

## D. GUIDE SIGNS—CONVENTIONAL ROADS

### 2D-1 Scope of Conventional Road Guide Sign Standards

Standards for Conventional Road Guide Signs prescribed herein shall apply to any road or street other than an expressway or freeway.

### 2D-2 Application

Guide signs are essential to guide vehicle operators 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.

### 2D-3 Color, Reflectorization, and Illumination

Except where otherwise specified herein for individual signs or groups of signs or markers, guide signs on conventional roads and streets shall have a white message on a green background.

Requirements for reflectorization or illumination are stated under the specific headings for individual guide signs or groups of signs. General provisions are given in sections 2A-16 through 2A-18.

### 2D-4 Size of Signs

For most guide signs the legend is so variable that there can be no rigidly standardized size. The sign size must be fixed primarily in terms of length of the message and the size of the lettering and spacing necessary for proper legibility. However, for signs with standardized designs, such as route markers, it is practicable to fix standard sizes and these are given in ~~the~~ Standard Highway Signs ~~Booklet~~,\*

Under some circumstances, particularly for overhead signs, the available space may limit sign width. A sign mounted over a particular roadway lane to which it applies may have to be limited in width to the lane width. Where vertical clearances are limited, and standard sign design cannot be used, a reduced letter height, interline and edge spacing may be used. When a reduction in the standard size is necessary, the design used should be as nearly comparable to standards as possible.

### 2D-5 Lettering Style

The standard lettering for conventional highway signs is uppercase letters (sec. 2A-15). However, when letter height exceeds 8 inches, place

\*Available from ~~the~~ Federal Highway Administration (H-40-20), Washington, D.C. 20009 GPO, see page ii

names on guide signs should be composed of lower-case letters with an initial upper-case letter. The initial upper-case letters shall be approximately  $1\frac{1}{3}$  times the "loop" height of the lower-case letters. Designs have been developed for the upper-case and lower-case alphabets, together with tables of spacing. These are provided in the Standard Alphabets for Highway Signs and Pavement Markings.\*

## 2D-6 Size of Lettering

For guide signs with varying legend, sign legibility is a direct function of letter size. The legibility distance must give the driver sufficient time to read the sign before passing. Although under the best conditions a guide-sign message can be read and understood in a brief glance, a reasonable safety factor must be allowed for inattention, blocking of view by other vehicles, unfavorable weather, inferior eyesight, or other causes for delayed or slow reading. On the other hand, the usual repetition of guide information on successive signs where conditions permit often gives a driver more than one opportunity to obtain the information needed.

Though the reading time for any given sign varies greatly with the approach speed, standard lettering sizes should be consistent on any particular class of highways. The same conditions that induce lower speed—heavy traffic, frequent intersections or interchanges, unfavorable alignment, or extraneous distractions—usually create a need for greater legibility. Hence the size standards set forth are related to the type of highway rather than to variable speeds on any class of highways (table II-1, page 2E-4*f.* and Table II-2, page 2F-5

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

In rural districts on major routes, the principal legend on guide signs shall be in letters at least 6 inches in height. On less important rural roads and on urban streets the principal legend shall be in letters at least 4 inches high. Sign panels shall be large enough to accommodate the required legend without crowding.

Recommended layouts have been developed for standard highway signs showing interline, edge spacing and other specification detail.\*\*

## 2D-7 Amount of Legend

Regardless of letter size, the legend on a guide sign must be kept to a minimum to be legible at a glance during the few moments that a driver can turn his eyes from the road. Guide signs should be limited to three lines of principal legend. Where two or more signs are included in the same overhead display, extra effort should be made to further reduce and simplify the amount of legend.

\* *Ibid.*

\*\* *Ibid.*

"Principal legend" here includes only place names, route numbers, and street names. Symbols, action information, cardinal directions and exit numbers may make up other lines of legend, within reasonable limits.

## 2D-8 Arrows and Symbols

Arrows are used on many guide signs to indicate the directions toward designated routes or destinations. Arrows are pointed at any desired angle to convey a clear comprehension of the direction to be taken. At right-angle intersections a horizontal arrow is appropriate. On a roadside sign a directional arrow for a straight-through movement should point upward. For a turn the arrow should be pointed upward as will best describe the design of the intersection, and at an angle related to the sharpness of the turn.

On overhead signs where it is desired to indicate a lane to be followed, the arrow shall point downward toward the center of that lane. Where a roadway is leaving the through lanes, the arrows shall point upward at an angle representative of the alignment of the exit roadway. If required, the through roadway lanes will be identified by downward pointing arrows.

Downward pointing arrows shall be used only on overhead guide signs which restrict the use of specific lanes to traffic bound for the destination(s) and/or route(s) indicated by these arrows. Downward pointing arrows shall not be used unless an arrow can be pointed to each lane that can be used to reach the destination shown on the sign.

Arrows may be placed below the other sign legend, or to one side of it. At an exit, an arrow should be placed at the side of the sign which will reinforce the movement of the exiting traffic.

Figure 2-6 (page 2D-4) shows the two standard arrows approved for use on guide signs. The "UP" arrow is also intended to be used for horizontal and slanted applications. Detailed dimensions of the arrows are shown in the Appendix of ~~The Standard Highway Signs Booklet~~.<sup>\*</sup> For adequate legibility, it is recommended that the width across the barbs of the arrow be at least equal to the height of the largest letters on the sign; and for short downward pointing arrows on overhead signs, about  $1\frac{3}{4}$  times the letter height.

Diagrammatic signing used on conventional roads should follow the principles set forth in section 2F-24.

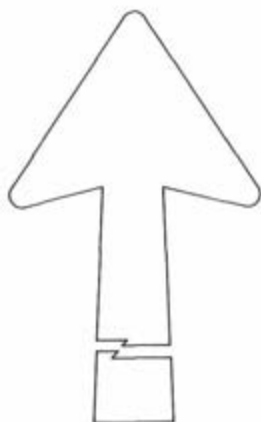
## 2D-9 Numbered Highway Systems

The purpose of numbering and marking highway systems is to identify routes and facilitate travel over the shortest and best roads.

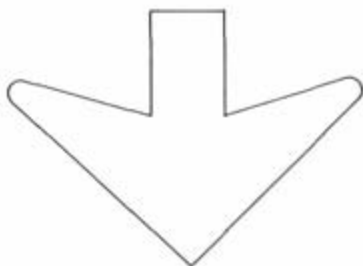
The Interstate System and the United States (U.S.) System are numbered by the American Association of State Highway and Transporta-

<sup>\*</sup>Available from ~~Federal Highway Administration (HIO-30), Washington, D.C. 20560~~

GPO, see page ii



"UP" ARROW



"DOWN" ARROW

Figure 2-6. Standard arrows for use on guide signs.

tion Officials, upon recommendation of the State highway organizations. State and county systems are numbered by the appropriate authorities.

The basic <sup>Policy</sup> ~~guide~~ for ~~designating and~~ numbering the U.S. <sup>and Interstate Highway</sup> System is the "Purpose and Policy in the Establishment and Development of United States Numbered Highways," published by the American Association of State Highway and Transportation Officials.\*

The principles of this policy should be followed in establishing other systems, with effective coordination between adjacent jurisdictions. Care should be taken to avoid the use of numbers or other designations which have been assigned to Interstate, U.S. or State routes in the same area. Overlapping numbered routes should be avoided, and the systems shall be given preference, in this order: Interstate, United States, State and County.

