

State of Nebraska

Supplement to the
**Manual on
Uniform
Traffic
Control
Devices**

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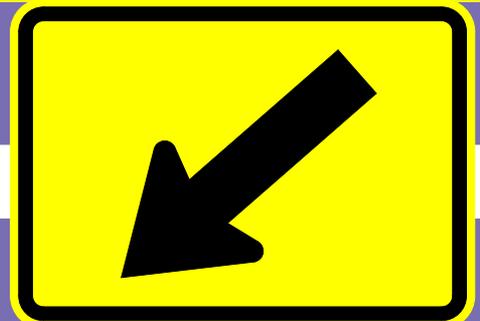


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State of Nebraska
**Supplement to the
Manual on Uniform Traffic Control Devices**

INTRODUCTION

This manual consists of the 2003 edition of the Manual on Uniform Traffic Control Devices for Streets and Highways (*herein referred to as the MUTCD*) adopted by the Federal Highway Administrator as a National Standard for application on all classes of highways, subject to such modifications as is set forth in this supplement.

There have been incorporated in this supplement, additions and amendments for the purpose of making the MUTCD consistent with Nebraska statutes, and to incorporate current traffic engineering policies of the Nebraska Department of Roads relative to standard application and use of traffic control devices in the State of Nebraska.

The following format has been used in referencing and identifying the source of the various items in the supplement:

“Section”, “Figure” or “Page” indicates the portion of the MUTCD to which the data refers.

“Amendment” indicates changes to meet Nebraska requirements.

“Addendum” indicates additions specifically applicable to the State of Nebraska.

PART 1 – GENERAL PROVISIONS

Section 1A.07 Responsibility for Traffic Control Devices

(Addendum)

The following excerpts from Chapter 60, Nebraska Rules of the Road Revised (*Statutes of Nebraska, Reissue of 1998 and 1999 Supplement*) set forth the responsibilities for the establishment of standards for the use of traffic control devices in the State of Nebraska.

60-6120 Placing and maintaining traffic control devices, jurisdiction.

1. The Department of Roads shall place and maintain, or provide for such placing and maintaining, such traffic control devices, conforming to the manual, upon all state highways as it deems necessary to indicate and to carry out the Nebraska Rules of the Road or to regulate, warn, or guide traffic.
 - (a) In incorporated cities and villages with less than forty thousand inhabitants, the department shall have exclusive jurisdiction regarding the erection and maintenance of traffic control devices on the state highway system but shall not place traffic control devices on the state highway system within incorporated cities and villages of more than twenty-five hundred inhabitants without consultation with the proper city officials.
 - (b) In incorporated cities of forty thousand or more inhabitants, except on state-maintained freeways of the state highway system where the department retains exclusive jurisdiction, the city shall have jurisdiction regarding erection and maintenance of traffic control devices on the state highway system after consultation with the department, except that there shall be joint jurisdiction with the department for such traffic control devices for which the department accepts responsibility for the erection and maintenance.

No local authority shall place or maintain any traffic control device upon any highway under the jurisdiction of the department, except by permission of the department, or on any state-maintained freeway of the state highway system.

The placing of traffic control devices by the department shall not be a departmental rule, regulation, or order subject to the statutory procedures for such rules, regulations, or orders but shall be considered as establishing precepts extending the provisions of the Nebraska Rules of the Road as necessary to regulate, warn or guide traffic. Violations of such traffic control devices shall be punishable as provided in the rules.

60-6121 Placing and maintaining traffic control devices; local authorities.

Local authorities in their respective jurisdictions shall place and maintain such traffic control devices upon highways under their jurisdictions as they deem necessary to indicate and to carry out the provisions of the Nebraska Rules of the Road or to regulate, warn or guide traffic. All such traffic control devices erected pursuant to the rules shall conform with the manual.

PART 2 – SIGNS

Section 2B.51 Other Regulatory Signs

Controlled Access Highway Signing (*Addendum*)

Access Control Information Signs

The R20-1 signs are used to define the right of way where the access rights to the public highway have been purchased. They are erected on the right of way line at the end of the right of way where the access rights have been purchased. In urban and suburban areas, the R20-1 sign is placed at 500 foot intervals between the R20-1R and the R20-1L. In rural areas, the R20-1 is placed at 1/4 mile intervals between the R20-1R and the R20-1L.



R20-1
12" X 12"



R20-1L
12" X 12"



R20-1R
12" X 12"



R20-1A
24" X 24"



W25-8G
(Black on White)
24" X 18"

To be used in place of a large number of the R20-1 signs where there is considerable length of controlled access road.

Section 2C.22 Low Clearance Sign - (W12-2 and W12-2P)

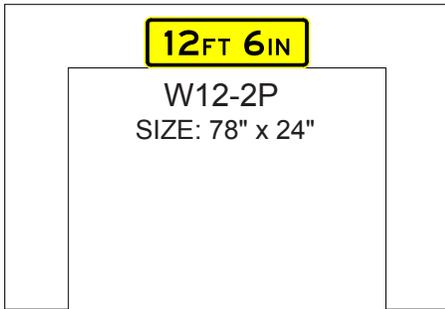
Low Clearance Signing (*Addendum*)

Low clearance signs shall be installed on all structures on the state highway system with an overhead clearance of less than fifteen feet six inches (15' 6"). The procedures for signing the structures are as follows:

1. The clearance posted on the sign should be up to three (3) inches less than actual measured clearance to account for varying roadway conditions.
2. Structures having a varying clearance across the roadway (*less clearance at the curb than at the center*) should be posted for a center clearance only if there is an eleven foot (11') or greater lane width through the center of the bridge. If an eleven foot (11') or greater lane width does not exist, the bridge should be posted for the minimum clearance.
3. The advanced warning sign W12-2 is not required for bridges with a clearance of fifteen feet six inches (15' 6") or more.

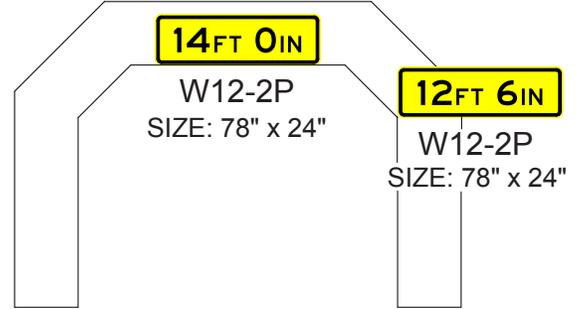
TYPICAL BRIDGE CLEARANCE SIGNING

UNIFORM CLEARANCE



W12-2P Erected on Bridge
Over Center of Roadway

CLEARANCE VARIES



W12-2P Erected on Bridge at Two
Locations showing Center and Edge
Clearance.



W12-2-36
SIZE: 36" x 36"

W12-2-36 Erected in
Advance of Bridge

Section 2C.54 - Other Warning Signs

(Addendum)

- 1. The W3-7 should be used on the approach to a formally designated truck route.
- 2. The W25-5 is intended to be used in rural areas where the number of cars waiting to make a left turn at one time are considered hazardous.
- 3. The W25-7 is intended to be used where the sight distance is less than 800 feet and the number of turning trucks into and out of a driveway present a hazard.
- 4. Highway XX Traffic Does Not Stop, (W40-1), should be installed below the primary stop signs at locations where the flashing red indications of an intersection control beacon supplement the minor approaches and flashing yellow indications control the major highway approaches.



W3-7-36



W25-5-36



W25-7-36



W40-1-30

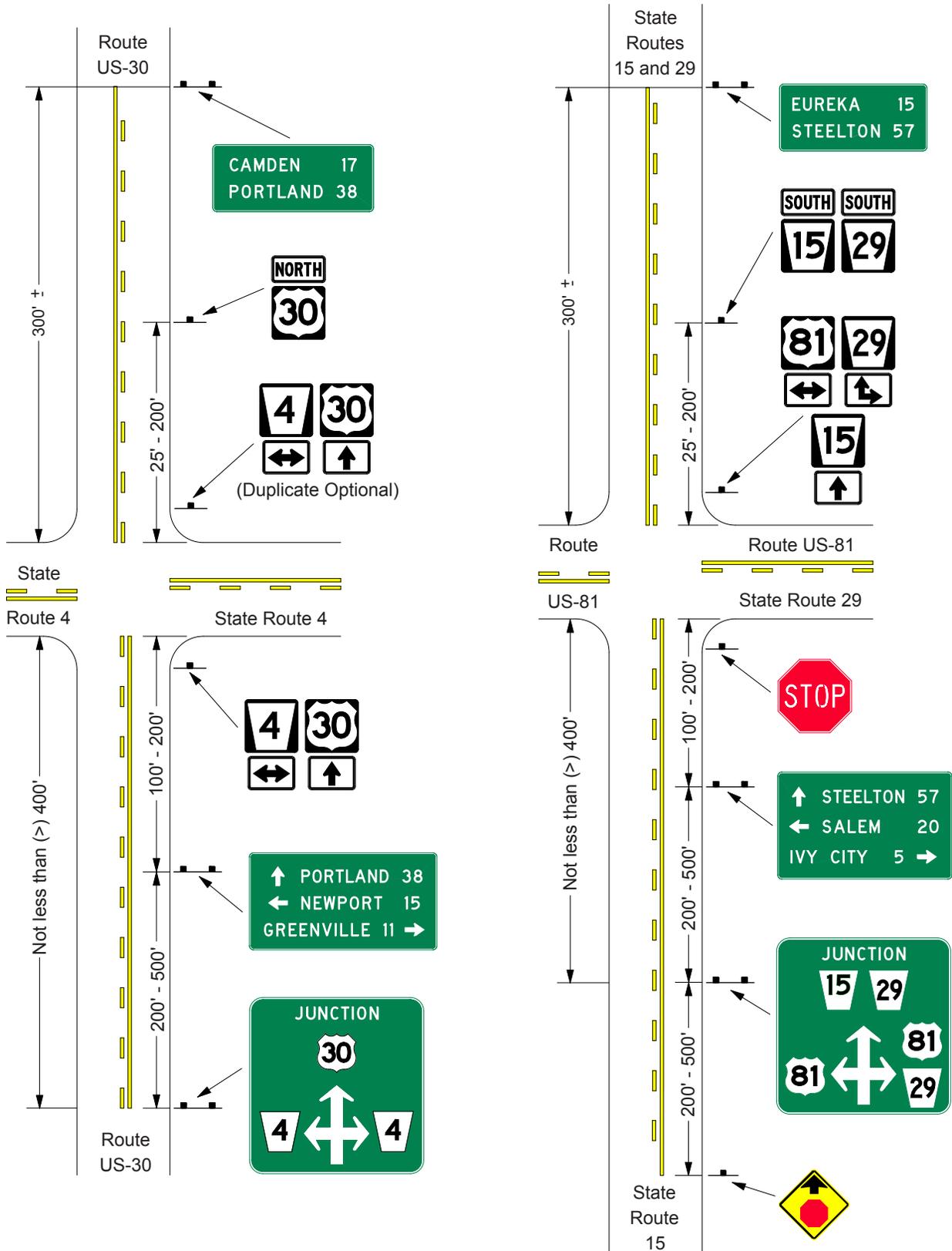
Section 2D.30 - Directional Assembly

(Amendment)

