State of Nebraska

Supplement to the

Manual on Uniform Traffic Control Devices

2002

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State of Nebraska

Supplement to the
Manual on Uniform Traffic Control Devices

INTRODUCTION

This manual consists of the 2000 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 feet 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.20 Low Clearance Sign – *(W12-2 and W12-2P)*

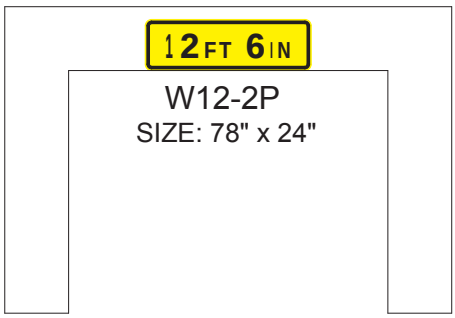
Low Clearance Signing *(Addendum)*

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 shall be one and one-half to three *(1½ to 3)* inches less than the actual measured clearance to account for varying roadway conditions.
2. Structures having a varying clearance cross 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.

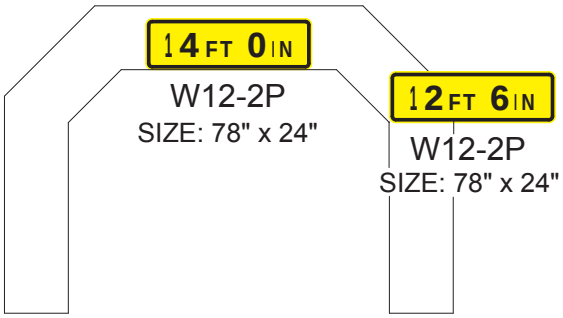
TYPICAL BRIDGE CLEARANCE SIGNING

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.48 - 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 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

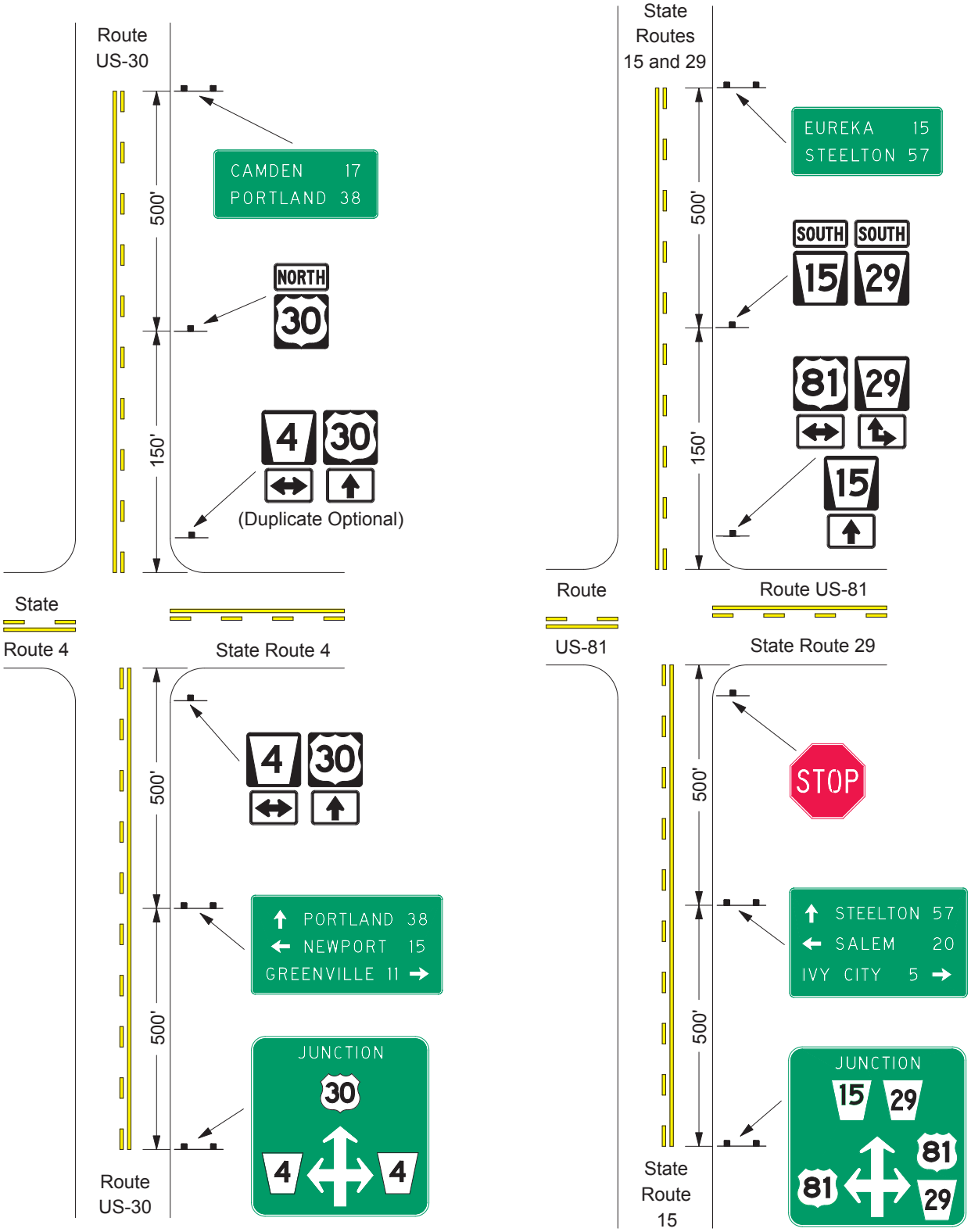
Section 2D.30 - Directional Assembly

(Amendment)

TYPICAL ROUTE MARKINGS AT RURAL INTERSECTIONS

(For one-direction travel only)