#### 2D-10 Route Markers and Auxiliary Markers

Route markers shall be used to identify and mark all numbered highways. The markers for each system of numbered highways, which are distinctive in shape and color, shall be used only on that respective system and the approaches thereto.

To accomplish their purpose route markers are usually mounted in assemblies which are formed when the route markers are accompanied by any of the various types of auxiliary markers.

Route markers as well as any auxiliary markers which accompany them shall be reflectorized for nighttime visibility as detailed in subsequent sections.

\*Available from the American Association of State Highway and Transportation Officials, 444 North Capitol Street, N.W., Suite 225, Washington, D.C. 20001.

## 2D-11 Design of Route Markers (M1-1 to 7)

The design of standard route markers is detailed in the Standard Highway Signs Booklet.\* Other route marker designs shall be established by the authority having jurisdiction. Additional design and use requirements are as follows:

1. Interstate Route Markers for use on intersecting highways and roads approaching an interchange with an Interstate route shall consist of a cutout shield, with the route number in white letters on a blue background, the word INTERSTATE in white letters on a red background, and white border and may contain the State name in white letters on a blue background. A 24 × 24 inches size is prescribed to accommodate route numbers with one or two digits, and a 30 × 24 inches size for route numbers having three digits (see also sec. 2F-40).



Interstate  
Route Marker

M1-1

24" × 24" (2-digit)

30" × 24" (3-digit)



Off-Interstate  
Business Marker

M1-2

M1-3

24" × 24" (2-digit)

30" × 24" (3-digit)

SPUR

2. Off-Interstate Business Route Markers shall consist of a cutout shield carrying the number of the connecting Interstate route and the words BUSINESS (LOOP or SPUR). The legend and border shall be white on a green background, and the shield shall be of the same shape and dimensions as the Interstate Route Marker previously described. In no instance is the word INTERSTATE to appear on the Off-Interstate Business Route Marker. For improved contrast a white square panel may be placed between the green guide sign and the Off-Interstate Business Route Marker. This marker 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 interchanges on the System.

3. U.S. Route Markers shall consist of a rectangular 24 × 24 inch or 30 × 24 inch plate, with black numerals on a white shield surrounded by a black background, without a border. This marker shall be used on all

\*Available from the Federal Highway Administration (HTO-20), Washington, D.C. 20590

U.S. routes and in connection with route marker assemblies on intersecting highways.

4. State Route Markers are to be designed by the individual State highway departments. However, the States are encouraged to adopt a uniform State Route Marker. This Marker should be a square plate of approximately the same size as the U.S. Route Marker, and containing comparable the same size black numerals on a white area surrounded by a black background without a border. The shape of the white area is to be circular in the absence of any determination to the contrary by the individual states concerned.

5. Wherever County road authorities elect to establish and identify a special system of important County roads, County road identification markers are to be designed and used as specified in the publication "A Proposal for a Uniform County Route Marker Program on a National Scale."\* The Uniform County Route Marker shall be a pentagonal shape and shall consist of a reflectorized yellow legend (County name, route letter and number) and border on a reflectorized blue background. County Route Markers displaying two digits or the equivalent (letter and numeral or two letters) shall have a minimum size 18 × 18 inches; those carrying three digits or the equivalent shall have a minimum size of 24 × 24 inches. When used with other route markers in common assemblies the County Route Marker should be of a size compatible with that of the other route markers. For improved contrast a yellow square panel may be placed between the green guide sign and the County Route Marker.



U.S.  
Route Marker  
M1-4  
24" x 24" (2-digit)  
30" x 24" (3-digit)



County  
Route Marker  
M1-5  
24" x 24"

6. Route markers for park and forest roads are to be designed with adequate distinctiveness and legibility and of a size compatible with other route markers used in common assemblies.

Route markers may be proportionally enlarged to any required size where greater legibility is needed. Where U.S. or State Route Markers

\* Available from the National Association of Counties, Washington, D.C. 20006.



State Route Marker  
M1-5

24" x 24" (2-digit) or 30" x 24" (3-digit)



Forest Route Marker  
M1-7

24" x 24"

are used as components of guide signs, only the outline of the shield or other distinctive shape should be used as shown in the illustration of the Combination Junction sign (sec. 2D-14).

Route markers shall be fully reflectorized as color design permits.

#### 2D-12 Design of Route Marker Auxiliaries

Route marker auxiliaries carrying word legends, except the JCT marker, should have a standard size of 24 × 12 inches. Those carrying arrow symbols, or the JCT marker, should have a standard size of 21 × 15 inches. Auxiliary markers carrying word messages and mounted with 30 × 24 inch Interstate Route Markers should be 30 × 15 inches. With route markers of larger sizes, the auxiliary markers should be suitably enlarged, but should not exceed the width of the route marker itself.

All route marker auxiliaries shall match the color combination of the respective marker which they supplement.

Detour markers have a distinctive design as described in section 2D-24.

If desired, a route marker and any auxiliaries used with it may be combined on a single panel of approximately the same overall dimensions as the assembly.

#### 2D-13 Junction Marker (M2-1)

The Junction marker shall carry the abbreviated legend JCT and is to be mounted at the top of an assembly (sec. 2D-29), either directly above the route marker or above a marker for an alternative route (sec. 2D-17) which is part of the route designation. The minimum size of the Junction marker shall be 21 × 15 inches for compatibility with auxiliary markers carrying arrow symbols.



M2-1  
21" x 15"

#### 2D-14 Combination Junction Sign (M2-2)

As an alternative to the standard Junction assembly where more than one route is to be intersected or joined, a rectangular sign may be used carrying the word JUNCTION above the route numbers. The sign will normally have a ~~black or~~ green background with reflectorized white border and lettering for the word JUNCTION, reflectorized white route marker shields, and black for the route designations. Other designs may be used to accommodate State and County Route Markers. The size of the sign will depend on the number of routes involved, and the numerals should be large enough for clear legibility, comparable with those in the individual route markers.



M2-2  
Variable Size

#### 2D-15 Cardinal Direction Marker (M3-1 to M3-4)

The Cardinal Direction marker carrying the legend EAST, WEST, NORTH or SOUTH is intended to be mounted directly above a route marker to indicate the general direction of the entire route.

#### 2D-16 Markers for Alternative Routes

Markers indicating an alternative routing for a special purpose, carrying the legend ALTERNATE, BYPASS, BUSINESS or TRUCK are to





**NORTH**

M3-1  
24" x 12"



**EAST**

M3-2  
24" x 12"



**SOUTH**

M3-3  
24" x 12"



**WEST**

M3-4  
24" x 12"

be mounted directly above a route marker for use on a route designated as an alternate to a route of the same number between two points on that route.

#### 2D-17 Alternate Marker (M4-1, M4-1a)

The ALTERNATE (or ALT) marker is to be used to indicate an officially designated alternate routing of a numbered route between two points on that route. The shorter or better constructed route should be given the regular number.



