

Chapter 2B. REGULATORY SIGNS

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Chapter 2B. REGULATORY SIGNS

2B.1 Application of Regulatory Signs

STANDARD:

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

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

Regulatory signs shall be retroreflective or illuminated to show the same shape and similar color by both day and night, unless specifically stated otherwise in the text discussion of a particular sign or group of signs (see Section 2A.8).

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

2B.2 Design of Regulatory Signs

SUPPORT:

Most regulatory signs are rectangular, with the longer dimension vertical. The shapes and colors of regulatory signs are listed in Tables 2A-4 and 2A-5, respectively. Exceptions are specifically noted in the following Sections.

The use of educational plaques to supplement symbol signs is described in Section 2A.13.

GUIDANCE:

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

2B.3 Size of Regulatory Signs

SUPPORT:

The Mn/DOT "Standard Signs Manual" (see Map & Manual Sales Unit, page ii) and the Federal "Standard Highway Signs" (see Government Printing Office, page ii) book contains sign sizes and letter heights for regulatory signs.

STANDARD:

The sizes for regulatory signs used on conventional roads, expressways, freeways, and low-volume roads, and under special conditions shall be as shown in Appendix C at the back of this Manual.

Compliance Date: December 22, 2013

GUIDANCE:

The Expressway and Freeway sizes should be used for higher-speed applications to provide larger signs for increased visibility and recognition.

OPTION:

The Minimum size may be used on low-speed roadways where reduced legend size would be adequate for the regulation or where physical conditions preclude the use of the other sizes.

The Oversized size may be used for those special applications where speed, volume, or other factors result in conditions where increased emphasis, improved recognition, or increased legibility would be desirable.

Signs larger than those shown in this chapter may be used (see Section 2A.12 and Appendix C).

2B.4 STOP Sign (R1-1, R1-3, R1-4)



R1-1
750 x 750 mm
30" x 30"



R1-3
300 x 150 mm
12" x 6"



R1-4
450 x 150 mm
18" x 6"

STANDARD:

When a sign is used to indicate that traffic is always required to stop, a STOP (R1-1) sign shall be used.

The STOP sign shall be an octagon with a white legend and border on a red background. Secondary legends shall not be used on STOP sign faces. If appropriate, a supplemental plaque (R1-3 or R1-4) shall be used to display a secondary legend. Such plaques shall have a white legend and border

on a red background. If the number of approach legs controlled by STOP signs at an intersection is three or more, the numeral on the supplemental plaque, if used, shall correspond to the actual number of legs controlled by STOP signs.

At intersections where all approaches are controlled by STOP signs (see Section 2B.7), a supplemental plaque (R1-3 or R1-4) shall be mounted below each STOP sign.

Compliance Date: January 17, 2004

OPTION:

The ALL WAY (R1-4) supplemental plaque may be used instead of the 4-WAY (R1-3) supplemental plaque.

SUPPORT:

The design and application of Stop Beacons are described in Section 4K.5.

2B.4.1 CROSS TRAFFIC DOES NOT STOP Plaque (R1-X2)



R1-X2
600 x 300 mm
24" x 12"

OPTION:

The CROSS TRAFFIC DOES NOT STOP sign may be used at intersections where geometric, topographic or other conditions exist and motorists approaching a STOP sign may expect cross traffic to stop. When used, it shall be installed on the same structure as the STOP sign beneath all other supplemental plaques.

STANDARD:

Its use shall be limited to those intersections where an engineering and traffic investigation indicate a need.

2B.5 STOP Sign Applications

GUIDANCE:

STOP signs should be used if engineering judgment indicates that one or more of the following conditions exist:

- A. Intersection of a less important road with a main road where application of the normal right-of-way rule would not be expected to provide reasonable compliance with the law;
- B. Street entering a through highway or through street;
- C. Unsignalized intersection in a signalized area; and/or
- D. High speeds, restricted view, or crash records that indicate a need for control by the STOP sign.

STANDARD:

Because the potential for conflicting commands could create driver confusion, STOP signs shall not be installed at intersections where traffic control signals are installed and operating except as noted in Section 4D.1.

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

GUIDANCE:

STOP signs should not be used for speed control.

STOP signs should be installed in a manner that minimizes the numbers of vehicles having to stop. At intersections where a full stop is not necessary at all times, consideration should be given to using less restrictive measures such as YIELD signs (see Section 2B.8).

SUPPORT:

In many low volume situations with no unusual history of intersection crashes, no control at the intersections is a cost effective strategy. Research suggests that at most locations, increasing the level of intersection control will not improve safety (see FHWA-RD-81-084 Stop, Yield and No Control at Intersections).

GUIDANCE:

Once the decision has been made to install two-way stop control, the decision regarding the appropriate street to stop should be based on engineering judgment. In most cases, the street carrying the lowest volume of traffic should be stopped.

A STOP sign should not be installed on the major street unless justified by a traffic engineering study.

SUPPORT:

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

- A. Stopping the direction that conflicts the most with established pedestrian crossing activity or school walking routes;
- B. Stopping the direction that has obscured vision, dips, or bumps that already require drivers to use lower operating speeds;
- C. Stopping the direction that has the longest distance of uninterrupted flow approaching the intersection; and
- D. Stopping the direction that has the best sight distance to conflicting traffic.

The use of the STOP sign at highway-railroad grade crossings is described in Section 8B.7. The use of the STOP sign at highway-light rail transit grade crossings is described in Section 10C.4.

2B.6 STOP Sign Placement

STANDARD:

The STOP sign shall be installed on the right side of the approach lane to which it applies. When the STOP sign is installed at this required location and the sign visibility is restricted, a Stop Ahead sign (see Section 2C.29) shall be installed in advance of the STOP sign.

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

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

GUIDANCE:

There should be no sign mounted back-to-back with a STOP sign in a manner that obscures the shape of the STOP sign.

Compliance Date: December 22, 2013

SUPPORT:

Section 2A.16 contains additional information about separate and combined mounting of other signs with STOP signs.

GUIDANCE:

Stop lines when used to supplement a STOP sign, should be located at the point where the road user should stop (see Section 3B.16).

If only one STOP sign is installed on an approach, the STOP sign should not be placed on the far side of the intersection.

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

Where there is a marked crosswalk at the intersection, the STOP sign should be installed approximately 1.3 m (4 ft) in advance of the crosswalk line nearest to the approaching traffic.

OPTION:

At wide-throat intersections or where two or more approach lanes of traffic exist on the signed approach, observance of the stop control may be improved by the installation of an additional STOP sign on the left side of the road and/or the use of a stop line. At channelized intersections, the additional STOP sign may be effectively placed on a channelizing island.

SUPPORT:

Figure 2A-2 shows examples of some typical placements of STOP signs.

2B.7 Multi-way Stop Applications

SUPPORT:

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

The restrictions on the use of STOP signs described in Section 2B.5 also apply to Multi-way stop applications.

GUIDANCE:

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

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

- A. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.
- B. A crash problem, as indicated by 5 or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right- and left-turn collisions as well as right-angle collisions.
- C. Minimum volumes:
 1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day, and
 2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour, but
 3. If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the above values.
- D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

OPTION:

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

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

2B.8 YIELD Sign (R1-2)



R1-2
900 x 900 x 900 mm
36" x 36" x 36"

STANDARD:

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

SUPPORT:

The YIELD sign assigns right-of-way to traffic on certain approaches to an intersection. Vehicles controlled by a YIELD sign need to slow down or stop when necessary to avoid interfering with conflicting traffic.

2B.9 YIELD Sign Applications

OPTION:

YIELD signs may be used instead of STOP signs if engineering judgment indicates that one or more of the following conditions exist:

Compliance Date: January 11, 2011

- A. When the ability to see all potentially conflicting traffic is sufficient to allow a road user traveling at the posted speed, the 85th-percentile speed, or the statutory speed to pass through the intersection or to stop in a reasonably safe manner.
- B. If controlling a merge-type movement on the entering roadway where acceleration geometry and/or sight distance is not adequate for merging traffic operation.

- C. At the second crossroad of a divided highway, where the median width is 9 m (30 ft) or greater. A STOP sign may be installed at the entrance to the first roadway of a divided highway, and a YIELD sign may be installed at the entrance to the second roadway.
- D. At an intersection where a special problem exists and where engineering judgment indicates the problem to be susceptible to correction by the use of the YIELD sign.

STANDARD:

A YIELD (R1-2) sign shall be used to assign right-of-way at the entrance to a roundabout intersection.

2B.10 YIELD Sign Placement

STANDARD:

The YIELD sign shall be installed on the right side of the approach to which it applies. YIELD signs shall be placed on both the left and right sides of approaches to roundabout intersections with more than one lane on the signed approach where raised splitter islands are available on the left side of the approach. When the YIELD sign is installed at this required location and the sign visibility is restricted, a Yield Ahead sign (see Section 2C.29) shall be installed in advance of the YIELD sign.

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

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

GUIDANCE:

There should be no sign mounted back-to-back with a YIELD sign in a manner that obscures the shape of the YIELD sign.

Compliance Date: December 22, 2013

SUPPORT:

Section 2A.16 contains additional information about separate and combined mounting of other signs with YIELD signs.

GUIDANCE:

YIELD lines, when used to supplement a YIELD sign, should be located at a point where the road user should yield (see Section 3B.16).

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

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

At a roundabout intersection, to prevent circulating vehicles from yielding unnecessarily, the face of the YIELD sign should not be visible from the circulatory roadway.

OPTION:

At wide-throat intersections or where two or more approach lanes of traffic exist on the signed approach, observance of the yield control may be improved by the installation of an additional YIELD sign on the left side of the road and/or the use of a yield line. At channelized intersections, the additional YIELD sign may be effectively placed on a channelizing island.

2B.11 Yield Here to Pedestrian Signs (R1-5, R1-5a)

This section has been removed because it is in conflict with Minnesota Statute 169.

2B.12 In-Street Pedestrian Crossing Sign (R1-6b)



OPTION:

The In-Street Pedestrian Crossing (R1-6b) sign may be used to remind road users of laws regarding right of way.

STANDARD:

The In-Street Pedestrian Crossing sign shall only be used at mid-block locations or at intersection approaches not controlled by a STOP sign or a traffic control signal.

The In-Street Pedestrian Crossing sign shall only be installed at in-street locations. It shall not be installed on the outside shoulder nor in a parking lane.

GUIDANCE:

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

In order to avoid overuse, the In-Street Pedestrian Crossing sign should only be used at locations having high pedestrian crossings.

STANDARD:

If used, the In-Street Pedestrian Crossing (R1-6b) sign shall have a black legend and border on a white and fluorescent yellow-green background. According to State Statute, the legend STATE LAW and STOP FOR shall be included on the sign.

The In-Street Pedestrian Crossing sign shall have either the same sign message on the back side or a strip of retroreflective sheeting not less than 50 mm (2 in) in width. The color of this strip shall be the same as that of the lane line the on which the sign is placed.

If the In-Street Pedestrian Crossing sign is placed in the roadway, the sign support shall comply with the breakaway requirements of NCHRP-350, Category 2 for 70km/h (45 mph) (see Section 1A.11). The maximum mounting height from the roadway to the bottom of the sign shall be 0.6 m (2 ft).