TYPICAL ROUTE MARKINGS AT RURAL INTERSECTIONS

(For one-direction travel only)

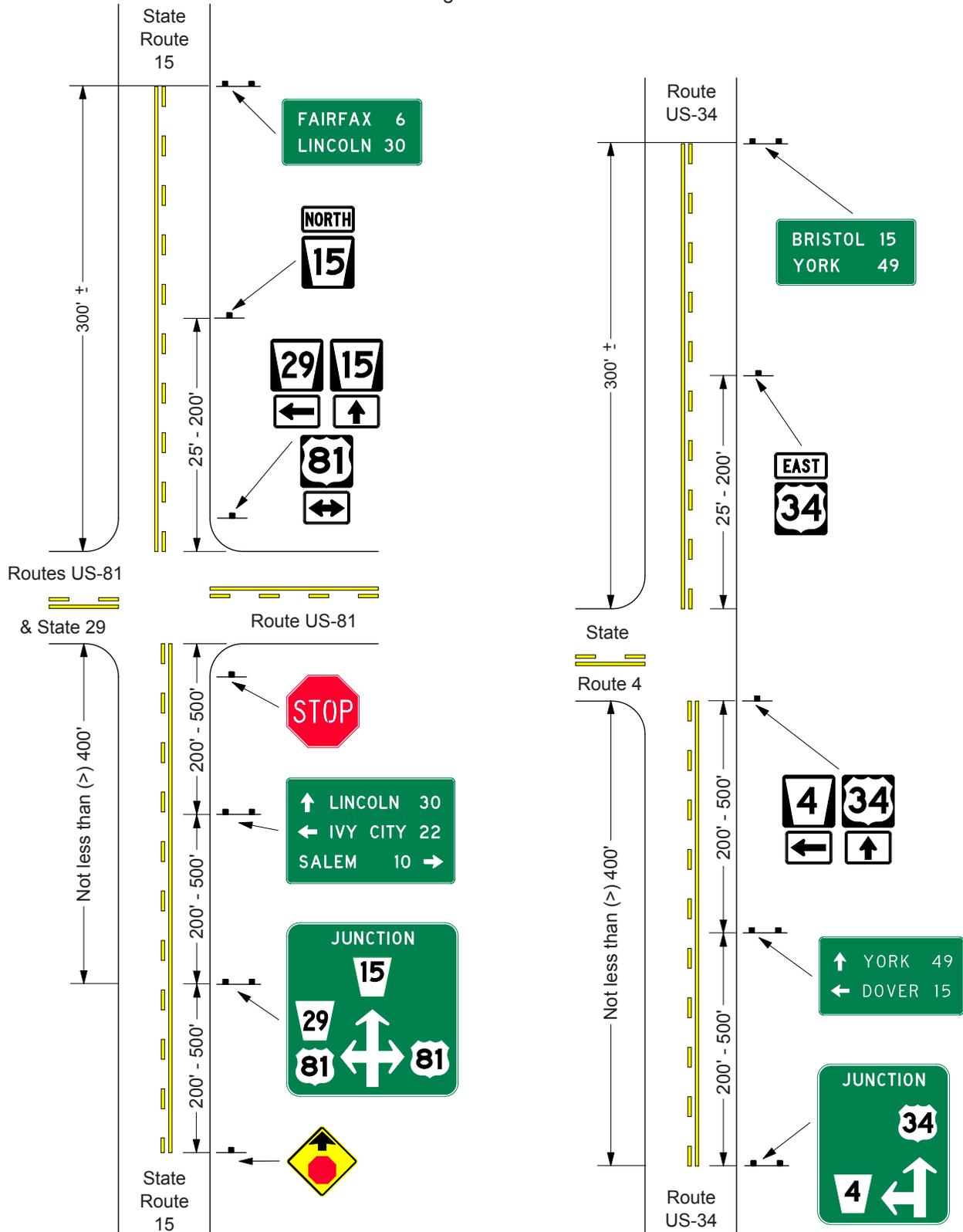
Figure 2D-2a



TYPICAL ROUTE MARKINGS AT RURAL INTERSECTIONS

(For one-direction travel only)

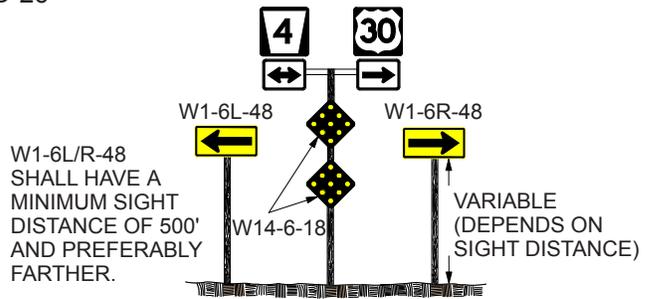
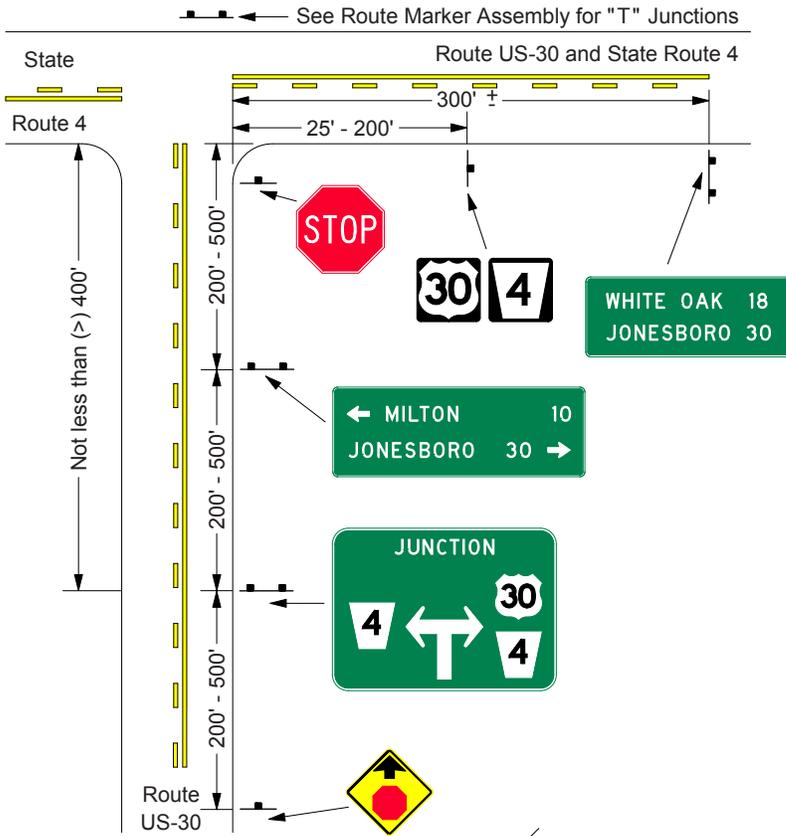
Figure 2D-2b



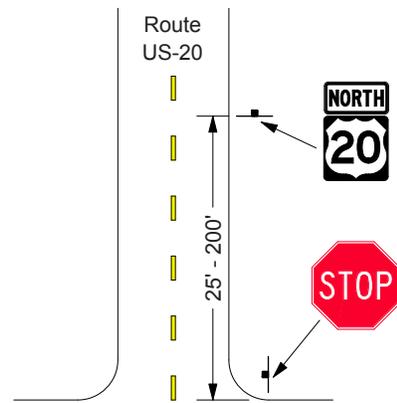
TYPICAL ROUTE MARKINGS AT RURAL INTERSECTIONS

(For one-direction travel only)

Figure 2D-2c

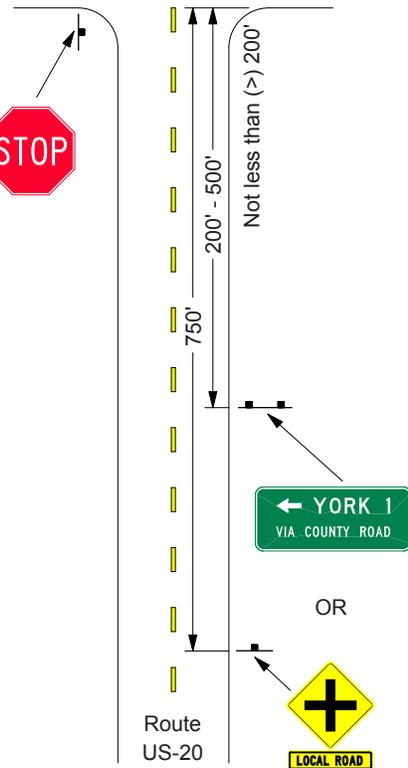
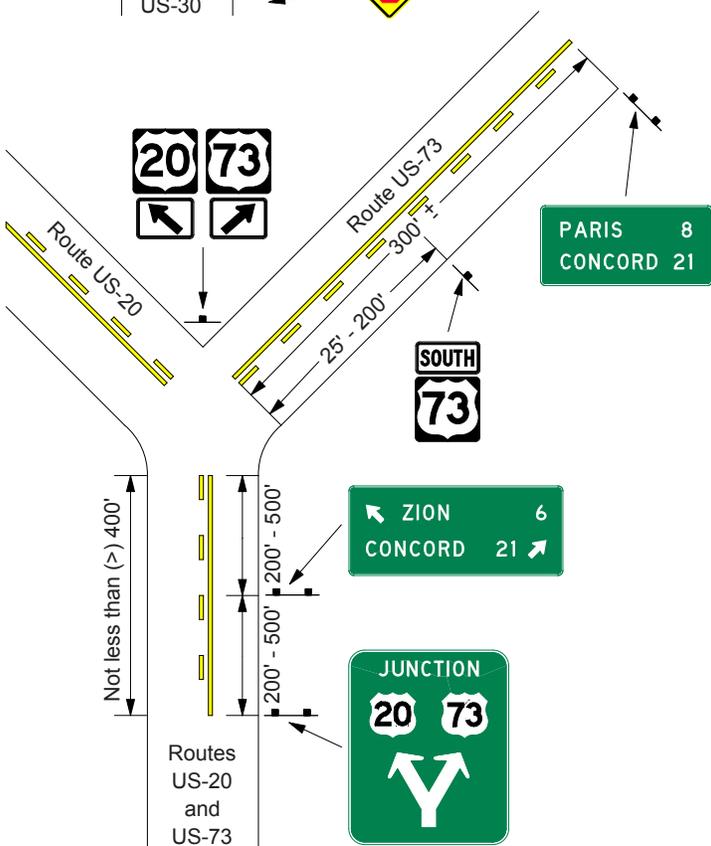