**ALTERNATE**

M4-1  
24" x 12"



**ALT**

M4-1a  
24" x 12"



**BY-PASS**

M4-2  
24" x 12"



**BUSINESS**

M4-3  
24" x 12"

#### 2D-18 Bypass Marker (M4-2)

The BYPASS marker is to be used to designate a route that branches from the regular numbered route through a city, bypasses a part of the

city or congested area, and rejoins the regular numbered route beyond the city.

#### 2D-19 Business Route Marker (M4-3)

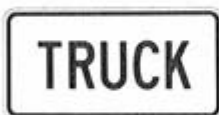
The BUSINESS route marker is to be used to designate an alternate route that branches from a regular numbered route, passes through the business portion of a city and rejoins the regularly numbered route beyond that area.

#### 2D-20 Truck Route Marker (M4-4)

The TRUCK marker is to be used to designate an alternate route that branches from a regular numbered route, bypasses an area which is congested or where height or weight limitations have been established, and rejoins the regularly numbered route beyond that area.

#### 2D-21 To Marker (M4-5)

The TO marker is to be used to provide directional guidance to a particular road facility (sec. 2D-33) from other highways in the vicinity and is to be mounted directly above a route marker.



M4-4  
24" x 12"



M4-5  
24" x 12"



M4-6  
24" x 12"



M4-7  
24" x 12"

#### 2D-22 End Marker (M4-6)

The END marker is for use where the route being traveled ends at a junction with another route. This marker is to be mounted either directly above a route marker, or above a marker for an alternative route (sec. 2D-16) which is part of the designation of the route being terminated.

### 2D-23 Temporary Marker (M4-7)

The TEMPORARY marker is to be used to mark for an interim period a section of highway connecting completed portions of a route that is not planned as a permanent part of a regular numbered route. This marker is to be mounted either directly above the route marker or above a Cardinal Direction marker or a marker for an alternative route which is part of the route designation.

Temporary markers shall be promptly removed when the temporary route is abandoned.

### 2D-24 Detour Marker (M4-8)

The DETOUR marker is to be used to mark a temporary route that branches from a regular numbered route, bypasses a section of a route which is closed or blocked by construction, major maintenance, roadway damage or traffic emergency and rejoins the regularly numbered route beyond that section.

The DETOUR marker shall have a black legend on a reflectorized orange background. It is to be mounted at the top of a route marker assembly. (See section 6B-38.)



M4-8  
24" x 12"



M4-9R  
30" x 24"

### 2D-25 Detour Sign (M4-9R and 9L)

An alternative method for marking detours, particularly in emergencies, is the use of the DETOUR sign (M4-9). This is a rectangular sign having a black message and border on a reflectorized orange background.

This sign is to be used where a route number does not exist; or where, over relatively short distances, it is not necessary to show route numbers to guide traffic along the detour and back to its desired route. It is for use in emergency situations and for periods of short duration. The Detour Arrow sign (sec. 6B-38) is prescribed for use on barricades in the roadway where a road is closed for construction or for major maintenance operations.

## 2D-26 Advance Turn Arrow (M5-1, M5-2)

The Advance Turn Arrow marker displays a right or left arrow, the shaft of which is bent at a right angle or at a 45° angle. It is to be mounted below the route marker in advance turn assemblies.



M5-1  
21" x 15"



M5-2  
21" x 15"

## 2D-27 Directional Arrow (M6-1 to M6-7)

The Directional Arrow marker displays a single- or double-headed arrow pointing in the general direction that a route may be followed. It is to be mounted below the route marker in directional assemblies.

## 2D-28 Route Marker Assemblies

A Route Marker assembly consists of a route marker and auxiliary markers which further identify the route and indicate direction. Assemblies for two or more routes, or for different directions on the same route, are mounted in groups on a common support.

Route Marker assemblies shall be erected on all approaches to the intersection of numbered routes, and may be erected on the approaches to numbered routes on unnumbered roads and streets which carry an appreciable amount of traffic destined for the numbered route.

Where two or more routes follow the same section of highway, the Route Markers for Interstate, U.S., or 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 Markers for lower-numbered routes shall be placed at the left or top.

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

Route Marker assemblies shall be mounted in accordance with the general specifications for highway signs, with the lowest unit in the assembly at the height prescribed for single signs.



M6-1  
21" x 15"



M6-2  
21" x 15"



M6-3  
21" x 15"



M6-4  
21" x 15"



M6-5  
21" x 15"



M6-6  
21" x 15"



M6-7  
21" x 15"

The design and location of route marker assemblies as indicated, is made mandatory by the word "shall" in the descriptive paragraphs. However, it should be recognized that groups of assemblies which include overlapping routes and multiple turns may be confusing. Where studies indicate this possibility exists, omission or combination of either route markers or auxiliary markers is permitted, provided that clear directions are given to motorists.

## **2D-29 Junction Assembly**

A Junction assembly shall consist of a Junction marker and a Route Marker.

The Junction assembly shall be erected in advance of every intersection where a marked route is intersected or joined by another marked route. The Route Marker shall carry the number of the intersected or joined route. Where two or more routes are to be indicated, one Junction marker can be used for the assembly and all Route Markers grouped in a single mounting, or a Combination Junction sign (sec. 2D-14) may be used.

In urban districts, the Junction assembly shall be erected approximately midway in the block preceding the intersection, but generally not more than 300 feet in advance of the intersection.

In rural districts, the Junction assembly shall be erected not less than 400 feet in advance of the intersection, on the right-hand side of the road. In such areas, the minimum distance between the Destination sign, the Route Turn assembly, and the Junction assembly shall be 200 feet. Where prevailing speeds are above 45 m.p.h., greater spacings are desirable.

## **2D-30 Advance Route Turn Assembly**

An Advance Route Turn assembly shall consist of a Route Marker, an Advance Turn Arrow or word message marker, and a Cardinal Direction marker if needed.

The Advance Route Turn assembly shall be erected in advance of an intersection where a turn must be made to remain on the indicated route.

The Advance Route Turn assembly may be used as necessary to supplement the required Junction assembly in advance of intersecting routes. Where a multiple lane highway approaches an interchange or intersection with a numbered route, the Advance Route Turn assembly should be used as necessary to pre-position turning vehicles in the correct lanes from which to make their turn.

In rural districts, the Route Turn assembly should be erected not less than 400 feet in advance of the turn. In urban areas, the Route Turn assembly should be erected 300 feet in advance of the turn.

An assembly which includes an Advance Turn Arrow should never be placed where there is an intersection between it and the designated turn. Sufficient distance should be allowed between the assembly and any preceding intersection that could be mistaken for the indicated turn.

## **2D-31 Directional Assembly**

A Directional assembly shall consist of a Route Marker, a Directional Arrow, and a Cardinal Direction marker if needed.

The various uses of Directional assemblies are outlined below:

1. Straight-through movements should be indicated by a Directional assembly with a Route Marker 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 marker beyond the intersection normally provides adequate guidance.

2. Turn movements (indicated in advance by a Route Turn assembly) shall be marked by a Directional assembly with a Route Marker displaying the number of the turning route and a single-headed arrow pointed in the direction of the turn.

3. The beginning of a route (indicated in advance by a Junction assembly) shall be marked by a Directional assembly with a Route Marker displaying the number of that route and a single-headed arrow pointed in the direction of the turn.

