurisdiction and:
    - a) the local jurisdiction has informed the Department in writing that the local roads and intersections on the proposed local Terminal Access route meet all geometric criteria\* for STAA trucks and,
    - b) the State highway ramp or intersection meets all geometric criteria for STAA trucks.
  - \* - The geometric criteria involves using a STAA vehicle to design the intersection or ramp so that the STAA vehicle can stay in its lane without encroaching into the adjacent or opposing lane.
  - If the route passes through more than one local jurisdiction, the city or county where the terminal is located shall acquire concurrence from all affected jurisdictions before requesting access from the STAA Network. Per CVC 35401.5(d)(1)(2) "The denial of a request for access to terminals and services shall be only on the basis of safety and an engineering analysis of the proposed access route. If a written request for access has been properly submitted and has not been acted upon within 90 days of receipt by the Department or the appropriate local agency, the access shall be deemed automatically approved."
  - Local agency shall place G66-56(CA) signs at every critical decision point on the Terminal Access route, including a G66-56(CA) sign with END Auxiliary (M4-6) sign.
  - The State shall place a G66-56(CA) sign on the State route in advance of the ramp or intersection to the local Terminal Access highway.

##### **Guidance:**

- Local agencies should furnish Terminal Access route information to the Office of Truck Services for web publication. Some examples are available on the following web site: <http://www.dot.ca.gov/hq/traffops/trucks/truckmap/local-truck-routes.htm>

### **NEXT EXIT OK Sign (G66-56A(CA))**

Option:

<sup>61</sup> The NEXT EXIT OK (G66-56A(CA)) sign may be used below the appropriate G66-55(CA) or G66-56(CA) signs.

### **Law Enforcement Signs (G66-57(CA), G66-61(CA) and G66-62(CA))**

Option:

<sup>62</sup> The Highway Patrol (G66-57(CA)) signs may be placed for California Highway Patrol offices located within 1 mile of a highway.

<sup>63</sup> The Sheriff (G66-61(CA)) sign may be placed for a sheriff office located within 1 mile of a highway.

<sup>64</sup> The Police (G66-62(CA)) sign may be placed for a police station located within 1 mile of a highway.

### **Emergency Services Signs**

Option:

<sup>65</sup> Emergency Service signs, such as DRINKING WATER, RADIATOR WATER; etc. may be placed when appropriate.

### **Call Box Signs (SG25(CA), SG25A(CA) and SG41(CA))**

Support:

<sup>66</sup> 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.

<sup>67</sup> 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.

<sup>68</sup> 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.

<sup>69</sup> 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:

<sup>70</sup> The Call Box Adoption Plaque (SG25A(CA)) may be used to inform motorists on highways, that have the SAFE Call Box System, that a particular call box location or segment of highway has been adopted by an individual, organization or company.

#### **Standard:**

<sup>71</sup> When used, the SG25A(CA) sign shall be placed below the SG25(CA) sign.

Option:

<sup>72</sup> 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 (SG38(CA) and SG39(CA))**

Option:

<sup>73</sup> The CAL FIRE STATION NEXT RIGHT (SG38(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 mile of the exit and is open 24 hours each day of the year.

<sup>74</sup> The CAL FIRE STATION with Arrow (SG39(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 mile of the exit and is open 24 hours each day of the year.

#### **Fire Hydrant Signs (S9(CA) and S10(CA))**

<sup>75</sup> The Fire Hydrant Street Name (S9(CA)) or Fire Hydrant with Distance and Arrow (S10(CA)) sign may be used to mark the location of off right-of-way fire hydrants adjacent to freeways. A public entity may place blue reflective pavement markers on a State highway after first obtaining an encroachment permit from Department of Transportation. Refer to Health and Safety Code Section 13060. In many locations the off right-of-way fire hydrants may be out of view from the freeway. Some fire districts may want to install the S9(CA) and S10(CA) signs to identify the hydrant. These S9(CA) and S10(CA) sign installations are optional and at the discretion of the Department of Transportation District Engineer.

### **Section 2I.04 Interstate Oasis Signing**

#### **Support:**

<sup>01</sup> An Interstate Oasis is a facility near an Interstate highway that provides products and services to the public, 24-hour access to public restrooms, and parking for automobiles and heavy trucks. Interstate Oasis guide signs inform road users on Interstate highways as to the presence of an Interstate Oasis at an interchange and which businesses have been designated by the State within which they are traveling as having met the eligibility criteria of the Federal Highway Administration's Interstate Oasis policy. The FHWA's policy, which is dated October 18, 2006, and which can be viewed on the MUTCD website at <http://mutcd.fhwa.dot.gov/res-policy.htm>, provides a more detailed definition of an Interstate Oasis and specifies the eligibility criteria for an Interstate Oasis designation in compliance with the requirements of laws enacted by Congress.

#### **Guidance:**

<sup>02</sup> *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 FHWA's policy and with the provisions of this Section.*

<sup>03</sup> *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 have a white legend with a letter height of at least 10 inches and a white border on a blue background and should contain the words INTERSTATE OASIS and the exit number or, for an unnumbered interchange, an action message such as NEXT RIGHT. The names or logos of the businesses designated as Interstate Oases should not be included on this sign.*
- B. If the spacing of the other guide signs precludes the use of a separate sign as described in Item A, an INTERSTATE OASIS (D5-12P) supplemental plaque with a letter height of at least 10 inches and with a white legend and border on a blue background should be appended above or below an existing D9-18 series General Service sign for the interchange.*

<sup>04</sup> *If a separate Interstate Oasis (D5-12) sign is installed, an Interstate Oasis sign panel should be incorporated into the design of the sign (see Figure 2I-4).*

#### **Standard:**

<sup>05</sup> **The Interstate Oasis sign panel shall only be used on the separate Interstate Oasis sign where it is accompanied by the words INTERSTATE OASIS and shall not be used independently without the words.**

#### **Option:**

<sup>06</sup> If Specific Service signing is provided at the interchange, a business designated as an Interstate Oasis and having a business logo sign panel on the Food and/or Gas Specific Service signs may use the bottom portion of the business logo sign panel to display the word OASIS.

#### **Standard:**

<sup>07</sup> **If Specific Services signs containing the OASIS legend as a part of the business logo(s) are not used on the ramp and if the Interstate Oasis is not clearly visible and identifiable from the exit ramp, a sign with a white INTERSTATE OASIS legend with a letter height of at least 6 inches and a white border on a blue**

**background shall be provided on the exit ramp to indicate the direction and distance to the Interstate Oasis.**

**08 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**

### **Standard:**

**01 Rest Area signs (see Figure 2I-5 and 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 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 instead of REST AREA.*

*04 Rest areas that have tourist information and welcome centers should be signed as discussed 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 instead of REST AREA.*

*06 If a rest area or other roadside area is provided on a conventional road, a D5-1 and/or ~~D5-1b~~ 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 turnoff 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:**

**08 A ~~D5-2~~ D5-2a sign shall be placed at the rest area or other roadside area exit gore.**

### **Option:**

**09 A ~~D5-1b~~ 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 D5-1b sign with a distance to the nearest 1/2 or 1/4 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 XX MILES (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 the physically impaired (see Section 2I.02), the International Symbol of Accessibility for the Handicapped (D9-6) sign (see Figure 2I-1) may be placed with or beneath the REST AREA advance guide sign.**

**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 Wi-Fi (D9-22) symbol sign (see Figure 2I-1) may be used to supplement the advance guide signs for the rest area.**

**15 The alternate message VISTA POINT may be used on D5-1 signs in advance of a vista point.**

**16 When several rest areas are provided (or planned) on the same route, generally within one hour's drive, a NEXT REST (X MILE) Plaque (G79A(CA)) may be placed below the REST AREA (X MILE) (D5-1) sign.**

**17 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 the Department of Transportation to patrol a specific rest area.**

Support:

<sup>18</sup> Until all of a planned series of roadside rests are constructed, it will be appropriate to sign to rest areas greater than one hour's drive ahead.

Guidance:

<sup>19</sup> The REST AREA w/Arrow (D5-2b) sign should be placed, as a supplement to REST AREA (X MILE) (D5-1) sign, at the beginning of the deceleration lane leading to a roadside rest area. The sign should be used in lieu of an EXIT with Arrow (E5-1) sign at roadside rests.

Option:

<sup>20</sup> The Opposite Sex Attendant (S19(CA)) sign may be used for the use of restroom facilities at Safety Roadside Rest Areas to indicate that it is permissible for a disabled person to be accompanied in the restroom by his or her attendant, who may be a person of the opposite sex, to assist the disabled person. Refer to Streets and Highways Code Section 223.5.

<sup>21</sup> 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:

<sup>22</sup> When used, the pavement marking should be located so that it is visible when a vehicle is parked in the space.

Option:

<sup>23</sup> The Rattlesnakes Caution (S26(CA)) sign may be used in locations such as vista points and rest areas where pedestrians are present and rattlesnakes have been known to inhabit the area.

<sup>24</sup> The Rest Area/Vista Point 8 HOUR PARKING (S23(CA)) sign may be used to discourage extended stays in roadside rests or vista points.

<sup>25</sup> 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 Streets and Highways Code 225.5. See Section 1A.11 for information regarding this publication.

<sup>26</sup> The VENDING MACHINES (G81-63(CA)) sign may be placed below the REST AREA X MILE (D5-1) sign at those rest areas which provide vending machine services to the motorists on a 24 hour basis.

Guidance:

<sup>27</sup> The G81-63(CA) sign should be installed similar to the General Service (G66(CA) Series) signs in Section 2I.03, below the D5-1 sign.

Option:

<sup>28</sup> The REST AREA (X MILE) (D5-1) and REST AREA with Arrow (D5-2) signs may also be used with the message VISTA POINT, where appropriate.

## **Section 2I.06 Brake Check Area Signs (D5-13 and D5-14)**

Guidance:

<sup>01</sup> If an area has been provided for drivers to check the brakes on their vehicle, a BRAKE CHECK AREA XX MILES (D5-13) sign (see Figure 2I-6) should be installed in advance of the brake check area, and a D5-14 sign (see Figure 2I-6) should be placed at the entrance to the brake check area.

Support:

<sup>02</sup> The Brake Check Area (G66-58(CA), G66-59(CA) and G66-60(CA)) signs (see Figure 2I-6(CA)) are 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:

<sup>01</sup> If an area has been provided for drivers to pull off of the roadway to install chains on their tires, a CHAINUP AREA XX MILES (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**

### **Support:**

<sup>01</sup> 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:**

<sup>02</sup> *An excessive number of supplemental sign panels should not be installed with Tourist Information or Welcome Center signs so as not to overload the road user.*

### **Standard:**

<sup>03</sup> **Tourist Information or Welcome Center signs (see Figure 2I-7 and 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.**

<sup>04</sup> **If operated only on a seasonal basis, the Tourist Information or Welcome Center signs shall be removed or covered during the off seasons.**

### **Guidance:**

<sup>05</sup> *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 Advance Guide (D5-7) sign should be REST AREA, TOURIST INFO CENTER, XX MILES or REST AREA, STATE NAME (optional), WELCOME CENTER XX MILES. On the Exit Direction (D5-8 or D5-11) 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:**

<sup>06</sup> An alternative to the supplemental TOURIST INFO CENTER legend is the Tourist Information (D9-10) sign (see Figure 2I-1), which may be appended beneath the REST AREA advance guide sign.

<sup>07</sup> 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:**

<sup>08</sup> *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:**

<sup>09</sup> 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.

**Standard:**

11 **These signed facilities shall 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 shall 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 mile 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.*

**Standard:**

13 **The TOURIST INFORMATION (G81-21(CA) and G81-24(CA)) signs shall have a white legend and border on a blue background.**

**Guidance:**

14 *These signs should be placed beneath another primary guide sign.*

**Option:**

15 If no guide signs are available, the G81-21(CA) or G81-24(CA) signs may be placed as separate installations.

**Guidance:**

16 *Facilities should be within 0.5 mile of the highway and have reasonably direct access from, and return to, the highway.*

17 *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.*

18 *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.*

**Standard:**

19 **If operated only on a seasonal basis, where criteria cannot be met during closed periods, these signs shall be covered or removed.**

**Guidance:**

20 *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.*

**Option:**

21 As an alternative, the Information Symbol (D9-10) sign may be appended to the guide signs for the exit providing access to the tourist information center. As a second alternative, the D9-10 sign may be combined with General Service signing.

### **California Welcome Center Signs (SG47(CA) Series)**

**Option:**

22 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.

**Standard:**

**23 The facilities signed shall have a principal function of providing statewide tourist information. Centers that can be so designated shall 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.**

**24 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.**

**25 The SG47(CA) Series signs shall have a yellow welcome center logo, and a white legend and border on a blue background.**

*Guidance:*

*26 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.*

*27 Facilities should be within 3 mile in urban areas and 5 mile of a State highway and have reasonably direct access from, and return to, the highway.*

**Standard:**

**28 Follow-up signing, if necessary, shall be placed by local jurisdictions before these signs are placed on the State highway.**

**29 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:*

*30 The CALIFORNIA WELCOME CENTER X MILES (SG47A(CA)) sign may be placed on the nearest freeway approximately 2 mile, 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.*

*31 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.*

*32 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.*

*33 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:*

*34 The distance on the SG47D(CA) sign should be no more than 3 mile from the State highway.*

*Support:*

*35 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**

*Option:*

*01 Radio-Weather Information (D12-1) signs (see Figure 2I-8) may be used in areas where difficult driving conditions commonly result from weather systems. Radio-Traffic Information signs may be used in conjunction with traffic management systems.*

**Standard:**

**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. 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 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 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:**

**06 Radio-Weather and Radio-Traffic Information signs installed in rest areas shall be positioned such that they are not visible from the main roadway.**

*Option:*

*07 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:**

**08 Only official public agencies or their designee shall be displayed as the monitoring agency on the Channel 9 Monitored sign.**

*08a There are three types of radio information signs:*

- 1. Radio – Weather Information (D12-1)*
- 2. Radio – Traffic Information (D12-1)*
- 3. Radio – Recreational Information (G81-65(CA))*

**Standard:**

**08b Stations shall broadcast on AM or FM frequencies licensed by the Federal Communications Commission (FCC) for traveler information stations.**

**Radio – Weather Information (D12-1)**

*Option:*

*08c The D12-1 sign with alternate “Weather” message may be used on rural highways where weather conditions result in driving conditions less than optimum or to inform motorists of road or traffic conditions for highways and public inter-modal transportation facilities.*

*08d The criteria for D12-1 sign is as follows:*

**Standard:**

- 1 Only the numerical indication of the radio frequency shall be used to identify the broadcasting stations.**
- 2 If a station to be considered operates only on a seasonal basis, its signs shall be removed or covered during the off-season.**

*Guidance:*

- 3 The radio stations should have signal strength to adequately serve 70 mile along the roadway.*
- 4 Signs should be spaced according to need, but ordinarily not closer than 30 mile apart for each direction of travel.*
- 5 Only radio stations whose signal will be of value to the traveler and who agree to carry the two items below should be identified on this sign:
  - a. Periodic weather warnings at no more than 15-minute intervals during periods of adverse weather.*
  - b. Road condition information affecting the roadway being traveled, broadcasted once every half-hour when required, to be supplied by an official agency having jurisdiction.**

- 6 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:
- Maximum coverage to all motorists on both AM and FM frequencies, and
  - Consideration of 24 hours a day, 7 days a week broadcast capabilities.

Option:

- A maximum of three frequencies may be shown on each sign.
  - A particular radio frequency may be shown a maximum of twice in one direction along the mainline.
- <sup>08e</sup> The WHEN FLASHING (G81-64A(CA)) sign may be used with the D12-1 sign when messages are not broadcast full time and to accommodate "real-time" usage.

Guidance:

<sup>08f</sup> The G81-64A(CA) sign should be placed with flashing yellow beacons, above and on the same posts with the D12-1 sign.

### **Radio – Traffic Information (D12-1)**

Option:

<sup>08g</sup> The D12-1 sign with alternate "Traffic" message may be used to inform motorists of broadcasts about traffic conditions for highways and public inter-modal transportation facilities.

**Standard:**

<sup>08h</sup> **The radio station shall be operated by the public agency having jurisdiction over the transportation facility. The agency operating the station shall be responsible for monitoring and maintaining the system and changing the message content as situations warrant.**

### **Radio – Recreation Information (G81-65(CA))**

Option:

<sup>08i</sup> The G81-65(CA) sign (see Figure 2I-8(CA)) may be used on rural highways to inform travelers of broadcasts about State or federal parks and recreational facilities.

**Standard:**

<sup>08j</sup> **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:**

- Provides information about State or federal recreational facilities located in rural areas.
- Message content is devoted to public highway purposes.
- Broadcasts operate 24 hours per day and 7 days per week.
- Broadcasts contain no commercial messages.

<sup>08k</sup> **For installation of G81-65(CA) sign on State highways, the sign shall be installed by the permittee through the Department of Transportation's encroachment permit process. The costs, conditions of operation, and specific message content shall be clearly specified in the encroachment permit subject to the following terms and conditions:**

- The permittee is the State or federal agency that owns and/or operates the recreational facility.
- The permittee possesses a valid FCC license to operate the radio station as a traveler information station.
- The permittee is responsible for the accuracy of the message and message content.
- 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.

Option:

<sup>09</sup> An Emergency CALL XX (D12-4) sign (see Figure 2I-8), along with the appropriate number to call, may be used for cellular phone communications.

### **EMERGENCY CALL 9-1-1 (G81-61(CA) and G81-62(CA)) Signs**

**Option:**

<sup>10</sup> The EMERGENCY CALL 9-1-1 (G81-61(CA)) sign (see Figure 2I-8(CA)) may be placed below all new Unincorporated Community (G9-2(CA)), City Limit (G9-5(CA)) and County Line (G10(CA)) signs. The G81-61(CA) may also be placed below the existing G9-2(CA), G9-5(CA) and G10(CA) signs when they are changed for other purposes, such as updating population figures. The G81-61(CA) sign panel may be shorter than the G9-2(CA), G9-5(CA) and G10(CA) sign panel under which it is placed.

**Guidance:**

<sup>11</sup> *The G81-61(CA) sign panel should not be longer than the G9-2(CA), G9-5(CA) and G10(CA) sign panel under which it is placed.*

**Standard:**

<sup>12</sup> **The letter size used in the G81-61(CA) sign shall not exceed that of the words "City Limit" on the G9-5(CA) sign or the words "County Line" on the G10(CA) sign.**

**Option:**

<sup>13</sup> The EMERGENCY CALL 9-1-1 (G81-62(CA)) sign (see Figure 2I-8(CA)) may be installed on all State highways at state entry points.

**Guidance:**

<sup>14</sup> *The G81-62(CA) sign should be installed as a separate installation in an appropriate location following the Welcome To California (G10B(CA)) sign.*

**Option:**

<sup>15</sup> The G81-62(CA) sign (particularly the smaller version) may be used in place of the G81-61(CA) sign in installations requiring a shorter sign panel.

### **REPORT DRUNK DRIVERS CALL 911 (G81-66(CA)) Sign**

**Option:**

<sup>16</sup> The REPORT DRUNK DRIVERS CALL 911 (G81-66(CA)) Sign (see Figure 2I-8(CA)) may be installed on the roadway for safety enhancement.

## **Section 2I.10 TRAVEL INFO CALL 511 Signs (D12-5 and D12-5a)**

**Option:**

<sup>01</sup> A TRAVEL INFO CALL 511 (D12-5 or SG49A(CA)) sign (see Figure 2I-8 and 2I-8(CA)) 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.

<sup>02</sup> The pictograph of the transportation agency or the travel information service or program that is providing the travel information may be incorporated within the D12-5 sign either above or below the TRAVEL INFO CALL 511 legend.

**Standard:**

<sup>03</sup> **The logo of a commercial entity shall not be incorporated within the TRAVEL INFO CALL 511 sign.**

<sup>04</sup> **The TRAVEL INFO CALL 511 sign shall have a white legend and border on a blue background.**

**Guidance:**

<sup>05</sup> *If the pictograph of the transportation agency or the travel information service or program is used, the pictograph's maximum height should not exceed two times the letter height used in the legend of the sign.*

## **Section 2I.11 Carpool and Ridesharing Signing**

**Option:**

<sup>01</sup> In areas having carpool matching services, Carpool Information (D12-2) signs (see Figure 2I-8) may be provided adjacent to highways with preferential lanes or along any other highway.

<sup>02</sup> Carpool Information signs may include an Internet domain name or telephone number of more than four characters within the legend.

**Guidance:**

<sup>03</sup> *Because this is an information sign related to road user services, the Carpool Information sign should have a white legend and border on a blue background.*

**Standard:**

**<sup>04</sup> If a local transit pictograph or carpool symbol is incorporated into the Carpool Information sign, the maximum vertical dimension of the logo or symbol shall not exceed 18 inches.**

**Option:**

<sup>05</sup> The Ridesharing Information (SG19(CA)) sign (see Figure 2I-8(CA)) may be placed at selected locations for incoming traffic in urban areas.

<sup>06</sup> The Park & Ride Facility Information (SG20(CA)) sign (see Figure 2I-8(CA)) may be used to identify park and ride facilities provided for the use of car-poolers and transit users.