The In-Street Pedestrian Crossing sign shall only be installed on roadways with posted speed limits of 35 mph or less and shall not impede normal through or turning traffic movements.

There shall be only one In-Street Pedestrian Crossing sign installed for each approach to marked crosswalks (see Figure 2B-2).

GUIDANCE:

In-Street Pedestrian Crossing signs should be mounted back-to-back only when used on two-lane, two-way roadways.

SUPPORT:

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

OPTION:

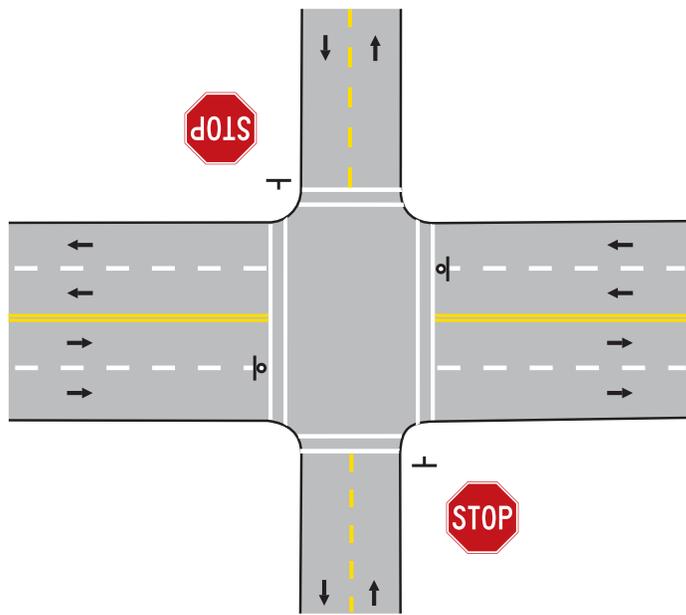
When used as an informational sign and not at pedestrian crosswalks, the In-Street Pedestrian Crossing sign may have the same legend on both sides.

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

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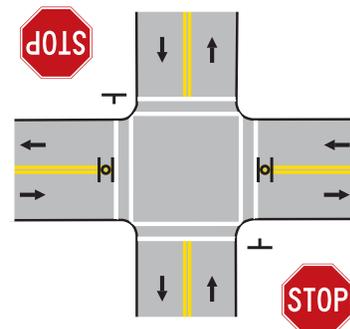


Four-Lane Undivided Roadway

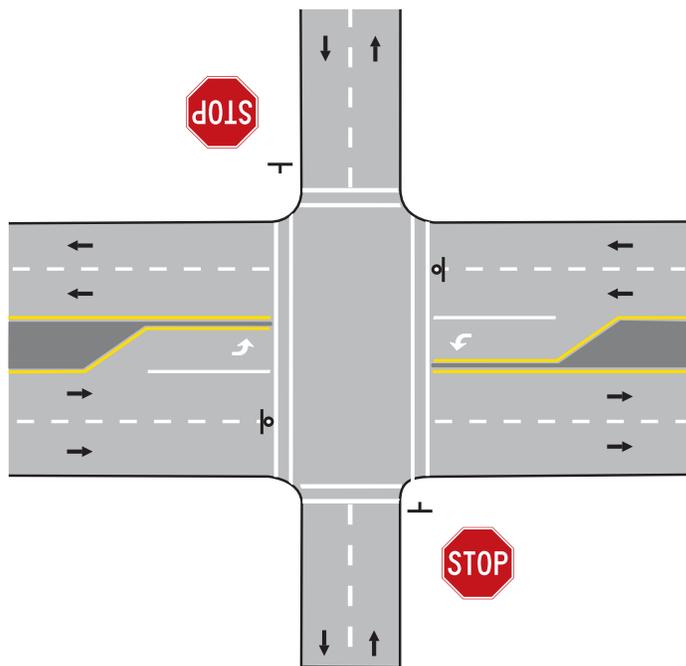


R1-6b

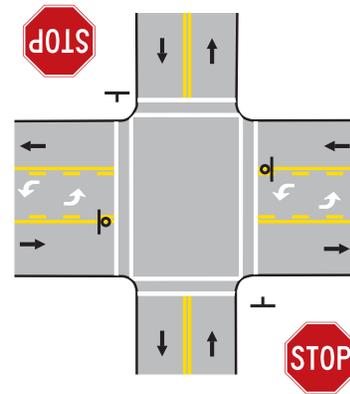
R1-6b with SCHOOL plaque



Two-Lane, Two-Way Roadway



Four-Lane Divided Roadway with Turn Lanes



Two-Lane, Two-Way Roadway with Center Turn Lane

- Legend**
- ➔ Direction of travel
 - ├ Sign Structure
 - ⊙ Single Sided Structure
 - ⊖ Back-to-Back Structure

Figure 2B-2. Typical Placement of In-Street Pedestrian Crossing Signs

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



R2-1
600 x 750 mm
24" x 30"



R2-1 metric
600 x 900 mm
24" x 36"

STANDARD:

Minnesota Statute 169.14 sets forth speed limits to govern all roadways and alleys in the state. Any posted speed limit greater or less than the statutory speed limits must be authorized by the Commissioner of Transportation. Any alteration of statutory speed limits on any public road or street shall be based upon the results of an engineering and traffic investigation.

The Speed Limit (R2-1) sign shall display the limit established by law, ordinance, regulation, or as adopted by the authorized agency. The speed limits shown shall be in multiples of 10 km/h (5 mph).

Minnesota Statute, section 169.14, subd. 5, states that:

When local authorities believe that the existing speed limit upon any street or highway, or part thereof, within their respective jurisdictions and not a part of the trunk highway system is greater or less than is reasonable or safe under existing condition, they may request the commissioner (of transportation) to authorize, upon the basis of an engineering and traffic investigation, the erection of appropriate signs designating a reasonable and safe speed limit thereat, which speed limit shall be effective when such signs are erected.

GUIDANCE:

At least once every 5 years, the road authority should reevaluate non-statutory speed limits on segments of their roadways that have undergone a significant change in roadway characteristics or surrounding land use since the last review.

When a speed limit is to be posted, it should be within 5mph of the 85th-percentile speed of free-flowing traffic.

OPTION:

Other factors that may be considered when establishing speed limits are the following:

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

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

GUIDANCE:

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

OPTION:

A changeable message sign that changes the speed limit for traffic and ambient conditions may be installed provided that the appropriate speed limit is shown at the proper times.

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

GUIDANCE:

If a changeable message sign displaying approach speeds is installed, the legend YOUR SPEED XX (MPH) or such similar legend should be shown.

The color of the changeable message legend should be a yellow legend on a black background or the reverse of these colors.

Compliance Date: December 22, 2013

SUPPORT:

Advisory Speed signs are discussed in Sections 2C.36 and 2C.46 and Temporary Traffic Control Zone Speed signs are discussed in Part 6.

2B.13.1 Bridge Speed Limit (R2-X5)



R2-X5
600 x 900 mm
24" x 36"

STANDARD:

The BRIDGE SPEED LIMIT sign shall be used and installed as stated in Minnesota Statute (section 169.16):

1. When it has been determined by the Commissioner of Transportation that it is necessary to limit the speed of vehicles on a bridge or other elevated structure constituting part of a highway to the maximum speed which can be maintained with safety on such bridge or structure,
2. Suitable signs stating such maximum speed shall be erected and maintained at a distance of 100 feet before each end of the structure.

A Bridge Speed Limit shall become effective when the Bridge Speed Limit signs are installed.

GUIDANCE:

A Speed Reduction (W3-5a) sign should be used in advance of the BRIDGE SPEED LIMIT sign.

SUPPORT:

On roads maintained by Mn/DOT, the Mn/DOT Office of Bridges and Structures determines when a reduced speed limit is required on a bridge or other elevated structure constituting part of a highway. They inform the appropriate Mn/DOT district traffic engineer of their findings. It is the responsibility of the district traffic engineer to prepare a Speed Limit Authorization Form and submit it to the Office of Traffic, Safety and Operations (OTSO).

OPTION:

Local road authorities may submit a request stating their engineering findings to the local Mn/DOT district traffic engineer. A report is then prepared and submitted along with recommendations to OTSO.

2B-13.2 School Speed Limit Assembly

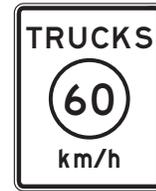
STANDARD:

The School Speed Limit Assembly shall be used to indicate the speed limit where a reduced speed zone for a school area has been established (in accordance with law, after and engineering and traffic investigation) or when a speed limit is specified for such areas by statute. Further information on the use of a school speed limit can be found in Section 7.11.

2B.14 Truck Speed Limit Sign (R2-2)



R2-2
600 x 600 mm
24" x 24"



R2-2 metric
600 x 750 mm
24" x 30"

STANDARD:

Where a special speed limit applies to trucks or other vehicles, the legend TRUCKS XX or such similar legend shall be shown on the same panel as the Speed Limit sign or on a separate sign (R2-2) below the Speed Limit sign.

MN Rev. 2

MN Rev. 1

Reduced Speed Ahead Signs (R2-5 series)

STANDARD:

The Reduced Speed Ahead signs shall be removed and replaced with Speed Reduction signs (W3-5, W3-5a), see Section 2C.30.

Compliance Date: December 22, 2018



R2-5a



R2-5b



R2-5c



R2-X1

2B.15 Night Speed Limit Sign (R2-3)



R2-3
600 x 600 mm
24" x 24"



R2-3 metric
600 x 750 mm
24" x 30"

STANDARD:

Where different speed limits are prescribed for day and night, both limits shall be posted.

GUIDANCE:

A Night Speed Limit (R2-3) sign should be reversed using a white retroreflectorized border and legend on a black background.

OPTION:

A Night Speed Limit sign may be combined with or installed below the standard Speed Limit (R2-1) sign.

2B.16 Minimum Speed Limit Sign (R2-4)



R2-4
600 x 750 mm
24" x 30"



R2-4b
600 x 1200 mm
24" x 48"

STANDARD:

A Minimum Speed Limit (R2-4) sign shall be displayed only in combination with a Speed Limit sign.

OPTION:

Where engineering judgment determines that slow speeds on a highway might impede the normal and reasonable movement of traffic, the Minimum Speed Limit sign may be installed below a Speed Limit (R2-1) sign to indicate the minimum legal speed. If desired, these two signs may be combined on the R2-4b sign.

2B.16.1 End Speed Zone Sign (R2-6)



R2-6b
600 x 750 mm
24" x 30"

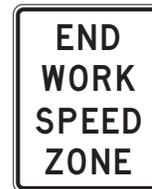
SUPPORT:

There are many secondary roads (county, township and municipal) which have had speed zones established. These zones are in and on the fringes of urban districts (as defined in Minnesota Statute, section 169.01) where the rural speed limit remains at that provided in the statutes and continuous speed zoning has not been warranted. In many instances, the posting of the statutory speed limit in order to terminate the reduced speed zone would be inappropriate because the statutory speed limit would be misleading and encourage drivers to travel too fast for conditions. Sound engineering judgment would dictate that no numerical value should be posted and that the basic rule (Minnesota Statute, section 169.14, subd. 1) should apply.