4. The end of a route shall be marked by a Directional assembly with an END marker and a Route Marker displaying the number of that route.

5. An intersected route (indicated in advance by a Junction assembly) shall be marked by:

- (a) Two Directional assemblies, each with a Route Marker displaying the number of the intersected route, Cardinal Direction markers and single-headed arrows pointed in the directions of movement on that route, or
- (b) A Directional assembly with a Route Marker displaying the number of the intersected route and a double-headed arrow, pointing at appropriate angles to the left, right or ahead.

It is more important that guide signs be readable at the right time and place than to be located with absolute uniformity. The following indicates the preferred locations for directional assemblies:

a. Directional assemblies should be located on the near right-hand corner of the intersection.

b. At major intersections and at Y or offset intersections it is often desirable to install additional assemblies on the far right-hand or left-hand corner to confirm the near-side assemblies.

c. When the near-corner position is not practical for Directional assemblies, the far right-hand corner is the preferred alternative, with oversize signs if necessary for legibility.

d. If it is found advantageous to place a Directional assembly where it can be read at close range without interference from cross traffic, the most suitable location should be determined by engineering judgment.

See figures 2-7a, b, and c for illustrations of Directional assemblies and other route markings.

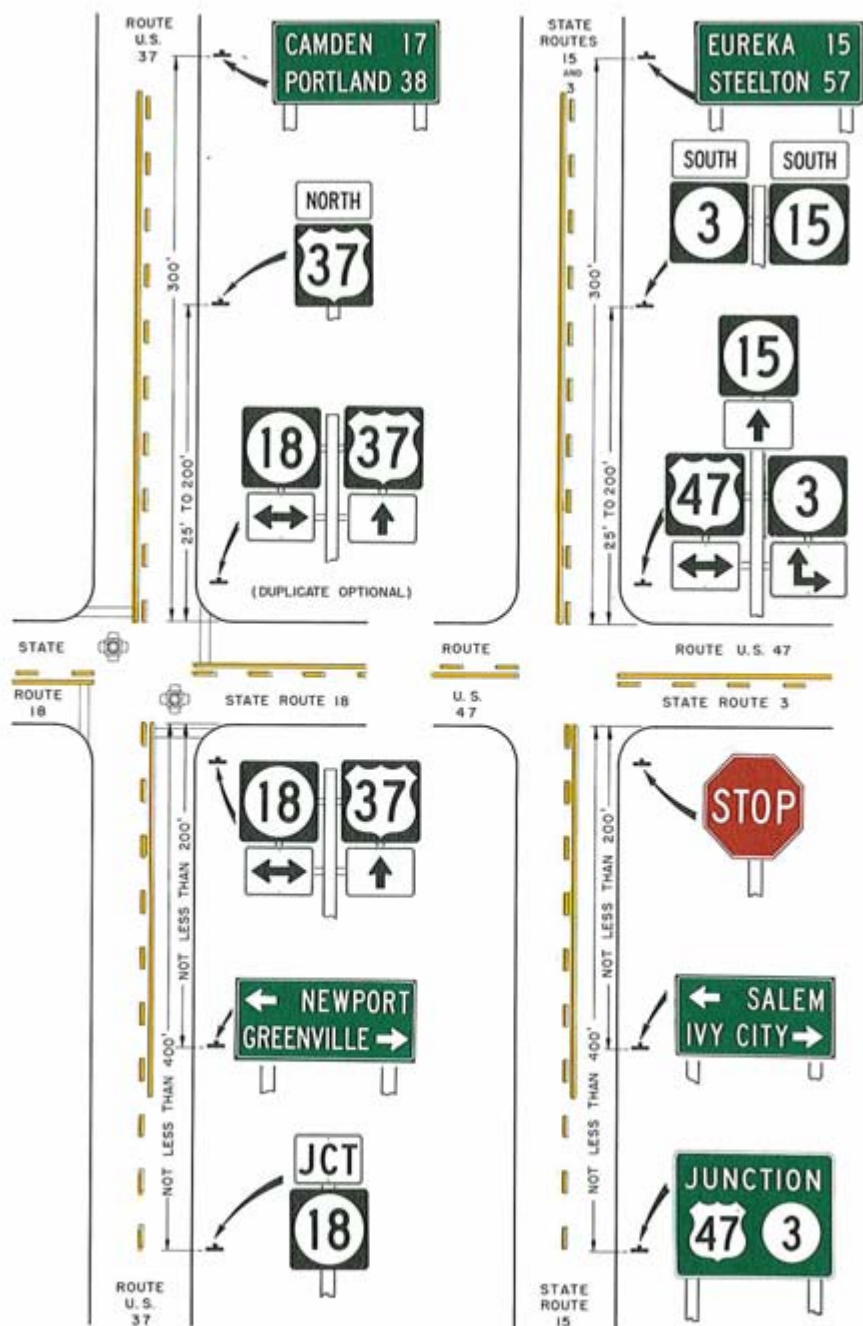


Figure 2-7a. Typical route markings at rural intersections (for one direction of travel only).





Figure 2-7b. Typical route markings at rural intersections (for one direction of travel only).