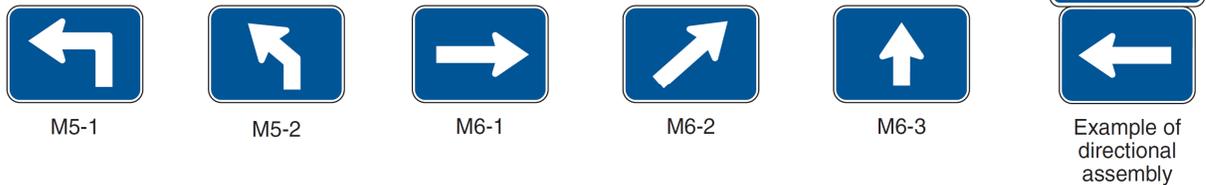
**Guidance:**

<sup>07</sup> *For freeways and expressways, the SG19(CA) sign locations should be no closer than 10 mile apart.*

**Figure 2I-1. General Service Signs and Plaques**



Advance Turn and Directional Arrow Auxiliary Signs for use with General Service Signs



**Figure 2I-1 (CA). General Service Signs and Plaques**

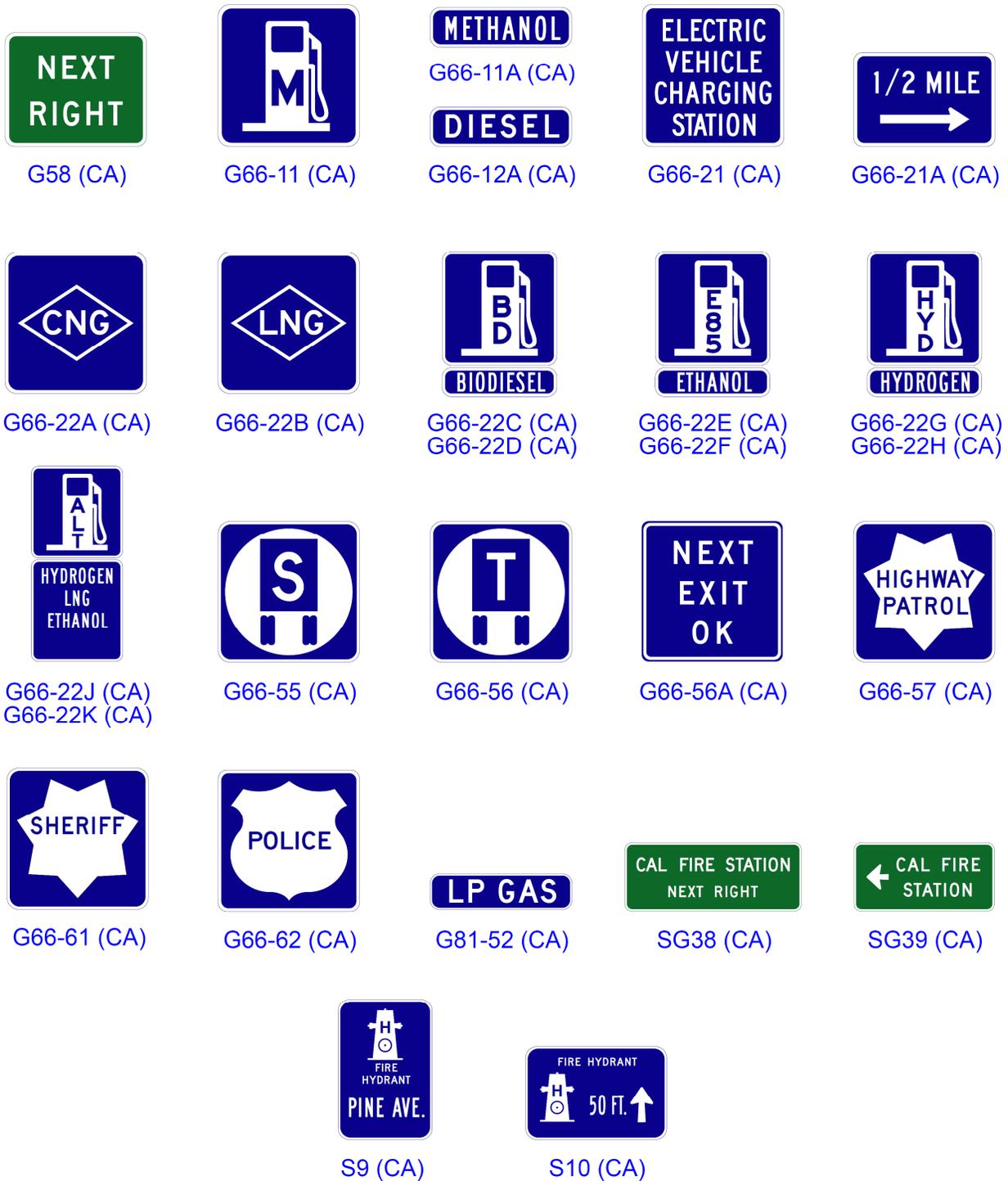
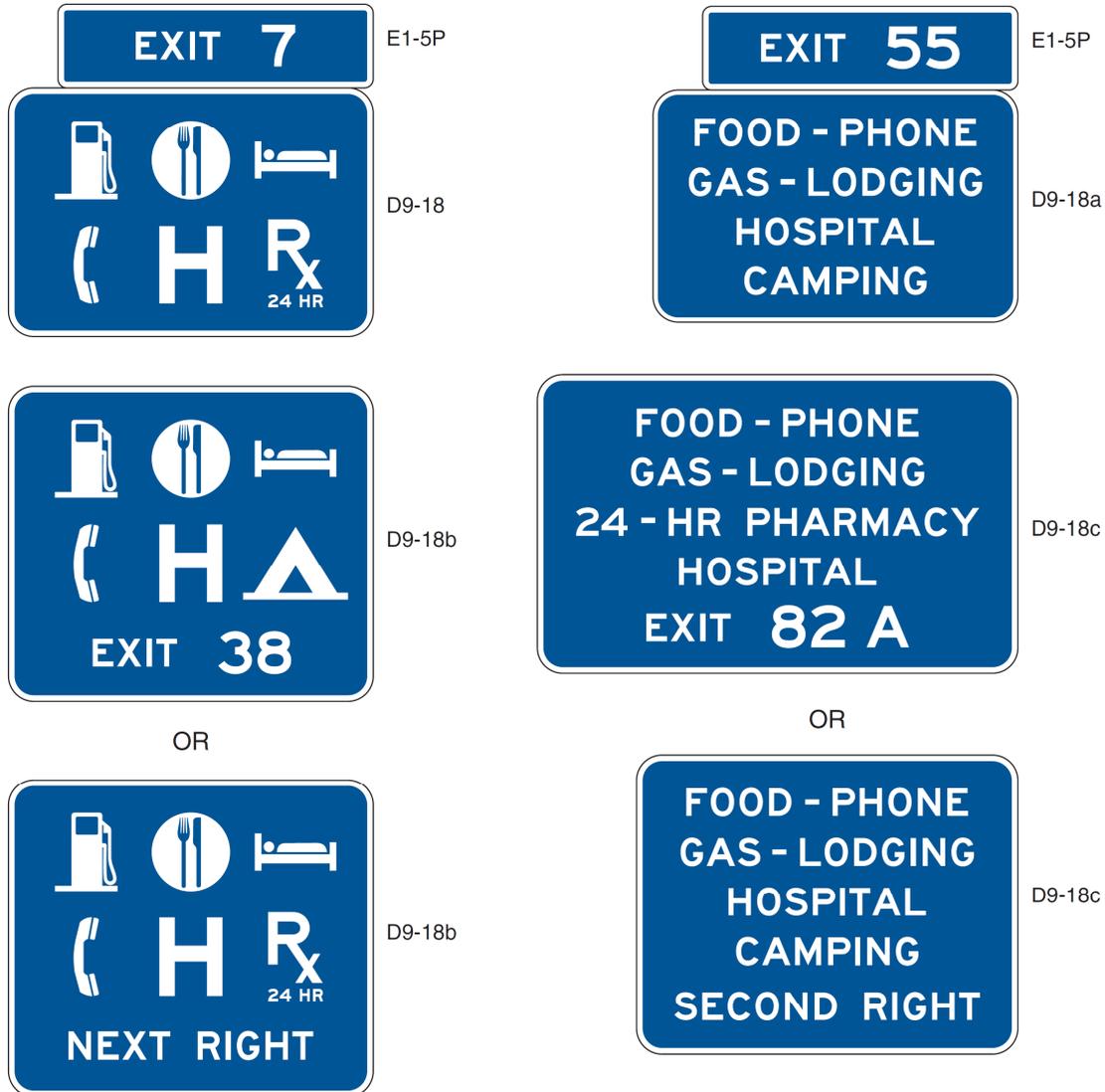


Figure 2I-2. Example of Next Services Plaque

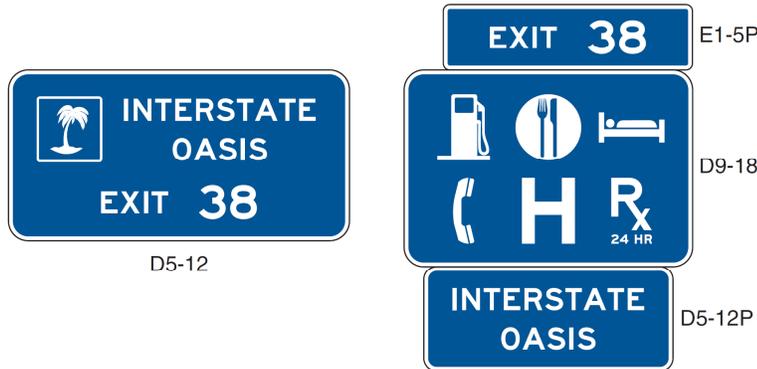


D9-17P

Figure 2I-3. Examples of General Service Signs with and without Exit Numbering



**Figure 2I-4. Examples of Interstate Oasis Signs and Plaques**



**Figure 2I-5. Rest Area and Other Roadside Area Signs**



**Figure 2I-5 (CA). Rest Area and Other Roadside Area Signs**



**Figure 2I-6. Brake Check Area and Chain-Up Area Signs**



**Figure 2I-6 (CA). Brake Check Area and Chain-Up Area Signs**



**Figure 2I-7. Examples of Tourist Information and Welcome Center Signs**



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). Examples of Tourist Information and Welcome Center Signs**



**Figure 2I-8. Radio, Telephone, and Carpool Information Signs**



D12-1



D12-2



D12-3



D12-4

\* 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.08)

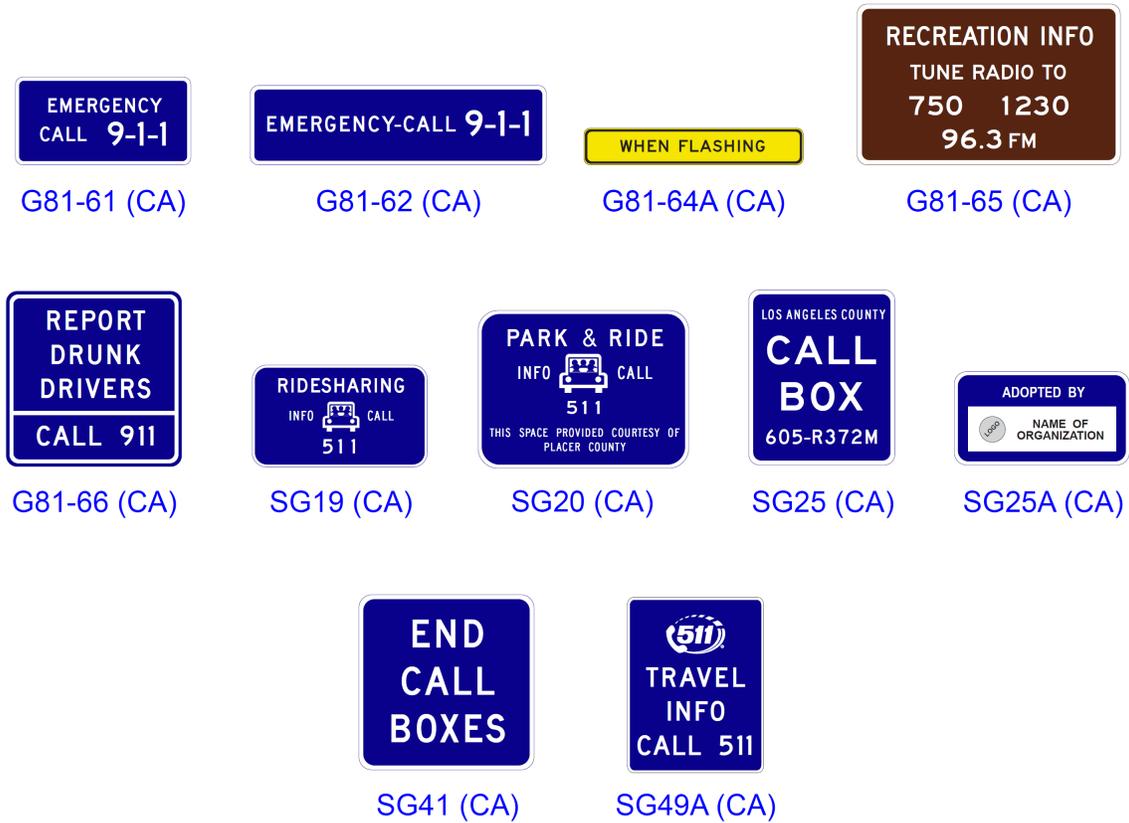


D12-5\*



D12-5a

**Figure 2I-8 (CA). Radio, Telephone, and Carpool Information Signs**



**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 XX Miles	D5-1	2I.05	66 x 36*	96 x 54*
Rest Area Next Right	D5-1a	2I.05	78 x 36*	120 x 60* (F) 114 x 48* (E)
Rest Area (with arrow)	D5-2	2I.05	66 x 36*	96 x 54*
Rest Area Gore	D5-2a	2I.05	42 x 48*	78 x 78* (F) 66 x 72* (E)
Rest Area (with horizontal arrow)	D5-5	2I.05	42 x 48*	—
Next Rest Area XX Miles	D5-6	2I.05	60 x 48*	90 x 72*
Rest Area Tourist Info Center XX Miles	D5-7	2I.08	90 x 72*	114 x 102* (F) 132 x 96* (E)
Rest Area Tourist Info Center (with arrow)	D5-8	2I.08	84 x 72*	120 x 102* (F) 120 x 96* (E)
Rest Area Tourist Info Center Next Right	D5-11	2I.08	90 x 72*	144 x 102* (F) 132 x 96* (E)
Interstate Oasis	D5-12	2I.04	—	156 x 78
Interstate Oasis (plaque)	D5-12P	2I.04	—	114 x 48
Brake Check Area XX Miles	D5-13	2I.06	84 x 48	126 x 72
Brake Check Area (with arrow)	D5-14	2I.06	78 x 60	96 x 72
Chain-Up Area XX Miles	D5-15	2I.07	66 x 48	96 x 72
Chain-Up Area (with arrow)	D5-16	2I.07	72 x 54	96 x 66
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
Trailer Camping	D9-3a	2I.02	24 x 24	30 x 30
Litter Container	D9-4	2I.02	24 x 30	36 x 48
Handicapped	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
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

**Table 2I-1. General Service Sign and Plaque Sizes (Sheet 2 of 2)**

Sign or Plaque	Sign Designation	Section	Conventional Road	Freeway or Expressway
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
Propane Gas	D9-15	2I.02	24 x 24	30 x 30
Truck Parking	D9-16	2I.02	24 x 24	30 x 30
Next Services XX Miles (plaque)	D9-17P	2I.02	102 x 24	156 x 30
General Services (up to 6 symbols)	D9-18	2I.03	—	96 x 60
General Services	D9-18a	2I.03	—	96 x 60
General Services (up to 6 symbols) with Action or Exit Information	D9-18b	2I.03	108 x 84	132 x 114 (F) 132 x 108 (E)
General Services with Action or Exit Information	D9-18c	2I.03	72 x 60**	132 x 108** (F) 108 x 84** (E)
Pharmacy	D9-20	2I.02	24 x 24	30 x 30
24-Hour (plaque)	D9-20aP	2I.02	24 x 12	30 x 12
Telecommunication Device for the Deaf	D9-21	2I.05	24 x 24	30 x 30
Wireless Internet	D9-22	2I.05	24 x 24	30 x 30
Weather Information	D12-1	2I.09	84 x 48	132 x 84
Carpool Information	D12-2	2I.11	60 x 42	96 x 66
Channel 9 Monitored	D12-3	2I.09	84 x 48	132 x 84
Emergency Call 911	D12-4	2I.09	66 x 30	96 x 48
Travel Info Call 511 (pictograph)	D12-5	2I.10	42 x 60	66 x 78
Travel Info Call 511	D12-5a	2I.10	48 x 36	66 x 48

\* The size shown is for a sign with a REST 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.

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	G58(CA)	2I.02, 2I.03	30 x 24	30 x 24
Methanol Fuel	G66-11(CA)	2I.03	24 x 24	30 x 30
METHANOL	G66-11A(CA)	2I.03	24 x 6	30 x 8
DIESEL	G66-12A(CA)	2I.03	24 x 6	30 x 8
ELECTRIC VEHICLE CHARGING STATION	G66-21(CA)	2I.03	24 x 24	30 x 30
Distance with Arrow	G66-21A(CA)	2I.03	24 x 16	30 x 18
Compressed Natural Gas	G66-22A(CA)	2I.03	24 x 24	30 x 30
Liquefied Natural Gas	G66-22B(CA)	2I.03	24 x 24	30 x 30
Biodiesel	G66-22C(CA)	2I.03	24 x 24	30 x 30
BIODIESEL	G66-22D(CA)	2I.03	24 x 6	30 x 8
Ethanol E85	G66-22E(CA)	2I.03	24 x 24	30 x 30
ETHANOL	G66-22F(CA)	2I.03	24 x 6	30 x 8
Hydrogen	G66-22G(CA)	2I.03	24 x 24	30 x 30
HYDROGEN	G66-22H(CA)	2I.03	24 x 6	30 x 8
Alternative ALT	G66-22J(CA)	2I.03	24 x 24	30 x 30
Alternative Fuels	G66-22K(CA)	2I.03	24 x 30	30 x 36
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	G66-56A(CA)	2I.03	30 x 30	30 x 30
Highway Patrol	G66-57(CA)	2I.03	24 x 24	30 x 30
BRAKE CHECK AREA	G66-58(CA)	2I.06	VAR x 36	VAR x 42
BRAKE CHECK AREA with Arrow	G66-59(CA)	2I.06	VAR x 42	VAR x 54
BRAKE CHECK AREA (X MILE)	G66-60(CA)	2I.06	VAR x 48	VAR x 66
Sheriff	G66-61(CA)	2I.03	24 x 24	30 x 30
Police	G66-62(CA)	2I.03	24 x 24	30 x 30
NEXT REST (X MILE)	G79A(CA)	2I.05	72 x 12	144 x 24
PATROLLED BY HIGHWAY PATROL	G80B(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
LP GAS	G81-52(CA)	2I.03	24 x 6	30 x 8
EMERGENCY CALL 9-1-1	G81-61(CA)	2I.09	VAR x 6	VAR x 18
EMERGENCY CALL 9-1-1	G81-62(CA)	2I.09	36 x 18	60 x 30
VENDING MACHINES	G81-63(CA)	2I.05	36 x 18	48 x 30
WHEN FLASHING	G81-64A(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.09	36 x 36	48 x 48
Ridesharing Information	SG19(CA)	2I.11	48 x 30	72 x 42
Park & Ride Facility Information	SG20(CA)	2I.11	48 x 36	66 x 54
Call Box	SG25(CA)	2I.03	18 x 24	30 x 36
Call Box Adoption Plaque	SG25A(CA)	2I.03	18 x 12	30 x 18
CAL FIRE STATION NEXT RIGHT	SG38(CA)	2I.03	78 x 30	102 x 36
CAL FIRE STATION with Arrow	SG39(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
TRAVEL INFO CALL 511	SG49A(CA)	2I.10	42 x 54	54 x 72
Fire Hydrant Street Name	S9(CA)	2I.03	12 x 18	---
Fire Hydrant with Distance and Arrow	S10(CA)	2I.03	18 x 12	---
Opposite Sex Attendant	S19(CA)	2I.05	12 x 12	---
Rest Area/Vista Point 8 HOUR PARKING	S23(CA)	2I.05	24 x 24	---
NO SOLICITING	S24(CA)	2I.05	24 x 18	---
Rattlesnakes Caution	S26(CA)	2I.05	26.75 x 23.5	---
Highway Patrol PARKING ONLY	S34(CA)	2I.05	12 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 services ~~and for eligible attractions~~. Eligible service categories shall be limited to gas, food, lodging, camping, attractions, and 24-hour pharmacies.**

#### Support:

<sup>01a</sup> California Streets and Highways Code, Division 1, Chapter 1, Article 3, Section 101.7 and California Code of Regulations, Title 21, Division 2, Chapter 19, Sections 2100 through 2120, do not include the "attractions" category.