ROUTE MARKER ASSEMBLY FOR "T" JUNCTIONS



Local

Road



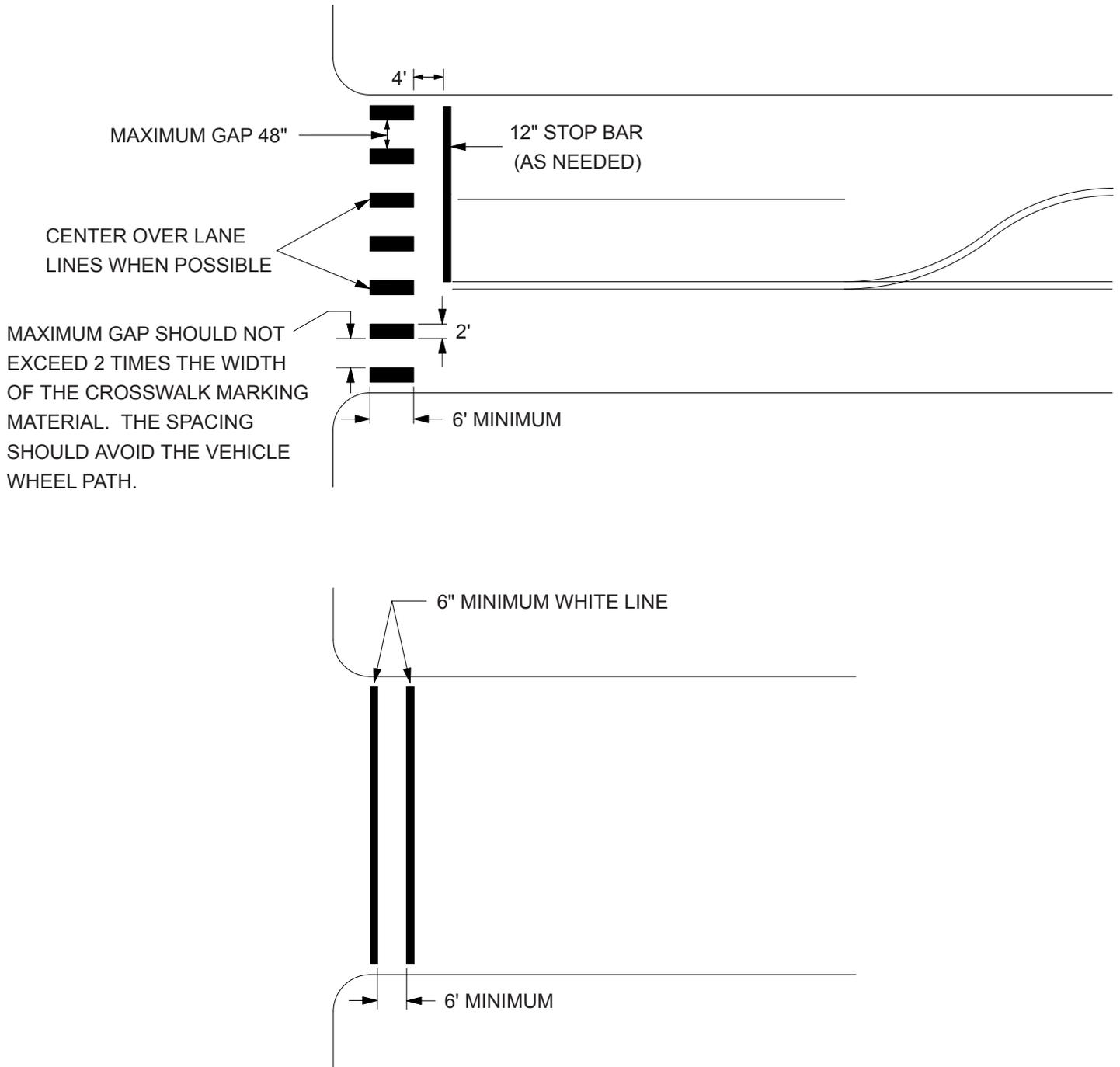
PART 3 - MARKINGS

Section 3B.17 - Crosswalks and Crosswalk Lines

(Addendum)

TYPICAL CROSSWALK MARKINGS

Figure 3B-15a



Section 3C.01 - Object Marker Design and Placement Height

(Addendum)

Support: Object markers are used to mark obstructions within or adjacent to the roadway.

Standard: When used, object markers shall consist of an arrangement of one or more of the following types:

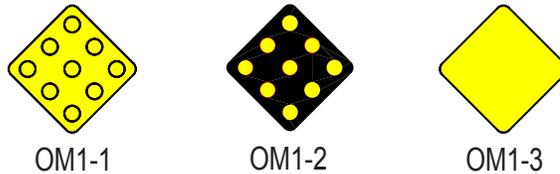
Type 1 - either a marker consisting of nine yellow retroreflectors, each with a minimum diameter of (3 in), mounted symmetrically on a yellow (OM1-1) or black (OM1-2) diamond panel (18 in) or more on a side; or on an all-yellow retroreflective diamond panel (OM1-3) of the same size.

Type 2 - either a marker (W14-8 or OM2) consisting of three yellow retroreflectors, each with a minimum diameter of (3 in), arranged either horizontally or vertically on a white or black panel measuring at least (5 x 15 in) or (6 x 12 in); or on an all-yellow horizontal or vertical retroreflective panel (W14-8 or OM2), measuring at least (5 x 15 in) or (6 x 12 in).

Type 3 - a striped marker, (12 x 36 in), 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 in).

OBJECT MARKERS AND END-OF-ROADWAY MARKERS

Type 1 Object Markers (W14-6)



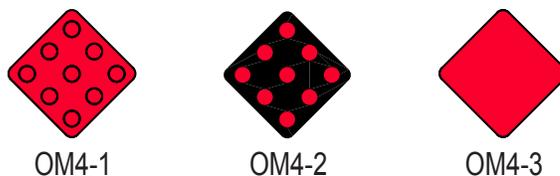
Type 2 Object Markers (W14-8)



Type 3 Object Markers (W14-7)



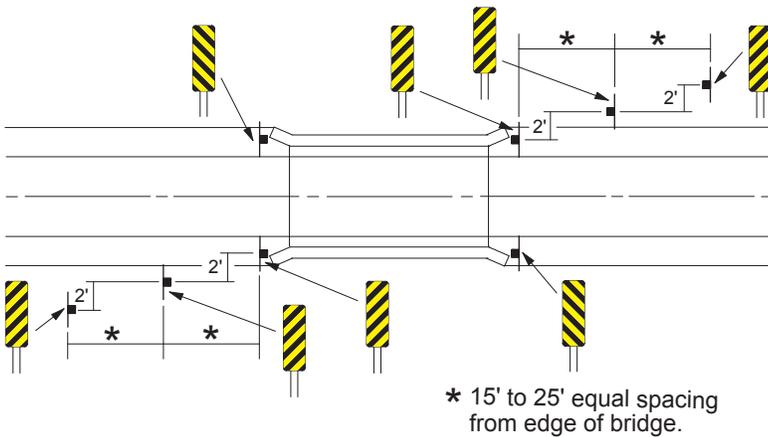
End-of-Roadway Markers (W14-9)



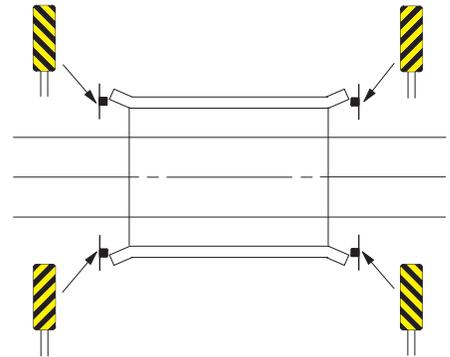
Section 3C-03 - Objects Adjacent to the Roadway

(Addendum)

OBJECT MARKERS AT BRIDGE



* 15' to 25' equal spacing from edge of bridge.



WITH SURFACED SHOULDERS

Structure width is Less than roadway width plus surfaced shoulder width.

WITHOUT SURFACED SHOULDERS

Structure width is 28' or Less. Structure width is Equal or Less than roadway width without surfaced shoulders.

WITH SURFACED SHOULDERS

Structure width is Equal or Greater than roadway width plus surfaced shoulder width.

WITHOUT SURFACED SHOULDERS

Structure width is Greater than 28' on roadway without surfaced shoulders.

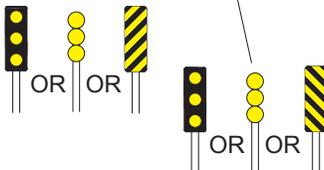
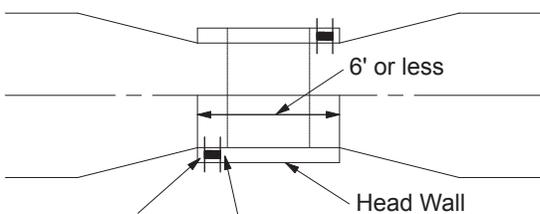
NOTE: On county gravel or rock roads above 50 ADT, the standard yellow Type 2 object marker may be substituted for the standard yellow and black Type 3 object marker.

HARD SURFACED ROADS AND GRAVEL OR ROCK ROADS

ABOVE 50 ADT.

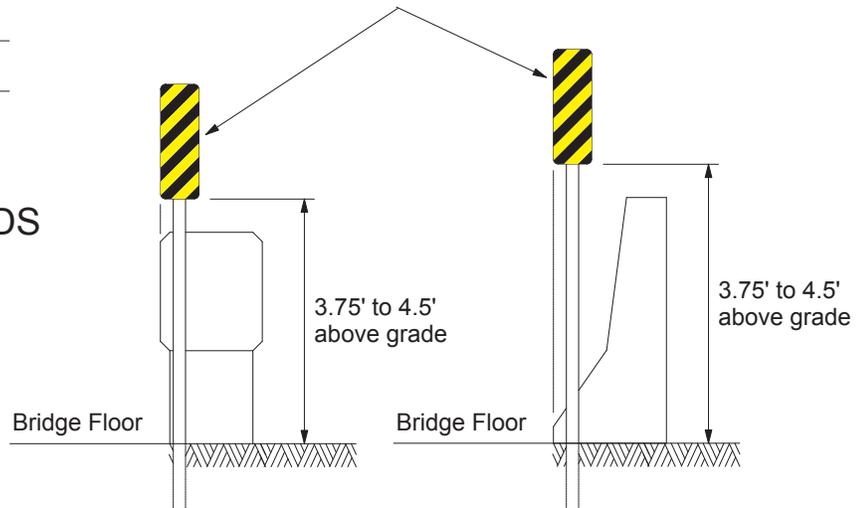


ALL STRUCTURES
COUNTY GRAVEL OR DIRT ROADS
50 ADT OR BELOW



NOTE: Place object markers back to back on one post.