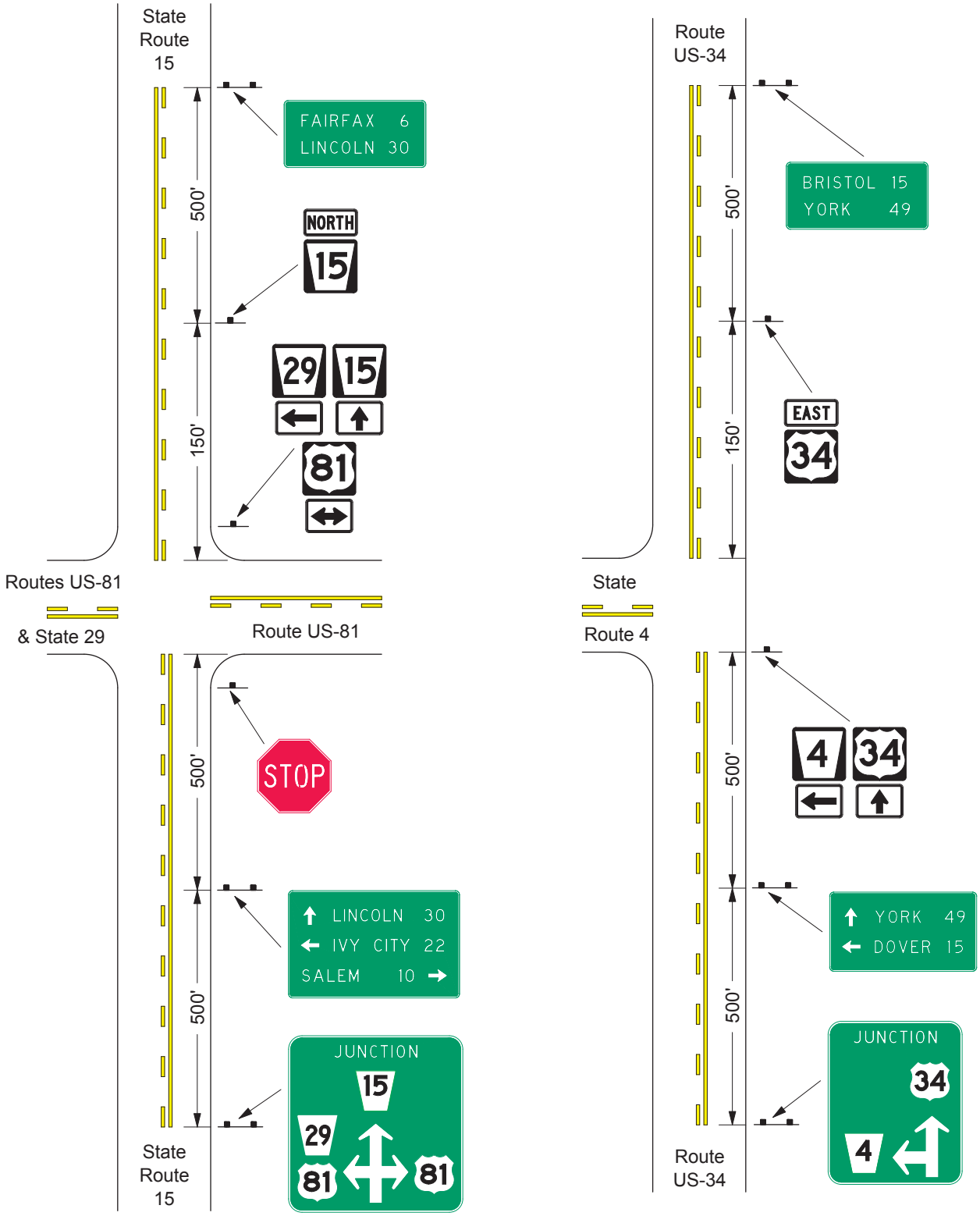
Figure 2D-2a



TYPICAL ROUTE MARKINGS AT RURAL INTERSECTIONS

(For one-direction travel only)

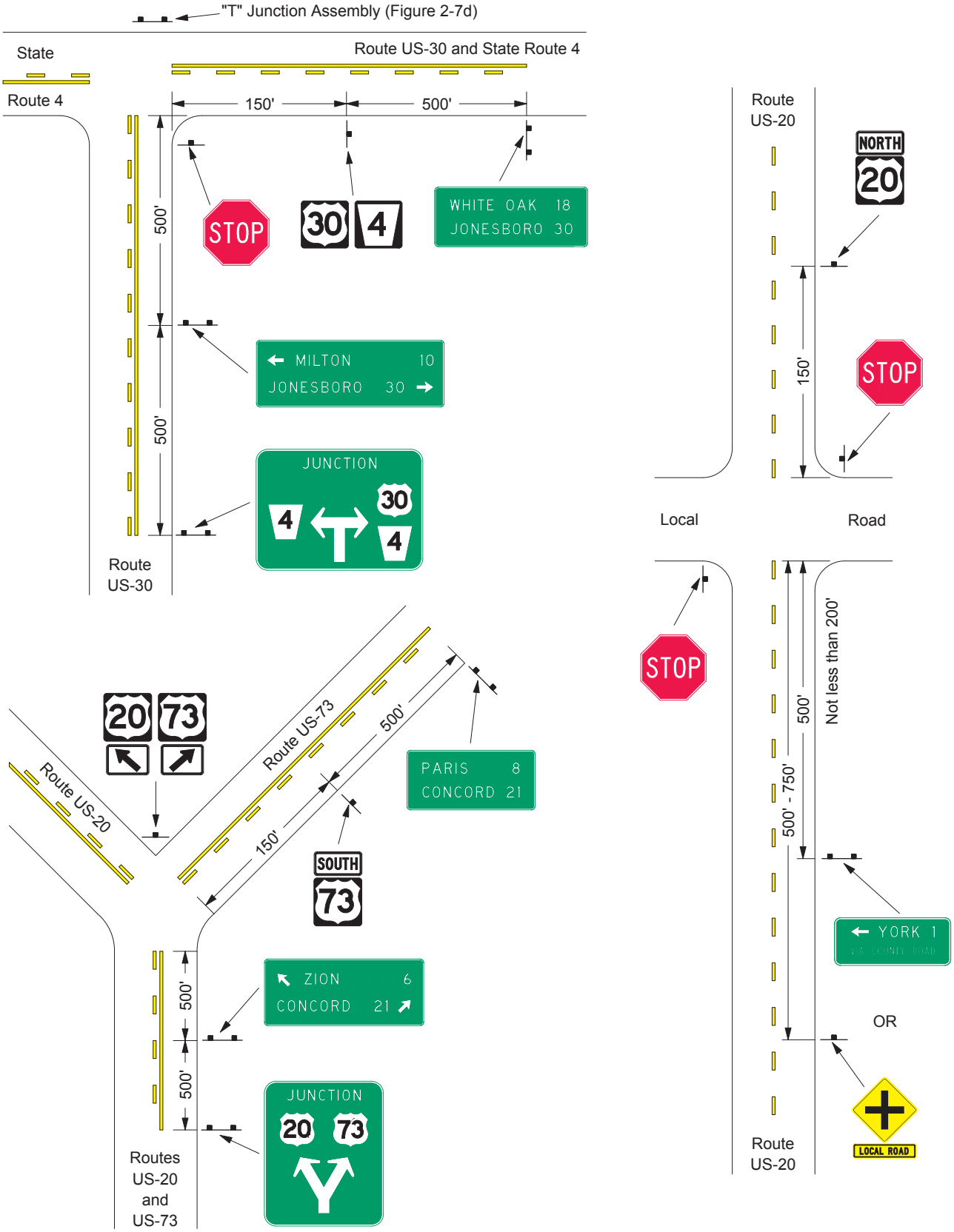
Figure 2D-2b



TYPICAL ROUTE MARKINGS AT RURAL INTERSECTIONS

(For one-direction travel only)