#### ~~Guidance:~~

#### Standard:

**02 The use of Specific Service signs ~~should~~ shall be limited to areas primarily rural in character or to areas where adequate sign spacing can be maintained. Refer California Streets and Highways Code, Division 1, Chapter 1, Article 3, Section 101.7.**

#### Option:

<sup>03</sup> ~~Where an engineering study determines a need, Specific Service signs may be used on any class of highways.~~

#### Support:

<sup>03a</sup> California Streets and Highways Code, Division 1, Chapter 1, Article 3, Section 101.7 includes the use of specific service signs for freeways only.

#### ~~Guidance:~~

#### Standard:

**04 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:

<sup>04a</sup> Refer California Code of Regulations, Title 21, Division 2, Chapter 19, Section 2108(d).

#### Standard:

**05 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.**

~~**06 The attraction services shall include only facilities which have the primary purpose of providing amusement, historical, cultural, or leisure activities to the public.**~~

~~**07 Distances to eligible 24-hour pharmacies shall not exceed 3 miles in any direction of an interchange on the Federal-aid system.**~~

#### ~~Guidance:~~

~~<sup>08</sup> Except as provided in Paragraph 9, distances to eligible services other than pharmacies should not exceed 3 miles in any direction.~~

#### Option:

~~<sup>09</sup> If, within the 3-mile limit, facilities for the services being considered other than pharmacies are not available or choose not to participate in the program, the limit of eligibility may be extended in 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.~~

#### Guidance:

<sup>10</sup> If State or local agencies elect to provide Specific Service signing, there should be a statewide policy for such signing and criteria for the availability of the various types of services. The criteria should consider the following:

A. To qualify for a ~~GAS~~ **FUEL** logo sign panel, a business should have:

1. Vehicle services including gas and/or alternative fuels, 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;
3. Modern sanitary facilities and drinking water; and

4. *Public telephone.*
- B. *To qualify for a FOOD logo sign panel, a business should have:*
  1. *Licensing or approval, where required;*
  2. *Continuous operations to serve at least two meals per day, at least 6 days per week;*
  3. *Modern sanitary facilities; and*
  4. *Public telephone.*
- C. *To qualify for a LODGING logo sign panel, a business should have:*
  1. *Licensing or approval, where required;*
  2. *Adequate sleeping accommodations;*
  3. *Modern sanitary facilities; and*
  4. *Public telephone.*
- D. *To qualify for a CAMPING logo 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 logo sign panel, a facility should have:*~~
  1. ~~*Regional significance, in compliance with the provisions of Paragraph 6; and*~~
  2. ~~*Adequate parking accommodations.*~~

**Standard:**

~~11 If State or local agencies elect to provide Specific Service signing for pharmacies, both of the following criteria shall be met for a pharmacy to qualify for signing:~~

- ~~A. The pharmacy shall be continuously operated 24 hours per day, 7 days per week, and shall have a State licensed pharmacist present and on duty at all times; and~~
- ~~B. The pharmacy shall be located within 3 miles of an interchange on the Federal aid system.~~

Support:

<sup>12</sup> Section 2I.04 contains information regarding the Interstate Oasis program.

Support:

<sup>13</sup> Refer California Streets and Highways Code, Division 1, Chapter 1, Article 3, Section 101.7 and California Code of Regulations, Title 21, Division 2, Chapter 19, Sections 2100 through 2120 for detailed policies on specific service signs. See Section 1A.11 for information regarding these publications.

**Sign Eligibility Criteria**

**Standard:**

<sup>14</sup> A qualified specific service shall meet the following minimum criteria:

**1. Fuel**

The business:

- A. Shall be located not more than 1 mile from the interchange where the Logo Panel is to be displayed according to the State Measured Distance.
- B. Shall provide vehicle services, including but not limited to: fuel, oil, tire repair, battery, and radiator water.
- C. Shall provide public rest room facilities, each containing at least a sink, running water, and a flush toilet.
- D. Shall provide drinking water from a fountain or dispenser for public use.
- E. Shall provide a public telephone.
- F. Shall be open for business, with all of the above services and facilities available, and in a continuous operation, for at least 16 consecutive hours daily, seven (7) days a week, except that the qualified business shall not be considered to be in violation of this requirement when, as a result of a shortage of fuel, the facility is closed or when its hours of operation are reduced.
- G. Shall obtain and display any appropriate license or permit as may be required by law.
- H. A permittee may include the word "Diesel" or a Department of Transportation approved symbol for diesel, or the letters "LPG" for liquid propane fuel, or any other word or symbol that has been approved by the Department of Transportation which represent a type of fuel on the Logo Panel as specifically provided in the permit.

**2. Food**

The business:

- A. Shall be located not more than 3 mile from the interchange where the Logo Panel is to be displayed according to the State Measured Distance.
- B. Shall accumulate at least seven (7) points from the following four (4) categories, but at least one point must be accumulated from Category 3:

Category 1. If the State Measured Distance is:

- a. 0 to 0.5 mile, inclusive assign 3 points
- b. 0.5 to 1.0 mile, inclusive assign 2 points
- c. Over 1.0 to 3.0 mile, inclusive assign 1 point

Category 2. If the number of traffic control devices consisting of traffic signals or stop signs between said gore and said nearest driveway is:

- a. 0-1 device assign 3 points
- b. 2-3 devices assign 2 points
- c. 4-5 devices assign 1 point
- d. More than 5 devices assign 0 points

Category 3.

a. If the number of indoor seats totals:

- (1) 50 or more seats assign 3 points
- (2) 30 seats to 49 seats assign 2 points
- (3) 15 seats to 29 seats assign 1 point
- (4) Less than 15 seats assign 0 points

Or

b. If the parking facilities for drive-in or drive-through service totals:

- (1) 20 or more spaces assign 3 points
- (2) 11 spaces to 19 spaces assign 2 points
- (3) 5 spaces to 10 spaces assign 1 point
- (4) Less than 5 spaces assign 0 points

Category 4. When the distance as measured from said gore of the interchange where the Logo Panel is to be displayed to the gore of the next exit served by a food establishment which business would qualify for signing is:

- a. Over 10 mile assign 3 points
- b. Over 3 to 10 mile, inclusive assign 2 points
- c. 1 to 3 mile, inclusive assign 1 point
- d. Less than 1 mile assign 0 points

- C. Shall be in compliance with respect to licensing, approval, and regulation by any state agency and/or any political subdivision of the state having or exercising jurisdiction over the business premises. Licenses and permits required and issued by the state or its political subdivisions shall be displayed on the premises.
- D. Shall provide a public telephone.
- E. Shall provide public rest room facilities, each containing at least a sink, running water, and a flush toilet.
- F. Shall be open for business, with all the above services and facilities available, and in continuous operation for at least 12 consecutive hours daily, beginning not later than 7 a.m., six (6) days a week, and serving breakfast, lunch, and dinner.

**3. Lodging**

The business:

- A. Shall be located not more than 3 mile from the interchange where the Logo Panel is to be displayed according to the State Measured Distance.
- B. Shall accumulate at least seven (7) points from the following four (4) categories:

Category 1. If the State Measured Distance is:

- a. 0 to 0.5 mile, inclusive assign 3 points
- b. Over 0.5 to 1.0 mile, inclusive assign 2 points
- c. Over 1.0 to 3.0 mile, inclusive assign 1 point

**Category 2.** If the number of traffic control devices consisting of traffic signals or stop signs between said gore and said nearest driveway is:

- |    |                     |                 |
|----|---------------------|-----------------|
| a. | 0-1 device          | assign 3 points |
| b. | 2-3 devices         | assign 2 points |
| c. | 4-5 devices         | assign 1 point  |
| d. | More than 5 devices | assign 0 points |

**Category 3.** If the number of lodging units, each with private bath facilities, is:

- |     |                      |                 |
|-----|----------------------|-----------------|
| (1) | 50 or more units     | assign 3 points |
| (2) | 30 units to 49 units | assign 2 points |
| (3) | 15 units to 29 units | assign 1 point  |
| (4) | Less than 15 units   | assign 0 points |

**Category 4.** When the distance as measured from said gore of the interchange where the Logo Panel is to be displayed to the gore of the next exit served by a lodging establishment which would qualify for signing is:

- |    |                              |                 |
|----|------------------------------|-----------------|
| a. | Over 10 mile                 | assign 3 points |
| b. | Over 3 to 10 mile, inclusive | assign 2 points |
| c. | 1 to 3 mile, inclusive       | assign 1 point  |
| d. | Less than 1 mile             | assign 0 points |

- C. Shall be in compliance with respect to licensing, approval, and regulation by any state agency and/or any political subdivision of the state having or exercising jurisdiction over the business premises. Any licenses or permits, which are issued by the state or a local governmental body, shall be displayed on the premises.
- D. Shall provide at least one off-street passenger vehicle parking space for each lodging unit available for rent.
- E. Shall provide a public telephone.
- F. Shall be open for business, with all of the above services and facilities available, and in continuous operation 24 hours a day, seven (7) days a week.

**4. Camping**

The business:

- A. Shall be located not more than 10 mile from the interchange where the Logo Panel is to be displayed according to the State Measured Distance.
- B. Shall be in compliance with respect to licensing, approval, and regulation by any state agency and/or any political subdivision of the state having or exercising jurisdiction over the business premises or be operated by a governmental agency. Any license or permits, which are issued by the state or a local governmental body, shall be displayed on the premises.
- C. Must establish eligibility under at least one of the following three criteria:
  - 1. Shall have not less than 25 vehicular overnight camping units or spaces available for rent. Each unit or space must provide individual service and utility hook-ups suitable for travel trailers, campers, and other recreational vehicles. The facility shall be accessible to and capable of accommodating all types of recreational vehicles, travel trailers and campers.
  - 2. Shall have not less than 15 overnight camping units or spaces available, which will accommodate tents, and have at least one vehicle parking space for each unit or space available for rent. Shall have sanitary facilities, and drinking water for the units or spaces, but not necessarily at each individual campsite.
  - 3. Shall have not less than 30 overnight camping units or spaces available, consisting of a combination of the types specified in items A. and B. herein and above.
- D. Shall have an attendant on duty 24 hours a day to manage and maintain the facility while it is open for business.
- E. Shall be open for business and in continuous operation 24 hours a day, seven (7) days a week, except that seasonally the facility may be closed to the public for not more than 150 consecutive days, provided the Department has received proper notification together with a request to cover or remove all Logo Panels fastened to the Specific Service Signs.

**5. "Fuel", "Food", "Lodging" and "Camping"**

A Qualified Specific Service Business shall give written assurances of its conformity with all applicable laws concerning the provisions of public accommodations without regard to race, sex, religion, color, or national origin and shall not be in continuing breach of that assurance.

## 6. Equal Access

- A. The order of priority for granting permits to "LODGING" or "CAMPING" businesses for the installation of their Logo Panels on Specific Service (Mainline) Signs or Specific Service (Ramp) Signs, when applications are received from a greater number of Qualified Specific Service Businesses which meet the minimum eligibility criteria than there is space available on the Specific Service Sign, shall be determined based upon the State Measured Distance; with first priority going to the closest business, second priority to the next closest business, and so on until all available space on the Specific Service Sign has been allocated. The same order of priority shall apply when the maximum number of permits has been issued and a new application is received from a Qualified Specific Service Business located closer to the interchange than another qualified business, which is already signed.
- B. The order of priority for granting permits to "FOOD" or "FUEL" businesses for the installation of their Logo Panels on Specific Service (Mainline) Signs or Specific Service (Ramp) Signs, when applications are received from a greater number of Qualified Specific Service Businesses which meet the eligibility criteria than there is space available on the Specific Service Sign, shall be based upon the highest point accumulation from the following two (2) categories:

Category 1. If the State Measured Distance is:

- |    |                                 |                 |
|----|---------------------------------|-----------------|
| a. | 0 to 0.5 mile, inclusive        | assign 3 points |
| b. | Over 0.5 to 1.0 mile, inclusive | assign 2 points |
| c. | Over 1.0 to 3.0 mile, inclusive | assign 1 point  |

Category 2. If the business is open:

- |    |                     |                 |
|----|---------------------|-----------------|
| a. | 20-24 hours per day | assign 3 points |
| b. | 16-20 hours per day | assign 2 points |
| c. | 12-16 hours per day | assign 1 point  |

<sup>15</sup> The same order of priority shall apply when the maximum number of permits has been issued and a new application is received from a Qualified Specific Service Business with a higher point accumulation than another qualified business, which is already signed.

## Section 2J.02 Application

### **Standard:**

<sup>01</sup> The number of Specific Service signs along an approach to an interchange or intersection, regardless of the number of service types displayed, shall be limited to a maximum of four. In the direction of traffic, successive Specific Service signs shall be for ~~24-hour pharmacy, attraction,~~ camping, lodging, food, and gas services, in that order.

<sup>02</sup> A Specific Service sign shall display the word message **GAS FUEL, FOOD, LODGING, CAMPING, ATTRACTION,** or ~~24-HOUR PHARMACY,~~ an appropriate directional legend such as the word message **EXIT XX, NEXT RIGHT, SECOND RIGHT,** or directional arrows, and the related logo sign panels.

<sup>03</sup> No more than ~~three~~ **two** types of services shall be represented on any sign or sign assembly. If ~~three~~ **two** types of services are displayed on one sign, then the logo sign panels shall be limited to ~~two~~ **three** for each service type (for a total of six logo sign panels). Refer California Code of Regulations, Title 21, Division 2, Chapter 19, Section 2110(f). If two types of services are displayed on one sign, then the logo sign panels shall be limited to either three for each service type (for a total of six logo sign panels) or four for one service type and two for the other service type (for a total of six logo sign panels). The legend and logo sign 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.

<sup>04</sup> No service type shall appear on more than two signs (see Paragraph 6).

<sup>05</sup> The signs shall have a blue background, a white border, and white legends of upper-case letters, numbers, and arrows.

### **Support:**

<sup>05a</sup> California Streets and Highways Code, Division 1, Chapter 1, Article 3, Section 101.7 and California Code of Regulations, Title 21, Division 2, Chapter 19, Sections 2100 through 2120, do not include the "attractions" category.

<sup>05b</sup> In California, the generic term FUEL is used for GAS.

*Guidance:*

<sup>06</sup> Where a service type is displayed on two signs, the signs for that service should follow one another in succession.

<sup>07</sup> The Specific Service signs should be located to take advantage of natural terrain, to have the least impact on the scenic environment, and to avoid visual conflict with other signs within the highway right-of-way.

*Option:*

<sup>08</sup> General Service signs (see 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.

*Support:*

<sup>09</sup> Examples of Specific Service signs are shown in Figure 2J-1 and 2J-1(CA). Examples of sign locations are shown in Figure 2J-2.

### **Section 2J.03 Logos and Logo Sign Panels**

**Standard:**

<sup>01</sup> A logo shall be either an identification symbol/trademark or a word message. Each logo shall be placed on a separate logo sign panel that shall be attached to the Specific Service sign. Symbols or trademarks used alone for a logo shall be reproduced in the colors and general shape consistent with customary use, and any integral legend shall be in proportionate size. A logo that resembles an official traffic control device shall not be used.

*Guidance:*

<sup>02</sup> A word message logo, not using a symbol or trademark, should have a blue background with white legend and border.

*Support:*

<sup>03</sup> Section 2J.05 contains information regarding the minimum letter heights for logo sign panels.

*Option:*

<sup>04</sup> Where business identification symbols or trademarks are used alone for a logo, the border may be omitted from the logo sign panel.

<sup>05</sup> A portion of a logo sign panel may be used to display a supplemental message horizontally along the bottom of the logo sign panel, provided that the message displays essential motorist information (see Figure 2J-3).

**Standard:**

<sup>06</sup> All supplemental messages shall be displayed within the logo sign panel and shall have letters and numerals that comply with the minimum height requirements shown in Table 2J-1.

*Guidance:*

<sup>07</sup> A logo sign panel should not display more than one supplemental message.

<sup>08</sup> The supplemental message should be displayed in a color to contrast effectively with the background of the business sign or separated from the other legend or logo by a divider bar.

<sup>09</sup> State or local agencies that elect to allow supplemental messages on logo sign panels should develop a statewide policy for such messages.

*Support:*

<sup>10</sup> Typical supplemental messages might include DIESEL, 24 HOURS, CLOSED and the day of the week when the facility is closed, ALTERNATIVE FUELS (see Section 2I.03), and RV ACCESS.

*Option:*

<sup>11</sup> The RV ACCESS supplemental message may be circular.

**Standard:**

<sup>12</sup> If the RV ACCESS supplemental message is circular, it shall be the abbreviation RV in black letters inside a yellow circle with a black border and it shall be displayed within the logo sign panel near the lower right-hand corner (see Figure 2J-4).

*Guidance:*

<sup>13</sup> If the circular RV ACCESS supplemental message is used, the circle should have a diameter of 10 inches and the letters should have a height of 6 inches.

<sup>14</sup> 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 or the RV Access circular

*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:

15 If a business designated as an Interstate Oasis (see Section 2I.04) has a business logo sign panel on the Food and/or Gas Specific Service signs, the word OASIS may be displayed on the bottom portion of the logo sign panel for that business.

**Standard:**

16 **A logo sign panel shall not display the symbol/trademark or name of more than one business.**

## **Section 2J.04 Number and Size of Signs and Logo Sign Panels**

*Guidance:*

01 *Sign sizes should be determined by the amount and height of legend and the number and size of logo sign panels attached to the sign. All logo 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 logo 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 California Code of Regulations, Title 21, Division 2, Chapter 19, Section 2110(f).**

Option:

03 ~~Where more than six businesses of a specific service type are eligible for logo sign panels at the same interchange, additional logo sign panels of that same specific service type may also be displayed in accordance with the provisions of Paragraph 4. The additional logo sign panels may be displayed either by placing more than one specific service type on the same sign (see Paragraph 3 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 6 of Section 2J.02).~~

**Standard:**

04 ~~Where logo sign panels for more than six businesses of a specific service type are displayed at the same interchange or intersection approach, the following provisions shall apply:~~

~~A. No more than 12 logo sign panels of a specific service type shall be displayed on no more than two Specific Service signs or sign assemblies;~~

~~B. No more than six logo sign panels shall be displayed on a single Specific Service sign; and~~

~~C. No more than four Specific Service signs shall be displayed on the approach.~~

Support:

05 Section 2J.08 contains information regarding Specific Service signs for double-exit interchanges.

**Standard:**

06 **Each logo sign panel attached to a Specific Service sign shall have a rectangular shape with a width longer than the height. A logo sign panel on signs for freeways and expressways shall not exceed 60 inches in width and 36 inches in height. A logo sign panel on signs for conventional roads and freeway and expressway ramps shall not exceed 30 inches in width and 18 inches in height. California Streets and Highways Code, Division 1, Chapter 1, Article 3, Section 101.7 includes the use of specific service signs for freeways only. The vertical and horizontal spacing between logo sign panels shall not exceed 8 inches and 12 inches, respectively.**

06a **A logo panel on signs for the mainline shall be 48 inch in width and 36 inch in height.**

06b **A logo panel on signs for the ramps shall be 18 inch in width and 12 inch in height.**

Support:

07 Sections 2A.14, 2E.15, and 2E.16 contain information regarding borders, interline spacing, and edge spacing.

## **Section 2J.05 Size of Lettering**

**Standard:**

01 **All Specific Service signs and logo sign panels shall have letter and numeral sizes that comply with the minimum requirements of Table 2J-1.**

*Guidance:*

*02 Any legend on a symbol/trademark should be proportional to the size of the symbol/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).**

*Guidance:*

*02 There should be at least an 800 foot spacing between the Specific Service signs, except for Specific Service ramp signs. However, excessive spacing is not desirable. Specific Service ramp signs should be spaced at least 100 feet from the Exit Gore sign, from each other, and from the ramp terminal.*

**Standard:**

**03 Specific Service signs shall be located between the previous interchange and sufficiently in advance of the approaching interchange so that the last sign is at least 0.25 mile in advance of the gore of the approaching interchange with at least 800 foot spacing between all Specific Service signs and between Specific Service signs and guide signs. Refer California Code of Regulations, Title 21, Division 2, Chapter 19, Section 2108(a).**

*Option:*

*04 At the discretion of the Department of Transportation, 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.*

## **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 logo sign panels. At unnumbered interchanges, the directional legend NEXT RIGHT (LEFT) shall be used.**~~

**02 At single-exit interchanges, Specific Service ramp signs shall be installed along the ramp or at the ramp terminal for facilities that have logo sign panels displayed along the main roadway if the facilities are not readily visible from the ramp terminal. Directions to the service facilities shall be indicated by arrows on the ramp signs. Logo sign 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 6 of Section 2J.04).**

*Guidance:*

*03 Specific Service ramp signs should include distances to the service facilities.*

*Option:*

*04 An exit number plaque (see Section 2E.31) may be used instead of the exit number on the signs located in advance of an interchange.*

**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 At numbered interchanges, the name of the service type followed by the appropriate exit number shall be displayed on one line above the logo panels for SG42-1(CA) and SG42-2(CA) signs.**

*Option:*

*08 At unnumbered interchanges, the directional legend NEXT RIGHT (LEFT), SECOND RIGHT (LEFT), NEXT EXIT, or SECOND EXIT may be used in place of the exit number for SG42-1(CA) and SG42-2(CA) signs.*

**Standard:**

**09 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.**

**10 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.**

**11 At numbered interchanges, the appropriate exit number shall be displayed on the first line and the name of each service type shall be displayed above the logo panels for SG42-6(CA) and SG42-7(CA) signs.**