Standard yellow and black Type 3 object markers, 12"x36".



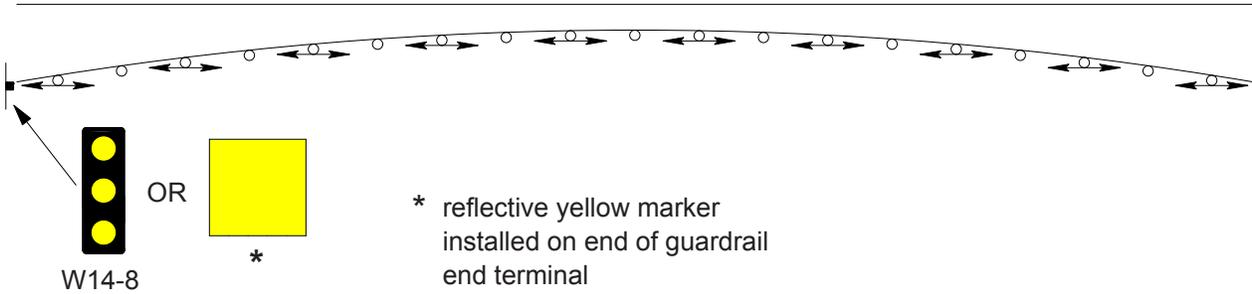
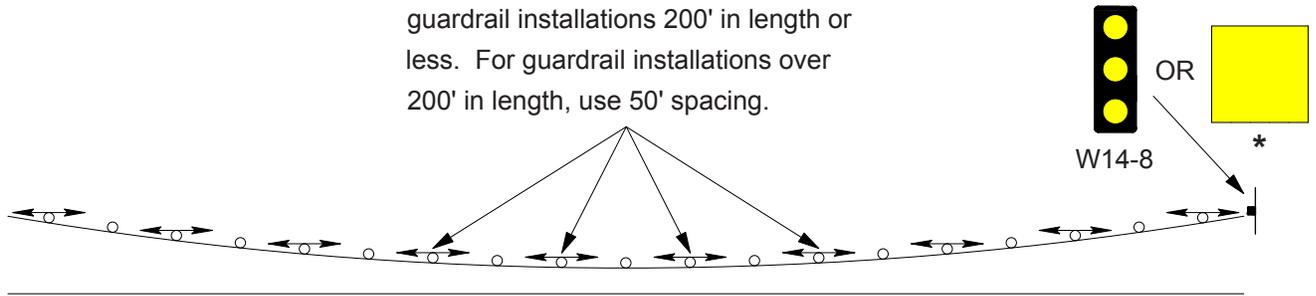
NOTE: Edge of object marker in line with inside edge of curb where there is no curb. Install edge of object marker in line with inside edge of handrail.

Section 3D.04 - Delineator Placement and Spacing

(Addendum)

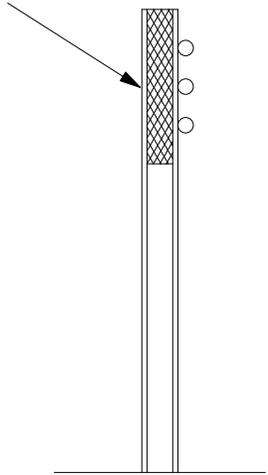
GUARDRAIL DELINEATORS

Guardrail delineation at 25' spacing for guardrail installations 200' in length or less. For guardrail installations over 200' in length, use 50' spacing.



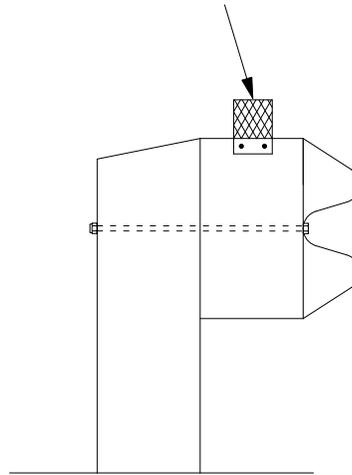
GUARDRAIL DELINEATION

Silver reflective material
(Both sides of post)



CABLE GUARDRAIL

Double-faced high intensity delineator
(Nail to spacer block)

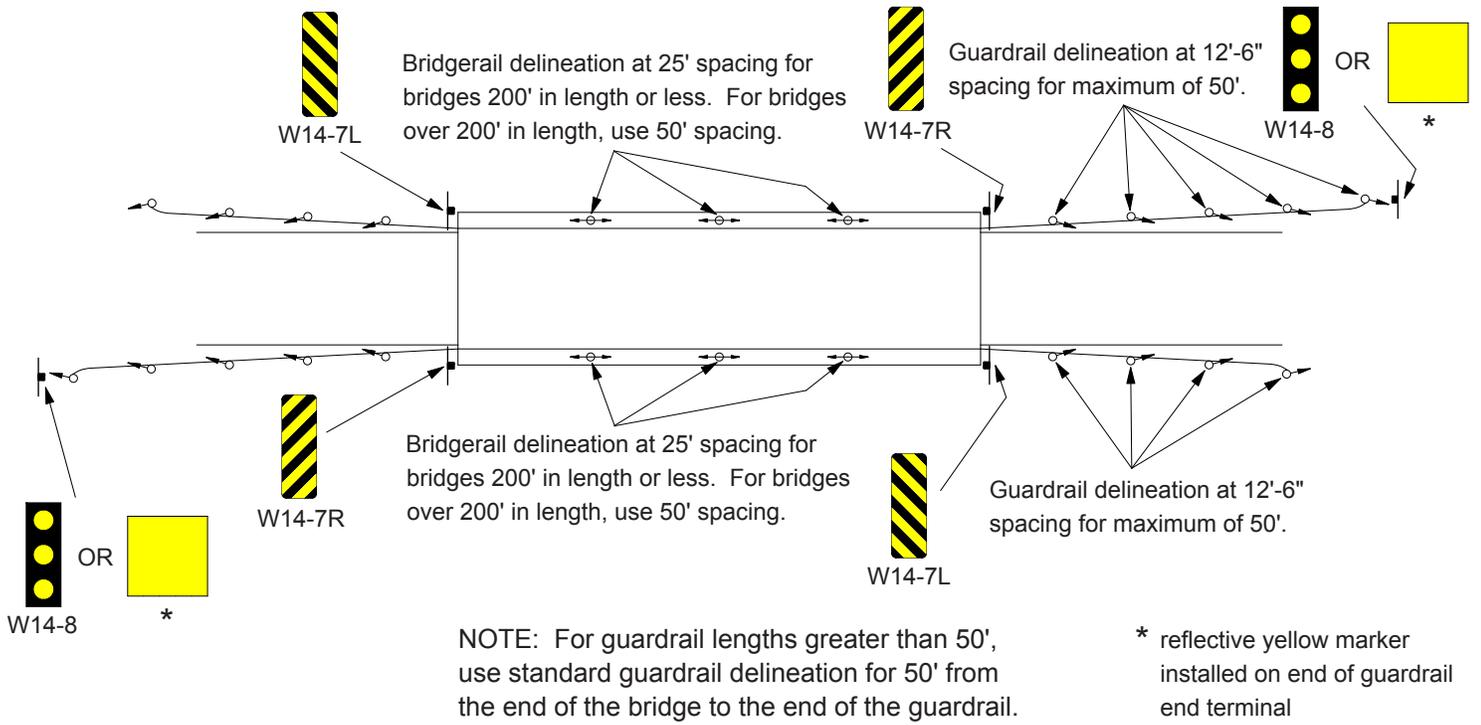


SAFETY BEAM GUARDRAIL

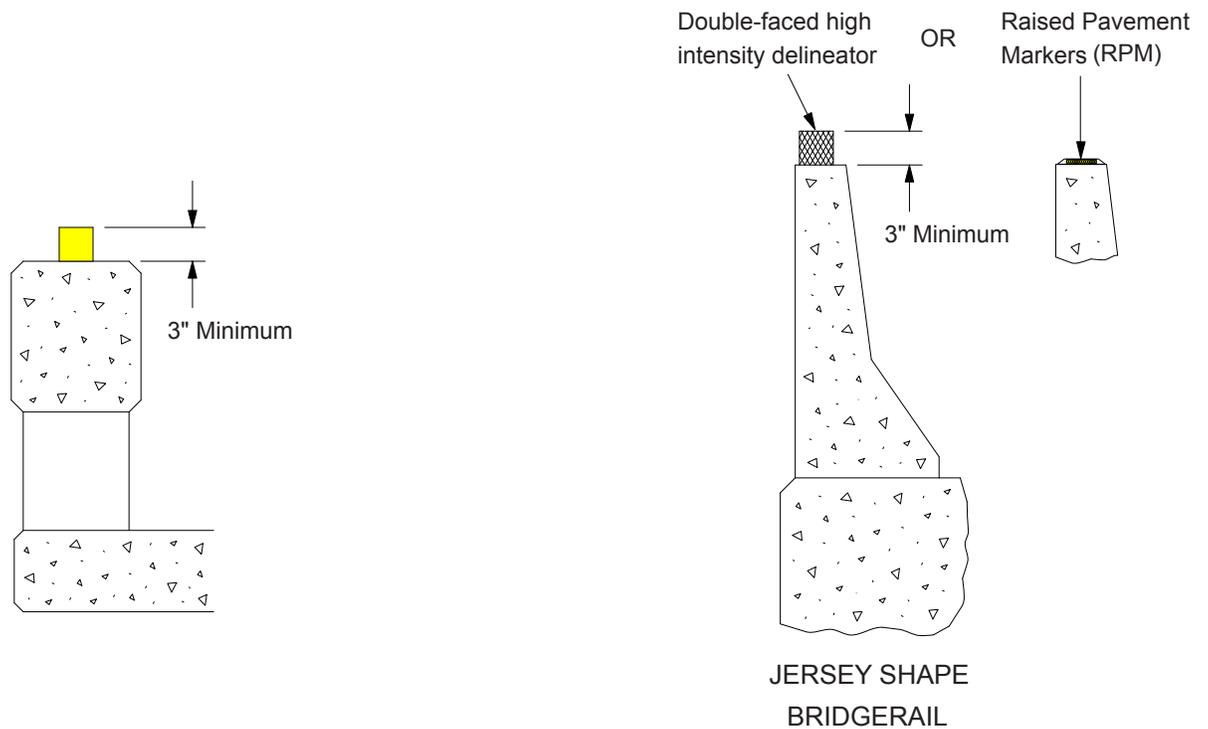
TYPICAL GUARDRAIL DELINEATION

BRIDGE DELINEATION

(Addendum)