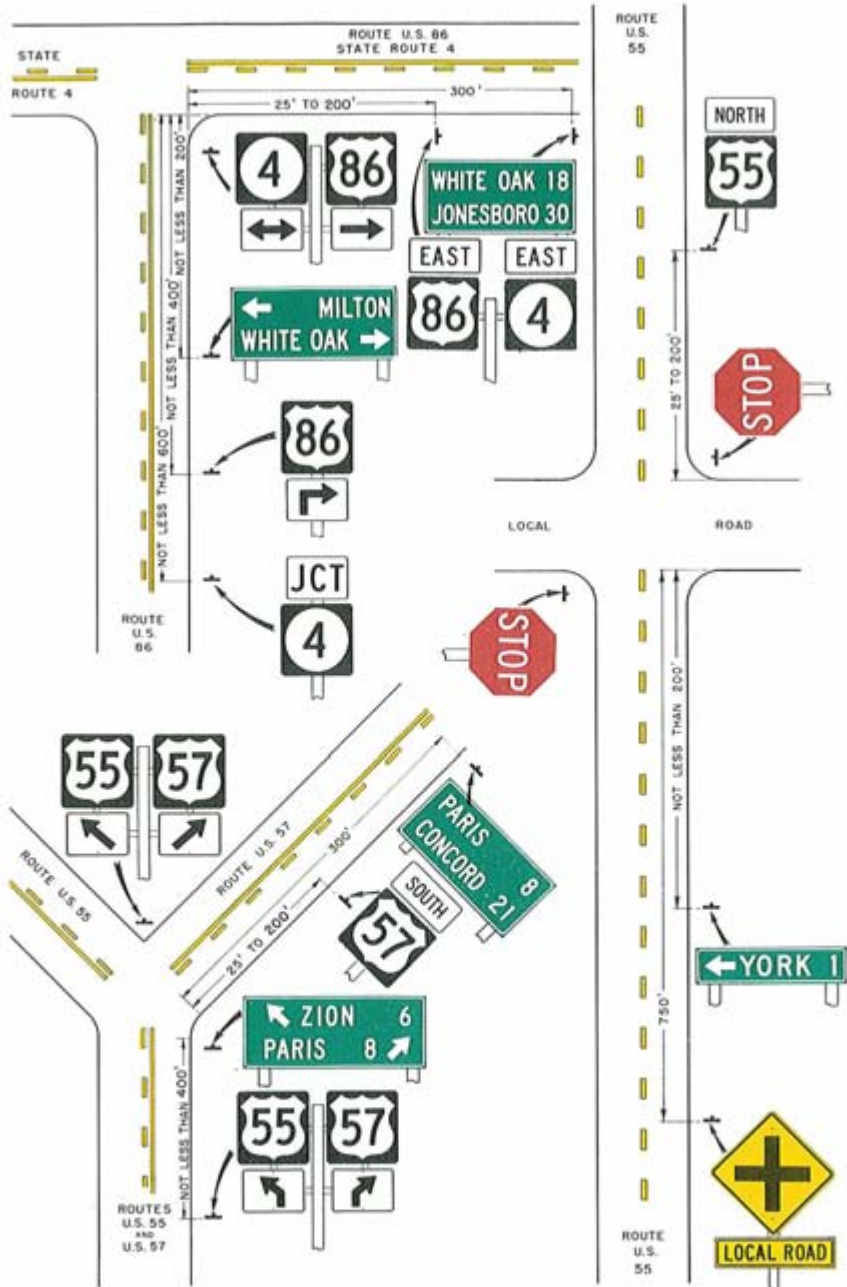


Figure 2-7c. Typical route markings at rural intersections (for one direction of travel only).

## 2D-32 Confirming or Reassurance Assemblies

These assemblies shall consist of a Cardinal Direction marker and a Route Marker.

The Confirming assembly shall be erected just beyond intersections of numbered routes. In rural districts, the Confirming assembly should be placed no more than 200 feet beyond the far shoulder or curb line of the intersected highway. In urban districts this distance should be no more than 100 feet.

Reassurance markers should be erected between intersections in urban districts as needed and beyond the built-up area of any incorporated city or town.

Route markers for either confirming or reassurance purposes should be spaced at such intervals as necessary to keep the driver informed of his route. In congested urban areas, the proper location of route markers is extremely important because it is very easy for the traveler to become confused and lose his route. Extreme care should be taken to erect the markers where they can be seen easily. If necessary, they should be located on the far-side of every intersection along a numbered route, or so that at all times a route marker is visible ahead.

## 2D-33 Trailblazers

Traffic authorities have found it desirable to provide directional guidance to a particular road facility from other highways in the vicinity. This is accomplished by means of "Trailblazers" erected at strategic locations, usually along major urban arterials, 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 marker is posted is not a part of the indicated route, and that a driver is merely being directed progressively to the route.

A Trailblazer assembly shall consist of a TO marker, a Cardinal Direction marker if needed, a Route Marker or a special road facility symbol, and a single-headed Directional Arrow pointed along the route leading to the facility. The Route Marker or symbol should not exceed 24 × 24 inches unless a 3-digit route numeral or equivalent designation must be accommodated, in which case the appropriate enlarged size may be used. The TO marker, Cardinal Direction marker, and Directional Arrow should be of the size specified for auxiliary markers of their respective type.

Trailblazer assemblies may be erected with other route marker assemblies, or alone, in the immediate vicinity of designated facilities.

## 2D-34 Destination Signs and Distance Signs

In addition to guidance by route numbers it is necessary to supply the traveler information concerning the destinations that can be reached by



Trailblazer Assembly

way of numbered or unnumbered routes. This is done by means of Destination signs and Distance signs.

These signs shall have a reflectorized white legend and border on a green background. Reflectorization of the green background is desirable. On any particular highway, reflectorization should be consistently uniform.

Destination names should be in lower-case letters with initial upper-case when letter height exceeds 8 inches.

#### 2D-35 Destination Signs (D1-1 to 3)

Except where special interchange signing is prescribed, the Destination sign shall be a horizontal rectangle carrying the name of a city, town, village, or other traffic generator, and a directional arrow. The distance to the place named may also be shown. If several destinations are to be shown at a single point, the several names may be placed on a single panel 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, but in any case 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 arrows, spacing of lines of legend, heavy lines entirely across the panel, or separate panels.

An arrow pointing to the right shall be at the extreme right of the sign, and an arrow pointing left or vertically shall be at the extreme left for signs mounted on the right side of the roadway. The distance figures, if used, shall follow after the destination name. As a general rule, the directional arrows should be horizontal or vertical, but at an irregular intersection a sloping arrow will sometimes convey a clearer indication of the direction to be followed.



D1-1  
Variable Size



D1-2  
Variable Size



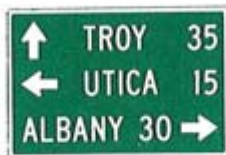
D1-3  
Variable Size



D1-1a  
Variable Size



D1-2a  
Variable Size



D1-3a  
Variable Size

The size of the lettering for U.S. and State numbered routes and other major routes shall be no less than that specified in section 2D-6. If several individual name panels are assembled into a group, all panels in the assembly should be of the same length.

Destination signs are generally warranted:

1. At the intersections of U.S. or State numbered routes with Interstate, U.S. or State numbered routes.
2. At points ~~where~~<sup>where</sup> 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.

Where a total of three or less destinations are provided on the Advance Guide (2E-26) and Supplemental (2E-28) signs, not more than three names shall be used on a Destination sign. Where four destinations are provided by the Advance Guide and Supplemental signs, not more than four destinations shall be used on destination signing. Four name destination signing shall consist of two separately mounted sign panels one on the left and one on the right, where space permits. Where spacing is critical or all four destinations are in one direction, a single sign assembly may be used. However, a heavy line entirely across the panel or separated sign panels shall be used to adequately separate destinations. The next most important destination lying straight ahead should be at the top of the sign or assembly, and below it the next important destinations to the left and to the right, in that order. In the case of overlapping routes, there should be shown only one destination in each direction for each route. If there is more than one destination shown in any direction, the name of the nearest city or town shall appear above that of any farther away. The destination shown for each direction should ordinarily be the next county seat or the next principal city, rather than a more distant destination.

11-8 (c)

## 2D-36 Location of Destination Signs

In rural districts, Destination signs should be located 200 feet or more in advance of the intersection, and following any Junction or Route Turn assemblies that may be required. In urban districts shorter distances may be justified. The Destination sign is of lesser importance than the Junction, Turn or Directional assemblies; therefore, when sign spacing is critical the Destination sign may be eliminated.

Height and lateral placement of Destination signs shall be in accordance with the general standards for sign erection.

Figures 2-7a, b and c (pages 2D-16 to 2D-18) show the use of Destination signs at rural intersections.

## 2D-37 Distance Sign (D2-1 to 3)

The Distance sign shall be a horizontal rectangle of a size appropriate to the required legend, carrying the names of not more than three cities, towns, villages or other traffic generators, and the distance (to the nearest mile) to those places.

The top name should be that of the next place on the route having a post office, railroad station, route number or name of an intersected highway, or other significant geographical identity. The lowermost name should be that of the next major destination or "control city." If three destinations are shown, the middle line should be used to indicate communities of general interest along the route, or important route junctions. The choice of names for this middle line can be varied on successive Distance signs to give motorists maximum information concerning communities served by the route.