Option:

**12 At unnumbered interchanges, the directional legend NEXT RIGHT (LEFT), SECOND RIGHT (LEFT), NEXT EXIT, or SECOND EXIT may be used in place of the exit number for SG42-6(CA) and SG42-7(CA) signs.**

**Standard:**

**13 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.**

**14 At numbered interchanges, the name of the service type shall be displayed above the logo panel and the appropriate exit number shall be displayed above the service type.**

Option:

**15 At unnumbered interchanges, the directional legend NEXT RIGHT (LEFT), SECOND RIGHT (LEFT), NEXT EXIT, or SECOND EXIT may be used in place of the exit number for the SG42-9(CA) sign.**

**Standard:**

**16 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.**

**17 At numbered interchanges, the name of the service type followed by the appropriate exit number shall be displayed on one line above the logo panels for the SG42-10(CA) sign.**

Option:

**18 At unnumbered interchanges, the directional legend NEXT RIGHT (LEFT), SECOND RIGHT (LEFT), NEXT EXIT, or SECOND EXIT may be used in place of the exit number for the SG42-10(CA) sign.**

## **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 logo sign panels for the first exit and the bottom section shall display the logo sign panels for the second exit. At numbered interchanges, the name of the service type and the exit number shall be displayed above the logo 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 logo 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 logo sign panels for that service type for the businesses that are accessible from one of the two exits and the other sign should display the logo sign panels for that service type for the businesses that are accessible from the other exit.*

Option:

**04 At a double-exit interchange where there are four logo sign panels to be displayed for one of the exits and one or two logo sign panels to be displayed for the other exit, the logo sign panels may be arranged in three rows with two logo sign panels per row.**

**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. Signs on ramps and crossroads as described in Section 2J.07 may be used at a double-exit interchange.**

**Standard:**

**06 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.**

**07 At numbered interchanges, the name of the service type followed by the appropriate exit number shall be displayed on one line above the logo panels for the SG42-3(CA) sign.**

Option:

**08 At unnumbered interchanges, the directional legend NEXT RIGHT (LEFT), SECOND RIGHT (LEFT), NEXT EXIT, or SECOND EXIT may be used in place of the exit number for the SG42-3(CA) sign.**

**Standard:**

**09 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 than two from each exit.**

**10 At numbered interchanges, the name of the service type followed by the appropriate exit number shall be displayed on one line above the logo panels for the SG42-11(CA) sign.**

Option:

**11 At unnumbered interchanges, the directional legend NEXT RIGHT (LEFT), SECOND RIGHT (LEFT), NEXT EXIT, or SECOND EXIT may be used in place of the exit number for the SG42-11(CA) sign.**

### **Section 2J.09 Specific Service Trailblazer Signs**

Support:

**01 Specific Service trailblazer signs (see Figure 2J-5) are guide signs with one to four logo sign panels that display business identification and directional information for services and for eligible attractions. Specific Service trailblazer signs are installed along crossroads for facilities that have logo sign panels displayed along the main roadway and ramp, and that require additional vehicle maneuvers.**

**Standard:**

**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 logo sign panels. The logo 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 word message NEXT RIGHT or SECOND RIGHT, shall be displayed with the logo sign panel to provide proper guidance. The directional legend and border shall be white and shall be displayed on a blue background.**

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.10 Signs at Intersections**

**Standard:**

~~**01 Where both tourist-oriented information (see Chapter 2K) and specific service information would be needed at the same intersection, the design of the tourist-oriented directional signs shall be used, and the needed specific service information shall be incorporated.**~~

*Guidance:*

~~02 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.~~

~~03 The spacing between signs should be determined on the basis of an engineering study.~~

~~04 Logo 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 logo 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 logo 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 California Streets and Highways Code, Division 1, Chapter 1, Article 3, Section 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 California Streets and Highways Code, Division 1, Chapter 1.5, Article 3, Section 229.285.

## Section 2J.11 Signing Policy

*Guidance:*

01 Each highway agency that elects to use Specific Service signs should establish a signing policy that includes, as a minimum, the guidelines of Section 2J.01 and at least the following criteria:

A. Selection of eligible businesses;

B. Distances to eligible services;

C. The use of logo sign panels, legends, and signs conforming with this Manual and State design requirements;

D. Removal or covering of logo 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 logo sign panels.

**Support:**

02 California Streets and Highways Code, Division 1, Chapter 1, Article 3, Section 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.

03 California Code of Regulations, Title 21, Division 2, Chapter 19, Sections 2100 through 2120 contain standards for the Specific Service Signs (Logo Sign Program).

**Standard:**

04 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 the Department of Transportation based on the most recent United States Bureau of Census data.

05 When a geographic area exceeds a population of 5,000, Specific Service signs in that area, which were in place prior to the population increase, shall remain in place until new census data shows population levels exceeding 10,000. The Specific Service signs shall then be removed.

## 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 (See Section 2J.07 and 2J.08). As viewed in the direction of travel, the successive signs shall be those for "CAMPING," "LODGING," "FOOD," and "FUEL" in that order.

**02 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:

03 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.

04 The Department of Transportation 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.

05 Appropriate trailblazers may be required by the Department along other public highways as necessary to adequately direct motorists to the business referred to on any Logo Panel.

**Standard:**

**06 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:

07 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.

08 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.

09 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.

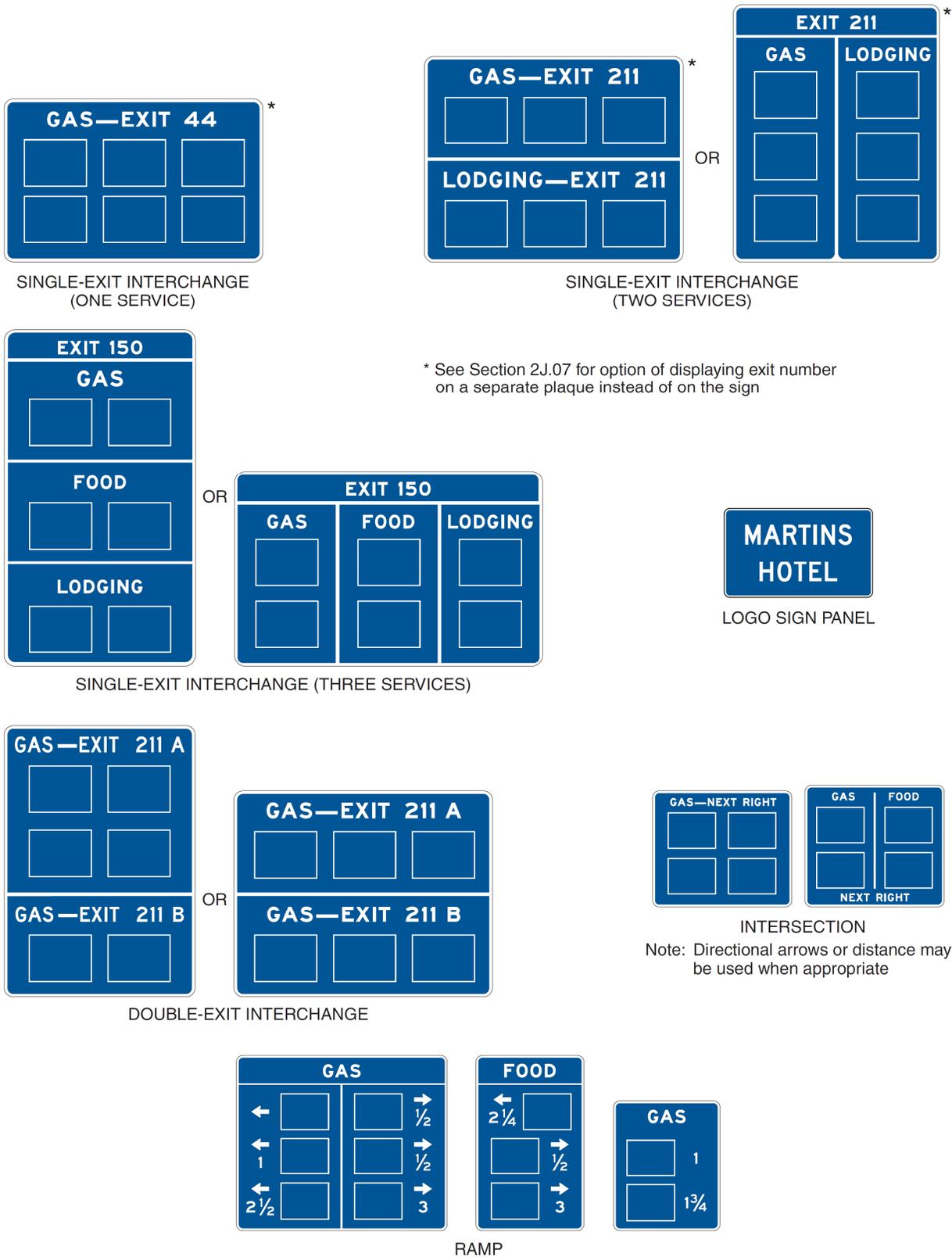
**Standard:**

**10 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.**

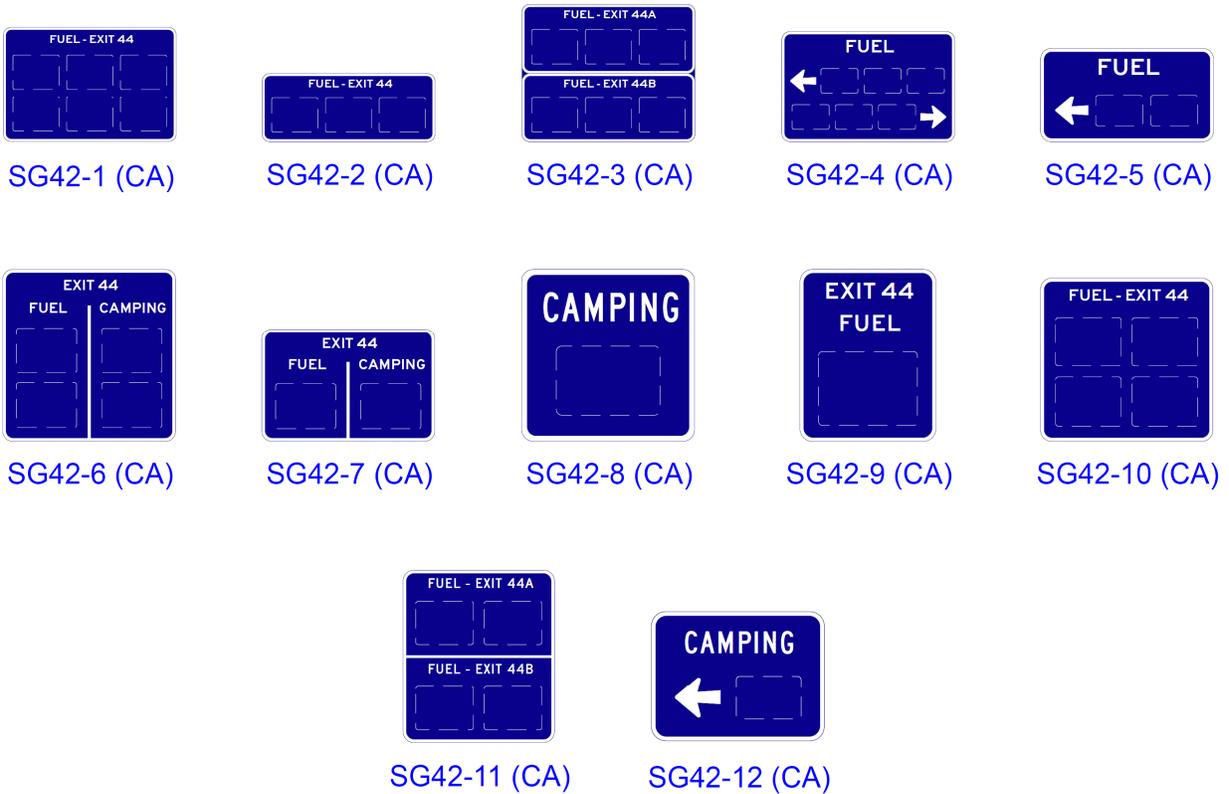
Support:

11 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.

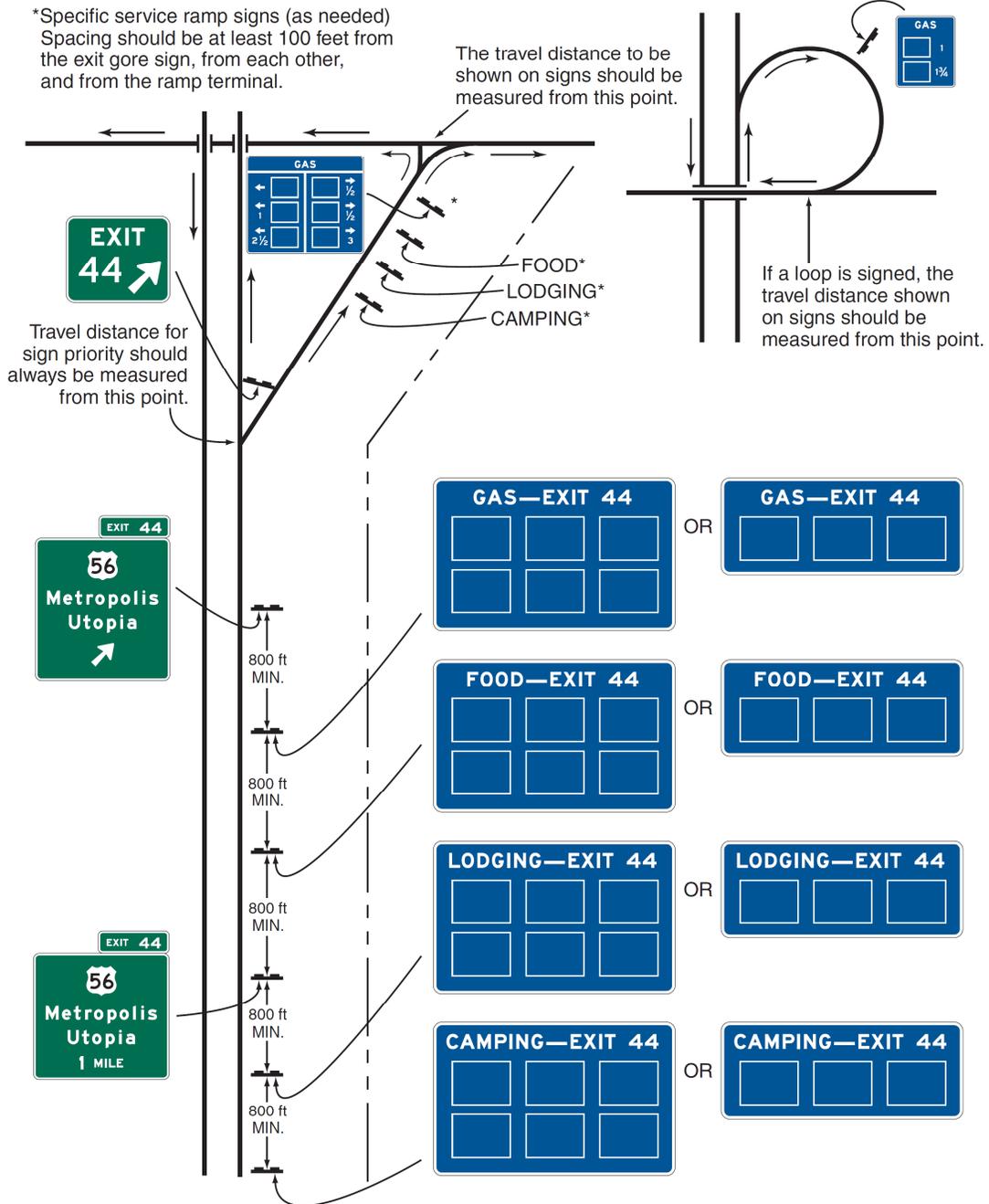
**Figure 2J-1. Examples of Specific Service Signs**



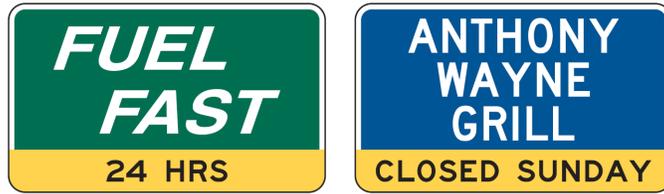
**Figure 2J-1 (CA). Examples of Specific Service Signs**



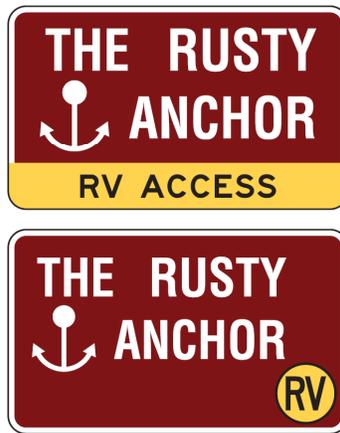
**Figure 2J-2. Examples of Specific Service Sign Locations**



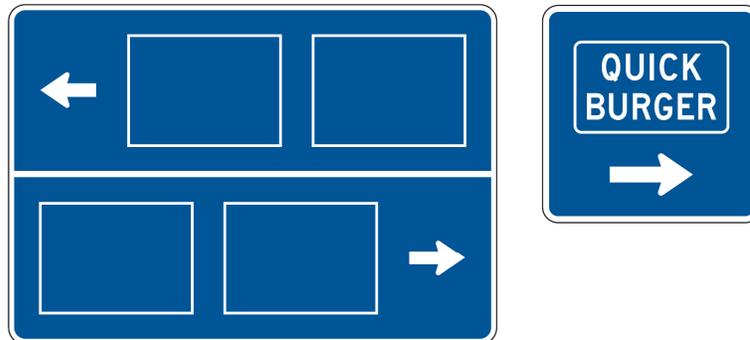
**Figure 2J-3. Examples of Supplemental Messages on Logo Sign Panels**



**Figure 2J-4. Examples of RV Access Supplemental Messages on Logo Sign Panels**



**Figure 2J-5. 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
<b>A. Specific Service Signs</b>		
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>B. Logo Sign Panels</b>		
Logo Sign Panels	60 x 36	30 x 18
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 and where applicable are shown 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:**

<sup>01</sup> Tourist-oriented directional signs are guide signs with one or more sign panels that display the business identification of and directional information for eligible business, service, and activity facilities.

**Standard:**

<sup>02</sup> **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:**

<sup>03</sup> Tourist-oriented directional signs may include businesses involved with seasonal agricultural products.

**Standard:**

<sup>04</sup> **When used, tourist-oriented directional signs shall be used only on rural conventional roads and shall not be used on conventional roads in urban areas or at interchanges on freeways or expressways.**

<sup>05</sup> ~~Where both tourist-oriented directional signs and Specific Service signs (see Chapter 2J) would be needed at the same intersection, the tourist-oriented directional signs shall incorporate the needed information from, and be used in place of, the Specific Service signs.~~ **The tourist-oriented information and specific service information signs shall be separate installations.**

**Support:**

<sup>05a</sup> Refer to California Streets and Highways Code, Division 1, Chapter 1.5, Article 3, Section 229.285.

**Option:**

<sup>06</sup> Tourist-oriented directional signs may be used in conjunction with General Service signs (see Section 2I.02).

**Support:**

<sup>07</sup> Section 2K.07 contains information on the adoption of a State policy for States that elect to use tourist-oriented directional signs.

<sup>08</sup> Refer to California Streets and Highways Code, Division 1, Chapter 1.5 for administration, standards, eligibility, and fees concerning the tourist-oriented directional signs. See Section 1A.11 for information regarding these publications.

### Section 2K.02 Design

**Standard:**

<sup>01</sup> **Tourist-oriented directional signs shall have one or more sign panels for the purpose of displaying the business identification of and directional information for eligible facilities. Each sign panel shall be rectangular in shape and shall have a white legend and border on a blue background.**

<sup>02</sup> **The content of the legend on each sign panel shall be limited to the identification and directional information for no more than one eligible business, service, or activity facility. The legends shall not include promotional advertising.**

**Guidance:**

<sup>03</sup> *Each sign panel should have a maximum of two lines of legend including no more than one symbol, 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 logo sign panel (see Paragraph 7).*

**Option:**

<sup>04</sup> 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.

<sup>05</sup> ~~Logo sign panels (see Section 2J.03) for specific businesses, services, and activities may also be used. Based on engineering judgment, the hours of operation may be displayed on the sign panels.~~

**Standard:**

<sup>05a</sup> **The tourist-oriented information and specific service information signs shall be separate installations.**

Support:

<sup>05b</sup> Refer to California Streets and Highways Code, Division 1, Chapter 1.5, Article 3, Section 229.285.

**Standard:**

<sup>06</sup> When used, symbols and logo sign panels shall be an appropriate size (see Section 2K.04). Logos resembling official traffic control devices shall not be permitted.

Option:

<sup>07</sup> The tourist-oriented directional sign may display the word message TOURIST ACTIVITIES at the top of the sign. The TOURIST ACTIVITIES word message unnecessarily increases the height of the sign.