BRIDGE DELINEATION



TYPICAL BRIDGE DELINEATION

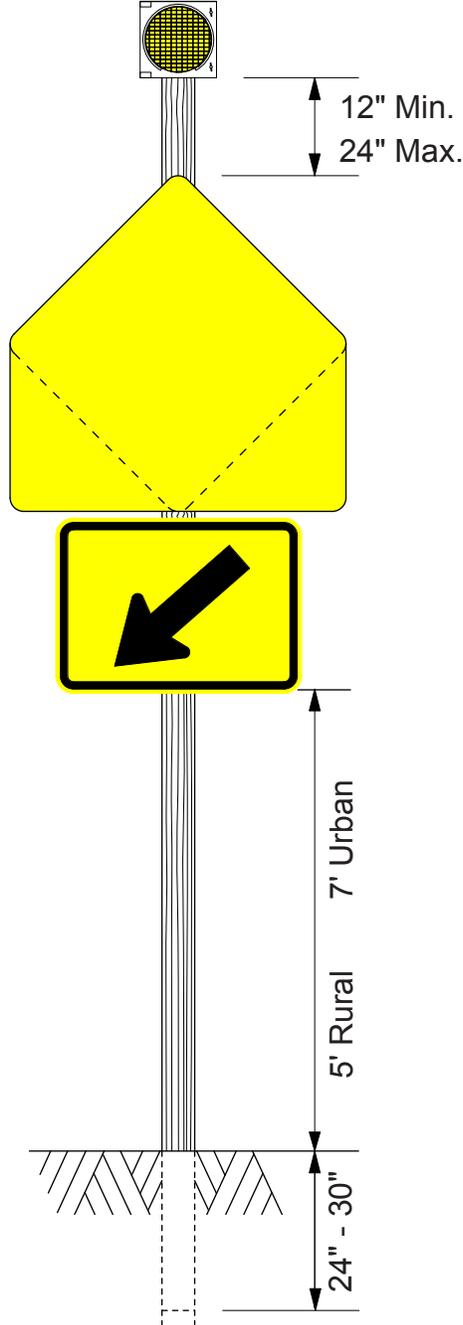
PART 4 - HIGHWAY TRAFFIC SIGNALS

Section 4K.03 - Warning Beacon

(Addendum)

TYPICAL FLASHING BEACON INSTALLATION
ABOVE SCHOOL/PEDESTRIAN SIGNS

Figure 4K-1



When using school related sign S1-1 with beacon, the beacon shall be operated only during specified hours, on days when school is in session (i.e., 8-9 a.m.; 11 a.m. - 1 p.m.; 3 - 4 p.m). When using pedestrian crossing sign W11-2 with beacon, the beacon may operate continuously, or periodically. Flashing beacons used with school related signs or pedestrian/warning signs **shall** be yellow.

PART 5 – MINIMUM MAINTENANCE ROADS AND LOW VOLUME LOCAL ROADS

(Addendum)

A. General Principles

5A-1 Functional Classification

Minimum maintenance roads are those county or township roadways designated by the county and approved for this Nebraska functional classification by the Nebraska Department of Roads. They are generally primitive, unimproved roads that serve abutting property owners as access for agricultural or maintenance vehicles or equipment. They may not provide the only access to an occupied residence. They are characterized by narrow, ungraded earth surface, minimal drainage ditches, and low type or no bridges or culverts for waterway crossings.

5A-2 Standard of Application

It is recognized that drivers develop an expectancy for the level of signing and maintenance according to the type of roadway encountered. Where drivers have become accustomed to the level of signing and maintenance on a normal county or township road system, it is necessary that they be warned they are entering a roadway with a much lower level of control.

5A-3 Signing of Minimum Maintenance Roads

The installation of signs shall be at the beginning and end of minimum maintenance routes and at any other public access along the route. In the event the route exceeds five miles in length with no intermediate public access, a minimum maintenance sign shall be placed at an interval not to exceed five miles. The signs shall provide warning to the public that a lower level of maintenance exists on the designated section than is normal for that county and shall indicate if the road is a through route or has no exit where it terminates at a property line and not at a connecting public road.

Signs that indicate bridges or culverts that are less than required by local road standards, and by fords and low water stream crossings, shall be placed before the drainageway and indicate the type of crossing or structure.

5A-4 Sign Design and Usage Standards



W40-96

The "Minimum Maintenance Road" sign shall be used at all locations where public access to a minimum maintenance road occurs. The sign should be installed on the minimum maintenance road at a distance of 25 to 50 feet from the edge of the road providing public access.

Design Details: Size – 30"x30" Minimum
Background – Yellow reflectorized
Legend – Black, 4 inch, Series C



W40-97

The "Low Water Crossing Ahead" sign shall be used on minimum maintenance roads and local roads in advance of all locations where low water crossings are a part of the roadway features. The sign should be located at a distance of 500 to 700 feet in advance of the low water crossing.

Design Details: Size – 30"x30" Minimum
Background – Yellow reflectorized
Legend – Black, 4 inch, Series D

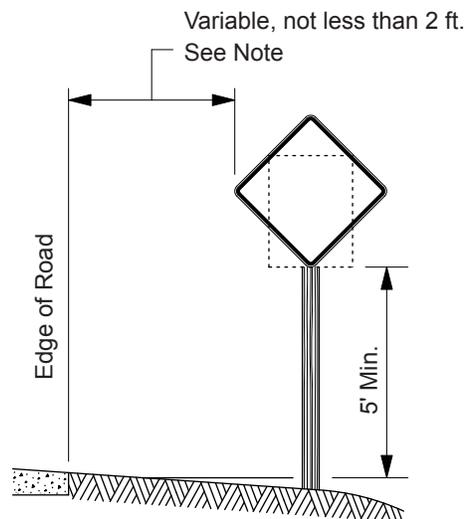


R40-31

The "Do Not Enter When Flooded" sign shall be used at all locations where low water crossings are a part of the roadside features. The sign should be installed a distance of 15 to 25 feet in advance of the anticipated edge of the waterline on the roadway.

Design Details: Size – 24"x30"
Background – White reflectorized
Legend – Black, 4 inch, Series C

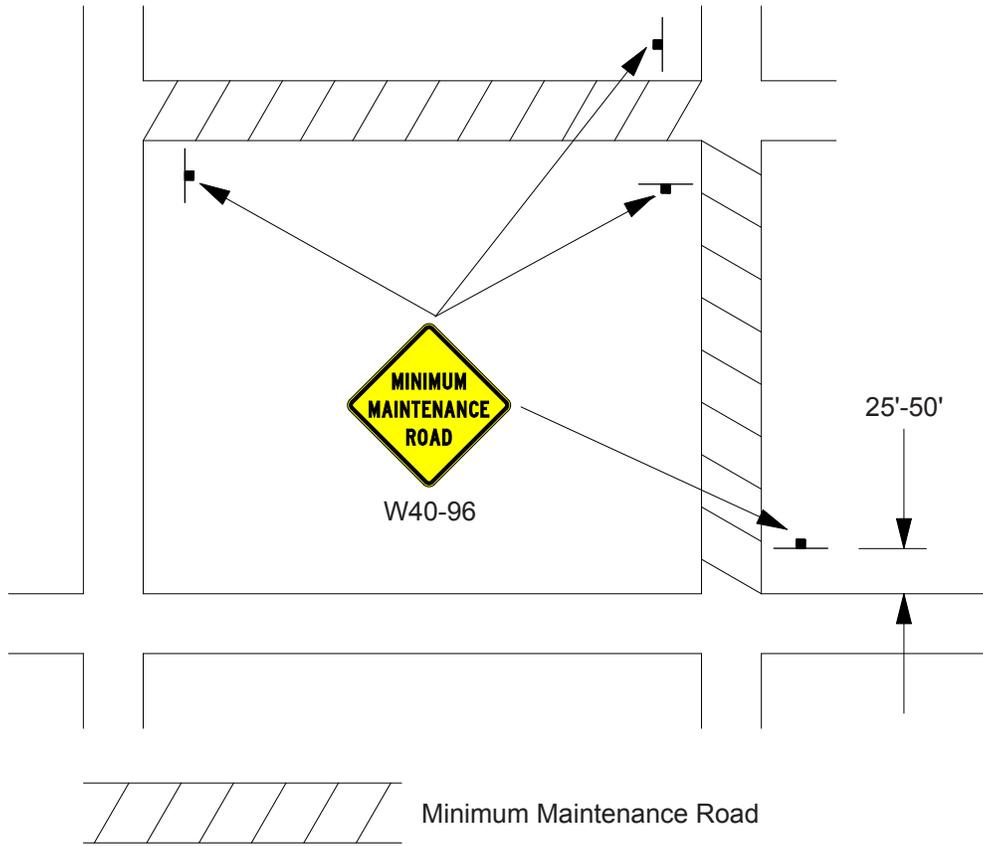
5A-5 Position and Height Standard



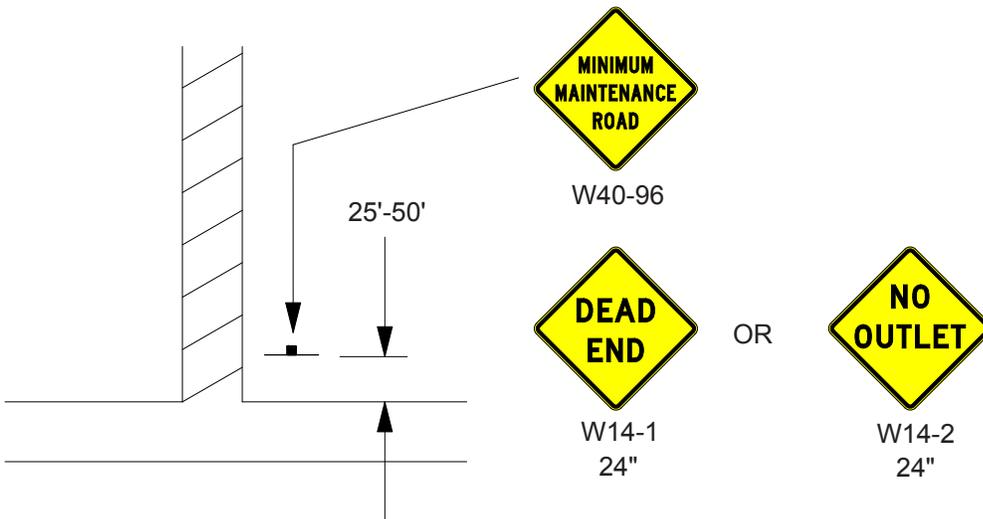
NOTE: The lateral placement of signs is to be 6 feet minimum (where possible), otherwise, a 2 feet minimum.