OPTION:

In order to provide for the termination of the reduced speed zone without posting another numerical speed, the END XX MILE SPEED sign may be used.

2B.16.2 END WORK SPEED ZONE Sign (R2-6c)



R2-6c
600 x 750 mm
24" x 30"

SUPPORT:

Certain street and highway construction and maintenance operations may justify the erection of regulatory signs with a recommended speed as determined by the appropriate road authority. It is necessary to install a regulatory sign to inform the motorists of the end of the regulatory speed zone.

STANDARD:

The sign shall be installed on its own structure at the end of the zone in accordance with standard signing practices for construction zone signs.

2B.17 FINES HIGHER Plaque (R2-6)



R2-6
600 x 600 mm
24" x 24"

OPTION:

The FINES HIGHER (R2-6) plaque may be used to advise road users when increased fines are imposed for traffic violations within designated roadway segments.

The FINES HIGHER plaque may be mounted below an applicable regulatory or warning sign in a temporary traffic control zone, a school zone, or other applicable designated zones.

The following may be mounted below the FINES HIGHER plaque:

- A. A supplemental plaque specifying the times that the higher fines are in effect (similar to the S4-1 plaque shown in Figure 7B-1); or
- B. A supplemental plaque WHEN CHILDREN (WORKERS) ARE PRESENT; or
- C. A supplemental plaque WHEN FLASHING (similar to the S4-4 plaque shown in Figure 7B-1) if used in conjunction with a yellow flashing beacon.

The legend FINES HIGHER may be replaced by multiple values such as FINES DOUBLE or FINES TRIPLE, or by a specific value such as \$150 FINE.

STANDARD:

The FINES HIGHER plaque shall be a rectangle with a black legend and border on a white background.

All supplemental plaques mounted below the FINES HIGHER plaque shall be rectangles with black legends and borders on white backgrounds.

The FINES HIGHER plaque shall include a SCHOOL, WORK ZONE, or other applicable designated zone plaque mounted above the applicable regulatory or warning sign. The SCHOOL supplemental plaque shall be rectangular in shape with a black legend and border on a yellow or fluorescent yellow-green background (same as the S4-3 plaque). The WORK ZONE supplemental plaque shall be rectangular in shape with a black legend and border on an orange background.

GUIDANCE:

If used, the FINES HIGHER plaque should be located at

the beginning of the temporary traffic control zone, school zone, or other applicable designated zone and just beyond any interchanges, major intersections, or other major traffic generators.

Agencies should limit the use of the FINES HIGHER plaque to locations where work is actually underway, or to locations where the roadway, shoulder, or other conditions, including the presence of a school, require a speed reduction or extra caution on the part of the road user.

2B.18 Location of Speed Limit Signs

STANDARD:

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

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

Speed Limit signs indicating the statutory speed limits shall be installed at entrances to the State and at jurisdictional boundaries of metropolitan areas.

2B.19 Turn Prohibition Signs (R3-1 through R3-4, and R3-18)



R3-1
600 x 600 mm
24" x 24"



R3-2
600 x 600 mm
24" x 24"



R3-3
600 x 600 mm
24" x 24"



R3-4
600 x 600 mm
24" x 24"



R3-18
600 x 600 mm
24" x 24"

STANDARD:

Except as noted in the Option, where turns are prohibited, Turn Prohibition signs shall be installed.

GUIDANCE:

Turn Prohibition signs should be placed where they will be most easily seen by road users who might be intending to turn.

If No Right Turn (R3-1) signs are used, at least one should be placed either over the roadway or at a right corner of the intersection.

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

Except as noted in the Option, if NO TURNS (R3-3) signs are used, two signs should be used, one at a location specified for a No Right Turn sign and one at a location specified for a No Left Turn sign.

If No U-Turn (R3-4) signs are used, at least one should be placed at a location specified for No Left Turn signs.

If combination No U-Turn/No Left Turn (R3-18) signs are placed, at least one should be used placed at a location specified for No Left Turn signs.

OPTION:

If signals are present:

- A. The No Right Turn sign may be installed adjacent to a signal face viewed by road users in the right lane.
- B. The No Left Turn (or No U-Turn or combination No U-Turn/No Left Turn) sign may be installed adjacent to a signal face viewed by road users in the left lane.
- C. A NO TURNS sign may be placed adjacent to a signal face viewed by all road users on that approach, or two signs may be used.

If signals are present, an additional Turn Prohibition sign may be post mounted to supplement the sign mounted overhead.

Where ONE WAY signs are used, Turn Prohibition signs may be omitted (see Section 2B.37).

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

- A. Changeable message signs, especially at signalized intersections.
- B. Permanently mounted signs incorporating a supplementary legend showing the hours and days during which the prohibition is applicable.
- C. Portable signs, installed by proper authority, located off the roadway at each corner of the intersection. The portable signs are only to be used during the time that the turn prohibition is applicable.

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

If both left turns and U-turns are prohibited, the R3-18 sign may be used instead of separate R3-2 and R3-4 signs.

2B.20 Intersection Lane Control Signs (R3-5 through R3-8)

STANDARD:

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

Intersection Lane Control signs shall have three applications:

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

GUIDANCE:

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

STANDARD:

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

OPTION:

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

Intersection Lane Control signs may be omitted where:

- A. Turning bays have been provided by physical construction or pavement markings, and
- B. Only the road users using such turning bays are permitted to make a similar turn.

2B.21 Mandatory Movement Lane Control Signs (R3-5, R3-5a, and R3-7)



R3-5
750 x 900 mm
30" x 36"



R3-5a
750 x 900 mm
30" x 36"



R3-7
750 x 900 mm
30" x 30"



R3-5b
750 x 300 mm
30" x 12"



R3-5c
750 x 300 mm
30" x 12"



R3-5d
750 x 300 mm
30" x 12"

STANDARD:

If used, Mandatory Movement Lane Control signs (R3-5, R3-5a, and R3-7) shall indicate only those vehicle movements that are required from each lane and shall be located where the regulation applies. When the mandatory movement applies to lanes exclusively designated for HOV traffic, the R3-5c supplemental plaque shall be used. When the mandatory movement applies to lanes that are not HOV facilities, but are lanes exclusively designated for buses and/or taxis, the word message R3-5d supplemental plaque BUS (and/or TAXI) LANE shall be used. The R3-7 word message sign shall be for ground mounting only.

If the R3-5 sign is ground mounted on a multi-lane approach, a supplemental plaque, such as LEFT LANE (R3-5b), HOV 2+ (R3-5c), TAXI LANE (R3-5d), CENTER LANE, RIGHT LANE, or LEFT 2 LANES, indicating the lane with the appropriate movement shall be added below.

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

GUIDANCE:

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

OPTION:

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

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

Except for the R3-7 sign, Mandatory Movement Lane Control signs may be overhead or ground mounted.

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



R16-X7
1200 x 1500 mm
48" x 60"

The RIGHT LANE MUST EXIT sign (R16-X7) may be used in advance of an exit ramp, in a lane drop situation, where there is no escape lane provided. This sign may be needed in addition to the black and yellow EXIT ONLY message plaque (E11 series).

2B.22 Optional Movement Lane Control Sign (R3-6)



R3-6
750 x 900 mm
30" x 36"

STANDARD:

If used, the Optional Movement Lane Control (R3-6) sign shall be used for two or more movements from a specific lane or to emphasize permitted movements. If used, the Optional Movement Lane Control sign shall be located ahead of the intersection.

If used, the Optional Movement Lane Control sign shall indicate all permissible movements from specific lanes.

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

The Optional Movement Lane Control sign shall not be used alone to effect a turn prohibition.

OPTION:

The word message OK may be used within the border in combination with the arrow symbols of the R3-6 sign.

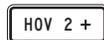
2B.23 Advance Intersection Lane Control Signs (R3-8 Series)



R3-8
750 x 750 mm
30" x 30"



R3-8b
1400 x 750 mm
54" x 30"



OPTION:

Advance Intersection Lane Control (R3-8, R3-8a, and R3-8b) signs may be used to indicate the configuration of all lanes ahead.

The word messages ONLY, OK, THRU, ALL, or HOV 2+ may be used within the border in combination with the arrow symbols of the R3-8 sign series. The HOV 2+ (R3-5c) supplemental plaque may be installed at the top outside border of the R3-8 sign over the applicable lane. The diamond symbol may be used instead of the word message HOV. The minimum allowable vehicle occupancy requirement may vary based on the level established for a particular facility.

GUIDANCE:

If used, an Advance Intersection Lane Control sign should be placed at an adequate distance in advance of the intersection so that road users can select the appropriate lane. If used, the Advance Intersection Lane Control sign should be installed either in advance of the tapers or at the beginning of the turn lane.

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



R3-9a
750 x 900 mm
30" x 36"



R3-9b
600 x 900 mm
24" x 36"

GUIDANCE:

Two-Way Left Turn Only (R3-9a or R3-9b) signs should be used in conjunction with the required pavement markings where a nonreversible lane is reserved for the exclusive use of left-turning vehicles in either direction and is not used for passing, overtaking, or through travel.

OPTION:

The ground-mounted R3-9b sign may be used as an alternate to or a supplement to the overhead-mounted R3-9a sign. The legend BEGIN or END may be used within the border of the main sign itself, or on a plaque mounted immediately above it.

SUPPORT:

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

2B.25 Reversible Lane Control Signs (R3-9d, R3-9f through R3-9i)



R3-9d
2700 x 1200 mm
108" x 48"



R3-9f
750 x 1050 mm
30" x 42"



R3-9g
2700 x 900 mm
108" x 36"



R3-9h
2700 x 900 mm
108" x 36"



R3-9i
2700 x 1200 mm
108" x 48"

OPTION:

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

STANDARD:

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

Where it is determined by an engineering study that lane-use control signals or barriers are not necessary, the lane shall be controlled by overhead Reversible Lane Control signs (see Figure 2B-6).

OPTION:

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

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

STANDARD:

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

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

Symbol signs, such as the R3-9d sign, shall consist of the appropriate symbol in the upper portion of the sign with the appropriate times of the day and days of the week below it. Where word message signs, such as R3-9e, are used, the times of the day and the days of the week, when appropriate, shall be on the right portion of the sign and the appropriate legend to the left. All times of the day and days of the week shall be accounted for on the sign to eliminate confusion to the road user.