**Standard:**

~~<sup>08</sup> 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 sign panels.~~

Support:

<sup>09</sup> 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:*

~~<sup>01</sup> All letters and numbers on tourist-oriented directional signs, except on the logo sign panels, should be upper-case and at least 6 inches in height. Any legend on a logo should be proportional to the size of the logo.~~

**Standard:**

<sup>02</sup> Design standards for letters, numerals, and spacing shall be as provided in the "Standard Highway Signs and Markings" book (see Section 1A.11).

**Standard:**

<sup>03</sup> Figure 2G-1(CA) and Department of Transportation's California Sign Specifications for Tourist Oriented Directional (SG44-1(CA) and SG44-2(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.04 Arrangement and Size of Signs

**Standard:**

~~<sup>01</sup> The size of a tourist-oriented directional sign shall be limited to a maximum height of 6 feet. 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:*

~~<sup>02</sup> The number of intersection approach signs (one sign for tourist-oriented destinations to the left, one for destinations to the right, and one for destinations straight-ahead) installed in advance of an intersection should not exceed three. The number of sign panels installed on each sign should not exceed four. The sign panels for right turn, left turn, and straight-through destinations should be on separate signs. The left turn destination sign should be located farthest from the intersection, then the right turn destination sign, with the straight-through destination sign located closest to the intersection (see Figure 2K-2). 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.~~

~~<sup>03</sup> If it has been determined to be appropriate to combine the left turn and right turn destination sign panels on a single sign, the left turn destination sign panels should be above the right turn destination sign panels (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, a straight-through sign panel should not be combined with a sign displaying left and/or right turn destinations.~~

~~<sup>04</sup> The sign panels should not exceed the size necessary to accommodate two lines of legend without crowding. Symbols and logo sign panels on a directional sign panel should not exceed the height of two lines of a word legend. All directional sign panels and other parts of the sign should be the same width, which should not exceed 6 feet.~~

Option:

~~<sup>05</sup> At intersection approaches where three or fewer facilities are displayed, the left turn, right turn, and straight-through destination sign panels may be combined on the same sign.~~

**Standard:**

**06 Figure 2K-1(CA) and Department of Transportation's California Sign Specifications for Tourist Oriented Directional (SG44-1(CA) and SG44-2(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 sign panels. The action messages should have the same letter height as the other word messages on the directional sign panels (see Figures 2K-1 and 2K-2).~~

**Standard:**

**03 The action message sign panels shall have a white legend in all upper-case letters and a white border on a blue background.**

**Option:**

~~04 The legend RIGHT 1/2 MILE or LEFT 1/2 MILE may be used on advance signs when there are intervening minor roads.~~  
~~05 The height required to add the directional word messages recommended for the advance sign may be added to the maximum sign height of 6 feet.~~

*Guidance:*

~~06 The optional TOURIST ACTIVITIES message, when used on an advance sign, and the action message should be combined on a single sign panel 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. Signs 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 1/2 mile from the intersection with 500 feet between these signs. 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. Advance signs are not used in California for tourist-oriented directional signs.~~

~~03 Position, height, and lateral offset of signs 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:*

*<sup>02</sup> The State policy should include:*

- A. A definition of tourist-oriented business, service, and activity facilities.*
- B. Eligibility criteria for signs for facilities.*
- C. Provision for incorporating Specific Service signs into the tourist-oriented directional signs as required by Paragraph 5 of Section 2K.01.*
- D. Provision for covering signs during off seasons for facilities operated on a seasonal basis.*
- E. Provisions for signs to facilities that are not located on the crossroad when such facilities are eligible for signs.*
- F. A definition of the immediate area in compliance with the provisions of Paragraph 2 of Section 2K.01.*
- G. Maximum distances to eligible facilities. The maximum distance should be 5 miles.*
- H. Provision for information centers (plazas) when the number of eligible sign applicants exceeds the maximum permissible number of sign panel installations.*
- I. Provision for limiting the number of signs when there are more applicants than the maximum number of signs permitted.*
- J. Criteria for use at intersections on expressways.*
- K. Provisions for controlling or excluding those businesses which have illegal signs as defined by the Highway Beautification Act of 1965 (23 U.S.C. 131).*
- L. Provisions for States to charge fees to cover the cost of signs through a permit system.*
- M. A definition of the conditions under which the time of operation is displayed.*
- N. Provisions for determining if advance signs will be permitted, and the circumstances under which they will be installed.*

**Option:**

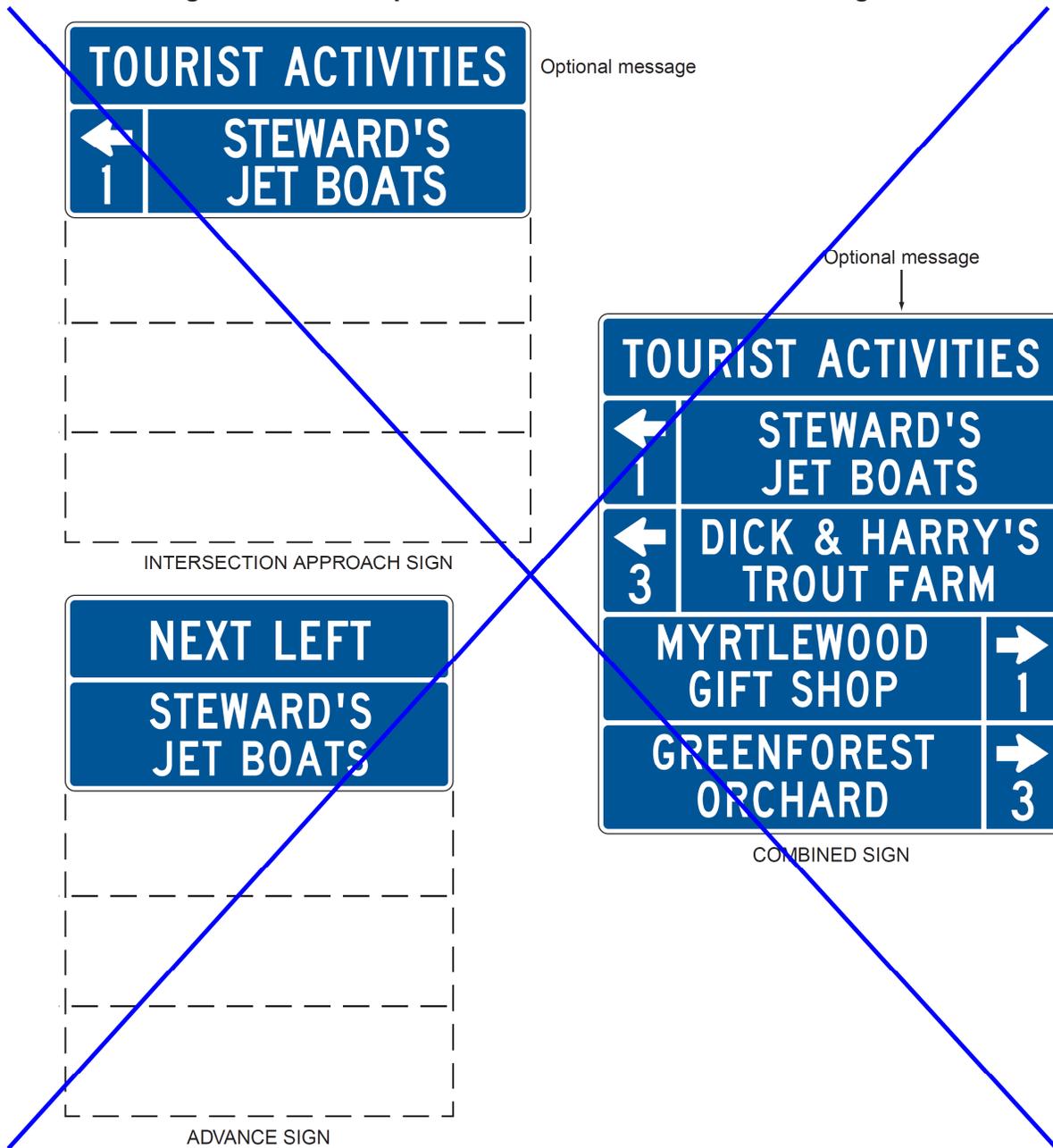
<sup>03</sup> The Tourist Oriented Directional (SG44-1(CA) and SG44-2(CA)) signs may be placed at qualifying conventional rural highway intersections.

**Support:**

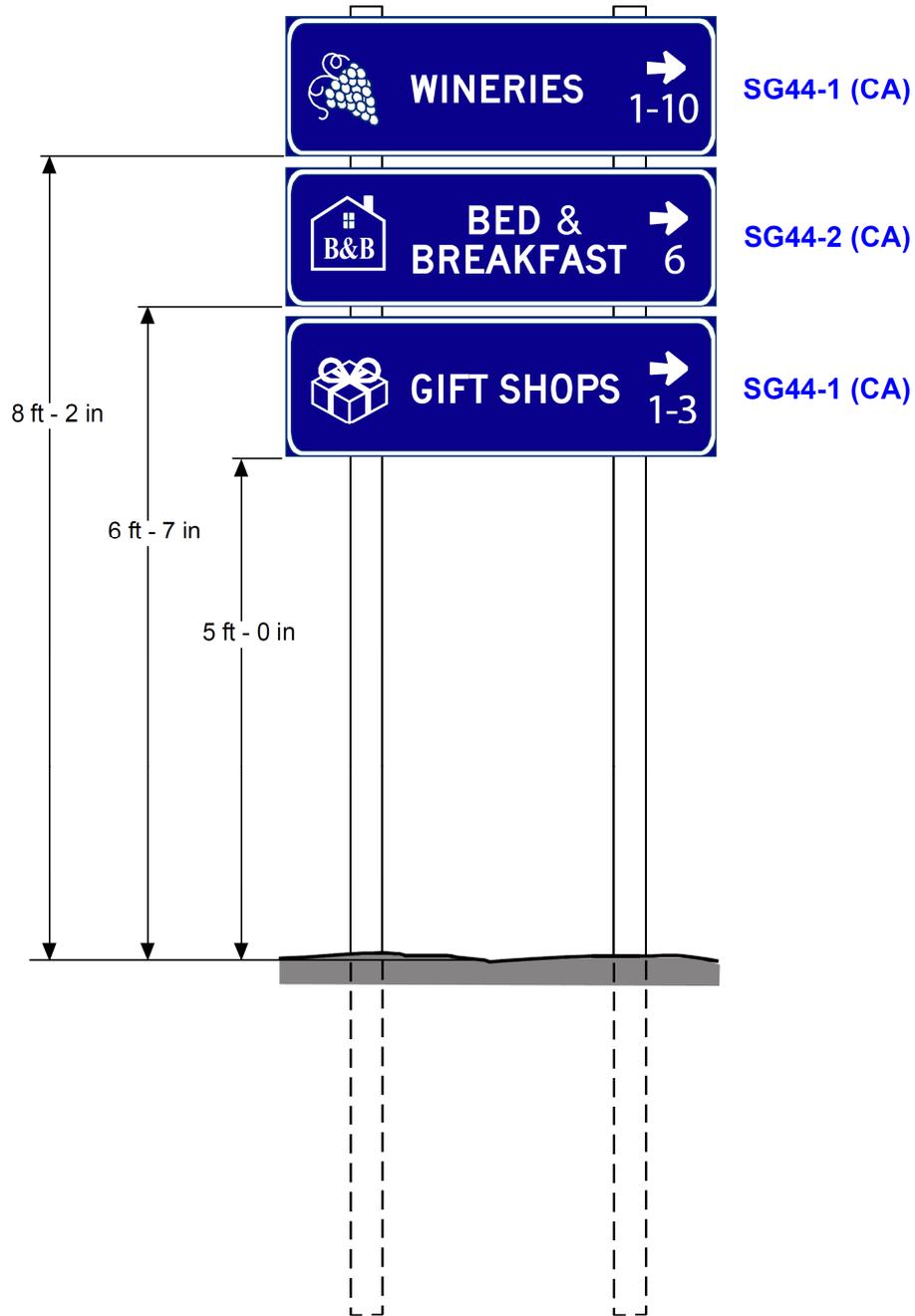
<sup>04</sup> These qualifying intersections are described in Chapter 1.5 of the Streets and Highways Code.

<sup>05</sup> Refer to California Streets and Highways Code, Division 1, Chapter 1.5 for administration, standards, eligibility, and fees concerning the tourist-oriented directional signs. See Section 1A.11 for information regarding these publications.

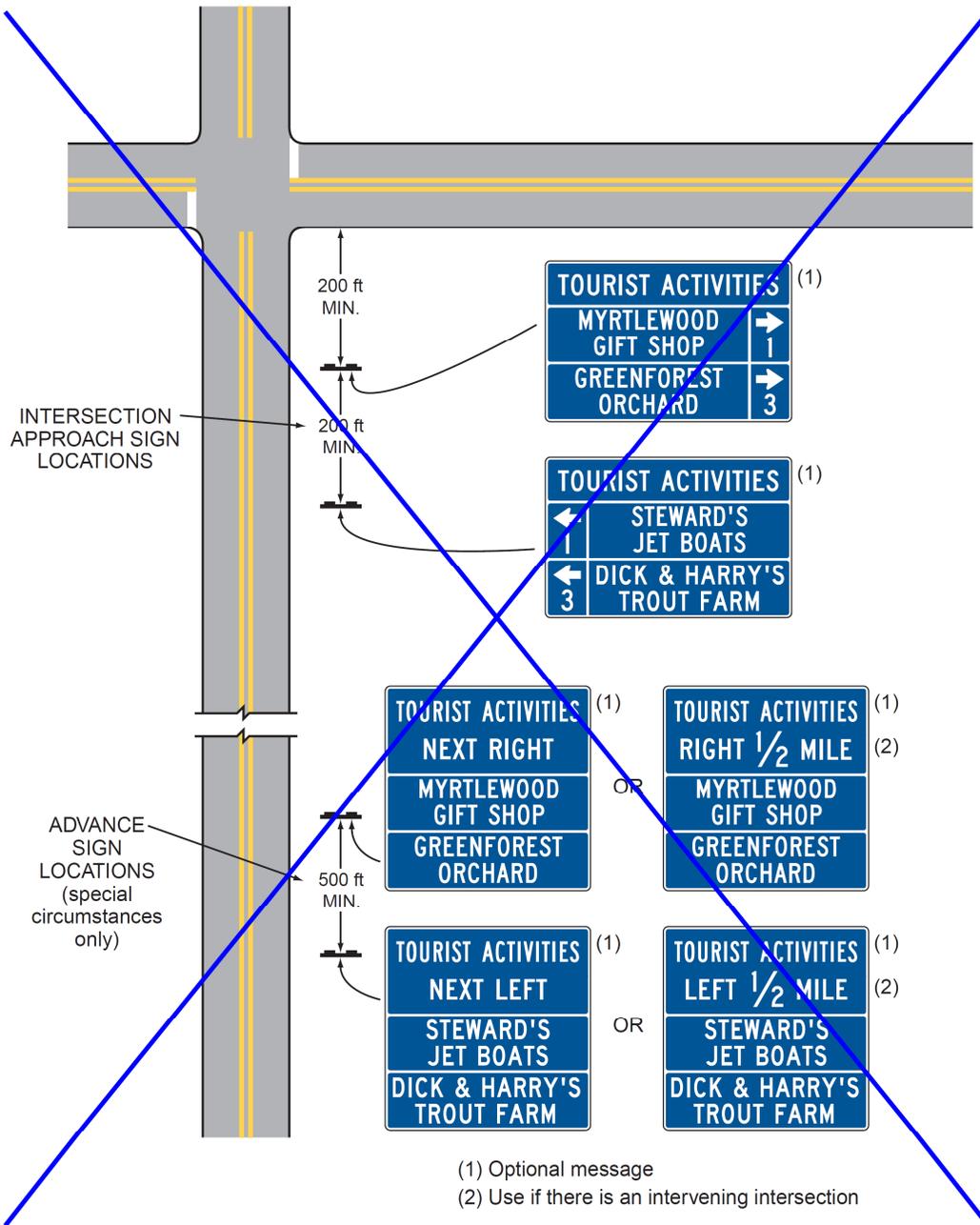
Figure 2K-1. Examples of Tourist-Oriented Directional Signs



**Figure 2K-1 (CA). Examples of Tourist-Oriented Directional Signs**



**Figure 2K-2. Examples of Intersection Approach Signs and Advance Signs for Tourist-Oriented Directional Signs**



**Table 2K-101(CA). California Tourist-Oriented Directional Sign Sizes**

Sign or Plaque	Sign Designation	Section	Conventional Road
Tourist Oriented Directional Sign (TODS)	SG44-1(CA)	2K.03, 2K.04 & 2K.07	72 x 18
Tourist Oriented Directional Sign (TODS)	SG44-2(CA)	2K.03, 2K.04 & 2K.07	72 x 18



## CHAPTER 2L. CHANGEABLE MESSAGE SIGNS

### Section 2L.01 Description of Changeable Message Signs

Support:

<sup>01</sup> A changeable message sign (CMS) is a traffic control device that is capable of displaying one or more alternative messages. Some changeable message signs have a blank mode when no message is displayed, while others display multiple messages with only one of the messages displayed at a time (such as OPEN/CLOSED signs at weigh stations).

<sup>02</sup> The provisions in this Chapter apply to both permanent and portable changeable message signs with electronic displays. Additional provisions that only apply to portable changeable message signs can be found in Section 6F.60. The provisions in this Chapter do not apply to changeable message signs with non-electronic displays that are changed either manually or electromechanically, such as a hinged-panel, rotating-drum, or back-lit curtain or scroll CMS.

**Standard:**

<sup>03</sup> **Except as provided in Paragraph 2 of Section 2L.02, changeable message signs shall display only traffic operational, regulatory, warning, and guidance information. Advertising messages shall not be displayed on changeable message signs or its supports or other equipment.**

<sup>04</sup> **The design of legends for non-electronic display changeable message signs shall comply with the provisions of Chapters 2A through 2K, 2M, and 2N of this Manual. All other changeable message signs shall comply with the design and application principles established in this Chapter and in Chapter 2A.**

*Guidance:*

<sup>05</sup> *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 static messages as detailed in the "Standard Highway Signs and Markings" book (see Section 1A.11). Because such a sign is effectively an illuminated version of a static sign, the size of its legend elements, the overall size of the sign, and placement of the sign should comply with the applicable provisions for the static version of the sign.*

### Section 2L.02 Applications of Changeable Message Signs

Support:

<sup>01</sup> Changeable message signs have a large number of applications including, but not limited to, the following:

- A. Incident management and route diversion
- B. Warning of adverse weather conditions
- C. Special event applications associated with traffic control or conditions
- D. Control at crossing situations
- E. Lane, ramp, and roadway control
- F. Priced or other types of managed lanes
- G. Travel times
- H. Warning situations
- I. Traffic regulations
- J. Speed control
- K. Destination guidance

Option:

<sup>02</sup> Changeable message signs may be used by State and local highway agencies to display safety messages, transportation-related messages, emergency homeland security messages, and America's Missing: Broadcast Emergency Response (AMBER) alert messages.

*Guidance:*

<sup>03</sup> *State and local highway agencies should develop and establish a policy regarding the display of the types of messages provided in Paragraph 2. When changeable message signs 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.*

Support:

<sup>04</sup> Examples of safety messages include “SEAT BELT BUCKLED?” and “DON'T DRINK AND DRIVE.” Examples of transportation-related messages include “STADIUM EVENT SUNDAY, EXPECT DELAYS NOON TO 4 PM” and “OZONE ALERT CODE RED—USE TRANSIT.”

Guidance:

<sup>05</sup> *When a CMS is used to display a safety or transportation related message, the message should be simple, brief, legible, and clear. A CMS should not be used to display a safety or transportation-related message if doing so would adversely affect 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.*

**Standard:**

<sup>06</sup> **When a CMS is used to display a safety, transportation-related, emergency homeland security, or AMBER alert message, the display format shall not be of a type that could be considered similar to advertising displays.**

Support:

<sup>07</sup> Section 2B.13 contains information regarding the design of changeable message signs that are used to display variable speed limits that change based on ambient or operational conditions, or that display the speed at which approaching drivers are traveling.

[Department of Transportation's Policy regarding the use of CMS signs for child abduction \(AMBER\) alert messages on State Highways](#)

Support:

<sup>08</sup> A primary mission of Department of Transportation is the safe and orderly movement of traffic. It is the policy of Department of Transportation to display only real-time information that conveys current traffic safety and congestion information on highway Changeable Message Signs (CMS).

**Standard:**

<sup>09</sup> **An exception to Department of Transportation policy on the use of CMS signs 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 signs.**

Support:

<sup>10</sup> Law enforcement activates an Amber Alert when circumstances meets the following criteria: the missing child is of a pre-determined age; the law enforcement agency believes the child has been kidnapped; the agency believes the missing child is under threat of serious bodily harm or death.

**Standard:**

<sup>11</sup> **The California Highway Patrol (CHP) shall consult with the investigating agency prior to requesting any CMS sign activation. The Department of Transportation shall only respond to AMBER alert requests from the CHP. The Department of Transportation's District Traffic Management Center (TMC) staff and local CHP staff shall jointly agree upon the most appropriate CMS sign 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:

<sup>12</sup> *TMC personnel should discuss with the requester 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:

<sup>13</sup> 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) - Department of Transportation's 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 discouraged.