Figure 2D-2c

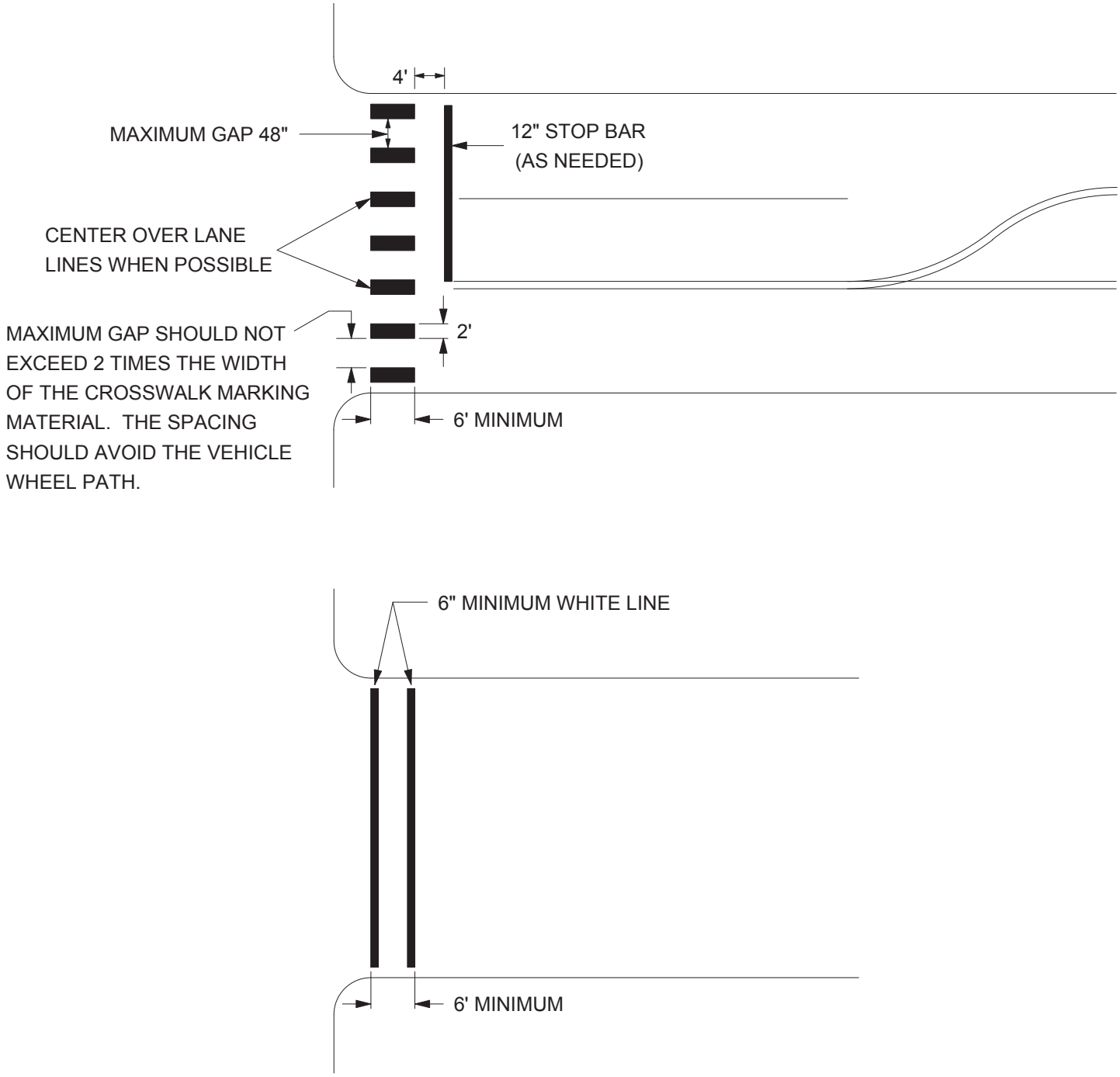


Section 3B.17 - Crosswalks and Crosswalk Lines

(Addendum)

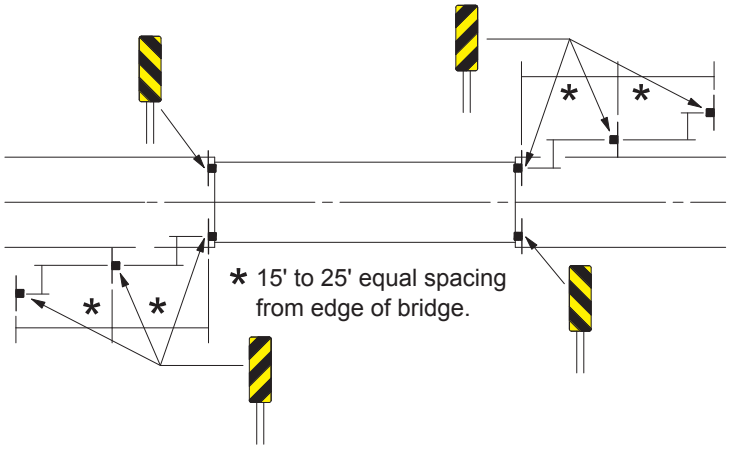
TYPICAL CROSSWALK MARKINGS

Figure 3B-15a

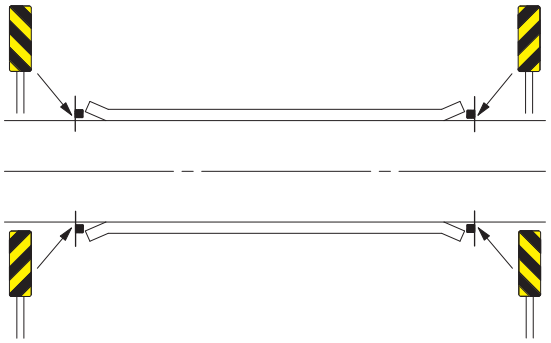


(Addendum)

OBJECT MARKERS AT BRIDGE



1. All structures on roads without surfaced shoulders.
2. All structures on roads with surfaced shoulders that are narrower than the surfaced shoulders.

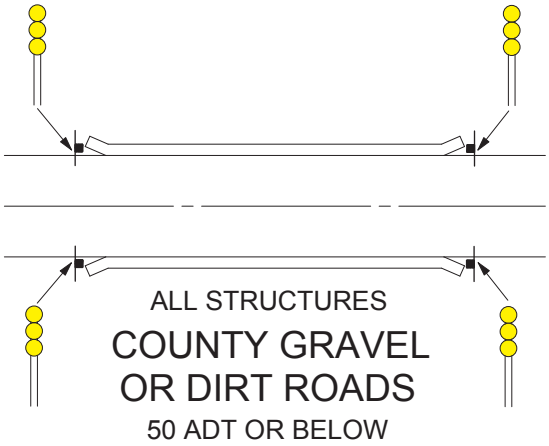


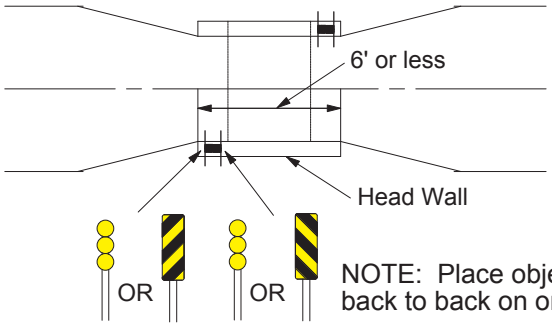
All structures on roads with surfaced shoulders that are the same width or wider than the surfaced shoulders.

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

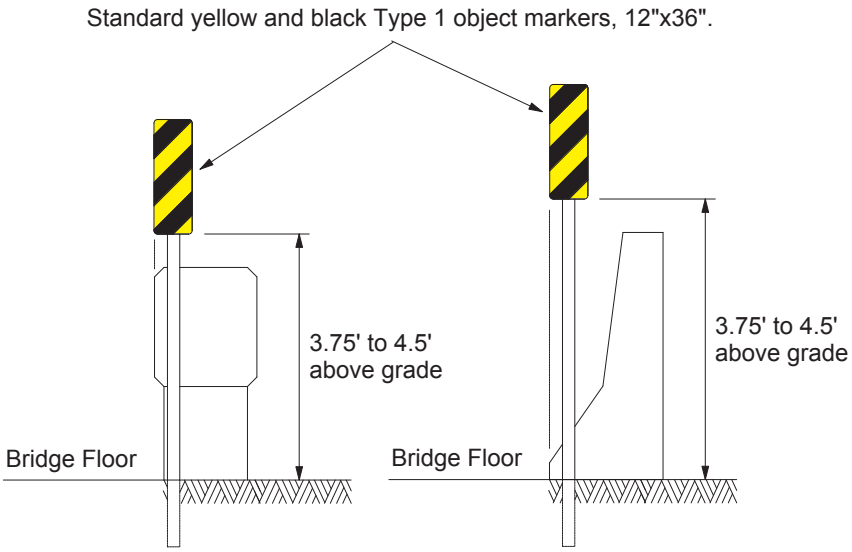
HARD SURFACED ROADS AND GRAVEL OR ROCK ROADS

ABOVE 50 ADT.