5A-6 Typical Installation Conditions

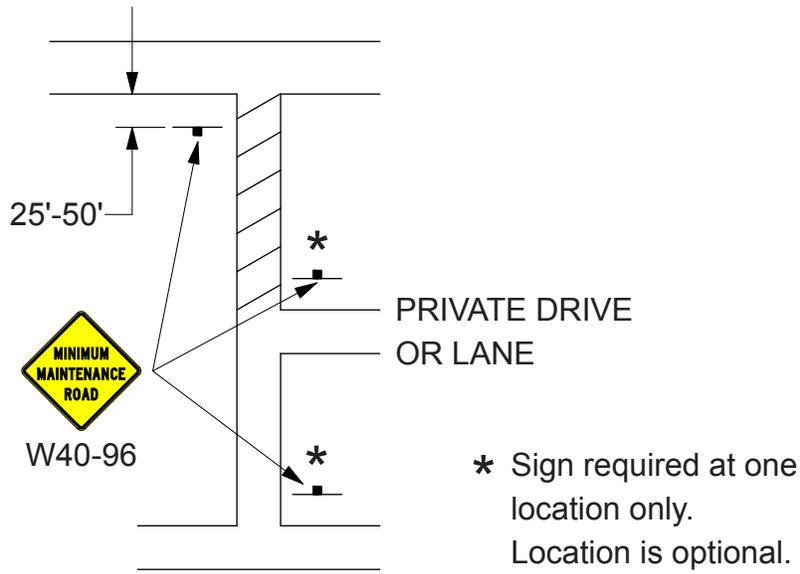
1. Through Road Condition



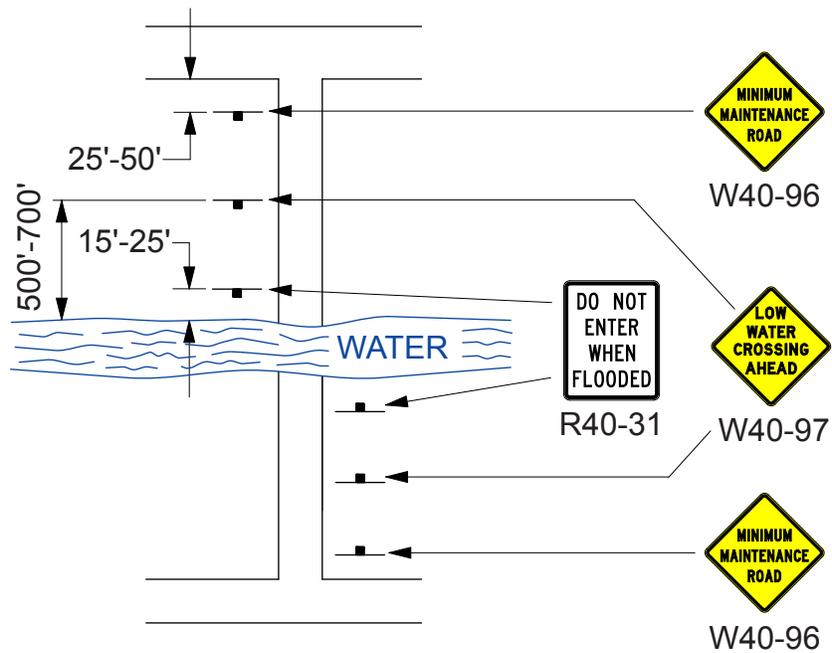
2. Dead-End Condition



3. Partial Road Condition



4. Low Water Crossing on Minimum Maintenance Road



B. Low Water Crossings on Local Roads

5B-1 Functional Classification

Very low volume (0-50 ADT) county or township roads functionally classified as local may be considered for installation of a low water crossing, subject to a relaxation of standards by the Board of Public Roads Classifications and Standards, provided the road is not the only access to an occupied dwelling.

5B-2 Standard of Application

It is recognized that drivers develop an expectancy for the level of signing and maintenance according to the type of roadway encountered. Where drivers have become accustomed to the level of signing and maintenance on a normal county or township road system, it is necessary that they be warned they are entering roadway with a much lower level of control.

5B-3 Signing of Low Water Crossings on Low Volume Local Roads

Signs that indicate low water stream crossings, shall be placed before the drainageway.

5B-4 Sign Design and Usage Standards

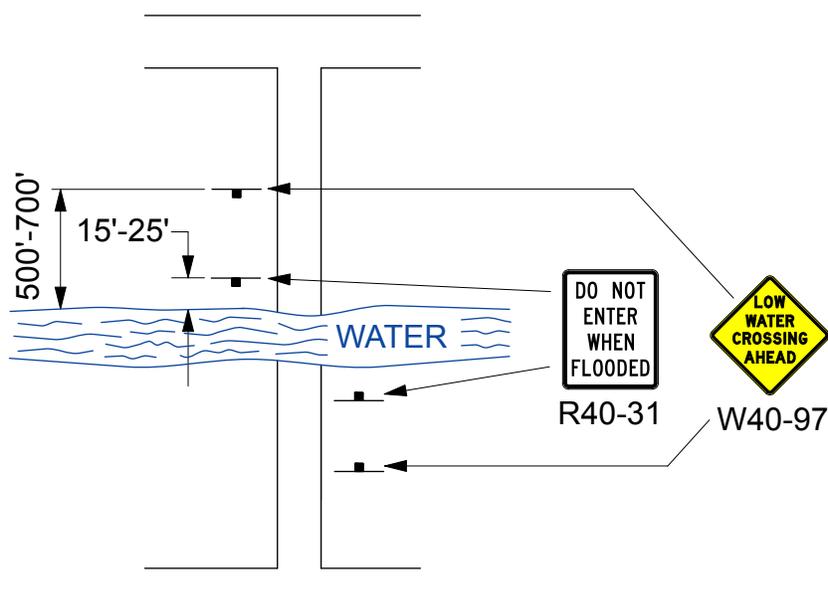
See "Low Water Crossing Ahead" and "Do Not Enter When Flooded" sign requirements in 5A-4 on page 16.

5B-5 Position and Height Standard

See 5A-5 on page 16.

5B-6 Typical Installation Conditions

1. Low Water Crossing on Local Road



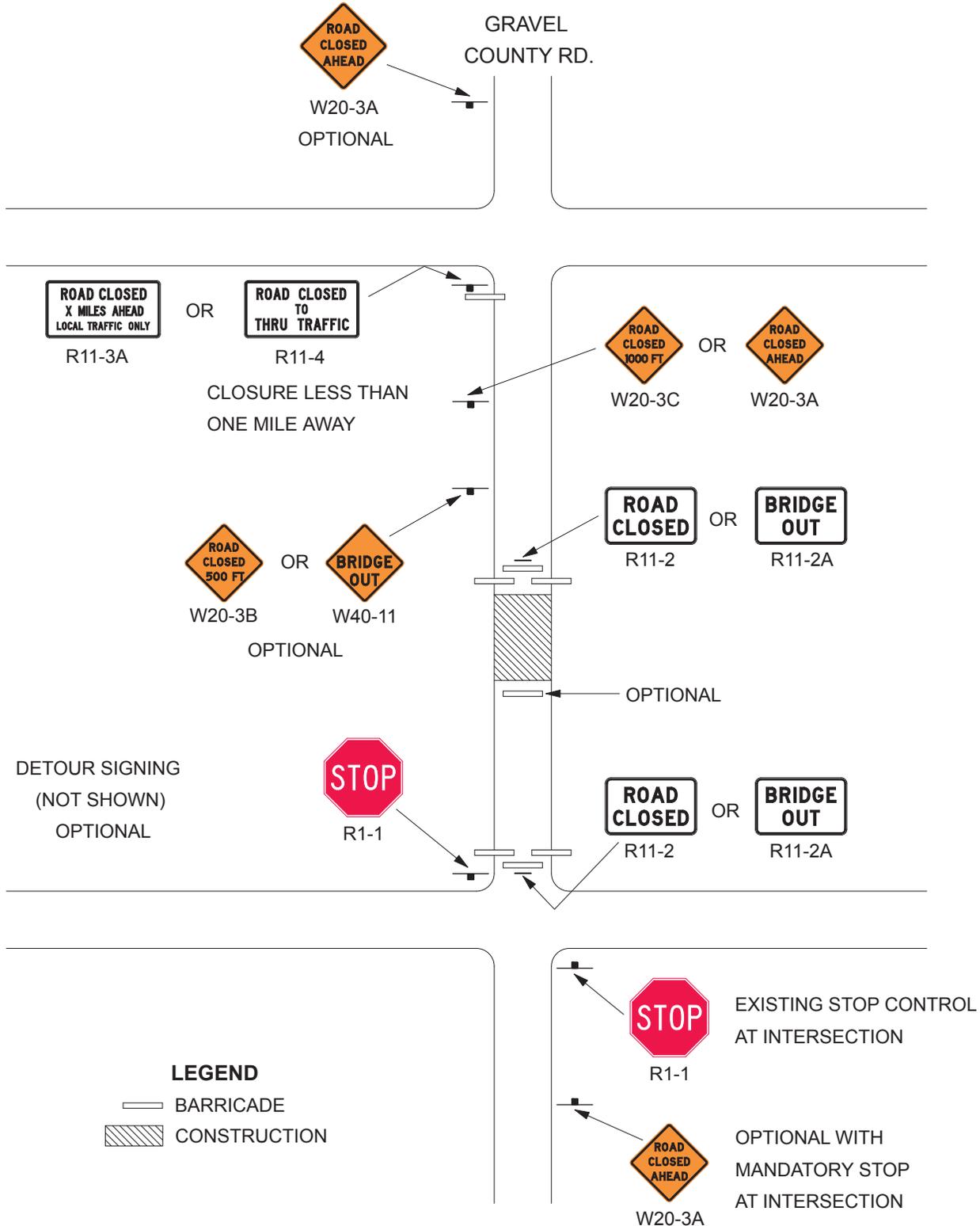
PART 6 - TEMPORARY TRAFFIC CONTROL

Section 6H.01 - Road Closed to Traffic

(Addendum)