<sup>14</sup> Nothing in this policy suggests a requirement to pre-empt true motorists safety messages, e.g. unexpected “end of queue” motorist alerts, severe weather advisories (fog, smoke), road closure and detour information etc.

**Option:**

<sup>15</sup> It may be necessary to turn off an AMBER alert sign that creates a traffic hazard.

**Support:**

<sup>16</sup> This policy primarily applies to the use of permanently installed overhead CMS signs. Should the use of mobile CMS signs be necessary and appropriate at a specific location(s); Department of Transportation can expect CHP assistance with mobile sign deployment as needed.

**Guidance:**

<sup>17</sup> *The TMCs should notify the Department of Transportation's HQ Communications Center when responding to an AMBER alert request. The TMCs should monitor and save traffic data in order to determine if unintended consequences of displaying such a message occurred on the highway.*

**Standard:**

<sup>18</sup> **A joint debriefing of Department of Transportation and CHP personnel shall follow every event.**

<sup>19</sup> **In all cases, messages shall maintain the credibility of the CMS system.**

### **Section 2L.03 Legibility and Visibility of Changeable Message Signs**

**Support:**

<sup>01</sup> 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.

<sup>02</sup> For the more common types of changeable message signs, the longest measured legibility distances on sunny days occur during mid-day when the sun is overhead. 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.

<sup>03</sup> Visibility is the characteristic that enables a CMS to be seen. Visibility is associated with the point where the CMS is first detected, whereas legibility is the point where the message on the CMS can be read. Environmental conditions such as rain, fog, and snow impact the visibility of changeable message signs and can reduce the available legibility distances. During these conditions, there might not be enough viewing time for drivers to read the message.

**Guidance:**

<sup>04</sup> *Changeable message signs used on roadways with speed limits of 55 mph or higher should be visible from 1/2 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 changeable message signs).*

### **Section 2L.04 Design Characteristics of Changeable Message Signs**

**Standard:**

<sup>01</sup> **Changeable message signs shall not include advertising, animation, rapid flashing, dissolving, exploding, scrolling, or other dynamic elements.**

**Support:**

<sup>02</sup> Section 6F.61 contains information regarding the use of arrow boards that use flashing or sequential displays for lane closures.

**Guidance:**

<sup>03</sup> *Except in the case of a limited-legend CMS (such as a blank-out or electronic-display changeable message regulatory sign) that is used in place of a static regulatory sign or an activated blank-out warning sign that supplements a static warning sign at a separate location, changeable message signs should be used as a supplement to and not as a substitute for conventional signs and markings.*

<sup>04</sup> *CMS should be limited to no more than three lines, with no more than 20 characters per line.*

*05 The spacing between characters in a word should be between 25 to 40 percent of the letter height. The spacing between words in a message should be between 75 and 100 percent of the letter height. Spacing between the message lines should be between 50 and 75 percent of the letter height.*

*06 Except as provided in Paragraph 18, word messages on changeable message signs should be composed of all upper-case letters. The minimum letter height should be 18 inches for changeable message signs on roadways with speed limits of 45 mph or higher. The minimum letter height should be 12 inches for changeable message signs on roadways with speed limits of less than 45 mph.*

Support:

*07 Using letter heights of more than 18 inches will not result in proportional increases in legibility distance.*

Guidance:

*08 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:

*09 The width-to-height ratio is commonly accomplished using a minimum font matrix density of five pixels wide by seven pixels high.*

**Standard:**

**10 Changeable message signs shall automatically adjust their brightness under varying light conditions to maintain legibility.**

Guidance:

*11 The luminance of changeable message signs should meet industry criteria for daytime and nighttime conditions. Luminance contrast should be between 8 and 12 for all conditions.*

*12 Contrast orientation of changeable message signs should always be positive, that is, with luminous characters on a dark or less luminous background.*

Support:

*13 Legibility distances for negative-contrast changeable message signs are likely to be at least 25 percent shorter than those of positive-contrast messages. In addition, the increased light emitted by negative-contrast changeable message signs has not been shown to improve detection distances.*

**Standard:**

**14 The colors used for the legends and backgrounds on changeable message signs shall be as provided in Table 2A-5 2A-5(CA).**

Guidance:

*15 If a black background is used, the color used for the legend on a changeable message sign should match the background color that would be used on a standard sign for that type of legend, such as white for regulatory, yellow for warning, orange for temporary traffic control, red for stop or yield, fluorescent pink for incident management, and fluorescent yellow-green for bicycle, pedestrian, and school warning.*

**Standard:**

**16 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:

*17 Some CMS that employ newer technologies have the capability to display an exact 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 static version of the same sign legend. Such signs are of the full-matrix type and can typically display full-color legends. Use of such technologies for new CMS is encouraged for greater legibility of their displays and enhanced recognition of the message as it pertains to regulatory, warning, or guidance information.*

Guidance:

*18 If used, the CMS described in the preceding paragraph should not display symbols or route shields unless they can do so in the appropriate color combinations. 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-1 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 regardless of the sequence in which it is read. Messages shall be centered within each line of legend. 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.**

**05 Techniques of message display such as fading, rapid flashing, exploding, dissolving, or moving messages shall not be used. The text of the message shall not scroll or travel horizontally or vertically across the face of the sign.**

#### **Guidance:**

*06 When designing and displaying messages on changeable message signs, the following principles relative to message design should be used:*

- A. The minimum time that an individual phase is displayed should be based on 1 second per word or 2 seconds per unit of information, whichever produces a lesser value. The display time for a phase should never be less than 2 seconds.*
- B. The maximum cycle time of a two-phase message should be 8 seconds.*
- C. 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 on a phase of a message.*
- 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.*
- H. Compatible units of information should be displayed on the same message phase.*

#### **Option:**

*07 A unit of information consisting of more than one word may be displayed on more than one line. An additional changeable message sign at a downstream location may be used for the purpose of allowing the entire message to be read twice.*

#### **Guidance:**

*08 If more than two phases would be needed to display the necessary information, additional changeable message signs should 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.*

*09 When the message on a CMS includes an abbreviation, the provisions of Section 1A.15 should be used.*

**Section 2L.06 Installation of Permanent Changeable Message Signs**

*Guidance:*

01 A CMS that is used in place of a static sign (such as a blank-out or variable legend regulatory sign) should be located in accordance with the provisions of Chapter 2A. The following factors should be considered when installing other permanent changeable message signs:

- A. Changeable message signs should 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. Changeable message signs should 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. Changeable message signs should not be located within an interchange except for toll plazas or managed lanes.
- D. Changeable message signs should not be positioned at locations where the information load on drivers is already high because of guide signs and other types of information.
- E. Changeable message signs should not be located in areas where drivers frequently perform lane-changing maneuvers in response to static guide sign information, or because of merging or weaving conditions.

*Support:*

02 Information regarding the design and application of portable changeable message signs in temporary traffic control zones is contained in Section 6F.60.

**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.

**Table 2L-1. 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:

**MAJOR CRASH  
AT EXIT 12**

Phase 1

**USE ROUTE 46  
TO NEW YORK**

Phase 2

## 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, gaming 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 *When highway agencies decide to provide recreational and cultural interest area signing, these agencies should have a policy for such signing. The policy should establish signing criteria for the eligibility of the various types of services, accommodations, and facilities. These signs should not be used where they might be confused with other traffic control signs.*

Option:

03 Recreational and cultural interest area guide signs may be used on any road to direct persons to facilities, structures, and places, and to identify various services available to the general public. These guide signs may also be used in recreational or cultural interest areas for signing non-vehicular events and amenities such as trails, structures, and facilities.

Support:

04 Section 2A.12 contains information regarding the use of recreational and cultural interest area symbols on other types of signs.

Support:

05 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:

06 *Recreational area signs to 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:

07 Recreational area signs may be placed for the following facilities:

- A. National Parks or Monuments.
- B. State Parks, when located within 5 mile of the highway.
- C. County Parks, when located within 3 mile 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 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 motorists.

*Guidance:*

*08 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 the Department of Transportation.*

**Standard:**

**09 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.**

**10 These signs shall be installed in accordance with the Department of Transportation's Standard Plans publication. See Section 1A.11 for more information regarding this publication.**

*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 Automobile (RG-010) sign indicates that automobiles may use the signed facility within a recreation area.*

**Standard:**

**14 The RG-010 sign shall not be used on State highways.**

*Option:*

*15 The Lookout Tower (RS-006) sign may be used for lookout facilities that are publicly owned, within 3 mile of the highway, and open for visitors at least 8 hours per day, 180 days per year.*

**Standard:**

**16 Follow up signs to the RS-006 sign, where required, shall be installed by the local authority having jurisdiction in the area.**

*Option:*

*17 The Lighthouse (RS-007) sign may be used for lighthouse facilities that are within 3 mile of the highway and open for visitors at least 8 hours per day, 180 days per year.*

*18 The Dam (RS-009) sign may be used to indicate dams, located within 1 mile of the highway, that have recreational activities with parking, water access, power plant tours and picnicking, which do not meet warrants for other recreational symbols.*

*19 The Fish Hatchery (RS-010) sign may be used to indicate publicly administered hatcheries that are within 3 mile of the highway and open for visitors at least 8 hours per day, 180 days per year.*

*20 The Deer Viewing Area (RS-011) sign may be placed to indicate an area which is determined by the Department of Fish and Game 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.*

*21 The Drinking Water (RS-013) sign may be used to indicate free public drinking water within 0.25 mile of the highway where no other publicly accessible drinking water is available within 10 mile.*

*22 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:*

*23 The Ranger Station (RS-015) sign may be used for public agency ranger stations that are within 1 mile of the highway and open all year.*

*24 The Truck (RG-190) sign indicates that trucks may use the signed facility within a recreation area.*

**Standard:**

**25 The RG-190 sign shall not be used on State highways.**

Option:

26 The Wildlife Viewing (RS-076) sign may be used to direct motorists to the Wildlife Viewing Areas as published in the California Watchable Viewing Guide.

Support:

27 Refer to the following web link for more information:  
[http://www.cawatchablewildlife.org/viewing\\_guide.htm](http://www.cawatchablewildlife.org/viewing_guide.htm)

**Standard:**

28 **The WILDLIFE VIEWING (G200-81A(CA)) sign shall be placed below the Wildlife Viewing (RS-076) sign.**

Option:

29 The Botanical Management Area (G200-82(CA)) sign may be used to identify areas along the State highway right-of-way that are environmentally significant natural remnants of California's botanical diversity, as designated by the Office of State Landscape Architecture.

Guidance:

30 *The G200-82(CA) sign should be placed in combination with the BOTANICAL MANAGEMENT AREA (G200-82A(CA)) plaque.*

31 *The G200-82A(CA) plaque should be placed below the G200-82(CA) sign.*

**Motorist Services**

Option:

32 The Camping (Tent) (D9-3) sign may be used for campsite facilities, either public or private, located within 3 miles of the highway.

**Standard:**

33 **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:

34 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:**

35 **For the use of RS-040 sign, a minimum of 15 trailer sites shall be provided. Water and sanitary facilities shall be available.**

Option:

36 The Ferry (RM-030) sign may be used to indicate recreational ferry operations within 2 miles of the highway.

37 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.

38 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.

39 The Grocery Store (RS-020) sign may be used within public recreation areas for facilities within 1 mile of the highway that provide standard grocery items such as eggs, bread, milk and fruit, provided there are no other similar facilities within 10 miles.

**Standard:**

40 **For the use of RS-020 sign, services shall be available at least 12 hours per day.**

Option:

41 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.

42 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.

43 The Mechanic (RS-027) sign may be used to indicate facilities in public recreation areas with automotive repair capability.

**Standard:**

44 **The RS-027 sign shall not be used on State highways.**

Option:

45 The Picnic Area (RS-044) sign may be used for picnic areas, either public or private, located within 1 mile of the highway.

**Standard:**

46 **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:

47 The Rest Room (RS-022) sign may be used to indicate free public access to a restroom within 0.25 mile of the highway where no other publicly accessible restroom is available within 10 miles.

48 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.

49 The Trailer Sanitary Station (RS-041) sign may be used to indicate dump stations where recreational vehicles may dispose of their holding tank waste.

**Standard:**

50 **For the use of RS-041 sign, the station shall be located within a public recreation area and within 1 mile of the highway.**

Option:

51 The Viewing Area (RS-036) sign may be used to direct motorists to public recreation area sites, located within 0.25 mile of the highway, which have significant views.

*Guidance:*

52 *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:

53 The Airport (I-5) sign may be used in public recreation areas to direct motorist to airports, which meet the criteria, specified for Airport (I-5) signs. Only the I-5 and Conventional Airport (G94-1(CA)) signs may be used on State highways to indicate nearby airports.

54 The Parking (RS-034) sign may be used to indicate public parking facilities less than 0.25 mile from a highway in recreation areas.

*Guidance:*

55 *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:

56 The Amphitheater (RS-070) sign may be used to identify an amphitheater facility within 1 mile of the highway.

57 The Playground (W15-1) sign may be used to identify playgrounds within a recreation area and not more than 1 mile from the highway.

58 The Trail (Bicycle) (D11-1) sign may be used for identifying bicycle trails located within public recreation areas.

*Guidance:*

59 *On State highways, the Bike Lane (R81(CA)) or the Bike Route (D11-1) signs should be used.*

Option:

60 *The Trail (Hiking) (RS-068) sign may be used for marked and maintained hiking trails.*

**Standard:**

61 **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:

62 The Trail (Horse) (RS-064) sign may be used for identifying horse trails located within public recreation areas.

*Guidance:*

63 *For the use of RS-064 sign, the trailhead should be within 3 mile of the highway.*

Option:

64 The Trail (4WD Vehicle) (RS-067) sign may be used to identify recreation vehicle trails located within public recreation areas.

*Guidance:*

<sup>65</sup> For the use of RS-067 sign, the trailhead should be 3 mile 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:*

<sup>66</sup> The Trail (Trail Bike) (RL-150) sign may be used to identify trail bike trails located within public recreation areas.

*Guidance:*

<sup>67</sup> For the use of RL-150 sign, the trailhead should be 3 mile or less from the highway. The OHV TRAIL (S12(CA)) sign should be used where the trail intersects the highway.

*Option:*

<sup>68</sup> The Tramway (RS-071) sign may be used to identify recreational tramways or gondolas that provide year-round service and are located within 5 mile of the highway.

<sup>69</sup> The Golf Course (G200-80(CA)) sign may be used to identify a 9 hole or more golf course within 3 mile on a conventional highway which does not have its main entrance adjacent to the highway. The G200-80(CA) signs may be installed under permit by local agencies only.

**Standard:**

<sup>70</sup> **The G200-80(CA) signs shall not be used at driving ranges or miniature golf courses.**

*Option:*

<sup>71</sup> 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.

**Water Recreation**

*Option:*

<sup>72</sup> The Canoeing (RS-079) sign may be used to indicate where canoeing facilities and services are available within 3 mile of the highway.

<sup>73</sup> The Diving (RS-062) sign may be used to indicate a diving facility within a recreational area.

<sup>74</sup> The Diving (Scuba) (RS-060) sign may be used to indicate areas suitable for scuba diving within 3 mile of the highway.

<sup>75</sup> The Fishing (RS-063) sign may be used to indicate a fishing area, either public or private, within 3 mile of the highway.

<sup>76</sup> The Marina (RS-053) sign may be used to indicate an area where boats can be anchored and serviced within 3 mile of the highway.

<sup>77</sup> The Motorboating (RS-055) sign may be used to indicate areas where motorboating facilities and services are available within 3 mile of the highway.

<sup>78</sup> The Ramp (Launch) (RS-054) sign may be used to indicate boat launching facilities, either public or private, located within 3 mile of the highway.

<sup>79</sup> The Rowboating (RS-057) sign may be used to indicate areas where Rowboating facilities and services are available within 3 mile of the highway.

<sup>80</sup> The Sailboating (RW-056) sign may be used to indicate areas where Sailboating facilities and services are available within 3 mile of the highway.

<sup>81</sup> The Skiing (Water) (RW-058) sign may be used to indicate areas where water-skiing facilities and services are available within 3 mile of the highway.

<sup>82</sup> The Surfing (RS-059) sign may be used to indicate areas suitable for surfing within 3 mile of the highway.

*Guidance:*

<sup>83</sup> For the use of RS-059 sign, adequate parking should also be available.

*Option:*

<sup>84</sup> The Swimming (RS-061) sign may be used to indicate a swimming facility within a recreational area.

**Winter Recreation**

*Option:*

<sup>85</sup> The Skating (Ice) (RS-050) sign may be used to indicate ice skating facilities within 5 mile of the highway.

<sup>86</sup> The Ski Jumping (RS-048) sign may be used to indicate ski jumping facilities within 5 mile of the highway.

<sup>87</sup> The Skiing (Bobbing) (RS-030) sign may be used to indicate ski bobbing facilities within 1 mile of the highway.

*Guidance:*

<sup>88</sup> For the use of RS-030 sign, there should be sufficient parking to accommodate normal demand.

Option:

<sup>89</sup> The Skiing (Cross Country) (RS-046) sign may be used to indicate cross country skiing facilities within 1 mile of the highway.

Guidance:

<sup>90</sup> *For the use of RS-046 sign, there should be sufficient parking to accommodate normal demand.*

Option:

<sup>91</sup> The Skiing (Downhill) (RS-047) sign may be used to indicate down hill skiing facilities located within 5 mile of the highway.

<sup>92</sup> The Sledding (RS-049) sign may be used to indicate sledding facilities within 1 mile of the highway.

Guidance:

<sup>93</sup> *For the use of RS-049 sign, there should be sufficient parking to accommodate normal demand.*

Option:

<sup>94</sup> The Snowmobiling (RS-052) sign may be used to indicate Snowmobiling facilities within 1 mile of the highway.

Guidance:

<sup>95</sup> *For the use of RS-052 sign, there should be a paved loading area at any such facility which is at least 20 feet wide (measured perpendicular to the traveled way) and sufficient parking to accommodate normal demand. Parking spaces should be sized for vehicles with small trailers.*

Option:

<sup>96</sup> 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:

<sup>97</sup> *For the use of RS-078 sign, there should be sufficient parking to accommodate normal demand.*

Option:

<sup>98</sup> 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:

<sup>99</sup> *For the use of RS-077 sign, there should be sufficient parking to accommodate normal demand.*

### **Sno-Park Signs**

Option:

<sup>100</sup> 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.

<sup>101</sup> 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.

<sup>102</sup> 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:**

<sup>103</sup> **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:

<sup>104</sup> *If used, the PERMIT REQUIRED (SG35(CA)) sign should be placed below the SG30(CA) or SG31(CA) sign and the PERMIT REQUIRED NOV 1 TO MAY 30 (SG35-1(CA)) sign 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.*

<sup>105</sup> *Between November 1 and May 30, during periods when snow is not available for recreational activities, the SG35(CA) and SG35-1(CA) signs should be covered.*

**Standard:**

<sup>105</sup> **At the end of the Sno-Park season, May 30, the SG35(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 public roads and streets within recreational and cultural interest areas shall comply with the requirements of Chapters 2A, 2B, 2C, 7B, 8B, and 9B.**

### **Section 2M.04 General Design Requirements for Recreational and Cultural Interest Area Symbol Guide Signs**

#### **Standard:**

**01 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:**

**02 Table 2M-1 contains a listing of the symbols within each series category. Drawings showing the design details for these symbols are found in the "Standard Highway Signs and Markings" book (see Section 1A.11).**

#### **Option:**

**03 Mirror images of symbols may be used where the reverse image will better convey the message.**

### **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. The educational plaque should remain in place for at least 3 years after the initial installation. If used, the educational plaque should be the same width as the symbol sign.*

#### **Option:**

**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 Slash 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 red diagonal slash. 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 and the diagonal slash shall be oriented from the upper left to the lower right portions of the circle as shown in Figure 2M-1.**

**02 Requirements for retroreflection of the red circle and red diagonal slash shall be the same as those requirements for backgrounds, legends, symbols, arrows, and borders.**

## **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 Except as provided in Paragraph 3, 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** When the legend Wildlife Viewing Area is displayed with the RS-076 symbol on a destination guide sign, the symbol may be placed to the left or right of the legend and the arrow may be placed below the symbol (see Figure 2M-2).

**04** 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.

**05** 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:**

**06 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:**

**07** 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, and 2M-5(CA) and 2M-8(CA) illustrate some of the symbols that can be used.

### **Guidance:**

**08** *The number of symbols used in a single sign assembly should not exceed four.*

### **Option:**

**09** The Advance Turn (M5 series) or Directional Arrow (M6 series) auxiliary signs with white arrows on brown backgrounds shown in Figure 2D-5 may be used with Recreational and Cultural Area Interest 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).

### **Guidance:**

**10** *The symbol signs should be placed below the first advance ground-mounted directional sign.*

### **Option:**

**11** The NEXT RIGHT/LEFT (G58(CA)) Auxiliary sign (see Figure 2M-1(CA)) may also be used in conjunction with the recreational and cultural interest area signs.

## **Section 2M.09 Destination Guide Signs**

### **Guidance:**

**01** *When recreational or cultural interest area destinations are displayed on supplemental guide signs, the sign should be rectangular or trapezoidal in shape. The order of preference for use of shapes and colors should be as follows: (1) rectangular with a white legend and border on a green background; (2) rectangular with a white legend and border on a brown background; or (3) trapezoidal with a white legend and border on a brown background.*

### **Standard:**

**02** **Whenever the trapezoidal shape is used, the color combination shall be a white legend and border on a brown background.**

**Option:**

<sup>03</sup> 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 and the exit direction sign may have a white legend and border on a brown background.