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

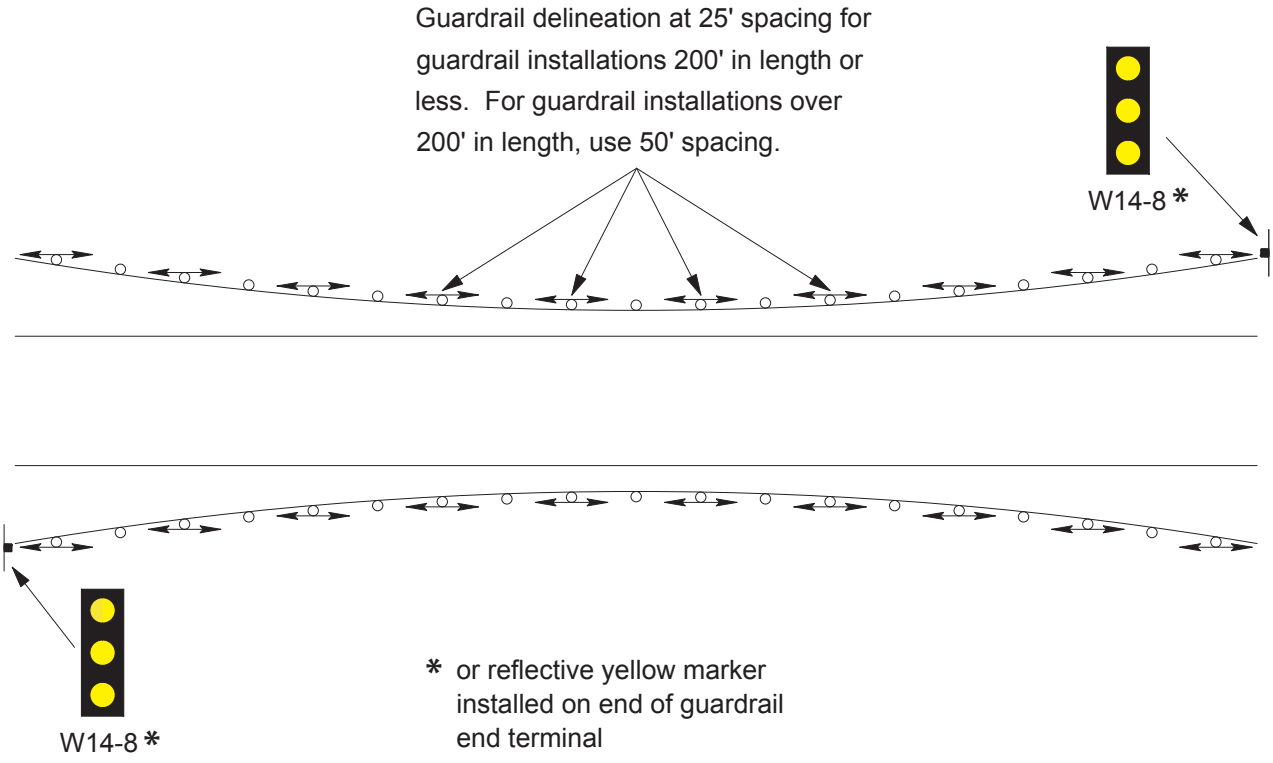


NOTE: Edge of object marker in line with inside edge of curb where there is no curb. Install edge of object marker in line with inside edge of handrail.

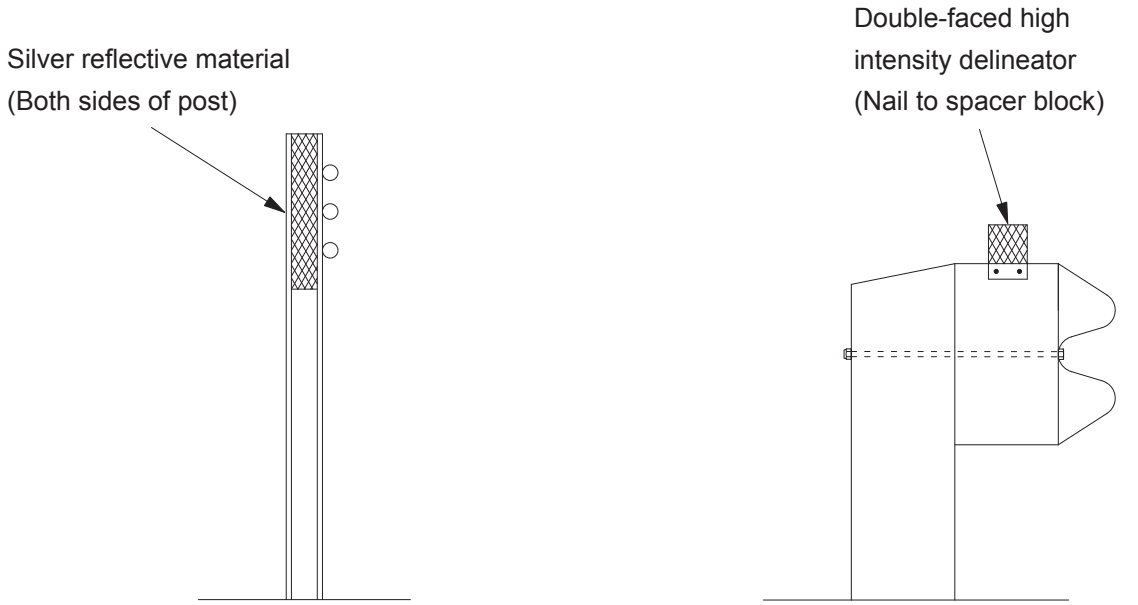
Section 3D.04 - Delineator Placement and Spacing

(Addendum)