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

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

OPTION:

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

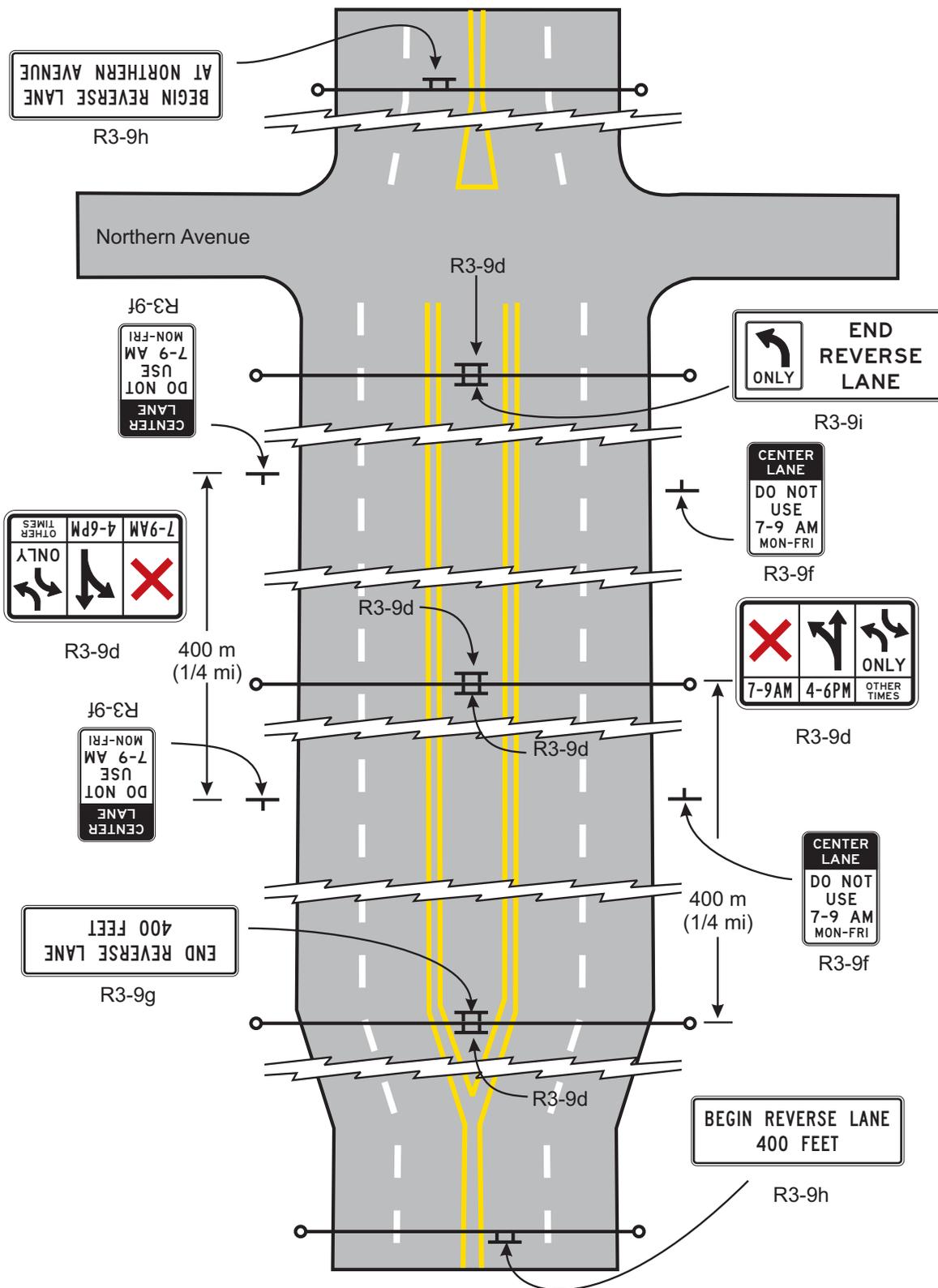


Figure 2B-6. Location of Reversible Two-Way Left-Turn Signs

Symbol/Word Message	Meaning
Red X on white background.	Lane Closed
Upward pointing black arrow on white background. If left turns are permitted, the arrow shall be modified to show left/through arrow.	Lane open for through travel and any turns not otherwise prohibited.
Black two-way left turn arrows on white background and legend ONLY.	Lane may be used only for left turns in either direction (i.e., as a two-way left turn lane).
Black single left turn arrow on white background and legend ONLY.	Lane may be used only for left turns in one direction (without opposing left turns in the same direction).

Table 2B-2. Meanings of Symbols and Legends on Reversible Lane Control Signs

STANDARD:

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

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

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

OPTION:

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

STANDARD:

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

When used in conjunction with Reversible Lane Control signs, the Turn Prohibition signs (R3-1 to R3-4) shall be mounted overhead and separate from the Reversible Lane Control signs. The Turn Prohibition signs shall be designed and installed in accordance with Section 2B.17.

GUIDANCE:

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

If used, overhead signs should be located at intervals not greater than 0.4 km (0.25 mi). The bottom of the overhead Reversible Lane Control signs should not be more than 5.8 m (19 ft) above the pavement grade.

Where more than one sign is used at the termination of a reversible lane, they should be at least 75 m (250 ft) apart. Longer distances between signs are appropriate for streets with speeds over 35 mph, but the separation should not exceed 300 m (1,000 ft).

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

2B.26 Preferential Only Lane Signs (R3-10 through R3-15)

SUPPORT:

Preferential only lanes are lanes designated for special traffic uses such as high-occupancy vehicles (HOV), light rail, buses, taxis, or bicycles. Preferential only lane treatments might be as simple as restricting a turning lane to a certain class of vehicles during peak periods, or as sophisticated as providing a separate roadway system within a highway corridor for certain vehicles.

Information regarding Preferential Only Lane signs for bicycle lanes is contained in Section 9B.4

OPTION:

Preferential only lane assignments may be made on a full-time or part-time basis.

GUIDANCE:

Preferential Only Lane sign spacing should be determined by engineering judgment based on prevailing speed, block length, distances from adjacent intersections, and other considerations.

SUPPORT:

The symbol and word message that appears on a particular Preferential Only Lane sign will vary based on the specific type of allowed traffic and on other related operational constraints that have been established for a particular lane, such as an HOV lane, a bus lane, or a taxi lane.

Section 2B.27 contains information regarding the restriction of the use of the diamond symbol to HOV lanes only. The requirements for guide and regulatory signs in advance of all preferential only lanes on freeways are provided in Section 2E.59.

Compliance Date: December 22, 2013

STANDARD:

When a preferential only lane is established, the Preferential Only Lane signs and pavement markings (see Sections 3B.22 and 3B.23) for these lanes shall be used to advise road users.

At the end of a preferential only lane, a Lane Ends (R3-12a or R3-15a) sign shall be used.

GUIDANCE:

Ground-mounted Preferential Only Lane (R3-10, R3-11, and R3-12 series) signs should be installed where preferential only lanes are implemented on freeways, expressways, and conventional roads.

SUPPORT:

The sizes for Preferential Only Lane signs will differ to reflect the design speeds for each type of roadway facility. Appendix C provides sizes for each type of roadway facility.

GUIDANCE:

The size of the ground-mounted Preferential Only Lane Operational (R3-11 series) signs should remain consistent to accommodate any manual addition or subtraction of a single line of text for each sign.

SUPPORT:

Consistent sign sizes are beneficial for agencies when ordering sign materials, as well as when making text changes to existing signs if changes occur to operating times or occupancy restrictions in the future. For example, the R3-11c sign has space for one line located below "24 HOURS" if an agency desires to add additional information (such as "Mon. - Fri."), yet the R3-11c sign has the same dimensions as the other R3-11 series signs.

GUIDANCE:

The decision to use a specific ground-mounted or overhead sign for a preferential only lane should be based on an engineering study that considers the available space, the existing signs for adjoining general purpose lanes, roadway and traffic characteristics, the proximity of other overhead signing, the ability to install overhead signs, and any other unique local factors.

SUPPORT:

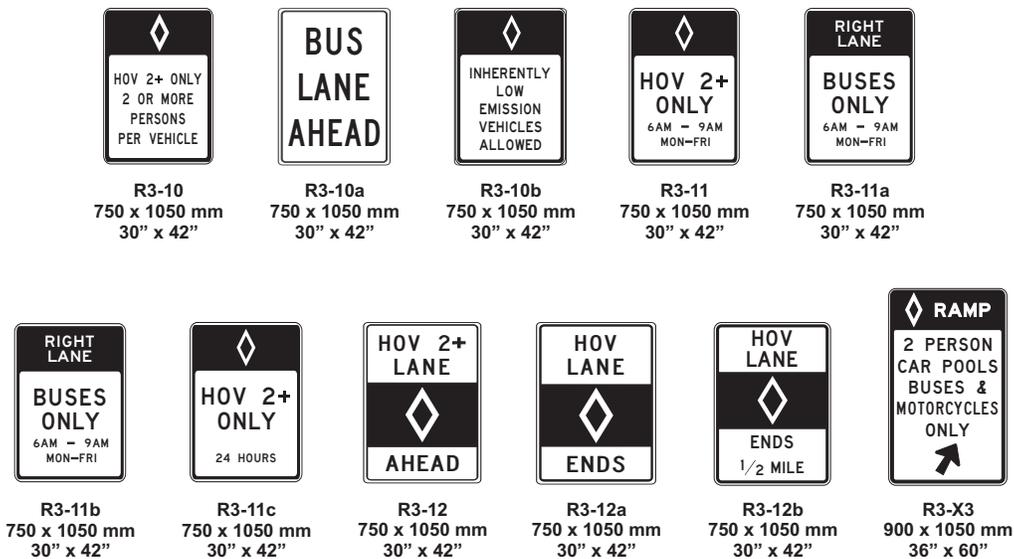
Figures 2E-46 through 2E-52 show example signing layouts using the R3-10 through R3-15 series signs for various preferential only lane applications.

STANDARD:

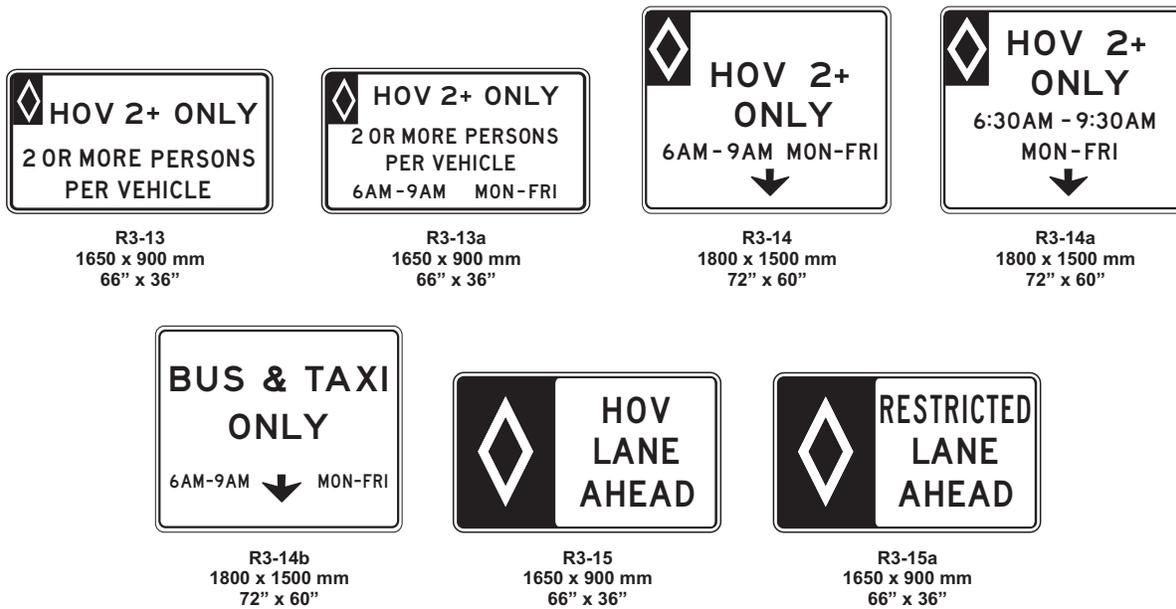
The R3-10, R3-11, R3-11a, R3-11c, R3-13, R3-13a, R3-14, and R3-14a signs shall be used exclusively with preferential only lanes for high-occupancy vehicles to indicate the particular vehicle occupancy requirement and time restrictions applying to that lane. The R3-10, R3-11b, and R3-14b signs should be used in situations where a preferential only lane is not an HOV lane, but is designated for use by other types of vehicles (such as bus and/or taxi use).