**Standard:**

<sup>04</sup> **All Exit Gore (E5-1 and E5-1a) signs (see Section 2E.37) shall have a white legend and border on a green background. The background color of the interchange Exit Number (E1-5P and E1-5bP) plaque (see Section 2E.31) shall match the background color of the guide sign. 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.**

<sup>05</sup> **The advance guide sign and the Exit Direction sign shall retain the white-on-green color combination where the crossroad leads to a destination other than a recreational or cultural interest area.**

**Support:**

<sup>06</sup> Figure 2M-2, and 2M-2(CA) illustrates destination guide signs commonly used for identifying recreational or cultural interest areas or facilities.

<sup>07</sup> The name of a community that is culturally unique and historically significant can be used on supplemental guide signs in accordance with California Streets and Highways Code Section 101.12.

**Option:**

<sup>08</sup> 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:**

<sup>09</sup> **For a Historic District to be signed from a State highway, its boundaries shall be within 3 mile 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 the Department of Transportation. Any follow-up signs, if needed, shall be in place before the highway signs are installed.**

<sup>10</sup> **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.**

<sup>11</sup> **When the above requirements are met, the requesting agency shall adopt a resolution, requesting Department of Transportation 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:**

<sup>01</sup> Legislative bodies will occasionally adopt an act or resolution memorializing or dedicating a highway, bridge, or other component of the highway.

**Guidance:**

<sup>02</sup> *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.*

**Option:**

<sup>03</sup> ~~If the installation of a memorial or dedication marker off the main roadway is not practical, memorial or dedication signs may be installed on the mainline.~~

*Guidance:*

*04 Memorial or dedication signs should have a white legend and border on a brown background.*

**Standard:**

**05 Where such memorial or dedication signs are installed on the mainline, (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 necessary signing, 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, each as an independent sign installation.**

**06 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 or entity being recognized and a simple message preceding or following the name, such as "Dedicated to" or "Memorial Parkway." 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 and Markings" book (see Section 1A.11). The route number or officially mapped name of the highway shall not be displayed on the memorial or dedication sign.**

**07 Memorial or dedication names shall not appear on supplemental signs or on any other information sign on or along the highway or its intersecting routes.**

**Option:**

**08 The lettering for the name of the person or entity being recognized may be composed of a combination of lower-case letters with initial upper-case letters.**

*Guidance:*

*09 Freeways and expressways should not be signed as memorial or dedicated highways.*

**Support:**

**10 Named highways are officially designated and shown on official maps and serve the purpose of providing route guidance, primarily on unnumbered highways. A highway designated as a memorial or dedication is not considered to be a named highway. Section 2D.53 contains provisions for the signing of named highways.**

*Guidance:*

*11 Route numbers and cardinal directions should be used in signing to freeways in metropolitan areas.*

**Option:**

**12 At freeway to freeway interchanges, overhead signing by freeway name may be included in primary directional signs only when the freeway name is well recognized and space permits. At other than freeway to freeway interchanges, Interchange Guide (G77(CA) and G78(CA) series) signs including both the freeway name and appropriate route shield may be used to direct to the named freeway.**

**13 Ground-mounted freeway name signs in rural areas may be installed beyond major freeway interchanges and at approximate 10 mile intervals.**

*Guidance:*

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

**Option:**

**15 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:**

**16 The Department of Transportation is authorized to expend reasonable sums for plaques.**

**Standard:**

**17 When highway facilities are named by the Legislature, the following guidelines shall apply according to the type of facility:**

- 1. Bridges. One sign shall be placed at the approach ends of the bridge, underpass, tunnel or other structure with the name of the memorialized individual. Normally this would consist of an additional plate attached to the existing Memorial Bridge (G11(CA) series) sign. The color and size of the plate shall match the sign. The memorial name shall be smaller so that it does not dominate the G11(CA) sign.**

2. **Freeways and Highways.** One sign shall be placed at each terminal. Signs shall be white on green. When used, the Memorial Highway (G12-1(CA) & G12-2(CA)) signs (see Figure 2M-101(CA)) shall be placed at the beginning of the highway segment memorialized by the Legislature.
3. **Rest Areas.** One sign shall be placed in advance of each named rest area. Normally a one line message would be placed above the REST AREA (X MILE) (D5-1) sign. The sign shall be white on blue.
4. **Interchanges.** One bronze plaque shall be installed at each legislatively named interchange. Memorial name signs shall not be erected at interchanges.
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.

*Guidance:*

<sup>18</sup> *The size, color, and retroreflectorization of memorial named signs should match existing signs associated with the facility.*

**Standard:**

<sup>19</sup> **Standard letter size, type and stroke widths shall be used.**

*Support:*

<sup>20</sup> The word "memorial" is not normally included on the sign.

*Guidance:*

<sup>21</sup> *Bronze plaques normally should bear the name in 1 inch letters. However, the plaque should be no larger than 30 x 30 inch.*

<sup>22</sup> *When the highway is a State facility, the following procedure should be followed when legislation includes a provision that either memorial signs or plaques be purchased and installed at no cost to the State.*

<sup>23</sup> *The District Director will:*

- A. *Contact the sponsor of the legislation to determine appropriate wording for the signs or plaques.*
- B. *Prepare an estimate of cost for the signs or plaque installation, and submit the estimate to the sponsor.*
- C. *After receipt of the funds from the sponsor, purchase and install the signs or plaque.*
- D. *Notify the author and sponsor when the memorial signs or plaque are ready so that a dedication can be arranged.*
- E. *Maintain all signs and plaques within the right-of-way.*

<sup>24</sup> *The sponsor will:*

- A. *Collect donations from individuals who appreciated the services provided by the memorialized individual.*
- B. *Submit advance payment for the signs or plaque and installation to the department.*
- C. *Arrange for suitable public dedication.*

*Support:*

<sup>25</sup> When legislation does not include the "at no cost to the State" provision, signs and plaques will continue to be furnished and installed at State expense.

<sup>26</sup> Existing named highway facilities that have been designated with a bronze plaque are exempt from the above provisions and no signs are required.

*Option:*

<sup>27</sup> The Memorial Bridge (G11-4A(CA) and G11-4B(CA)) signs (see 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.

<sup>28</sup> The Memorial Bridge and Inventory Marker (G11-8(CA) and G11-9(CA)) combination signs (see Figure 2M-101(CA)) may be placed when an appropriate authority has requested that a highway facility be designated as a memorial facility.

*Guidance:*

<sup>29</sup> *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:*

<sup>30</sup> The official name and number of structures on State highways are determined by the Department of Transportation's Office of Structures Design.

*Option:*

<sup>31</sup> The Named State Highway (SG1(CA)) sign may be used to identify a named State highway when required by legislation or when determined necessary to provide traveler information.

### **Victims Memorial Program Signs (S35(CA) Series)**

#### **Support:**

<sup>32</sup> Refer to Streets and Highways Code Section 101.10.

#### **Option:**

<sup>33</sup> The PLEASE DON'T DRINK AND DRIVE (S35(CA)) sign (see 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:**

<sup>34</sup> The IN MEMORY OF XXX – 1 PERSON (S35-1(CA)), IN MEMORY OF XXX – 2 PERSONS (S35-2(CA)) or IN MEMORY OF XXX – 3 PERSONS (S35-3(CA)) sign (see Figure 2M-101(CA)) shall be placed below the S35(CA) sign.

<sup>35</sup> 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.

<sup>36</sup> 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 (G13-1(CA), G13-2(CA) and G14(CA))**

#### **Standard:**

<sup>01</sup> The Historical Landmark (G13-1(CA) and G13-2(CA)) signs and the Advance Historical Landmark (G14(CA)) sign shall have a brown legend and border on a cream colored background.

#### **Option:**

<sup>02</sup> The G13-1(CA), G13-2(CA) and G14(CA) signs may be in addition to the normal compliment of signs, but minimum spacing will be maintained.

<sup>03</sup> The G13-1(CA), G13-2(CA) and G14(CA) signs may be placed directing to Historical Landmarks that are registered with the Department of Parks and Recreation.

#### **Standard:**

<sup>04</sup> On freeways, the G13-1(CA), G13-2(CA) and G14(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.

<sup>05</sup> 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 G13-1(CA), G13-2(CA) and G14(CA) signs.

*Guidance:*

*06 The Historical Landmark (G13-1(CA)) sign should be used on conventional highways to guide motorists by the most direct route to registered historical landmarks which are located within 5 mile 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 (G13-2(CA)) sign should be used on freeways to guide motorists to the original 21 California Missions and other important well-known historical landmarks. See Section 123.5 of the Streets and Highways Code for signing to Missions. The G13-2(CA) sign should also be used on freeways to guide motorists 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 (G14(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 (G15(CA))**

**Standard:**

**01 The POINT OF HISTORICAL INTEREST (G15(CA)) sign shall have a cream legend on a brown background.**

**02 The G15(CA) sign shall not be used on freeways.**

*Option:*

*03 The POINT OF HISTORICAL INTEREST (G15(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 G15(CA) sign may be used on the right on city streets or conventional rural highways.*

*Support:*

*04 The G15(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" when directed by the Legislature.*

*Support:*

*04 The Department of Transportation 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, will place these signs as requested.*

*05 The Historic Route 99 (S25(CA)) sign is used to identify "Historic Route 99".*

*06 The Department of Transportation 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, will 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:*

*<sup>01</sup> 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 the Department of Transportation's publication titled "Historical Highway Bridges of California". See Section 1A.11 for information regarding this publication.*

*<sup>02</sup> 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:*

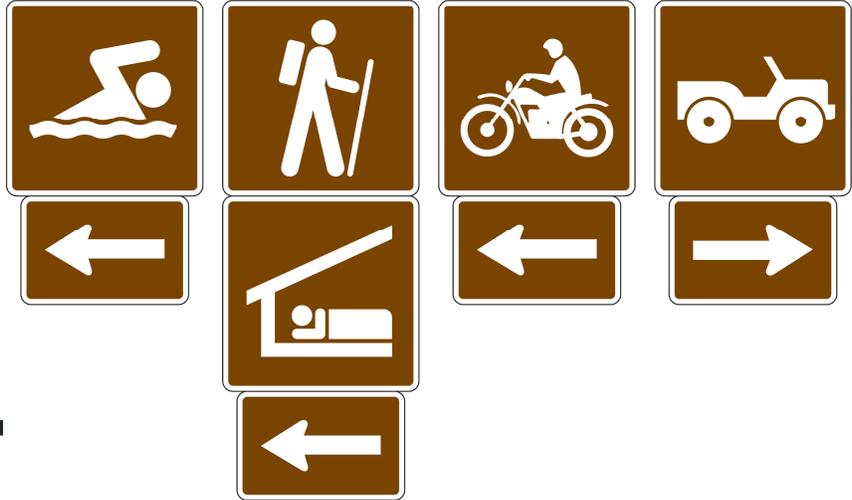
*<sup>03</sup> The initial installation of the Historic Bridge signs was through a grant provided under the ISTEA Enhancement Program and administered by the Department of Transportation's Environmental Program. Maintenance for the existing signs is borne by the agency responsible for the bridge.*

**Figure 2M-1. Examples of Use of Arrows, Educational Plaques, and Prohibitive Slashes**

**A - DIRECTIONAL SIGNS**



**B - DIRECTIONAL ASSEMBLIES**



**C - DIRECTIONAL ASSEMBLY WITH EDUCATIONAL PLAQUE**



**D - PROHIBITED ACTIVITIES AND EDUCATIONAL PLAQUE FOR NON-ROAD USE\***



\* Standard regulatory signs shall be used where provided elsewhere in this Manual

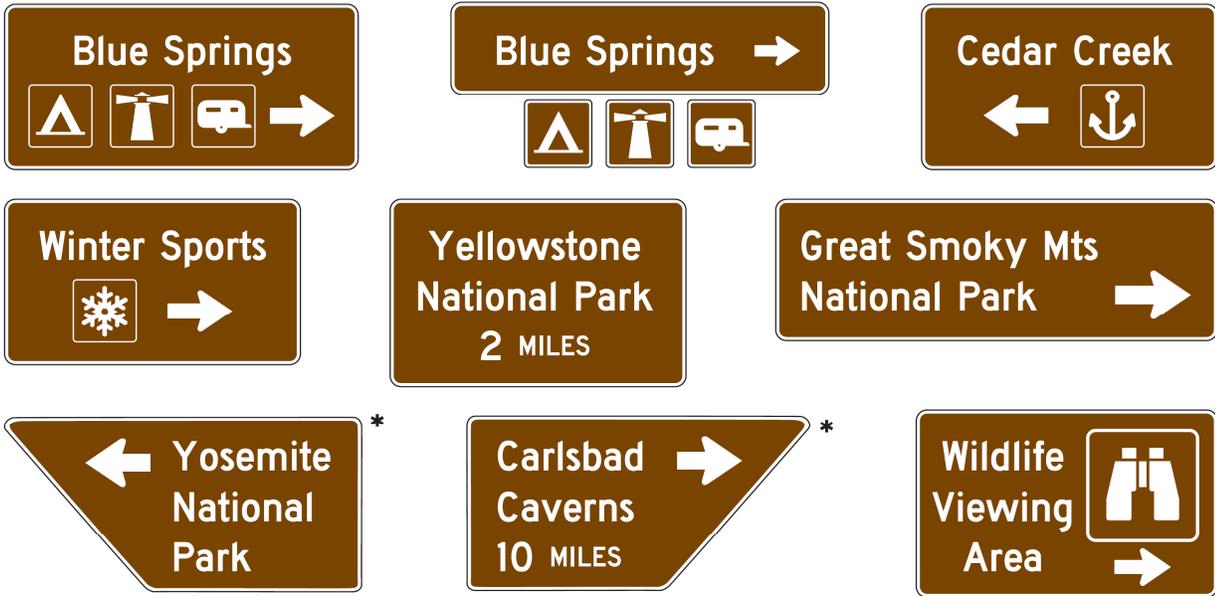
**Figure 2M-1 (CA). Examples of Use of Arrows, Educational Plaques, and Prohibitive Slashes**



G58 (CA)

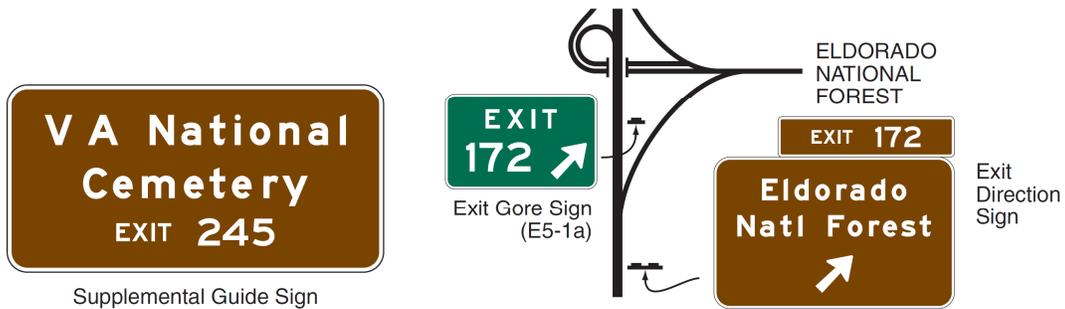
**Figure 2M-2. Examples of Recreational and Cultural Interest Area Guide Signs**

**A - CONVENTIONAL ROADS**



\* Optional shape

**B - EXPRESSWAYS AND FREEWAYS**



**Figure 2M-2 (CA). Examples of Recreational and Cultural Interest Area Guide Signs**



G13-1 (CA)



G13-2 (CA)



G14 (CA)



G15 (CA)



G72 (CA)



G86-11 (CA)



SG2 (CA)



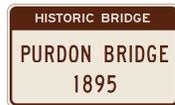
SG2A (CA)



S18 (CA)



S25 (CA)



S29 (CA)

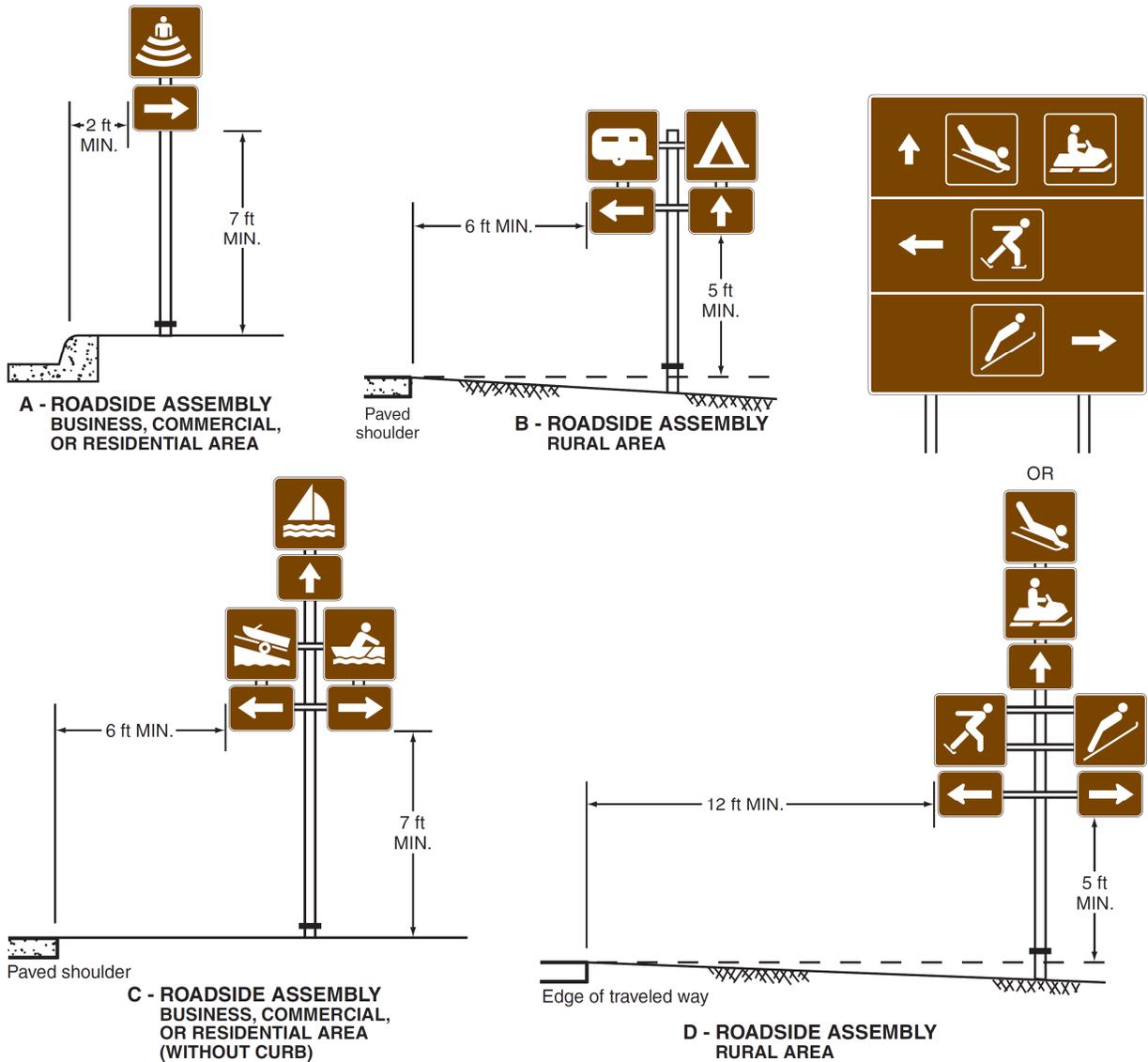


S29-1 (CA)



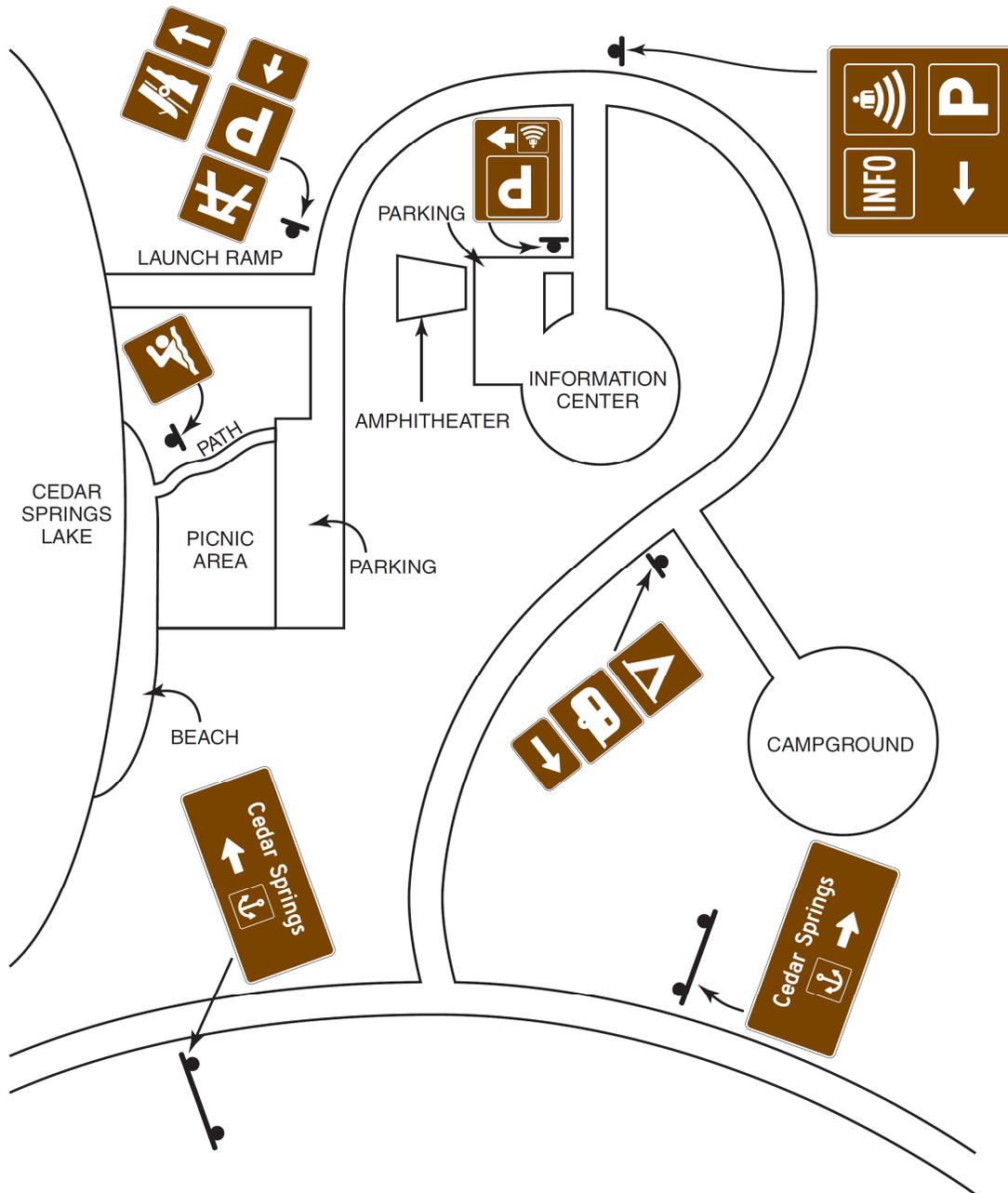
S29-2 (CA)

**Figure 2M-3. Arrangement, Height, and Lateral Position of Signs Located Within Recreational and Cultural Interest Areas**



Note: See Section 2A.19 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.