GUARDRAIL DELINEATORS



GUARDRAIL DELINEATION



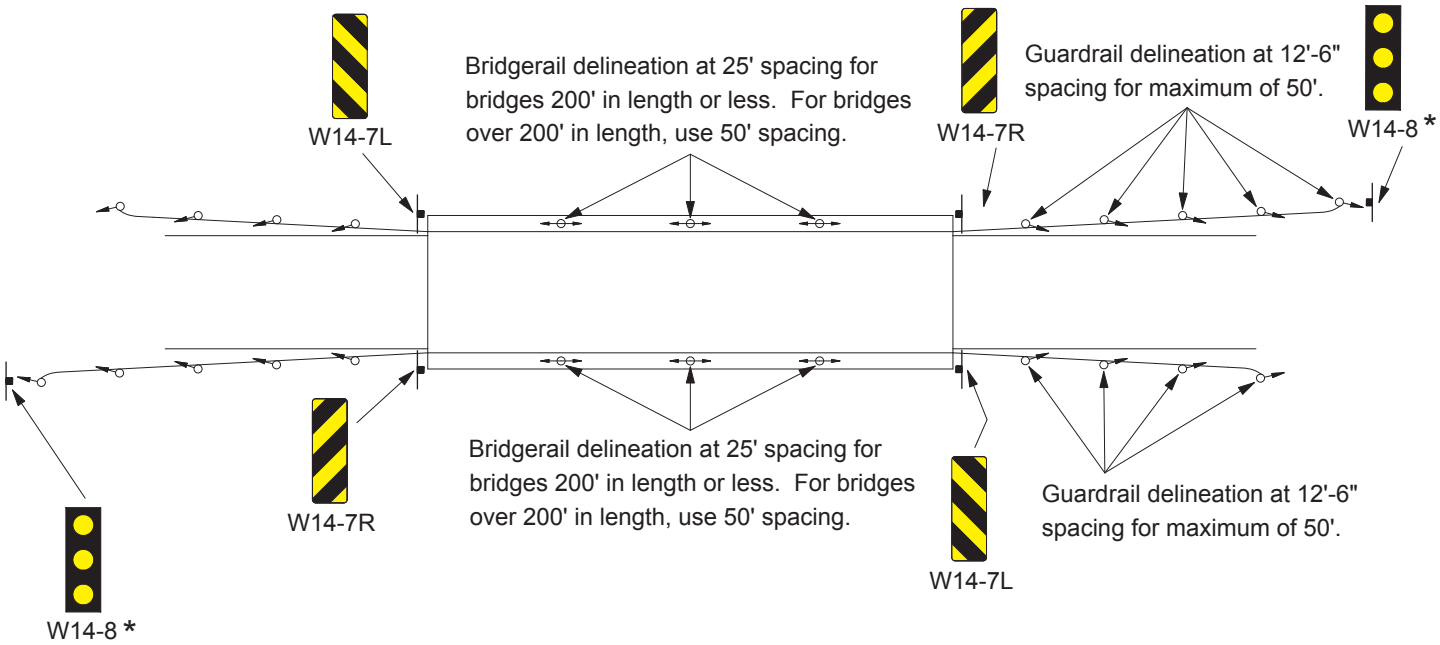
CABLE GUARDRAIL

SAFETY BEAM GUARDRAIL

TYPICAL GUARDRAIL DELINEATION

BRIDGE DELINEATION

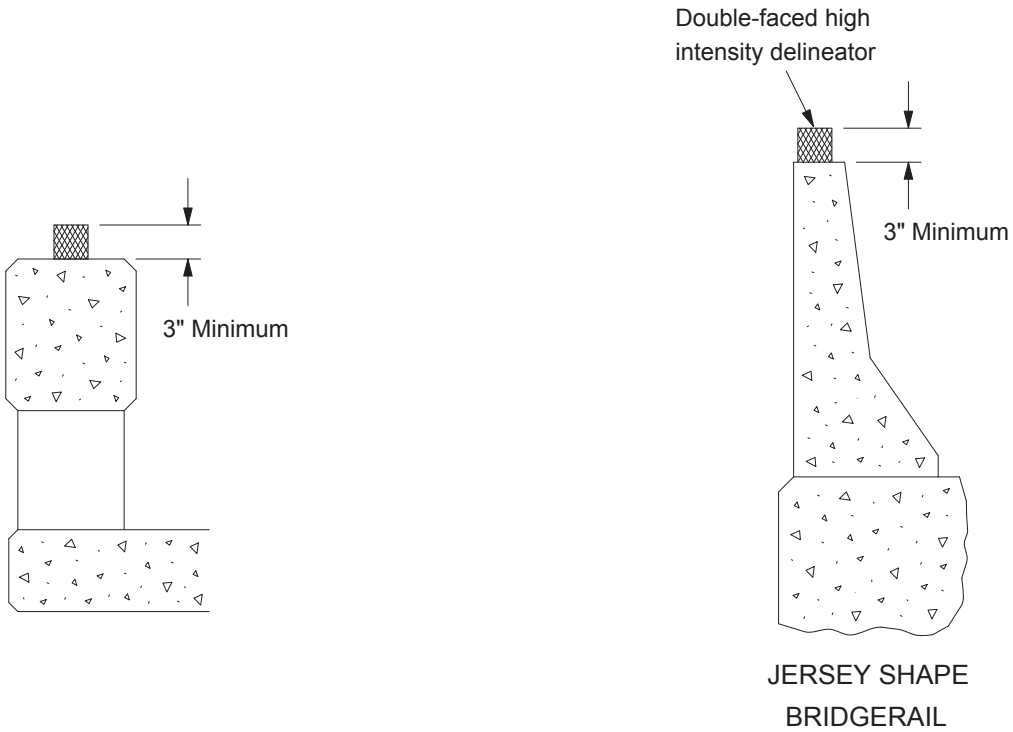
(Addendum)



NOTE: For guardrail lengths greater than 50', use standard guardrail delineation for 50' from the end of the bridge to the end of the guardrail.

* or reflective yellow marker installed on end of guardrail end terminal

BRIDGE DELINEATION



TYPICAL BRIDGE DELINEATION

PART 5 – MINIMUM MAINTENANCE ROADS

(Addendum)

A. General Principles

5A-1 Functional Class

Minimum maintenance roads are those county or township roadways designated by the county or township and approved by the Board of Public Roads Classifications and Standards. They are generally primitive, unimproved roads that serve abutting property owners to access for the agricultural or maintenance vehicles or equipment. They are characterized by narrow, ungraded earth surface, no 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 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.

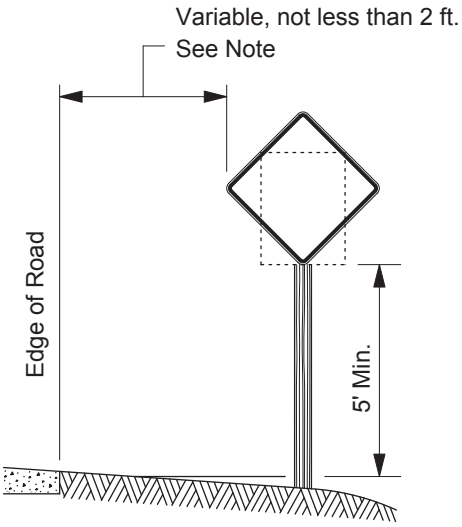
Design Details: Size – 30”x30” Minimum
Background – Yellow reflectorized
Legend – Black, 4 inch, Series D

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

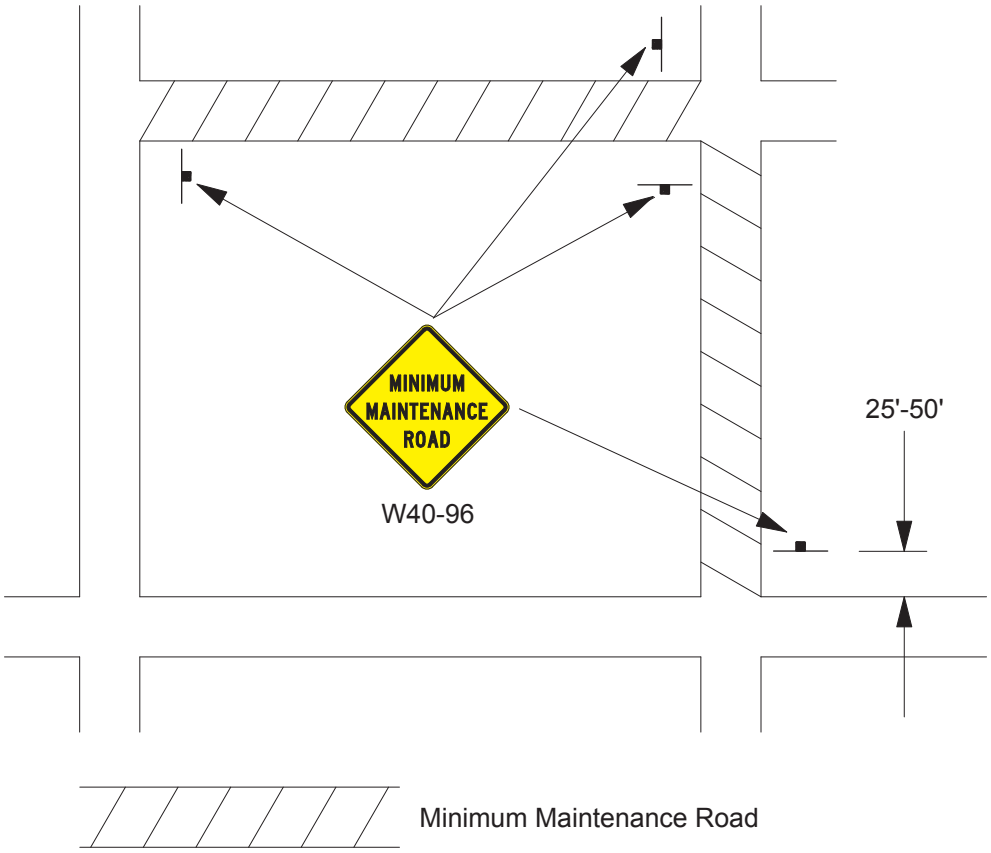
5A-5 Position and Height Standard



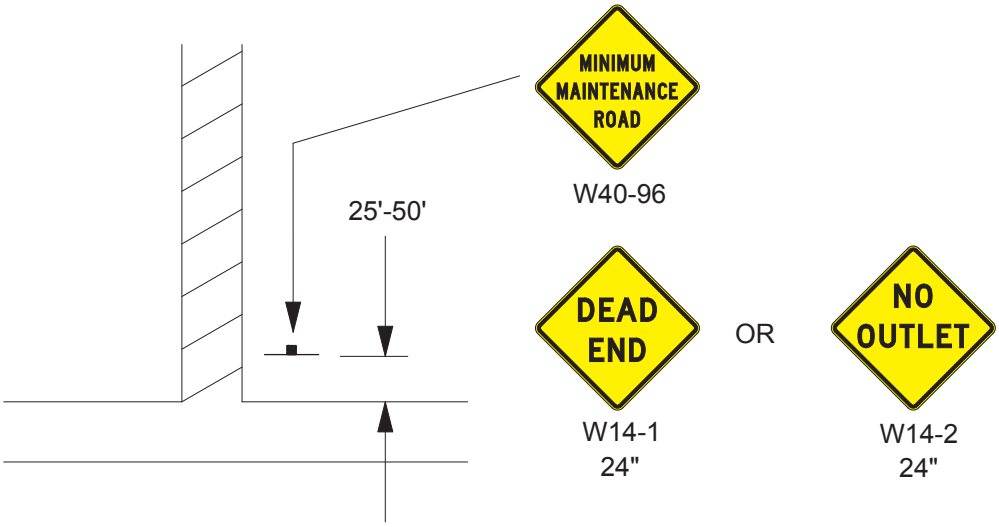
NOTE: The lateral placement of signs is to be 6 feet minimum (where possible), otherwise, a 2 feet minimum.