When used, the ground-mounted Preferential Only Lane Operational (R3-11 series) signs shall be located adjacent to the preferential only lane, and the overhead Preferential Only Lane Operational (R3-14 series) signs shall be mounted directly over the lane.

GROUND-MOUNTED PREFERENTIAL ONLY LANE SIGNS



GROUND-MOUNTED PREFERENTIAL ONLY LANE SIGNS



Notes:

1. The diamond symbol may be used instead of the word message HOV.
2. The minimum vehicle occupancy requirement may vary for each facility (such as 2+, 3+, 4+).
3. The occupancy requirement may be added to the first line of the R3-12a, R3-15, and R3-15a signs.
4. Some of the legends shown on these signs are for example purposes only. The specific legend for a particular application should be based upon local conditions, ordinances, and State statutes.

Figure 2B-7. Examples of Preferential Only Lane Signs

The legend format of the ground-mounted Preferential Only Lane Operational (R3-11 series) signs should have the following sequence:

- A. Top Lines: Lanes applicable (such as “RIGHT LANE”, “RIGHT 2 LANES”, or ”THIS LANE”)
- B. Middle Lines: Eligible uses such as “HOV 2+ ONLY” (or 3+, or 4+), “BUSES ONLY”, or other applicable turning movements
- C. Bottom Lines: Applicable time and day (such as “7-9 AM” or “6:30-9:30 AM, MON-FRI”)

The legend format of the overhead Preferential Only Lane Operational (R3-14 series) sign shall have the following sequence:

- A. Top Line: Eligible uses, such as “HOV 2+ ONLY (3+ or 4+), “BUSES ONLY”, or other types of vehicles;
- B. Bottom Lines: Applicable time and day, with the time and day placed above the down arrow (such as “7-9 AM” or “6:30-9:30 AM, MON-FRI”). When the operating periods exceed the available line width, the hours and days of the week shall be stacked as shown for the R3-14a sign.

OPTION:

The diamond symbol may be used instead of the word message HOV.

STANDARD:

When the diamond symbol (or HOV abbreviation) is used without text on the ground-mounted Preferential Only Lane (R3-10 series, R3-11 series, and R3-12 series) signs, it shall be centered on the top line of the sign. When the diamond symbol (or HOV abbreviation) is used with associated text on the ground-mounted Preferential Only Lane (R3-10 series, R3-11 series, and R3-12 series) signs, it shall appear to the left of the associated text. When the diamond symbol is used on the overhead Preferential Only Lane (R3-13, R3-13a, R3-14, and R3-14a) signs, it shall appear in the top left quadrant. The diamond symbol shall not be used on the bus, taxi, or bicycle Preferential Only Lane signs. The diamond symbol for the R3-15 and R3-15a signs shall appear on the left side of the sign.

GUIDANCE:

The Preferential Only Lane Ahead (R3-10a, R3-12, and R3-15) signs should be used for advance notification of preferential only lanes.

STANDARD:

The R3-10, R3-10b, R3-13, and R3-13a signs shall be used in situations where agencies determine it is appropriate to provide a sign that defines the operational strategy (such as minimum occupancy or types of vehicles) that is being used to manage or regulate the vehicles that are permitted to use a preferential only lane.

The legend format of the R3-10 and R3-13 signs should have this sequence:

- A. Top Line:” HOV 2+ ONLY” (or 3+ or 4+ if appropriate)
- B. Bottom Lines: “2 OR MORE PERSONS PER VEHICLE” (or 3 or 4 if appropriate)

OPTION:

Changeable message signs may be used to supplement static signs where travel conditions change or where multiple types of operational strategies (such as variable occupancy requirements, vehicle types, or pricing policies) are used and varied throughout the day or week to manage the use of, control of, or access to preferential only lanes.

STANDARD:

When changeable message signs (see Section 2A.7) are used as regulatory signs for preferential only lanes, they shall be the required sign size and shall display the required letter height and legend format that corresponds to the type of roadway facility and design speed (see Section 2A.7).

OPTION:

The ground-mounted Preferential Only Lane Operational (R3-11 series) signs and the overhead Preferential Only Lane Operational (R3-14 series) signs may be used to supplement changeable message signs that are used to convey preferential only lane restrictions.

Where additional movements are permitted from a preferential only lane on an approach to an intersection, the format and words used in the legend in the middle lines on the ground-mounted Preferential Only Lane Operational (R3-11 series) signs and on the overhead Preferential Only Lane Operational (R3-14 series) signs may be modified to accommodate the permitted movements (such as "RIGHT TURNS ONLY").

GUIDANCE:

The Inherently Low Emission Vehicle (ILEV) (R3-10b) sign should be used to indicate that it is permissible for a properly labeled and certified ILEV, regardless of the number of occupants, to use an HOV lane. The ILEV signs should be ground-mounted in advance of and at intervals along the HOV lane based upon engineering judgment. The R3-10b sign is only applicable to HOV lanes and should not be used with other preferential only lane applications.

SUPPORT:

Inherently low emission vehicles are defined by the Environmental Protection Agency (EPA) as vehicles having no fuel vapor (hydrocarbon) emissions. These vehicles must be certified by the EPA as meeting the emissions standards and requirements specified in 40 CFR 88-311-93 and 40 CFR 88.312-93 (c).

2B.27 Preferential Only Lanes for High-Occupancy Vehicles (HOVs)

STANDARD:

The agencies that own and operate preferential only lanes for High-Occupancy Vehicles (HOV lanes) shall have the authority and responsibility to determine how they are operated and the occupancy requirements for vehicles operating in HOV lanes. The minimum occupancy requirement shall be two occupants per vehicle.

The requirements for a minimum number of occupants in a vehicle to use an HOV lane shall be in effect for most, or all, of at least one of the usual times of the day when the demand to travel is greatest (such as morning or afternoon peak travel periods) and the traffic congestion problems on the roadway and adjoining transportation corridor are at their worst.

The HOV signs (see Section 2B.26) shall display the minimum allowable vehicle occupancy requirement established for each HOV lane.

The vehicle occupancy requirement established for an HOV lane shall be referenced immediately after the word message HOV or the diamond symbol. The diamond symbol shall be restricted for use with HOV lanes only.

Compliance Date: December 22, 2013

The Federal Highway Administration (FHWA) shall be consulted if a significant operational change is proposed that could be reasonably expected to affect a specific HOV lane or portions of the HOV system that were funded or approved by FHWA. This shall include portions of the local, region, or Federal-aid highway system, where operational changes might significantly impact the operation of one HOV lane or portions of the regional HOV system. To assure consistency with the provisions of Titles 23 and 49 of the United States Code (USC), the important issues and possible impacts of any significant operational changes shall be reviewed to determine if any Federal approval is required.

In accordance with the "Federal-Aid Highway Program Guidance on High Occupancy Vehicle (HOV) Lanes" (see Section 1A.11), a proposed project, including a proposed test or demonstration project that seeks to significantly change the operation of the HOV lanes for any length of time shall require a Federal review as outlined in Section 2 of the "Federal-Aid Highway Program Guidance on High Occupancy Vehicle (HOV) Lanes" prior to initiating such a test or demonstration project.

SUPPORT:

FHWA Division Offices, with involvement from the Federal Transit Administration (FTA), are responsible for reviewing proposals to significantly change the operation of HOV lanes. Federal interests in this review include commitments made during the National Environmental Policy Act process as described in Title 23 C.F.R., Part 771, in project agreements, transportation planning requirements, and transportation conformity requirements under the Clean Air Act (40 C.F.R., Part 51).

Proposals to adjust only the HOV lane hours of operation during the day (for example, minor changes in hours during peak travel periods) or the occupancy requirements (for example, HOV 3+ to HOV 2+) are not typically considered significant operational changes and might not require an explicit Federal review or approval.

Any action that has the potential to adversely affect the area's flow of traffic, roadway and traveler safety, or the environment might be considered to be a significant operational change. Any proposal to significantly adjust the hours of operation, or to convert an HOV lane to a general purpose travel lane, would be considered a significant operational change to the original project design concept or scope. Examples of significant operational changes could include:

- A. Switching from 24-hour HOV lane operations to only a portion of the day or week;
- B. Implementing a pricing option to an existing HOV lane (such as HOT lane or toll lane);
- C. Significantly reducing the hours of operation of an HOV lane that is operational during only one peak travel period; or
- D. Managing or operating the HOV lane in a manner that renders it functionally inoperable or obsolete (such as not providing enforcement of the occupancy requirement).

GUIDANCE:

An engineering study based on the current and estimated future travel demand for a corridor and facility should be the basis for determining when, during a typical day, there should be a minimum occupancy requirement for a vehicle to use an HOV lane.

OPTION:

HOV lanes may be operated on a 24-hour basis for extended periods of the day, during peak travel periods only, during special events, or during other activities.

HOV lanes may take many forms depending on the level of usage and the design of the facility. They may be physically separated from the other travel lanes by a barrier or median, or they may be concurrent with other travel lanes

and be separated only by longitudinal pavement markings. Physically separated HOV lanes may be operated in a constant direction or may be operated as reversible lanes.

Agencies may select from either the HOV abbreviation or the diamond symbol to reference the HOV lane designation.

SUPPORT:

Inherently low emission vehicle (ILEV) eligibility, testing and certification requirements, labeling, and other regulatory provisions are developed and administered through the Environmental Protection Agency (EPA). EPA is the only entity with the authority to certify ILEVs. Vehicle manufacturers must request the EPA to grant an ILEV certification for any vehicle to be considered and labeled as meeting those standards. According to the EPA, 1996 was the first year that they certified any ILEVs. EPA regulations specify that ILEVs must meet the emission standards specified in 40 CFR 88.311-93 and their labeling must be in accordance with 40 CFR 88.312-93(c). EPA established the ILEV concept to recognize vehicles with no fuel vapor (hydrocarbons) emissions. Zero emission vehicles (electric powered vehicles) that have no emissions are the only other type of clean fuel vehicles that are allowed to use HOV lanes.

OPTION:

Agencies may permit a vehicle with less than the required number of occupants to operate on HOV lanes if:

- A. The vehicle is properly labeled and certified as an ILEV and the lane is not a bus only HOV lane; or
- B. The HOV lanes are part of a project that is participating in the FHWA Value Pricing Pilot Program (see Section 2 of the "Federal-Aid Highway Program Guidance on High Occupancy Vehicle (HOV) Lanes").

STANDARD:

Motorcycles shall be permitted to use HOV lanes that receive Federal-aid program funding.

2B.28 Preferential Only Lane Sign Applications and Placement

STANDARD:

Overhead Preferential Only Lane (R3-13 series, R3-14 series, and R3-15 series) signs shall only be installed along preferential only lanes on freeways and expressways. These overhead signs shall be installed over the lane where the entrance to the preferential only lane is located and any appropriate adjustments shall be made to the sign message. The sign sizes shall differ between freeways and expressways as provided in Appendix C to reflect the different design speeds for each type of roadway.