**TYPICAL TRAFFIC CONTROL NON-HIGHWAY ROUTE
GRAVEL OR STONE ROAD CLOSED TO TRAFFIC**

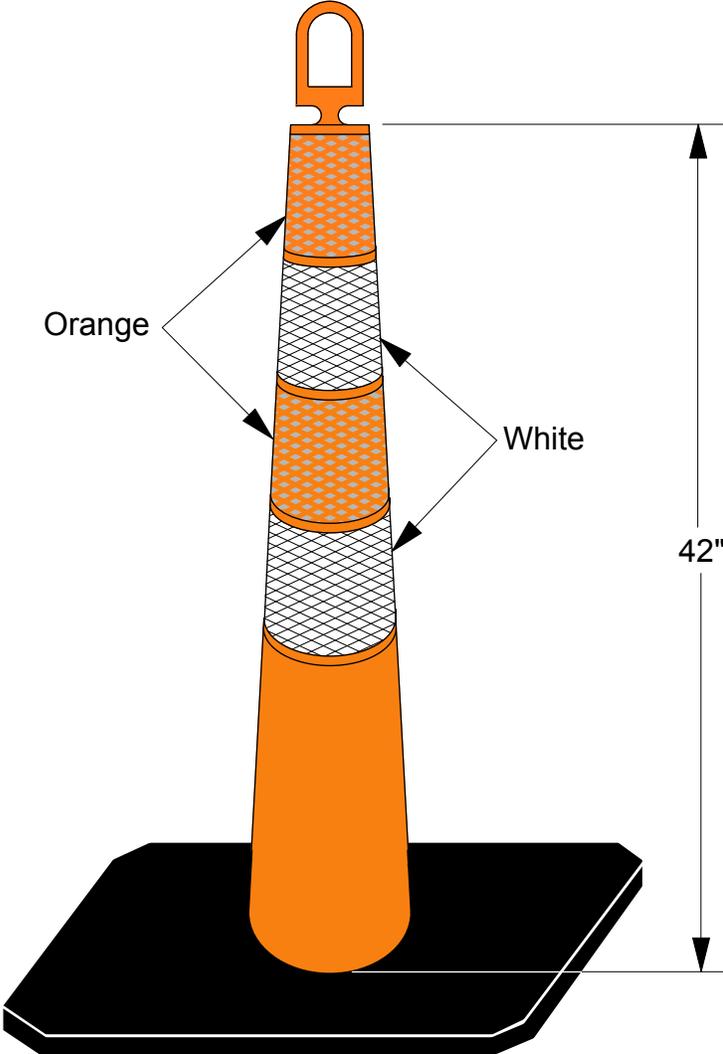
Figure 6H-8a



Section 6F.59 Cones

(Addendum)

Option: 42-inch traffic cones may be retroreflectORIZED with 4 reflective bands alternating from the top orange-white-orange-white. The bands shall be a minimum of 4 inches wide and should begin near the top.



42" Cone

PART 7 - TRAFFIC CONTROL FOR SCHOOL AREAS

Section 7B.08 – School Advance Warning Signs (S1-1)

(Addendum)

Standard: The School Advance Warning (S-1-1) sign shall be used in advance of any installation of the School Crossing sign.

If used, the School Advance Warning sign shall be installed not less than 45 m (150 ft) nor more than 210 m (700 ft) in advance of the school grounds or school crossings (see Figure 7B-1).

The School Advance Warning sign shall be used in advance of the first installation of the School Speed Limit sign assembly.

Guidance: The School Advance Warning (S1-1) sign should be installed in advance of locations where school buildings or grounds are adjacent to the highway.



S1-1-36
W16-7

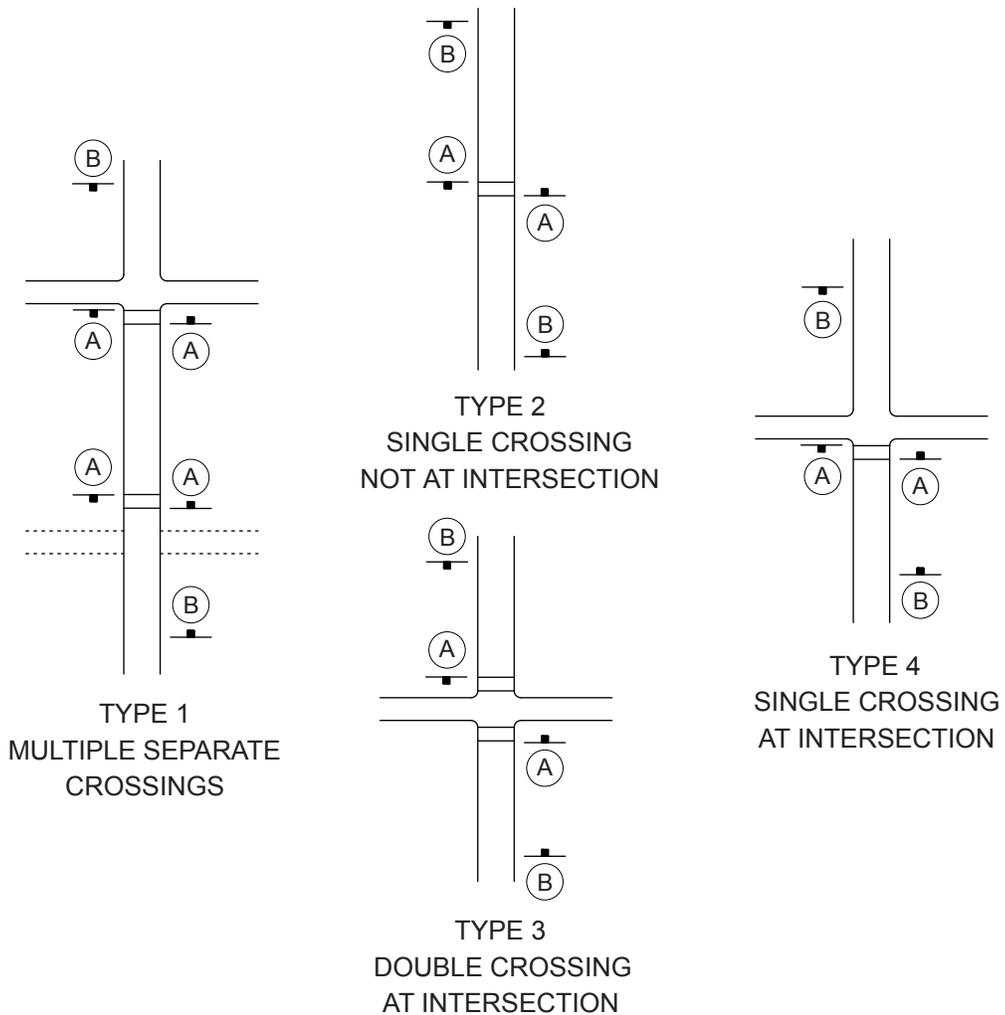
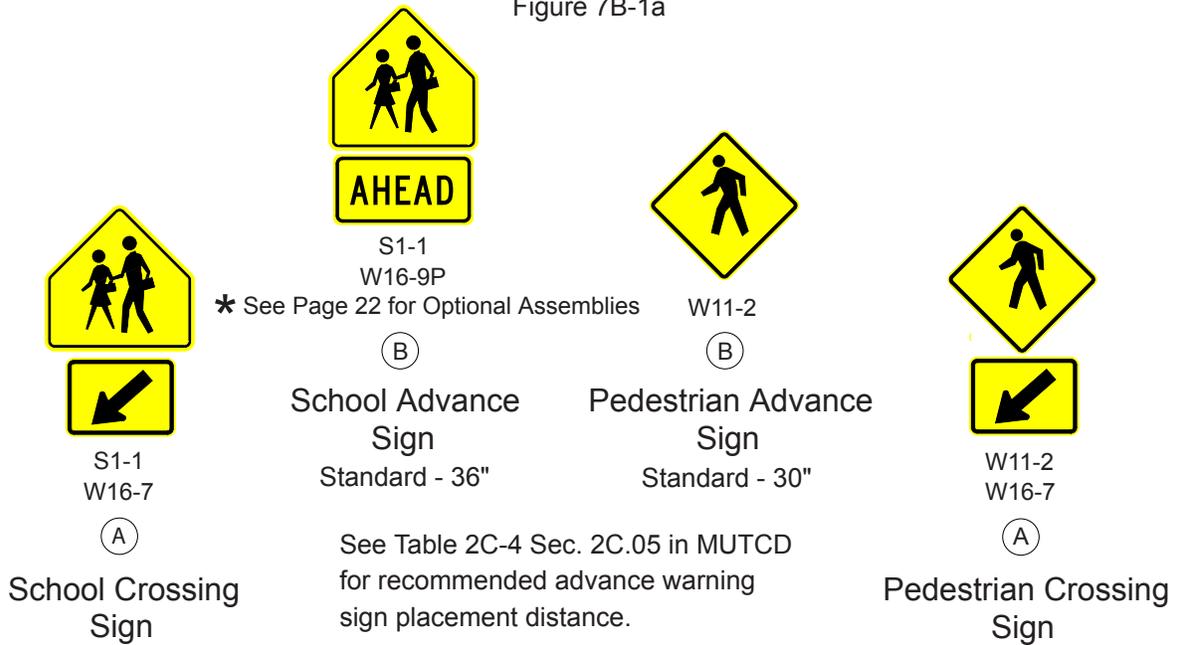


S1-1-36
W16-9P

TYPICAL SCHOOL/PEDESTRIAN CROSSING SIGN LOCATIONS

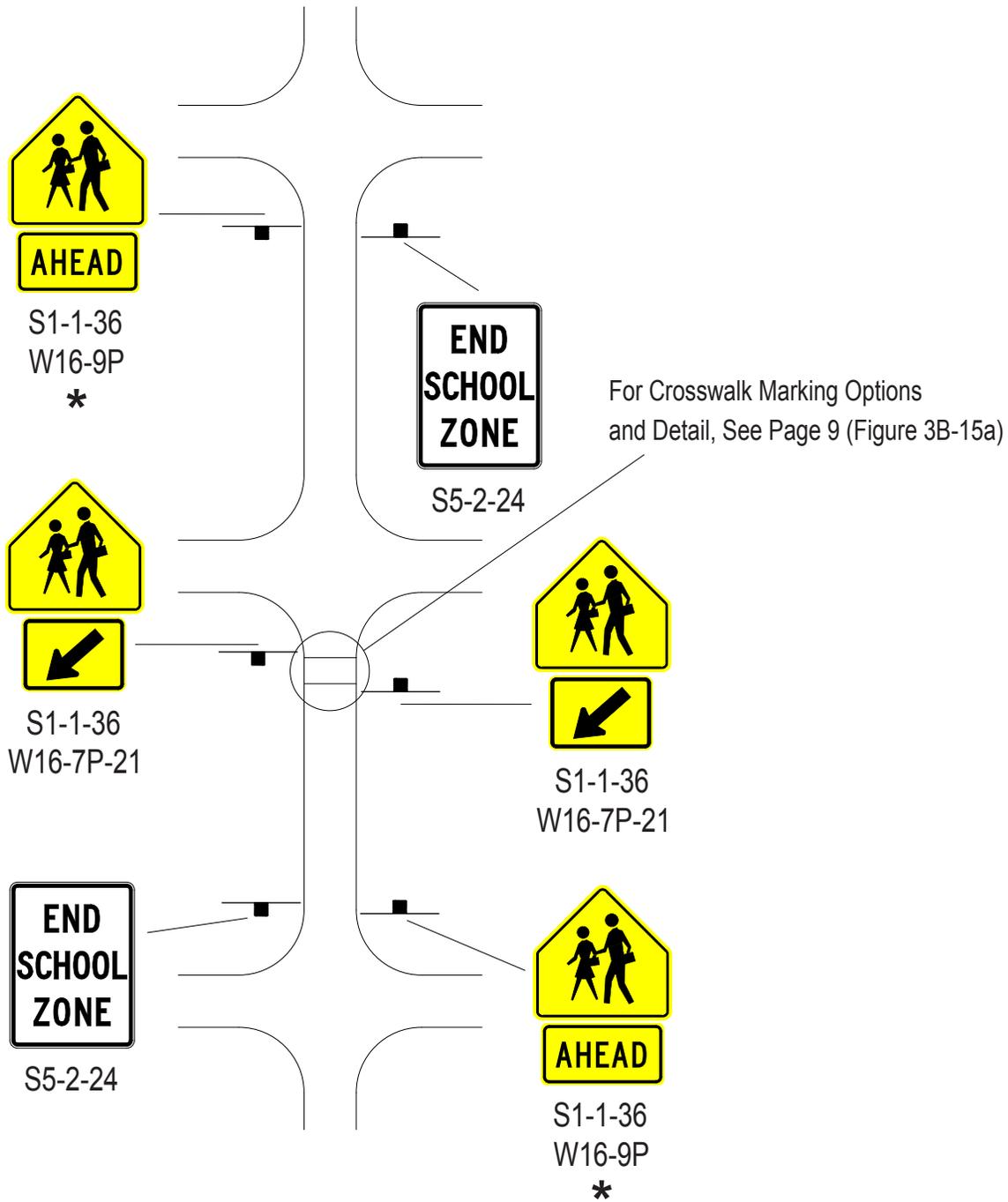
(Addendum)