The "control city" should remain the same on all successive signs throughout the length of the route until that destination is reached. There are circumstances, however, under which more than one distant point may properly be designated, as for example, where the route divides at some distance ahead to serve two destinations of similar importance. If these two destinations cannot appear on the same sign, alternating of the two names may be justified on succeeding signs. On a route continuing into another state, destination(s) in the adjacent state should be shown.

## 2D-38 Location of Distance Signs

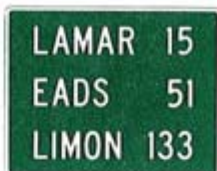
Distance signs should be erected on important routes leaving municipalities, and just beyond intersections of numbered routes in rural areas.



D2-1  
Variable Size



D2-2  
Variable Size



D2-3  
Variable Size

Distance signs shall be placed on the right-hand side of the road facing traffic leaving the municipality, approximately 500 feet outside of the municipal limits, or at the edge of the built-up district if it extends beyond the corporation limits. Where overlapping routes separate a short distance from the corporation limits, the Distance sign at the corporation limits should be omitted, and instead should be erected 300 feet beyond the separation of the two routes.

Where, just outside of an incorporated municipality, two routes are concurrent and continue concurrently to the next incorporated municipality, the top name on the sign placed at such a point should be that of the place where the routes separate; the lower name should be that of the city in which the greater part of the through traffic is interested.

Distance signs shall be erected in accordance with the general standards for sign erection.

Figures 2-7a, b and c (pages 2D-16 to 2D-18) show the use of Distance signs at rural intersections.

### 2D-39 Street Name Sign (D3)

Street Name signs should be erected in urban areas at all street intersections regardless of other route marking that may be present and should be erected in rural districts to identify important roads not otherwise marked.

Lettering on street name signs should be at least 4 inches high. Supplementary lettering to indicate the type of street (e.g., Street, Avenue, Road, etc.) or section of city (e.g., N.W.) may be in smaller lettering, at least 2 inches high. Conventional abbreviations are acceptable except for the street name itself.

A symbol or letter designation may be included to identify the governmental jurisdiction. If used, the length of the designation shall not exceed the height of the sign, and should be positioned to the left of the street name.

The Street Name sign should be reflectorized or illuminated. The legend and background shall be of contrasting colors and should have a white message and border on a green background.

In business districts and on principal arterials, Street Name signs should be placed at least on diagonally opposite corners so that they will be on the far right-hand side of the intersection for traffic on the major street. Signs naming both streets should be erected at each location. They should be mounted with their faces parallel to the streets they name.

In residential districts at least one Street Name sign should be mounted at each intersection.

On ~~more important~~ intersection approaches a supplemental ~~advance~~ Street Name sign may be erected separately or below an intersection warning sign. When combined with a yellow diamond sign, the color should be a black message on a yellow background. *related*

II - 26 (c)



D3  
Variable Size



D4-1  
30" x 24"

#### 2D-40 Parking Area Sign (D4-1)

The Parking Area sign may be used where it is desired to show the direction to a nearby parking area for use by the general public. The sign shall be a horizontal rectangle of a standard size of 30 x 24 inches 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 reflectorized white background.

If used, the Parking Area sign should be erected on major thoroughfares at the nearest point of access to the parking facility and where it can help relieve the local streets of traffic seeking a place to park. In general, the sign should not be used more than three or four blocks from the parking area. It shall be mounted in accordance with the general specifications for the erection of signs (secs. 2A-23, 24).

#### 2D-41 Park and Ride Signs (D4-2)

Park and Ride signs may be used where it is desirable to direct motorists to park and ride facilities. The signs shall contain the word



message Park & Ride and direction information (arrow or word message). They may contain the local transit logo and/or carpool symbol within the sign border.

If used, the local transit logo and/or carpool symbol shall be located in the top part of the sign above the message Park & Ride. In no case shall the vertical dimension of the local transit logo and/or carpool symbol exceed 18 inches.

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

These signs shall have a reflectorized white legend and border on a rectangular green background. The carpool symbol shall be as shown in D4-2. The transit logo shall be its standard color. To increase target value and contrast for the transit logo it may be necessary to include the logo within a white border or use a white background for the logo. The important item is that the local transit logo retain its distinctive color and shape.

If used, the Park and Ride signs shall be mounted in accordance with the general specifications for the erection of signs (secs. 2A-23, 24).



D4-2  
36" x 48"  
30" x 36"

#### 2D-42 Rest Area Signs (D5-1 to 5)

It is common practice on rural highways to provide roadside parks or rest areas where a traveler may stop safely away from passing traffic. It is desirable to erect word messages or symbols in advance of such areas to permit the driver to reduce speed and leave the highway safely if he desires to stop. Messages such as REST AREA (1) MILE (D5-1), PARKING AREA (1) MILE (D5-3), or ROADSIDE TABLE (D5-5)

are typical. Other messages such as ROADSIDE PARK 1000 FEET, PICNIC TABLE ¼ MILE, or PARKING AREA ½ MILE are also appropriate. The REST AREA sign shall be used only where parking and restroom/toilets are available. Signs for this purpose shall have reflectorized white letters, symbols and border on a blue background.



D5-1



D5-2



D5-3



D5-4



D5-5



D5-5a  
24 x 24"  
24" x 6"



D6-1



D6-2



D6-3

### 2D-43 Scenic Area Signs (D6-1 to 3)

Scenic areas may be marked by signs carrying the message SCENIC AREA, SCENIC VIEW or the equivalent together with appropriate directional information. The design of the signs should be consistent with that specified for rest areas and should have reflectorized white letters, symbols, and border on a blue background. An advance sign and an additional sign at the turnoff point are usually required for this kind of attraction.

## 2D-44 Recreational and Cultural Interest Area Signs (D7-1, 2)

Recreational and cultural interests are attractions or traffic generators that are open to the general public for the purpose of play, amusement or relaxation used to refresh the body or mind (RECREATION) or for the training and refining of the mind, emotions, manners, taste, etc. (CULTURAL INTERESTS). Recreational attractions would include such facilities as parks, race tracks, and ski areas, while examples of cultural attractions would include museums and art galleries.

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Where recreational and cultural interest areas are a significant destination on a numbered highway route, special signs may be posted for such areas, at least to the first point at which an access road intersects the highway. When recreational or cultural interest area destinations are used on primary or supplemental guide signs such signs may be either rectangular or trapezoidal in shape. When the trapezoidal shape is used, it shall have reflectorized white letters, symbols and border on a brown background. The order of preference for use of the shape and color is as follows: (1) Rectangular, white on green; (2) rectangular, white on brown, or; (3) trapezoidal, white on brown. (sec. 2F-41)

Recreational and cultural interest guide signs erected and maintained by a public park agency along roads maintained by the agency, shall conform to the standards prescribed in this section. Where another public agency maintains the road system in the park, standards prescribed in this section may be used on guide signs when agreed to by the agency maintaining the road system.