An R3-13 or R3-13a sign, which defines the occupancy requirement, shall be installed at least 800 m (0.5 mi) in advance of the beginning or initial entry point to an HOV lane. These signs shall only be displayed in advance of the beginning or initial entry point to HOV lanes.

A ground-mounted Preferential Only Lane Operational (R3-11, R3-11a, R3-11b, or R3-11d) sign shall be installed at the beginning, initial entry point, intermediate access points, and direct access ramps to all types of preferential only lanes. The overhead Preferential Only Lane Operational (R3-14 series) signs shall be installed only at the beginning or initial entry point to all types of preferential only lanes.

The ground-mounted Preferential Only Lane Ends 800 m (1/2 Mile) (R3-12b) sign shall be installed at least 800 m (0.5 mi) in advance of the termination of an HOV lane. The ground-mounted Preferential Only Lane Ends (R3-12a) sign shall be installed at the point where the preferential only lane restriction ends. All longitudinal pavement markings, as well as word and symbol pavement markings, associated with the preferential only lane shall end where the R3-12a sign designating the end of the preferential only lane restriction is installed.

OPTION:

Additional ground-mounted Preferential Only Lane (R3-10, R3-11, R3-11a, R3-11b, or R3-11c) signs may be provided along the length of a preferential only lane.

Overhead Preferential Only Lane Ahead (R3-15) signs may be placed approximately 1.6 km (1 mi) and 3.2 km (2 mi) in advance of the beginning or initial entry points to any type of preferential only lane.

The ground-mounted Preferential Only Lane Ahead (R3-12) sign may be installed at a minimum of 1.6 km (1 mi) in advance of the beginning or initial entry point to any type of preferential only lane.

GUIDANCE:

When Preferential Only Lane signs are used, the decision to use a specific ground-mounted or overhead sign should be based on an engineering study that considers the available space, the existing signs for the adjoining general purpose traffic lanes, roadway and traffic characteristics, the proximity to existing overhead signing, the ability to install overhead signs, and any other unique local factors.

STANDARD:

For all barrier-separated preferential only lanes, an overhead Preferential Only Lane Operational (R3-14 series) sign shall be used at the beginning or initial entry point, and at any intermediate access points or gaps in the barrier where vehicles are allowed to legally access the barrier-separated preferential only lanes. Ground-mounted Preferential Only Lane Operational (R3-11 series) signs shall be used only as a supplement to the overhead signs at the beginning or initial entry point, or at any intermediate access points or gaps in the barrier.

GUIDANCE:

For all barrier-separated preferential only lanes, an overhead Preferential Only Lane Ahead (R3-15) sign should be installed and located at least 1.6 km (1 mi) in advance of the beginning or initial entry point.

OPTION:

For barrier-separated preferential only lanes, ground-mounted R3-10 signs defining the occupancy requirement may be alternated in series with Preferential Only Lane Operational (R3-11, R3-11a, R3-11b, or R3-11c) signs. These signs may be located at intervals of approximately 1 km (0.6 mi) along the length of the preferential only lane, at intermediate entry points, and at designated enforcement areas as defined by the operating agency.

For barrier-separated reversible-flow preferential only lanes, Preferential Only Lane signs may be either static or changeable message type.

STANDARD:

For buffer-separated preferential only lanes (painted buffer of 0.6 m (2 ft) or more), an overhead Preferential Only Lane Operational (R3-14 series) sign shall be used at the beginning or initial entry point, and at intermediate access points or gaps where vehicles are allowed to legally access the buffer-separated preferential only lane. Ground-mounted R3-10 signs defining the occupancy requirement shall be located and alternated with Preferential Only Lane Operational (R3-11 series) signs in series at intervals not greater than 1 km (0.6 mi) along the length of the preferential only lane, at designated gaps in the buffer where vehicles are allowed to legally access the preferential only lane, and within designated enforcement areas as defined by the operating agency.

OPTION:

For buffer-separated preferential only lanes, overhead Preferential Only Lane Operational (R3-14 series) signs may be used at specific locations and intervals along the length of the preferential only lane to supplement the ground-mounted R3-10 signs defining the occupancy requirement and the Preferential Only Lane Operational (R3-11 series) signs based on an engineering study.

STANDARD:

For concurrent-flow preferential only lanes, ground-mounted R3-10 signs defining the occupancy requirement shall be located and alternated with Preferential Only Lane Operational (R3-11 series) signs in series at intervals not greater than 1 km (0.6 mi) along the length of the preferential only lane.

OPTION:

For concurrent-flow preferential only lanes, overhead Preferential Only Lane Operational (R3-14 series) signs may be used at specific locations and intervals along the length of the preferential only lane to supplement the ground-mounted R3-10 signs defining the occupancy requirement and the Preferential Only Lane Operational (R3-11 series) signs based on an engineering study.

STANDARD:

For direct access ramps to preferential only lanes, a ground-mounted R3-10 sign defining the occupancy requirement and a Preferential Only Lane Operational (R3-11 series) sign shall be used at the beginning or initial entry point for all types of direct access ramps that provide access or lead to preferential only lanes.

OPTION:

For direct access ramps to preferential only lanes, an overhead Preferential Only Lane Operational (R3-14 series) sign may be used at the beginning or initial entry point to supplement the required ground-mounted signs.

SUPPORT:

Section 2B.26 contains provisions regarding the use of changeable message signs for preferential only lanes. Section 2E.59 contains additional provisions regarding signing for preferential only lanes on freeway and expressway facilities. Figures 2E-46 through 2E-52 show application and placement examples for Preferential Only Lane signs for a variety of preferential only lane situations.

2B.29 DO NOT PASS Sign (R4-1)



R4-1
600 x 750 mm
24" x 30"

OPTION:

The DO NOT PASS (R4-1) sign may be used in addition to pavement markings (see Section 3B.2) to emphasize the restriction on passing. The DO NOT PASS sign may be used at the beginning of, and at intervals within, a zone through which sight distance is restricted or where other conditions make overtaking and passing inappropriate.

SUPPORT:

Standards for determining the location and extent of no-passing zone pavement markings are set forth in Section 3B.2.

2B.30 PASS WITH CARE Sign (R4-2)



R4-2
600 x 750 mm
24" x 30"

GUIDANCE:

The PASS WITH CARE (R4-2) sign should be installed at the end of a no-passing zone if a DO NOT PASS sign has been installed at the beginning of the zone.

2B.31 SLOWER TRAFFIC KEEP RIGHT Sign (R4-3)



R4-3
600 x 750 mm
24" x 30"

OPTION:

The SLOWER TRAFFIC KEEP RIGHT (R4-3) sign may be used on multi-lane roadways to reduce unnecessary lane changing.

GUIDANCE:

If used, the SLOWER TRAFFIC KEEP RIGHT (R4-3) sign should be installed just beyond the beginning of a multi-lane pavement, and at selected locations where there is a tendency on the part of some road users to drive in the left lane (or lanes) below the normal speed of traffic. This sign should not be used on the approach to an interchange or through an interchange area.

2B.32 Slow Moving Traffic Lane Signs (R4-5, R4-6)



R4-5
600 x 750 mm
24" x 30"



R4-6
600 x 750 mm
24" x 30"

SUPPORT:

The Slow Moving Traffic Lane signs are used to direct vehicles into an extra lane that has been provided for slow-moving vehicles.

If an extra lane has been provided for slow-moving traffic, a SLOWER TRAFFIC KEEP RIGHT (R4-3) sign, TRUCKS USE RIGHT LANE (R4-5) sign, or other appropriate sign should be installed at the beginning of the lane. A TRUCK LANE (R4-6) sign, with the appropriate distance shown, should be installed in advance of the lane.

OPTION:

The SLOWER TRAFFIC KEEP RIGHT sign may be used as a supplement or as an alternative to the TRUCKS USE RIGHT LANE (R4-5). Both signs may be used on multi-lane roadways to improve capacity and reduce lane changing.

GUIDANCE:

If an extra lane has been provided for slow-moving traffic, a Lane Ends sign (see Section 2C.30) should be installed in advance of the point where the extra lane ends. Appropriate pavement markings should be installed at both the beginning and the end of the extra lane (see Section 3B.9 and Figure 3B-12).

2B.33 Keep Right and Keep Left Signs (R4-7, R4-8)



R4-7
600 x 750 mm
24" x 30"



R4-8
600 x 750 mm
24" x 30"



R4-7a
600 x 750 mm
24" x 30"



R4-7b
600 x 750 mm
24" x 30"

OPTION:

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

GUIDANCE:

If used, the Keep Right sign should be installed as close as practical to approach ends of raised medians, parkways, islands, underpass piers, and at other locations where it is not readily apparent that traffic is required to keep to the right. The sign should be mounted on the face of or just in front of a pier or other obstruction separating opposite directions of traffic in the center of the highway such that traffic will have to pass to the right of the sign.

STANDARD:

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

OPTION:

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

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

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

2B.34 DO NOT ENTER Sign (R5-1)



R5-1
750 x 750 mm
30" x 30"

STANDARD:

The DO NOT ENTER (R5-1) sign shall be used where traffic is prohibited from entering a restricted roadway.

GUIDANCE:

The DO NOT ENTER sign, if used, should be placed directly in view of a road user at the point where a road user could wrongly enter a divided highway, one-way roadway or ramp (see Figure 2B-10). The sign should be mounted on the right side of the roadway, facing traffic that might enter the roadway or ramp in the wrong direction.

If the DO NOT ENTER sign would be visible to traffic to which it does not apply, the sign should be turned away from, or shielded from, the view of that traffic.

OPTION:

The DO NOT ENTER sign may be installed where it is necessary to emphasize the one-way traffic movement on a ramp or turning lane.

A second DO NOT ENTER sign on the left side of the roadway may be used, particularly where traffic approaches from an intersecting roadway (see Figure 2B-10).

2B.35 WRONG WAY Sign (R5-1a)



R5-1a
900 x 600 mm
36" x 24"

OPTION:

The WRONG WAY (R5-1a) sign may be used as a supplement to the DO NOT ENTER sign where an exit ramp intersects a crossroad or a crossroad intersects a one-way roadway in a manner that does not physically discourage or prevent wrong-way entry (see Figure 2B-10).

GUIDANCE:

If used, the WRONG WAY sign should be placed at a location along the exit ramp or the one-way roadway farther from the crossroad than the DO NOT ENTER sign (see Section 2E.50).