5A-6 Typical Installation Conditions

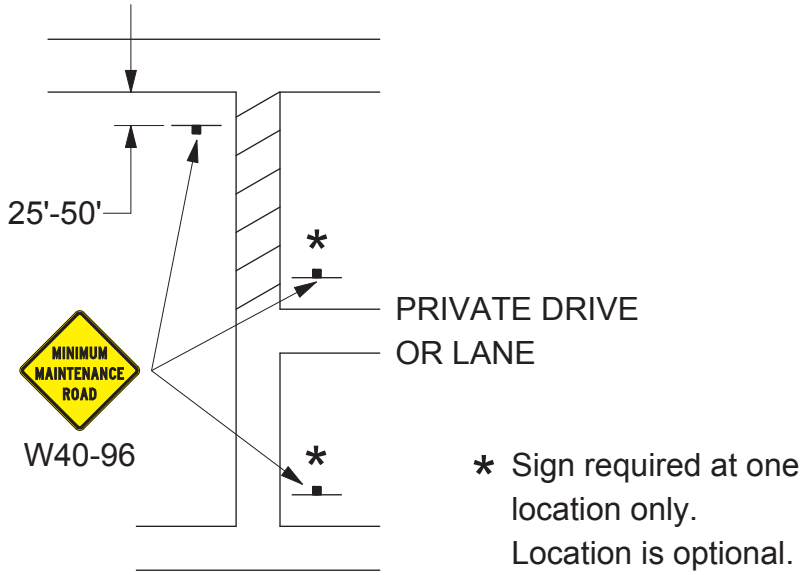
1. Through Road Condition



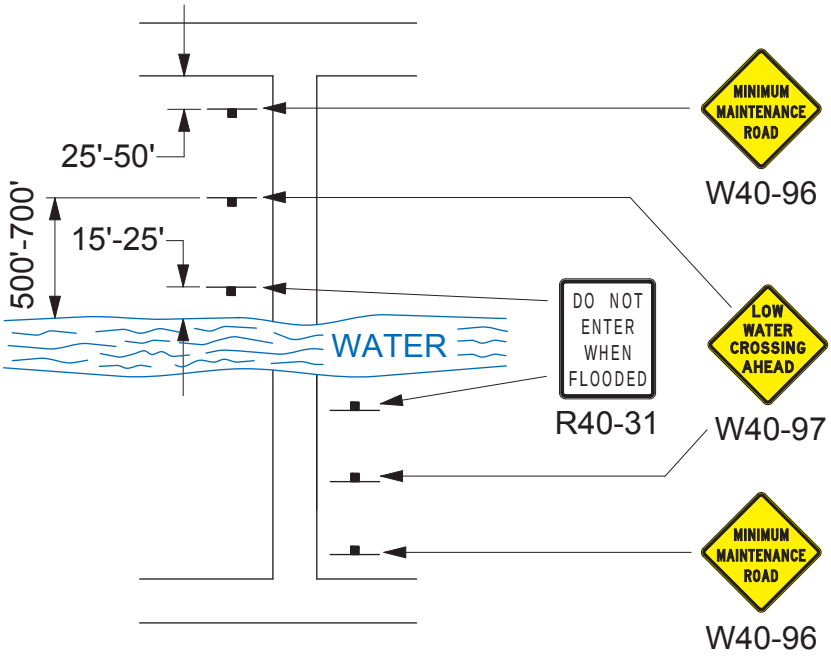
2. Dead-End Condition



3. Partial Road Condition



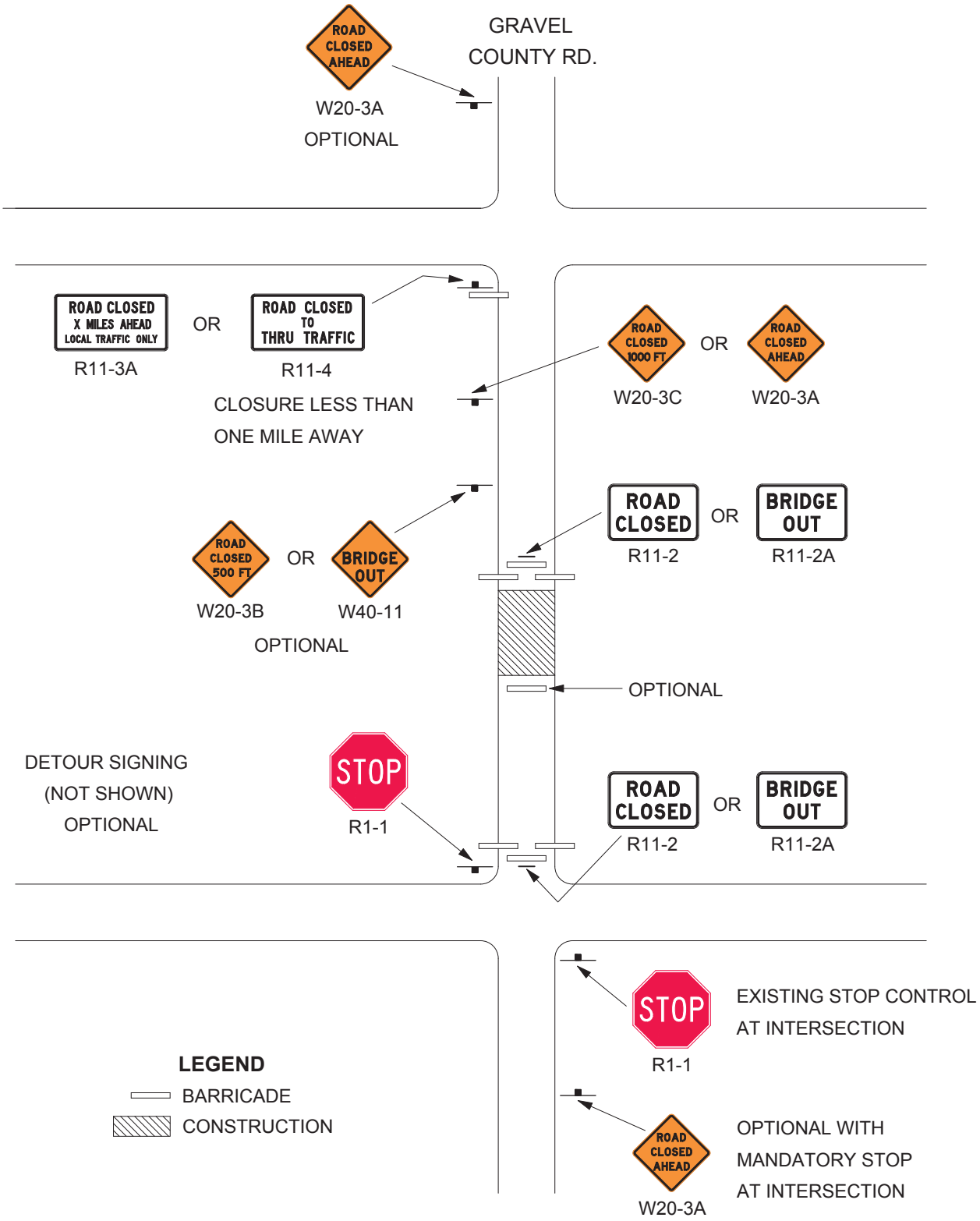
4. Low Water Crossing



(Addendum)