Figure 7B-1a



TYPICAL TRAFFIC CONTROL FOR SCHOOL AREAS

Figure 7B-1b



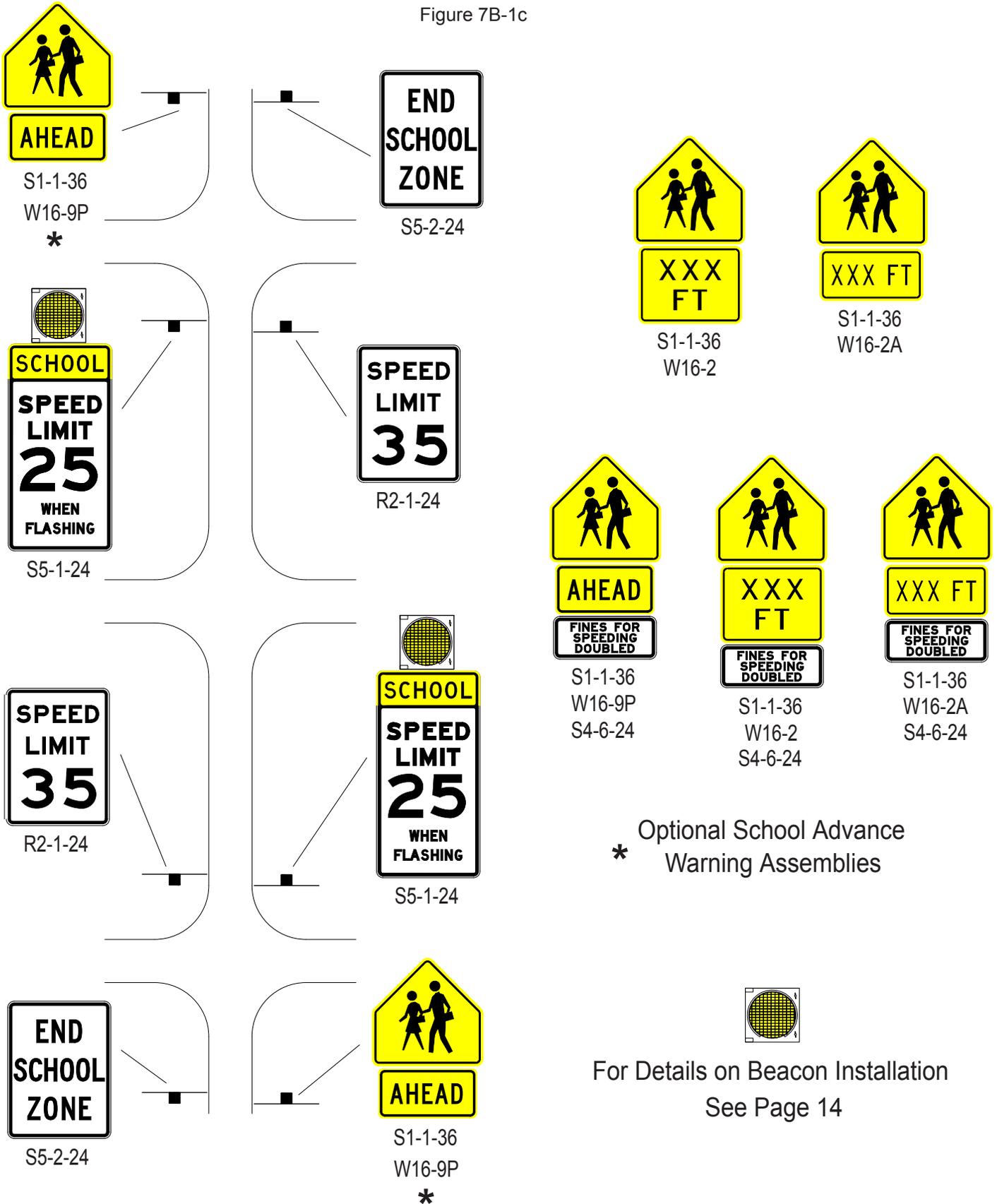
NOTES:

* See Page 25 for Optional School Advance Warning Assemblies

1. WHEN A SCHOOL CROSSWALK WARNING ASSEMBLY (S1-1-36 & W16-7P-21) IS USED, THE SCHOOL ADVANCE SIGN (S1-1-36) SHALL BE INSTALLED IN ADVANCE OF THE SCHOOL CROSSWALK WARNING ASSEMBLY.
2. SCHOOL ADVANCE WARNING SIGN (S1-1-36) SHALL BE USED IN ADVANCE OF THE SCHOOL SPEED LIMIT SIGN (S5-1-24).

TYPICAL TRAFFIC CONTROL FOR SCHOOL AREAS

Figure 7B-1c



Section 7B.10 - School Bus Stop Ahead Sign S3-1

(Amendment)



S3-1

Guidance: The School Bus Stop Ahead sign (S3-1) should be installed in advance of locations where a school bus, when stopped to pick up or discharge passengers, is not visible for the following distances in advance of the bus stop.

Posted Roadway Speed (MPH)	Sight Distance Less than 2% grade (Feet)	Stopping Sight Distance on a Downgrade 6% or Less (Feet)
50-55	500	560
60	570	640
65	650	730

For downgrades greater than 6% see the AASHTO "A Policy on Geometrics Designs of Highways and Streets for stopping sight distance recommendations

If the sight distance is less than the above values a "SCHOOL BUS STOP AHEAD" sign should be installed, if the sight distance is greater than the above values then the sign should NOT be installed. "SCHOOL BUS STOP AHEAD" signs will not be placed in urban areas.

It shall have a standard size of 30" x 30" size, 36" x 36" may be used on Expressways.

It is not intended that these signs be used everywhere a school bus stops to pick up or discharge passengers but for use only where terrain and roadway features limit the approach sight distance and where there is no opportunity to relocate the stop to another location with adequate visibility. Only sign the direction that a limited sight distance exists.

At the beginning of each school year, all existing "SCHOOL BUS STOP AHEAD" sign installations should be reviewed for continued need of signing. Signs no longer needed shall be removed.

PART 8 - TRAFFIC CONTROL FOR HIGHWAY - RAIL GRADE CROSSINGS

Section 8B.04 - Highway-Rail Grade Crossing Advance Warning Signs (W10 Series) - (Amendment)

Standard:

A Highway-Rail Grade Crossing Advance Warning (W10-1) sign shall be used on each highway in advance of every highway-rail grade crossing except in the following circumstances:

- A. If the distance between the railroad tracks and the parallel highway, from the edge of the track to the edge of the highway is less than 100 ft. and a W10-2, W10-3, or W10-4 sign is installed on the parallel highway.
- B. On low-volume, low-speed highways crossing minor spurs or other tracks that are infrequently used and are flagged by train crews;
- C. In business districts where active highway-rail grade crossing traffic control devices are in use; and
- D. Where physical conditions do not permit even a partially effective display of the sign.

Option:

If the distance between the railroad tracks and the parallel highway, from the edge of the track to the edge of the highway, is less than 30 m (100 ft), the W10-2, W10-3, or W10-4 signs may be used on the parallel highway to warn road users making a turn that they will encounter a highway rail grade crossing soon after making the turn.

Placement of the Highway-Rail Grade Crossing advance Warning sign shall be in accordance with MUTCD Table 2C-4 in Chapter 2C.

Option:

On divided highways and one-way streets, an additional W10-1 sign may be installed on the left side of the roadway.

Standard:

If the W10-2, W10-3, or W10-4 signs are used, sign placement shall be in accordance with MUTCD Table 2C-4 in Chapter 2C (*using the speed of through traffic*), and shall be measured from the highway intersection.

Guidance:

If the distance between the railroad tracks and the parallel highway, from the edge of the track to the edge of the roadway, is 100 ft. or more, a W10-1 sign should be installed in advance of the highway-rail grade crossing, and the W10-2, W10-3, or W10-4 signs should not be used on the parallel highway.

STANDARD HIGHWAY SIGNS FOR THE STATE OF NEBRASKA

PREFACE

The following drawings represent standard highway signs prescribed or provided for in the Manual on Uniform Traffic Control Devices (MUTCD), 2003 as prepared by the Office of Traffic Operations, Federal Highway Administration and those signs added by the State of Nebraska Department of Roads in this Supplement, and comprise the signs specifically approved for use by all traffic authorities, agencies, jurisdictions, and persons involved with the fabrication, installation, and maintenance of traffic signs on streets and highways in the State of Nebraska. Standardization of these designs does not preclude further improvements by minor changes to existing signs or the development of new sign designs in addition to those listed herein. It is imperative, however, that the design of any additional signs be in substantial conformance with the concepts and standards contained within the MUTCD with regard to shape, color, size, symbols, lettering and reflectorization.

The Standard Highway Signs prescribes typical designs for the State of Nebraska for up to five different sizes depending on the type of traffic facility including bikeways, minimum, standard, special and freeway. Smaller sizes are designed to be used on bikeways and some other off-road applications. Standard sizes are designed to be used on highway classifications including expressways. Larger sizes are designed for use on freeways. Larger sizes can also be used to enhance road user safety and convenience on any facility.