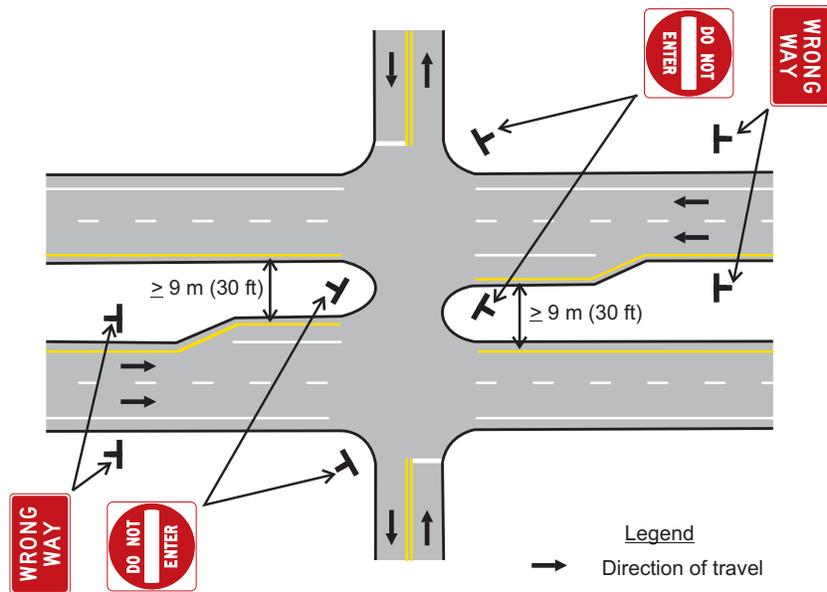


Figure 2B-10. Example of Wrong-Way Signing for a Divided Highway with Medians of 9 m (30 ft) or Greater

2B.36 Selective Exclusion Signs



R5-2
600 x 600 mm
24" x 24"



R5-3
600 x 600 mm
24" x 24"



R5-4
600 x 750 mm
24" x 30"



R5-5
600 x 750 mm
24" x 30"



R5-6
600 x 600 mm
24" x 24"



R5-7
750 x 600 mm
30" x 24"



R5-8
750 x 600 mm
30" x 24"



R5-10a
750 x 900 mm
30" x 36"



R5-10d
450 x 600 mm
18" x 24"



R5-10b
750 x 450mm
30" x 18"



R5-10c
600 x 300mm
24" x 12"

SUPPORT:

Selective Exclusion signs give notice to road users that State or local statutes or ordinances exclude designated types of traffic from using particular roadways or facilities.

STANDARD:

If used, Selective Exclusion signs shall clearly indicate the type of traffic that is excluded.

SUPPORT:

Typical exclusion messages include:

- A. No Trucks (R5-2);
- B. NO MOTOR VEHICLES (R5-3);
- C. COMMERCIAL VEHICLES EXCLUDED (R5-4);
- D. TRUCKS (VEHICLES) WITH LUGS PROHIBITED (R5-5);
- E. No Bicycles (R5-6);
- F. NON-MOTORIZED TRAFFIC PROHIBITED (R5-7);
- G. MOTOR-DRIVEN CYCLES PROHIBITED (R5-8); and

H. Hazardous Material Prohibited (R14-3) (see Section 2B.52).

Compliance Date: December 22, 2013

OPTION:

Appropriate combinations or groupings of these legends into a single sign, such as PEDESTRIANS BICYCLES MOTOR-DRIVEN CYCLES PROHIBITED (R5-10a), or PEDESTRIANS AND BICYCLES PROHIBITED (R5-10b) may be used.

STANDARD:

Minnesota has adopted the PEDESTRIANS BICYCLES MOTORIZED BICYCLES NON-MOTORIZED TRAFFIC PROHIBITED (R5-10d) sign which shall be used on all exit ramps from freeways and controlled access expressways. It shall be installed between the DO NOT ENTER (R5-1) sign and the WRONG WAY (R5-1a) sign.

GUIDANCE:

If an exclusion is governed by vehicle weight, a Weight Limit sign (see Section 2B.49) should be used instead of a Selective Exclusion sign.

The Selective Exclusion sign should be placed on the right side of the roadway at an appropriate distance from the intersection so as to be clearly visible to all road users turning into the roadway that has the exclusion. The PEDESTRIANS PROHIBITED (R5-10c) sign or No Pedestrian Crossing (R9-3a) sign should be installed so as to be clearly visible to pedestrians at a location where an alternative route is available.

OPTION:

The NO TRUCKS (R5-2a) sign may be used as an alternate to the No Trucks (R5-2) symbol sign.

The PEDESTRIAN PROHIBITED (R5-10c) sign or No Pedestrian Crossing (R9-3a) sign may also be used at underpasses or elsewhere where pedestrian facilities are not provided.

2B.36.1 Other Selective Exclusion Signs (R5-X1)



R5-X1
450 x 450mm
18" x 18"

GUIDANCE:

The No Snowmobile (R5-X1) symbol sign should be used to restrict access to highways and certain geographic areas. They should be erected at suitable locations as required to convey the appropriate message.

2B.37 ONE WAY Signs (R6-1, R6-2)



R6-1
900 x 300 mm
36" x 12"



R6-2
600 x 750 mm
24" x 30"

Compliance Date: December 22, 2013

STANDARD:

Except as noted in the Option, the ONE WAY (R6-1 or R6-2) sign shall be used to indicate streets or roadways upon which vehicular traffic is allowed to travel in one direction only.

ONE WAY signs shall be placed parallel to the one-way street at all alleys and roadways that intersect one-way roadways as shown in Figures 2B-12 through 2B-15.

Compliance Date: January 17, 2008

Where divided roadways are separated by a median width of 9 m (30 ft) or more, ONE WAY signs or a combination of ONE WAY, DO NOT ENTER, and Divided Highway Crossing signs shall be placed visible to each crossroad

approach on the near right and far left corners of each intersection with the directional roadways as shown in Figures 2B-12 and 2B-13.

OPTION:

ONE WAY signs may be omitted on the one-way roadways of divided highways, where the design of interchanges indicates the direction of traffic on the separate roadways.

ONE WAY signs may be omitted (see Figure 2B-14) at intersections with divided highways that have median widths of less than 9 m (30 ft).

ONE WAY signs may be omitted from the medians at intersections with divided highways that have median widths of greater than 9 m (30 ft) when an engineering study has demonstrated that the signs may confuse motorists (see Figure 2B-3c).

STANDARD:

At unsignalized intersections, ONE WAY signs shall be placed on the near right and the far left corners of the intersection facing traffic entering or crossing the one-way street.

At signalized intersections, ONE WAY signs shall be placed either near the appropriate signal faces, on the poles holding the traffic signals, on the mast arm or span wire holding the signals, or at the locations specified for unsignalized intersections.

2B.37.1 One Way Transition Signs (R6-X1)



R6-X1
600 x 750 mm
24" x 30"



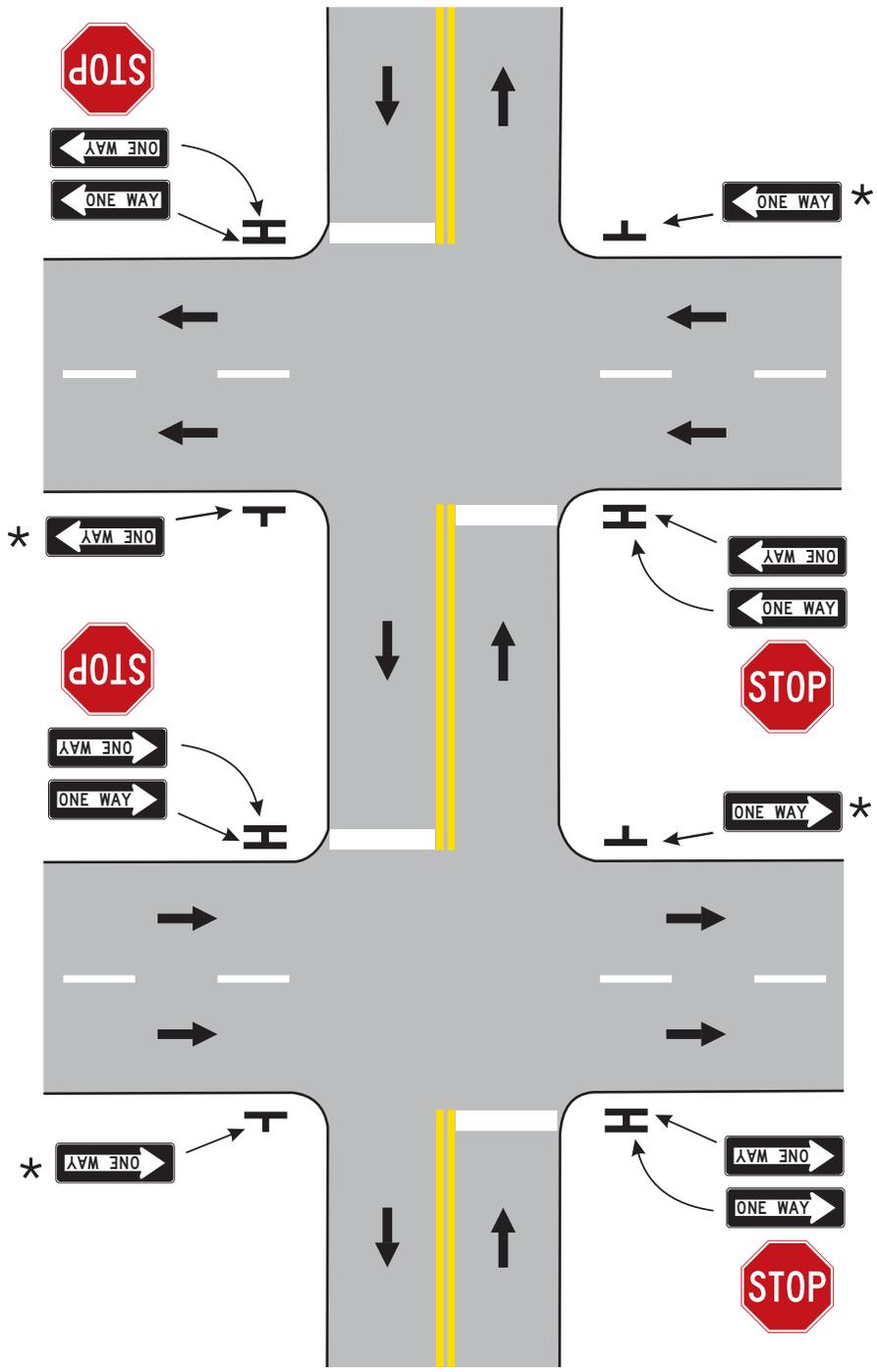
R6-X1
600 x 750 mm
24" x 30"

OPTION:

The BEGIN ONE WAY sign may be installed at an urban intersection to inform motorists where a two-way roadway changes to a one-way roadway. Similarly, a END ONE WAY sign may be installed at the intersection where a one-way roadway changes to a two-way roadway. A Two-Way Traffic sign (W6-3) may be installed in advance of the intersection where the transition will occur.