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

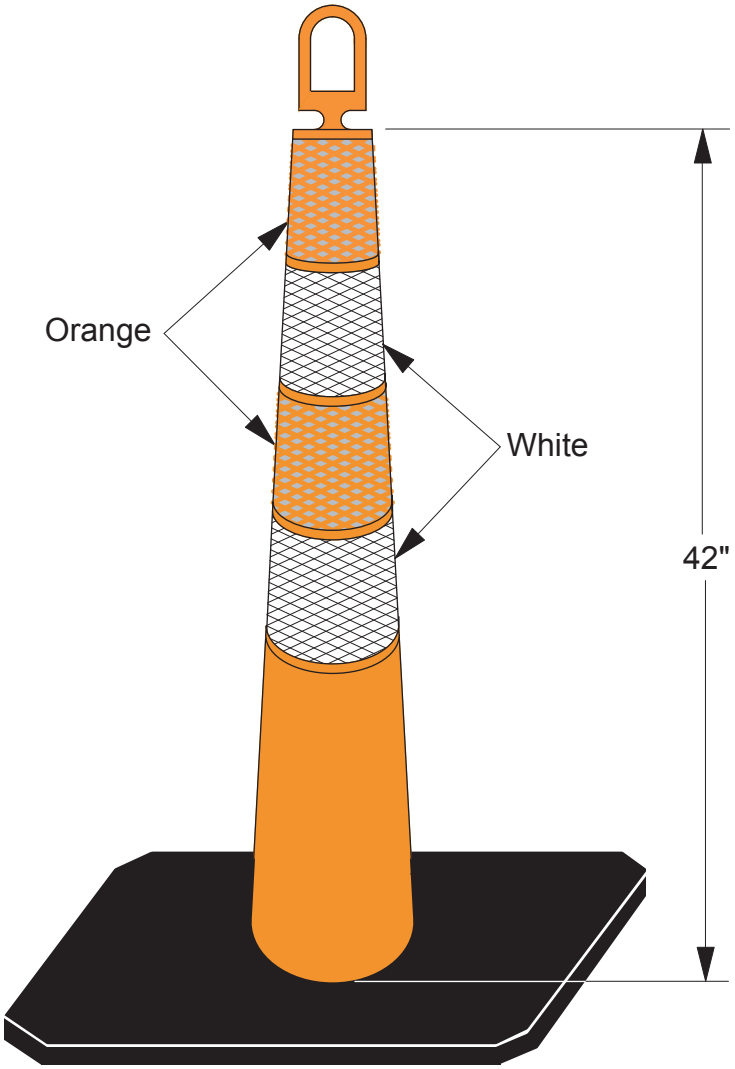
Figure 6H-8a



Section 6F.56 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.

Option: If used, the School Advance Warning sign may be supplemented with a supplemental plaque with the legend AHEAD *(W16-9p)* or XXX METERS *(XXX FEET) (W16-2 or W16-2a)* to provide advance notice to road users of crossing activity.

TYPICAL SCHOOL/PEDESTRIAN CROSSING SIGN LOCATIONS

(Addendum)

Figure 7B-1a

S1-1

B

School Advance Sign

W11-2

B

Pedestrian Advance Sign

S1-1
W16-7

A

School Crossing Sign

36" State Hwys. & Rural Areas

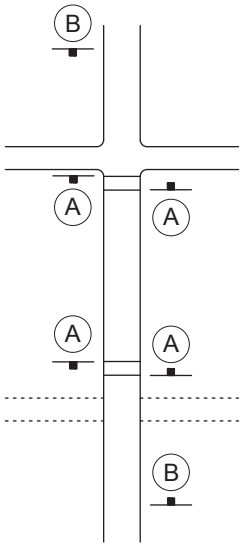
30" Urban Areas

See Table II-1 Sec. 2C-3 in MUTCD for recommended advance warning sign placement distance.