On publicly operated highways within a recreational or cultural interest area that are not primarily for intrapark traffic, guide signing shall be in conformance with the other sections of this Manual. Where a demonstrable need exists for additional types of guide signing not provided for in the Manual, the public agency may allow installation of symbols conforming to the National Park Service standards.

Linear parkway type highways that merely function as arterial connectors without providing access to recreational or cultural interest areas do not qualify for the use of brown and white guide signing.



D7-1  
Variable Size



D7-2  
Variable Size

## 2D-45 Weigh Station Signing (D8-1 to 3)

The general concept for Weigh Station signing is similar to Rest Area signing, since in both cases traffic using either area remains within the right-of-way.

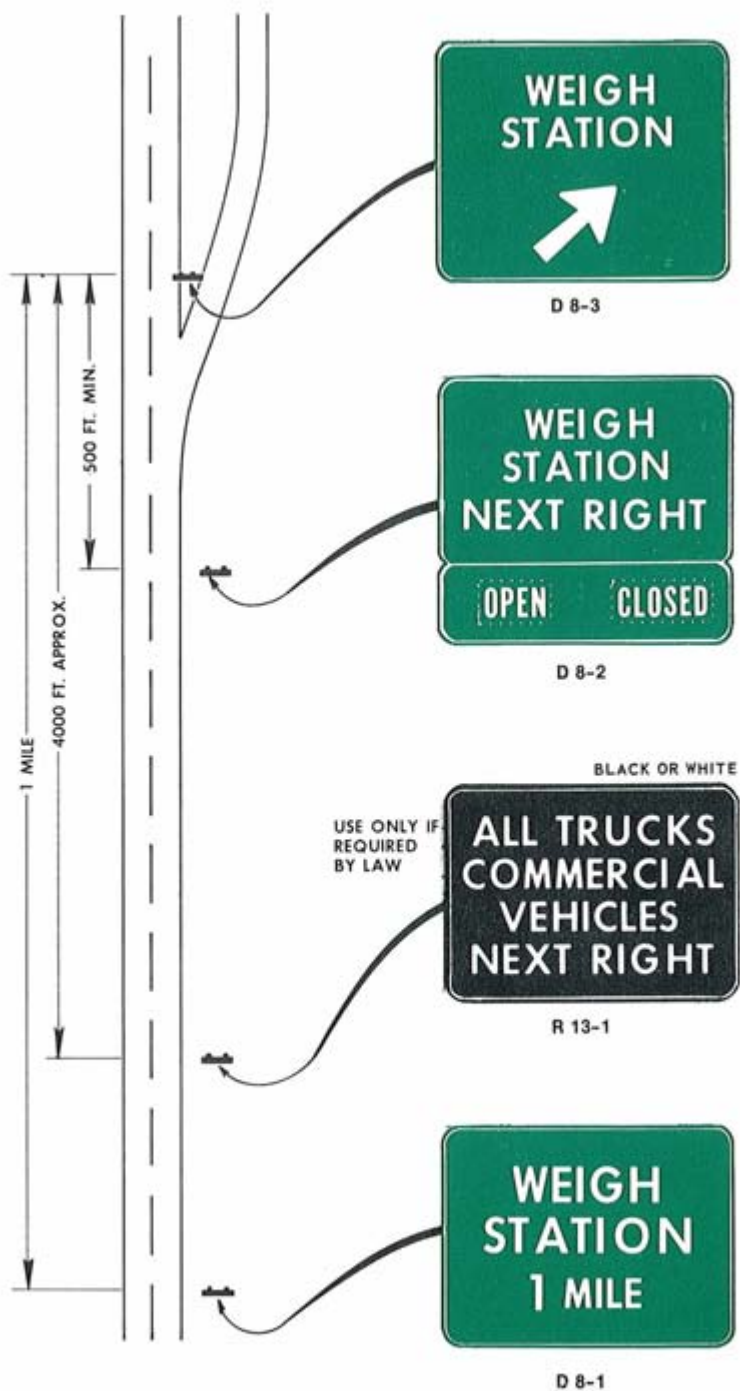


Figure 2-8. Weigh Station signing.

The standard installation for Weigh Stations shall include three basic signs:

1. Advance sign (D8-1)
2. Exit Direction sign (D8-2)
3. Gore sign (D8-3)

The location of these signs is shown in figure 2-8. Where State law requires a regulatory sign in advance of the Weigh Station, a fourth sign (sec. 2B-42) may be located following the Advance sign. Design details for these signs are included in Standard Highway Signs. \*

The Exit Direction sign (D8-2) or the Advance sign (D8-1) should display, either within the sign border or on a supplemental panel, the changeable message OPEN or CLOSED. Remote control of the changeable message is recommended, but provision may be made for changing the message manually.

#### 2D-46 General Service Signs (D9-1 to 14)

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On conventional highways commercial services such as gas, food and lodging are generally within sight and available to the traveler at reasonably frequent intervals along the route. Consequently, there is not expected to be much need on this class of roads for special signs calling attention to these services. Moreover, it is assumed that service signing will not be required in urban areas except for hospitals, Police assistance, tourist information centers and camping.

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It is quite likely, however, that general service signs will be desirable or necessary where such services are infrequent, and are to be found only on an intersecting highway or crossroad. Under such conditions, States that elect to provide service signing should establish a statewide policy or warrant for its use and criteria for the availability of services, based on national guidelines. Local jurisdictions for such signing should follow the State policy for the sake of uniformity.

General service signs, if used at intersections, shall carry legends for one or more of the following services: Food, Gas, Lodging, Camping, Phone, Hospital, Diesel, LP-Gas, or Tourist Information, along with a directional message. The service legends may be either symbols or word messages, but the intermixing of symbols and word messages on one sign shall not be permitted. Formats for displaying different combinations of these services are presented in section 2F-33.

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The International Symbol for Access for the Handicapped Sign (D9-6) may be used beneath General Service signs where paved ramps and restroom facilities accessible to, and usable by, the physically handicapped are provided.

\* Available from GPO, see page ii.



D9-1  
24" x 24"



D9-2  
24" x 24"



D9-3  
24" x 24"



D9-3a  
24" x 24"



D9-6  
24" x 24"



D9-8  
24" x 24"



D9-7  
24" x 24"



D9-9  
24" x 24"



D9-10  
24" x 24"



D9-11  
24" x 24"



D9-12  
24" x 24"



D9-13  
24" x 24"



D9-14  
12" x 24"



D9-15  
24" x 24"

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Rev. 4

Where the distance to the next point at which services are available is 10 miles or more, a sign NEXT SERVICES (12) MILES may be used as a separate panel mounted under the General Service signs.

The Recreational Vehicle Sanitary Station sign (D9-12) may be used as needed to indicate the availability of facilities designed for the use of dumping wastes from recreational vehicle holding tanks.

In advance of roadside turnouts or rest areas, a Trash Receptacle Symbol sign (D9-4) may be placed provided it does not compete with other more important regulatory, warning, and directional signs.

A Channel 9 Monitored sign (D12-3) may be installed as needed. Only official government agencies or their designee may be shown as the monitoring agency on the sign. (see sec. 2F-37).

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All service signs, and supplemental panels, shall have reflectorized white letters, symbols and border on a reflectorized or opaque blue background and are to be erected at a suitable distance in advance of the turnoff point or intersecting highway.