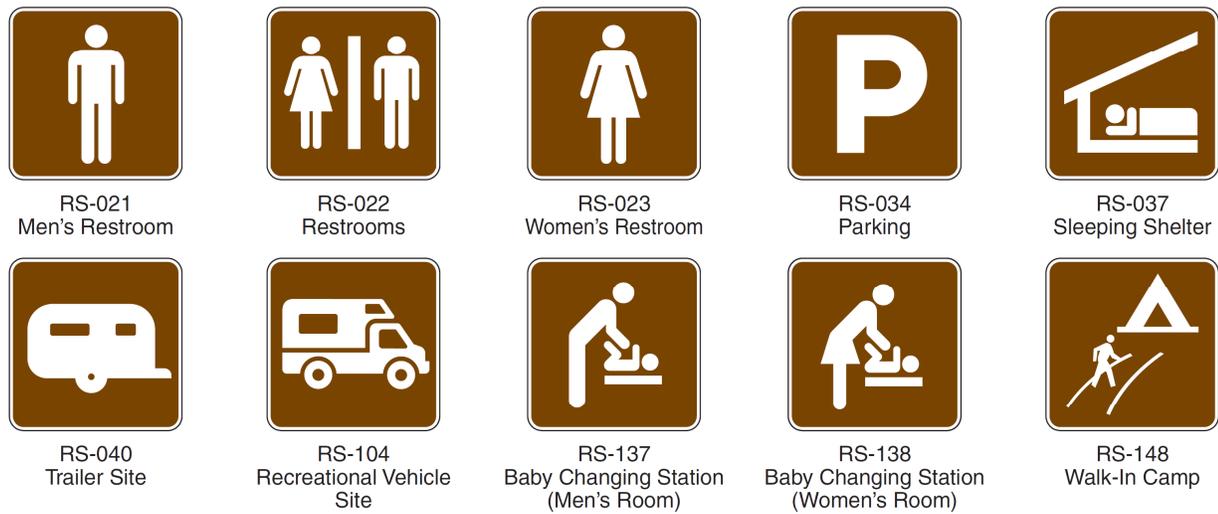
Figure 2M-4. Examples of Symbol and Destination Guide Signing Layout



**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**



**Figure 2M-8. Recreational and Cultural Interest Area Symbol Signs for Land Recreation**



**Figure 2M-8 (CA). Recreational and Cultural Interest Area Symbol Signs for Land Recreation**



**Figure 2M-9. Recreational and Cultural Interest Area Symbol Signs for Water Recreation**



**Figure 2M-10. Recreational and Cultural Interest Area Symbol Signs for Winter Recreation**



**Figure 2M-10 (CA). Recreational and Cultural Interest Area Symbol Signs for Winter Recreation**



**Figure 2M-101 (CA). Memorial or Dedication Signing**



**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
Cans or Bottles *	RS-101
Cultural Interest Area	RS-142
Dam	RS-009
Deer Viewing Area	RS-011
Falling Rocks *	RS-008
Fire Extinguisher *	RS-090
Lighthouse	RS-007
Lookout Tower	RS-006
Nature Study Area	RS-141
Pets on Leash *	RS-017
Pick-Up Trucks	RS-140
Point of Interest	RS-080
Radios *	RS-103
Rattlesnakes *	RS-099
Recycling *	RS-200
Sea Plane	RS-115
Smoking *	RS-002
Snack Bar *	RS-102
Stay on Trail *	RS-123
Strollers *	RS-111
Tunnel	RS-005
Viewing Area	RS-036
Walk on Boardwalk *	RS-122
Wood Gathering *	RS-120

Accommodations	
Baby Changing Station (Men's Room)	RS-137
Baby Changing Station (Women's Room)	RS-138
Men's Restroom	RS-021
Parking	RS-034
Recreational Vehicle Site	RS-104
Restrooms	RS-022
Sleeping Shelter *	RS-037
Trailer Site	RS-040
Walk-In Camp	RS-148
Women's Restroom	RS-023

Services	
Drinking Water	RS-013
Electrical Hook-Up	RS-150
Firewood Cutting *	RS-112
First Aid	RS-024
Grocery Store	RS-020
Kennel	RS-045
Laundromat	RS-085
Litter Receptacle	RS-086
Lockers/Storage *	RS-030
Mechanic	RS-027
Picnic Shelter	RS-039
Picnic Site	RS-044
Post Office	RS-026
Ranger Station	RS-015
Sanitary Station	RS-041
Showers *	RS-035
Stable	RS-073
Theater	RS-109
Trail Shelter *	RS-043
Tramway	RS-071
Trash Dumpster	RS-091

Land Recreation	
All-Terrain Trail	RS-095
Amphitheater	RS-070
Archery	RS-116
Baseball *	RS-096
Climbing *	RS-082
Corral	RS-149
Driving Tour	RS-113
Exercise/Fitness	RS-097
Golfing *	RS-128
Hang Gliding	RS-126
Hiking Trail	RS-068
Horse Trail	RS-064
In-Line Skating	RS-125
Interpretive Trail	RS-114
Off-Road Vehicle Trail	RS-067
Rock Collecting *	RS-083
Skateboarding *	RS-098
Spelunking/Caves	RS-084
Technical Rock Climbing	RS-081
Tennis	RS-129
Wildlife Viewing	RS-076

Water Recreation	
Beach	RS-145
Boat Motor	RS-147
Boat Ramp	RS-054
Canoeing	RS-079
Diving	RS-062
Fish Cleaning *	RS-093
Fish Hatchery	RS-010
Fish Ladder *	RS-089
Fishing Area	RS-063
Fishing Pier	RS-119
Hand Launch/Small Boat Launch	RS-117
Jet Ski/Personal Watercraft	RS-121
Kayaking	RS-118
Lifejackets *	RS-094
Marina	RS-053
Motorboating	RS-055
Rafting	RS-146
Rowboating	RS-057
Sailing	RS-056
Scuba Diving	RS-060
Seal Viewing	RS-106
Surfing	RS-059
Swimming	RS-061
Tour Boat	RS-087
Wading	RS-088
Waterskiing	RS-058
Whale Viewing	RS-107
Wind Surfing	RS-108

Winter Recreation	
Chair Lift/Ski Lift	RS-105
Cross Country Skiing	RS-046
Dog Sledding	RS-143
Downhill Skiing	RS-047
Ice Fishing	RS-092
Ice Skating	RS-050
Ski Jumping	RS-048
Sledding	RS-049
Snow Tubing	RS-144
Snowboarding	RS-127
Snowmobiling	RS-052
Snowshoeing	RS-078
Winter Recreational Area	RS-077

\* For non-road use only

**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	44x18
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	G12-2(CA)	2M.10	VAR x 30	VAR x 42
Historical Landmark	G13-1(CA)	2M.101(CA)	36 x 30	36 x 30
Historical Landmark	G13-2(CA)	2M.101(CA)	72 x 60	72 x 60
Advance Historical Landmark	G14(CA)	2M.101(CA)	36 x 30	36 x 30
POINT OF HISTORICAL INTEREST	G15(CA)	2M.102(CA)	15 x 9	36 x 20
NEXT RIGHT/LEFT	G58(CA)	2M.08	30 x 24	30 x 24
National/State Park (X MILES)	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
Golf Course	G200-80(CA)	2M.02	24 x 24	30 x 30
WILDLIFE VIEWING	G200-81A(CA)	2M.02	24 x 12	30 x 18
Botanical Management Area	G200-82(CA)	2M.02	24 x 24	30 x 30
BOTANICAL MANAGEMENT AREA	G200-82A(CA)	2M.02	24 x 18	30 x 24
Named State Highway	SG1(CA)	2M.10	VAR x 20	VAR x 30
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	SG35(CA)	2M.02	60 x 12	60 x 12
PERMIT REQUIRED NOV 1 TO MAY 30	SG35-1(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	S35-1(CA)	2M.10	36 x 12	36 x 12
IN MEMORY OF XXX - 2 PERSONS	S35-2(CA)	2M.10	36 x 15	36 x 15
IN MEMORY OF XXX - 3 PERSONS	S35-3(CA)	2M.10	36 x 18	36 x 18



## CHAPTER 2N. EMERGENCY MANAGEMENT SIGNING

### 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 of Emergency Management Signs

**Standard:**

**01 Emergency Management signs shall be used to guide and control highway traffic during an emergency.**

**02 Emergency Management signs shall not permanently displace any of the standard signs that are normally applicable.**

**03 Advance planning for transportation operations' emergencies shall be the responsibility of State and local authorities. The Federal Government shall provide guidance to the States as necessitated by changing circumstances.**

**04 Except as provided in Section 2A.11, the sizes for Emergency Management signs shall be as shown in Table 2N-1.**

**Support:**

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

**Option:**

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

*Guidance:*

*07 As conditions permit, the Emergency Management signs should be replaced or augmented by standard signs.*

*08 The background of Emergency Management signs should be retroreflective.*

*09 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:**

**10 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 EM-7c and EM-7d signs in Figure 2N-1.**

### Section 2N.03 Evacuation Route Signs (EM-1 and EM-1a)

**Standard:**

**01 The Evacuation Route (EM-1 and EM-1a) signs shall display a blue circular symbol on a white square sign without a border as shown in Figure 2N-1. The EM-1 sign shall include a white directional arrow (except as provided in Paragraph 3) and a white legend EVACUATION ROUTE within the blue circular symbol. The EM-1a sign shall include a white EVACUATION ROUTE legend and the tsunami symbol within the blue circular symbol. The EM-1 and EM-1a signs shall be retroreflective.**

**02 An Advance Turn Arrow (M5 series) or Directional Arrow (M6 series) auxiliary sign as shown in Figure 2D-5, but with a white arrow on a blue background instead of a black arrow on a white background, shall be installed below the EM-1a sign.**

**Option:**

**03 Instead of including a directional arrow within the blue circular symbol on the EM-1 sign, an Advance Turn Arrow (M5 series) or Directional Arrow (M6 series) auxiliary sign as shown in Figure 2D-5, but with a white arrow on a blue background instead of a black arrow on a white background, may be installed below the EM-1 sign.**

04 If desired, the word HURRICANE, or a word that describes some other type of evacuation route, may be added as a third line of text above the white EVACUATION ROUTE legend within the blue circular symbol on the EM-1 sign.

05 An approved Emergency Management symbol with a diameter of 3.5 inches may appear near the bottom of an Evacuation Route sign.

**Standard:**

06 **The arrow designs, if used, on the EM-1 sign shall include a straight, vertical arrow pointing upward, a straight horizontal arrow pointing to the left or right, or a bent arrow pointing to the left or right for advance warning of a turn.**

07 **If used, the Evacuation Route sign, with the appropriate arrow, shall be installed 150 to 300 feet in advance of, and at, any turn in an approved evacuation route. The sign shall also be installed elsewhere for straight-ahead confirmation where needed.**

08 **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 pavement and not less than 6 feet or more than 10 feet to the right of the right-hand roadway edge.**

09 **Evacuation Route signs shall not be placed where they will conflict with other signs. Where conflict in placement would occur between the Evacuation Route sign and a standard regulatory sign, the regulatory sign shall take precedence.**

**Option:**

10 In case of conflict with guide or warning signs, the Evacuation Route sign may take precedence.

**Guidance:**

11 *Placement of Evacuation Route signs should be made under the supervision of the officials having jurisdiction over the placement of other traffic signs. Coordination with Emergency Management authorities and agreement between contiguous political entities should occur to assure continuity of routes.*

## **Section 2N.04 AREA CLOSED Sign (EM-2)**

**Standard:**

01 **The AREA CLOSED (EM-2) sign (see Figure 2N-1) shall be used to close a roadway in order to prohibit traffic from entering the area. It shall be installed on the shoulder as near as practical to the right-hand edge of the roadway, or preferably, on a portable mounting or barricade partly or entirely in the roadway.**

**Guidance:**

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 (EM-3)**

**Standard:**

01 **The TRAFFIC CONTROL POINT (EM-3) sign (see Figure 2N-1) shall be used to designate a location where an official traffic control point has been set up to impose such controls as are necessary to limit congestion, expedite emergency traffic, exclude unauthorized vehicles, or protect the public.**

02 **The sign shall 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 **The standard STOP (R1-1) sign shall be used in conjunction with the TRAFFIC CONTROL POINT sign. The TRAFFIC CONTROL POINT sign shall consist of a black legend and border on a retroreflectorized white background.**

**Guidance:**

04 *The TRAFFIC CONTROL POINT sign should be mounted directly below the STOP sign.*

### **Section 2N.06 MAINTAIN TOP SAFE SPEED Sign (EM-4)**

**Option:**

<sup>01</sup> The MAINTAIN TOP SAFE SPEED (EM-4) 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.

<sup>02</sup> Where an existing Speed Limit (R2-1) sign is in a suitable location, the MAINTAIN TOP SAFE SPEED sign may conveniently be mounted directly over the face of the speed limit sign that it supersedes.

**Support:**

<sup>03</sup> 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:**

<sup>04</sup> *The sign should be installed as needed, in the same manner as other standard speed signs.*

**Standard:**

<sup>05</sup> **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 ROAD (AREA) USE PERMIT REQUIRED FOR THRU TRAFFIC Sign (EM-5)**

**Support:**

<sup>01</sup> The intent of the ROAD (AREA) USE PERMIT REQUIRED FOR THRU TRAFFIC (EM-5) 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:**

<sup>02</sup> **If used, the ROAD (AREA) USE PERMIT REQUIRED FOR THRU TRAFFIC (EM-5) sign shall be used at an intersection that is an entrance to a route on which a traffic control point is located.** <sup>03</sup> **If used, the 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 (EM-6 Series)**

**Standard:**

<sup>01</sup> **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.**

<sup>02</sup> **Emergency Aid Center (EM-6 series) signs (see Figure 2N-1) shall carry the designation of the center and an arrow indicating the direction to the center. They shall be installed as needed, at intersections and elsewhere, on the right-hand 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.**

<sup>03</sup> **Emergency Aid Center signs shall carry one of the following legends, as appropriate, or others designating similar emergency facilities:**

- A. MEDICAL CENTER (EM-6a),**
- B. WELFARE CENTER (EM-6b),**

**C. REGISTRATION CENTER (EM-6c), or  
D. DECONTAMINATION CENTER (EM-6d).**

**04 The Emergency Aid Center sign shall be a horizontal rectangle. Except as provided in Paragraph 5, the identifying word and the word CENTER, the directional arrow, and the border shall be black 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 6I).

**Section 2N.09 Shelter Directional Signs (EM-7 Series)**

**Standard:**

**01 Shelter Directional (EM-7 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 guide, warning, and regulatory signs.**

**03 The Shelter Directional sign shall be a horizontal rectangle. Except as provided in Paragraph 4, the identifying word and the word SHELTER, the directional arrow, the distance to the shelter, and the border shall be black on a white background.**

Option:

**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 6I).

**05** The distance to the shelter may be omitted from the sign when appropriate.

**06** Shelter Directional signs may carry one of the following legends, or others designating similar emergency facilities:

- A. EMERGENCY (EM-7a),
- B. HURRICANE (EM-7b),
- C. FALLOUT (EM-7c), or
- D. CHEMICAL (EM-7d).

**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.

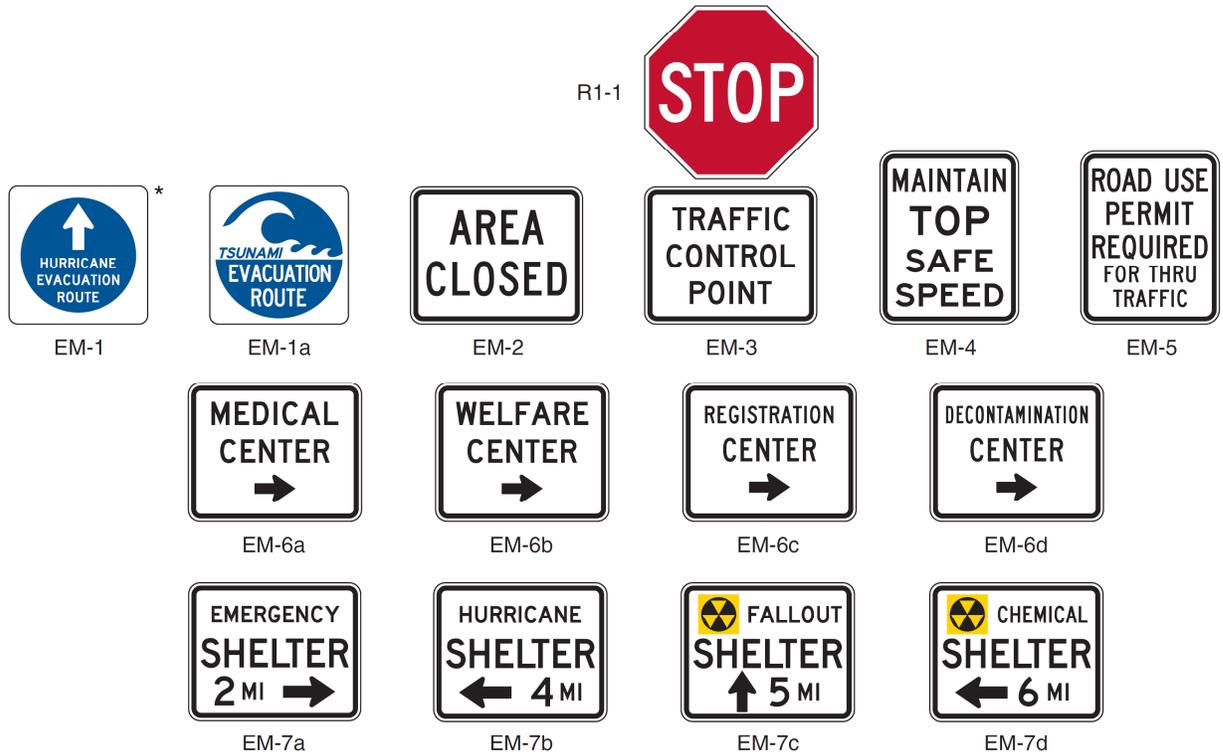
**09** The Shelter Directional signs may be used to identify different routes to a shelter to provide for rapid movement of large numbers of persons.

*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, or this line of text may be omitted.

**Table 2N-1. Emergency Management Sign Sizes**

Sign or Plaque	Sign Designation	Section	Minimum Size
Evacuation Route	EM-1, EM-1a	2N.03	24 x 24*
Area Closed	EM-2	2N.04	30 x 24
Traffic Control Point	EM-3	2N.05	30 x 24
Maintain Top Safe Speed	EM-4	2N.06	24 x 30
Permit Required	EM-5	2N.07	24 x 30
Emergency Aid Center	EM-6a to EM-6d	2N.08	30 x 24
Shelter Directional	EM-7a to EM-7d	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  
 2. Dimensions in inches are shown as width x height