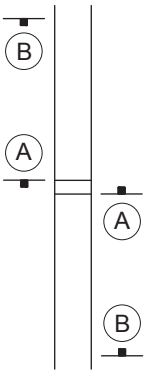
W11-2
W16-7

A

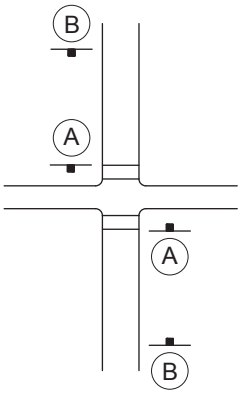
Pedestrian Crossing Sign



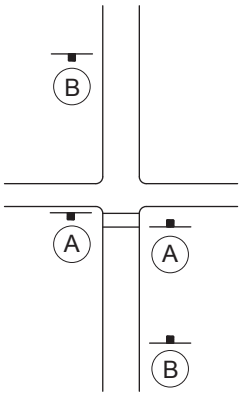
TYPE 1
MULTIPLE SEPARATE CROSSINGS



TYPE 2
SINGLE CROSSING
NOT AT INTERSECTION



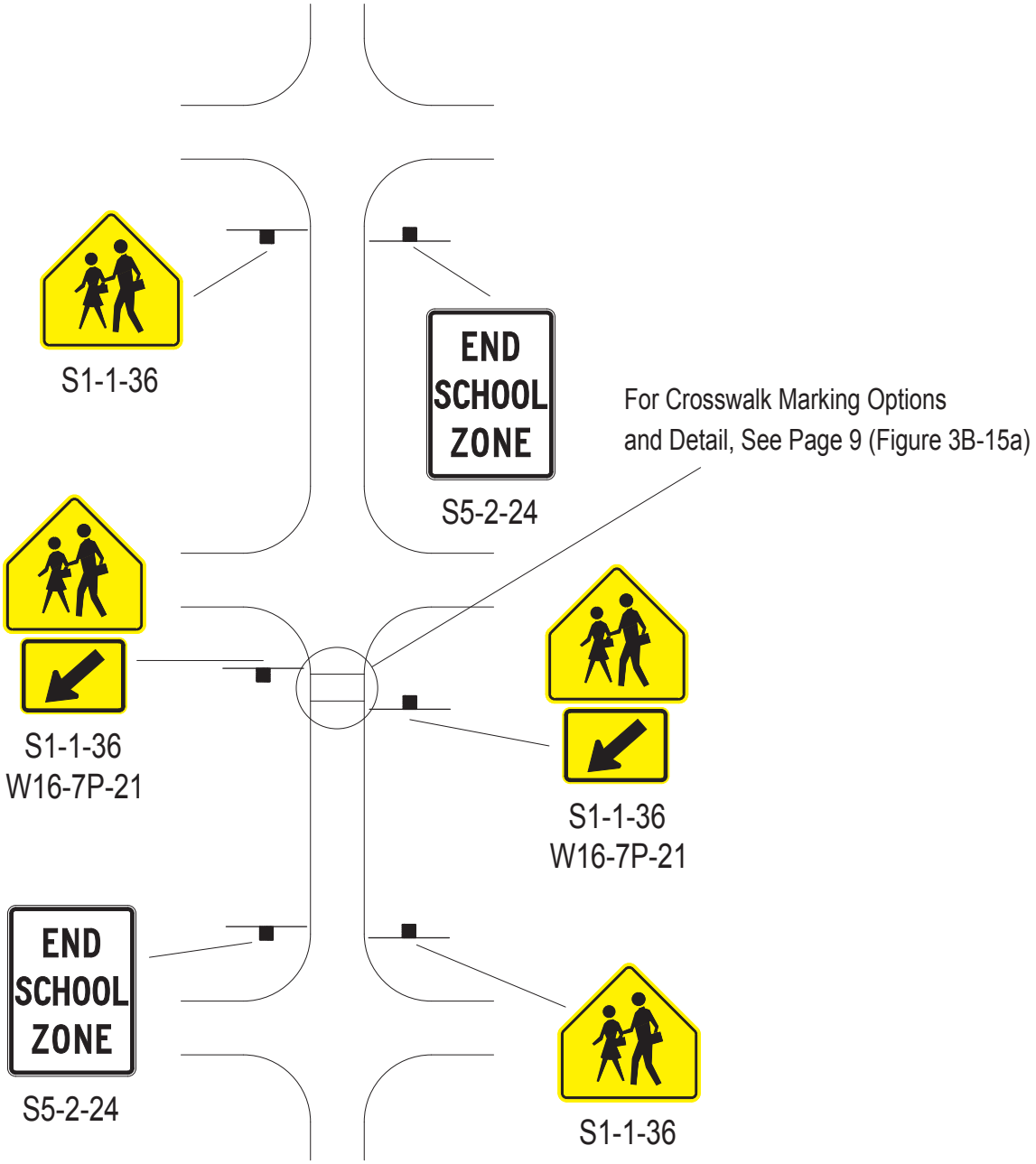
TYPE 3
DOUBLE CROSSING
AT INTERSECTION



TYPE 4
SINGLE CROSSING
AT INTERSECTION

TYPICAL TRAFFIC CONTROL FOR SCHOOL AREAS

Figure 7B-1b

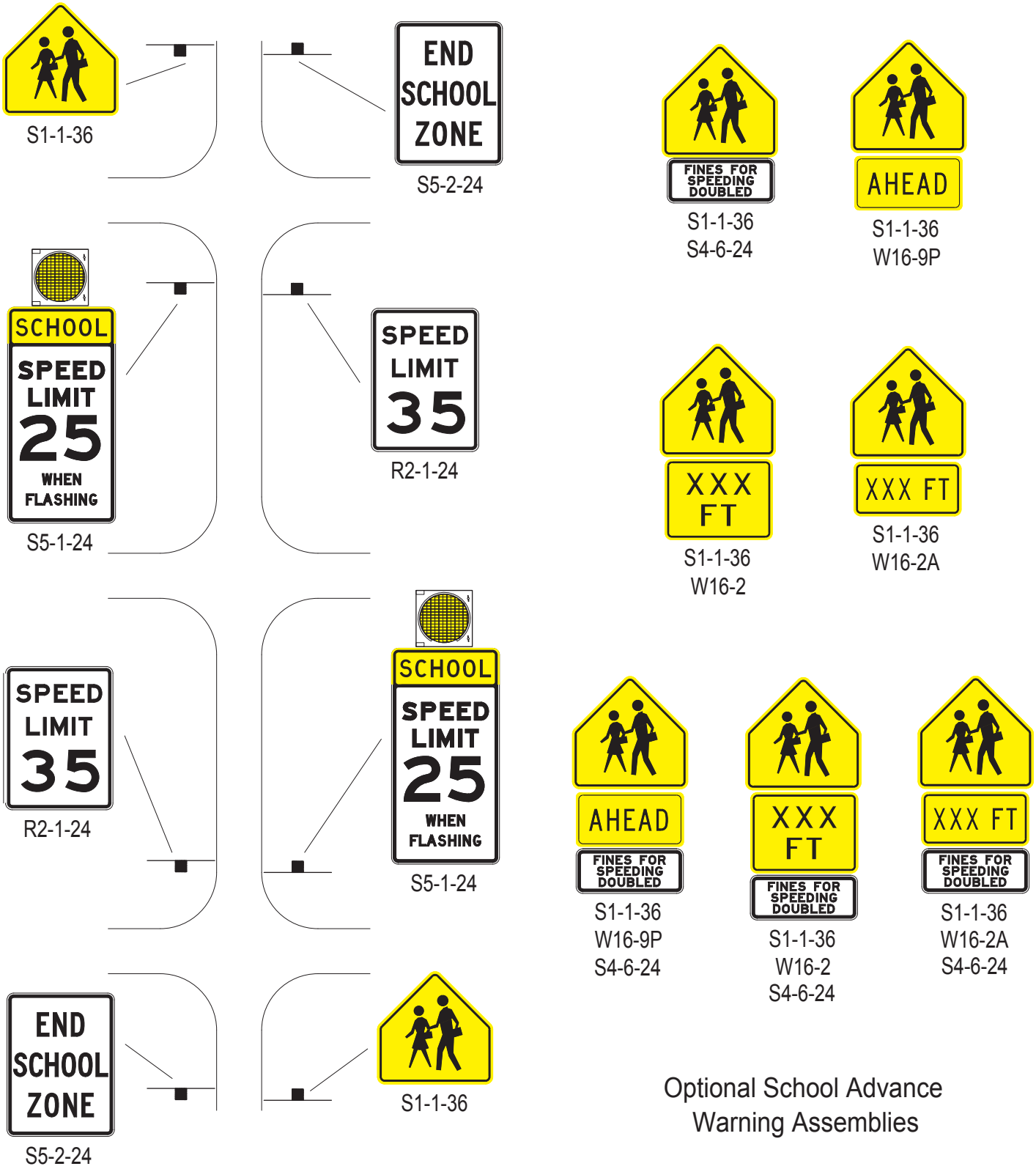


NOTES:

1. WHEN A SCHOOL CROSSWALK WARNING ASSEMBLY (S1-1-36 & W16-7-21) 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 of "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.

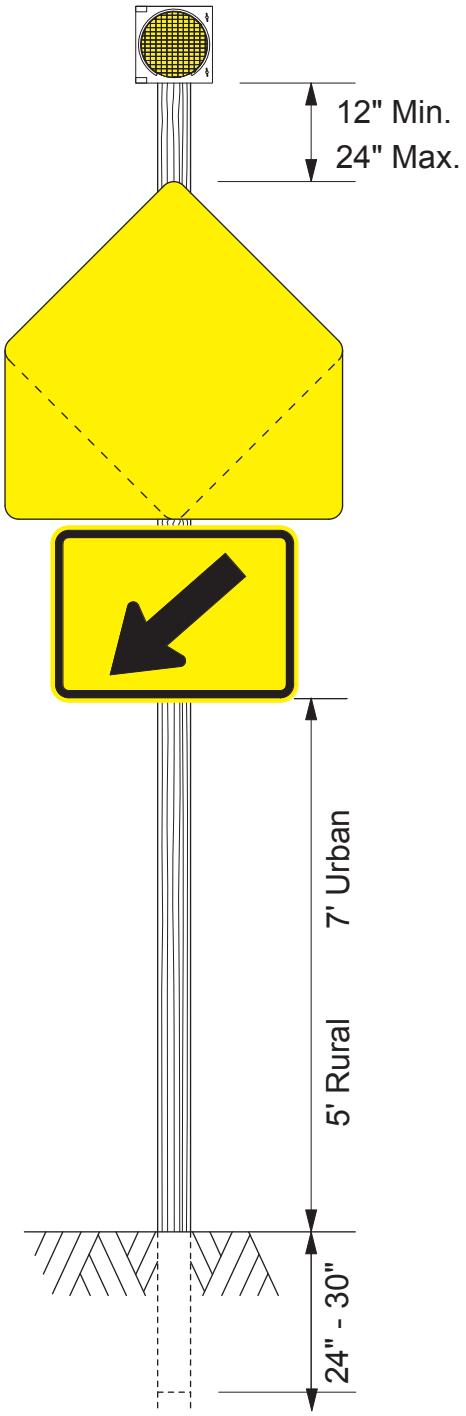
It shall have a standard size of 30" x 30" size, 36" x 36" may be used on Expressways.

It is <u>not</u> 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.

TYPICAL FLASHING BEACON INSTALLATION ABOVE SCHOOL/PEDESTRIAN SIGNS

Figure 7B-2



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 8 – TRAFFIC CONTROL FOR HIGHWAY – RAIL GRADE CROSSINGS

Section 8B.03 - Highway-Rail Grade Crossing Advance Warning Signs (W10 Series) - Page 8B-3 (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 the turning maneuver)*, 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.