The Emergency Medical Services (EMS) Symbol Sign (D9-13) may be used to identify medical service facilities that have been included in the EMS system under criteria established by the National Highway Traffic Safety Administration. The EMS Symbol sign shall not be used to identify services other than qualified hospitals, ambulance stations, and qualified free standing emergency medical treatment centers. In all cases when used, the EMS Symbol must be supplemented by a sign identifying the type of service provided. For instance, the EMS Symbol sign may be used above the HOSPITAL or H symbol sign or above a panel with either the legend AMBULANCE STATION or EMERGENCY MEDICAL CARE. The EMS Symbol may also be used to supplement telephone, CB monitoring, or POLICE signs. The legend EMERGENCY MEDICAL CARE shall not be used for services other than qualified free standing emergency medical treatment centers.

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Each State should develop guidelines for the implementation of the EMS symbol sign.

#### **2D-47 Mileposts (D10-1 to 3)**

To assist the driver in estimating his progress, to provide a means for identifying the location of emergency incidents, and to aid in highway maintenance and servicing, mileposts may be erected along any section of a numbered highway route. Zero distance should begin at the south and west state lines and at junctions where routes begin.

The distance numbering shall be continuous for each route within a State, except where overlaps occur. With overlapped routes, continuity shall be established for only one of the routes. On the route without milepost continuity, the first milepost beyond the overlap should indicate



D10-1  
10" x 18"



D10-2  
10" x 27"



D10-3  
10" x 36"

the total distance traveled on the route so that a motorist may have a means of correlating his travel distance between mileposts with that shown on his odometer.

Milepost signs shall be vertical panels with 6-inch white numerals, a border and the legend MILE in 4-inch letters on a green background and shall be reflectorized. Milepost signs may be placed up to 30 feet from the edge of pavement. Milepost signs located in line with delineator posts shall have the bottom of the sign at the same height as the delineator (see sec. 3D-5).

Small size 6 x 9 inch mileposts with 4-inch numerals, without the legend MILE, may be used on low volume, low speed, rural unnumbered roads in lieu of the D-10 series.

For divided highways, distance measurement shall be made on northbound and eastbound roadways. The mileposts for southbound and westbound roadways shall be set at locations directly opposite. When a milepost cannot be erected in its correct location, it may be moved in either direction as much as 50 feet. If it cannot be placed within 50 feet of its correct location, it should be omitted.

While mileposts serve as a guide for motorists, they also provide a means of identifying traffic accident locations and sections of highway for maintenance or other purposes. To further enhance the usefulness of this system, delineators may be spaced at 1/10 or 1/20 of a mile, and can be marked in fractions of a mile by stencil on the back of the delineator or post or by a small plate on the delineator post. This plate shall not be considered as a milepost, therefore will not be green and white in color. The numeral shall be small and preferably on the back side of the post or delineator.

#### 2D-48 Traffic Signal Speed Sign (I1-1)

The Traffic Signal Speed sign, reading SIGNALS SET FOR (25) M.P.H., may be used to indicate a section of highway on which the traffic





11-1  
12" x 18"

control signals are coordinated into a pretimed progressive system and timed for a specified speed at all hours during which they are operated on a stop-and-go basis. Where used, the sign should be mounted on, or as near as possible to, each signal face where the timed speed changes, and at intervals of several blocks throughout any section where the timed speed remains constant.

This sign shall be a minimum of 12 × 18 inches with the longer dimension vertical. It shall always have a white reflectorized message and border on a green reflectorized background.

#### 2D-49 General Information Signs (I Series)

Of interest to the traveler, though not directly necessary for guidance, are numerous kinds of information that may properly be conveyed by information signs. They include such items as State lines, city limits, and other political boundaries, time zones, stream names, elevations, landmarks and similar items of geographical interest. Such 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 highways user or identifying control points for activities that are clearly in the public interest. On all such signs the design should be simple and dignified, devoid of any advertising and in general conformance with other guide signing.

An informational symbol sign (I-5 thru I-8) may be used to identify a route leading to a transportation or general information facility, and 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 two similar facilities.

Political jurisdiction logos may be placed on political boundary General Information signs; however, the predominant characteristics of the sign

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I-2  
Variable Size



I-3  
Variable Size



I-4  
24" x 24"



I-5  
24" x 24"



I-6  
24" x 24"



I-7  
24" x 24"



I-8  
24" x 24"

will be a white legend on a green rectangular shaped background. The logo may have different colors and shapes but should be simple and dignified, devoid of any advertising.

All General Information signs shall conform to the general standards for guide signs, and shall be reflectorized where required to provide nighttime visibility.

These signs shall be erected in accordance with the general specifications (secs. 2A-23, 24).

## **2D-50 Signing of Named Highways**

Federal and State legislative bodies will from time to time adopt an act or resolution memorializing a highway, bridge or other component of highway. Such memorial names shall not appear on or along a highway, bridge or other component, but memorial plaques to recognize such a destination may be erected in rest areas, scenic overlooks or other appropriate points inconspicuously located relative to vehicle operators' viewing.

Guide signs may contain names if the purpose is to enhance driver communication and guidance; however, they are to be considered as supplemental information to route numbers. Highway names are not to replace official numeral designations. Memorial names shall not appear independently on supplemental signs nor on any other information sign either on or along the highway or its intersecting routes.

The use of route markers will be restricted to markers officially used for guidance of traffic in accordance with the Manual and the "Purpose and Policy" statement of American Association of State Highway and Transportation Officials which applies to Interstate and U.S. numbered routes.

The signing for unnumbered routes having major importance to proper guidance of traffic is permissible 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. Not more than one name should be used to identify any highway whether numbered or unnumbered.

## **2D-51 Trail Markers**

Trail Markers are informational plaques or shields designed to provide the traveling public with route guidance in following a trail of particular cultural, historical, or educational significance. These markers satisfy an information need on the part of certain travelers but primary guidance should be in the form of printed literature and strip maps rather than highway signing.

Except on the Interstate System, trail markers signs may be erected when they have been approved by and are under the control of the State highway organization. Control of such markers by a county or city highway department is also satisfactory. The installation must be consistent with highway safety practices and with practices governing signs of this general nature.

## **2D-52 Crossover Signs (D13-1, D13-2)**

The CROSSOVER sign may be erected on divided highways to mark median openings not otherwise marked by Warning or Guide signs. It

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Rev. 3

shall not be used to mark median openings that are restricted to the use of official or authorized vehicles. The sign shall be a horizontal rectangle of appropriate size to carry the word CROSSOVER and a horizontal directional arrow. If used, it should be erected immediately beyond the median opening either on the right side of the roadway or in the median.

The Advance Crossover sign may be erected in advance of the CROSSOVER sign to provide advance information of the crossover. The sign shall be a horizontal rectangle of appropriate size to carry the word CROSSOVER and a distance. The distance shown should be either 1,  $\frac{1}{2}$ , or  $\frac{1}{4}$  mile, unless unusual conditions require some other distance. If used, the sign should be erected on the right side of the roadway at approximately the distance shown.

CROSSOVER signs shall have a white reflectorized legend and border on a green background.

11-7 (c)  
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D13-1  
72" x 36"



D13-2  
72" x 36"