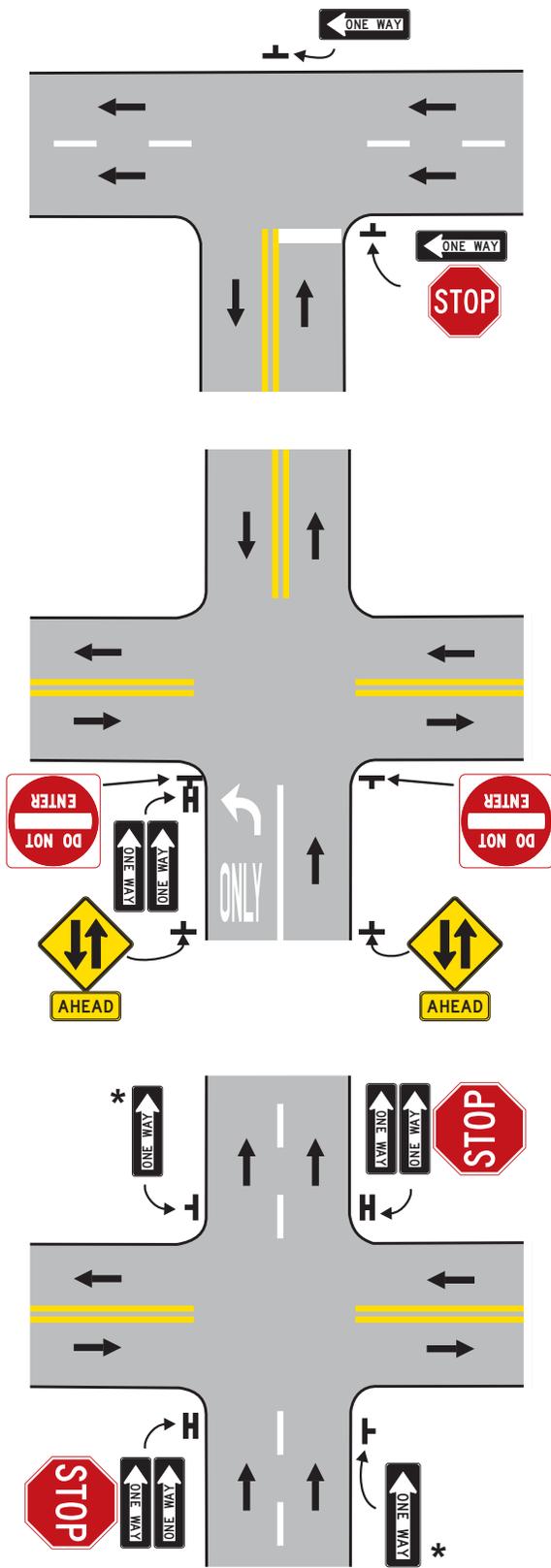
STANDARD:

The BEGIN ONE WAY and the END ONE WAY sign shall not be installed on a one-way connecting ramp or at a T-intersection where a one-way roadway terminates.



- Legend
- ➔ Direction of travel
 - * Optional

Figure 2B-12. Examples of Locations of ONE WAY Signs
(Sheet 1 of 2)



Legend
 → Direction of travel
 * Optional

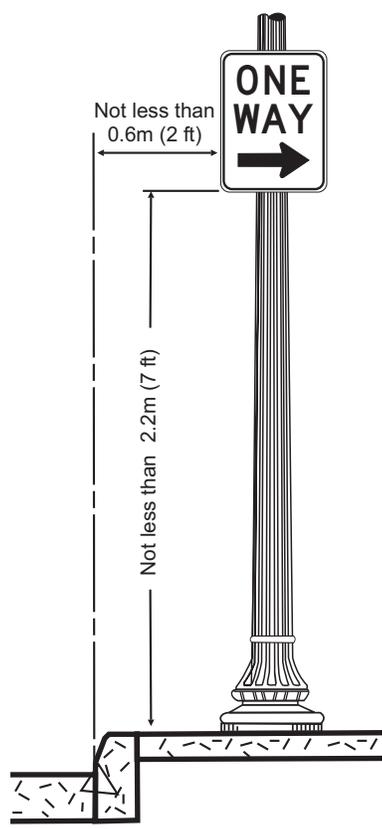


Figure 2B-12. Examples of Locations of ONE WAY Signs
 (Sheet 2 of 2)

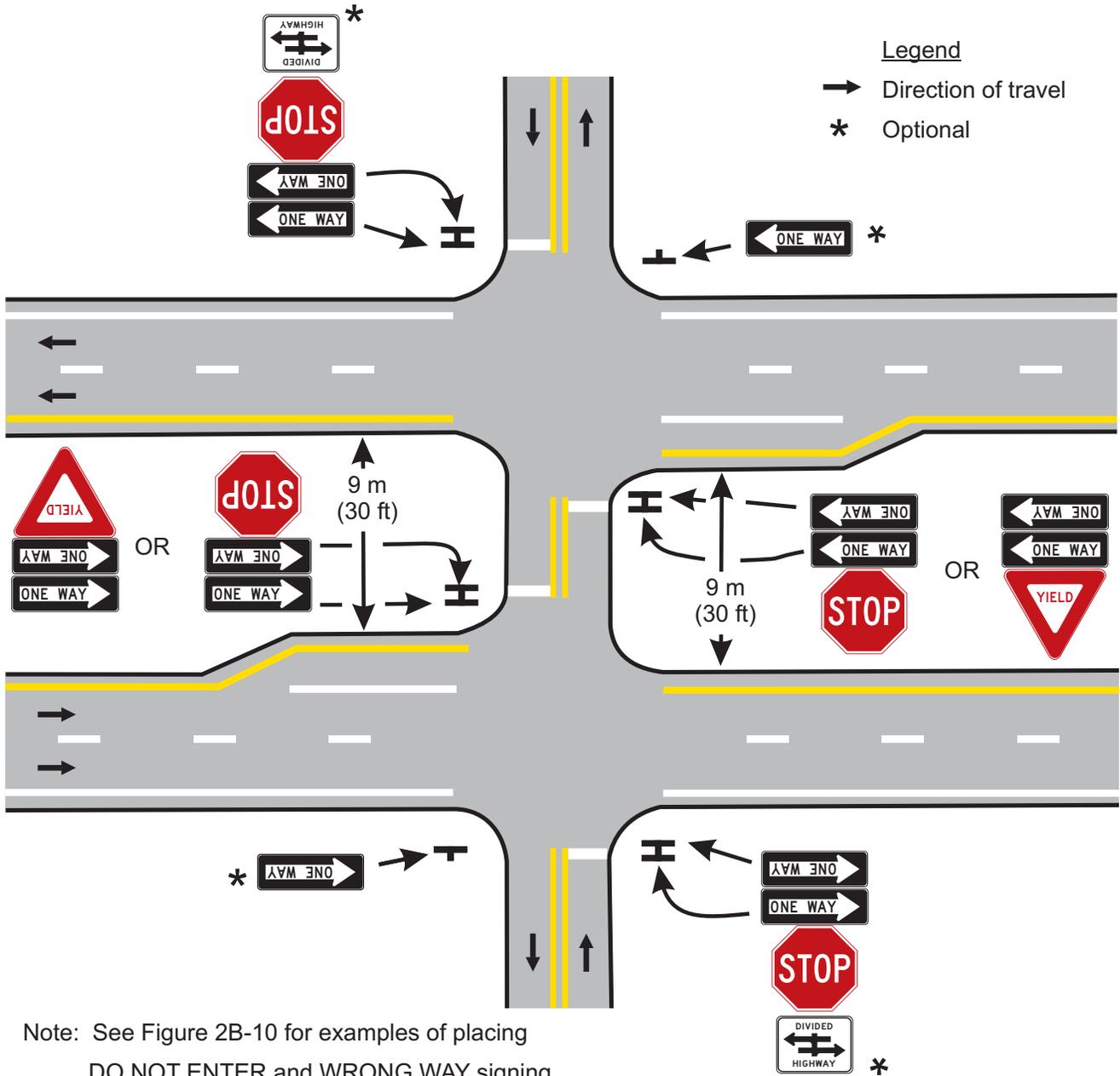
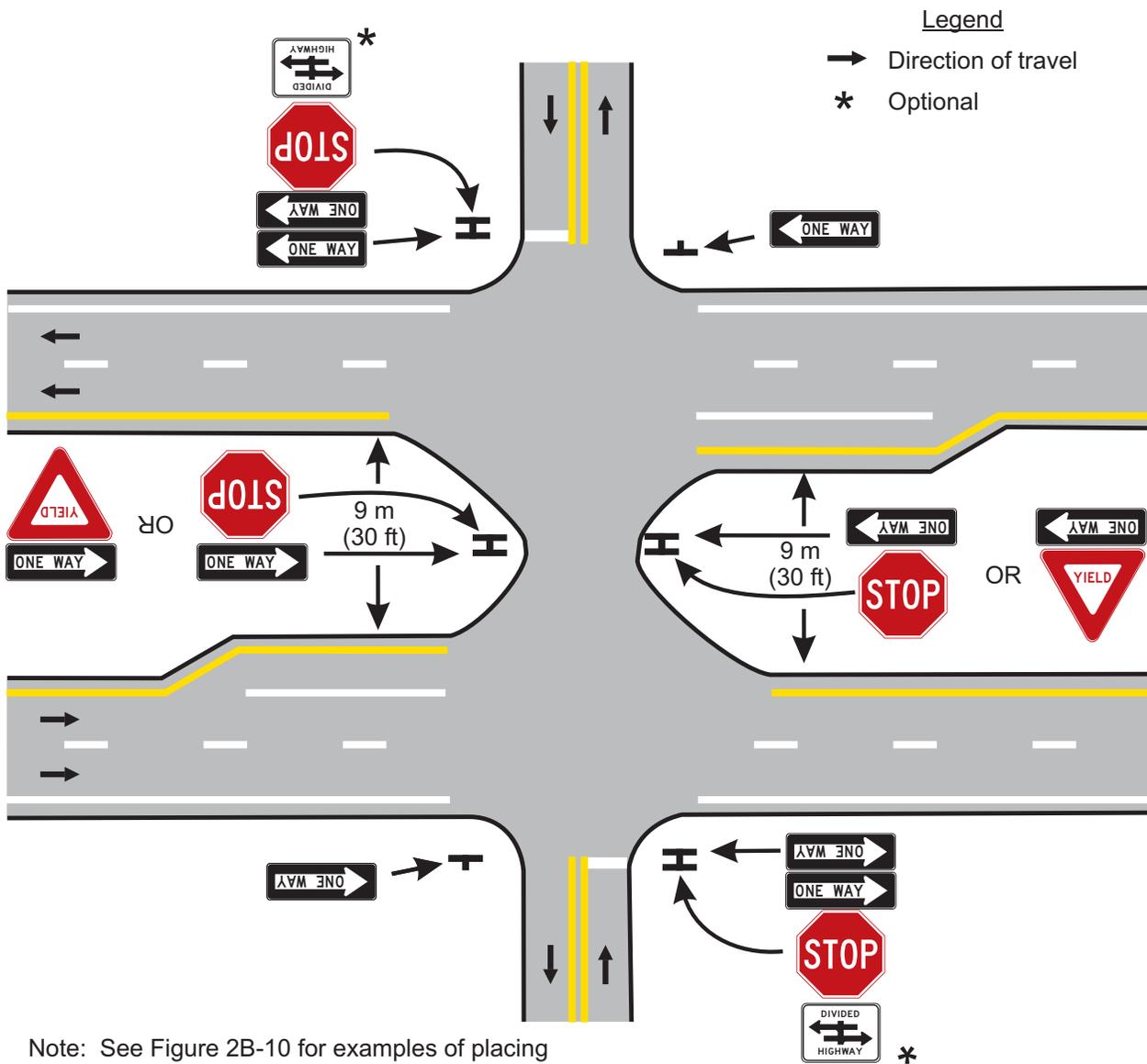


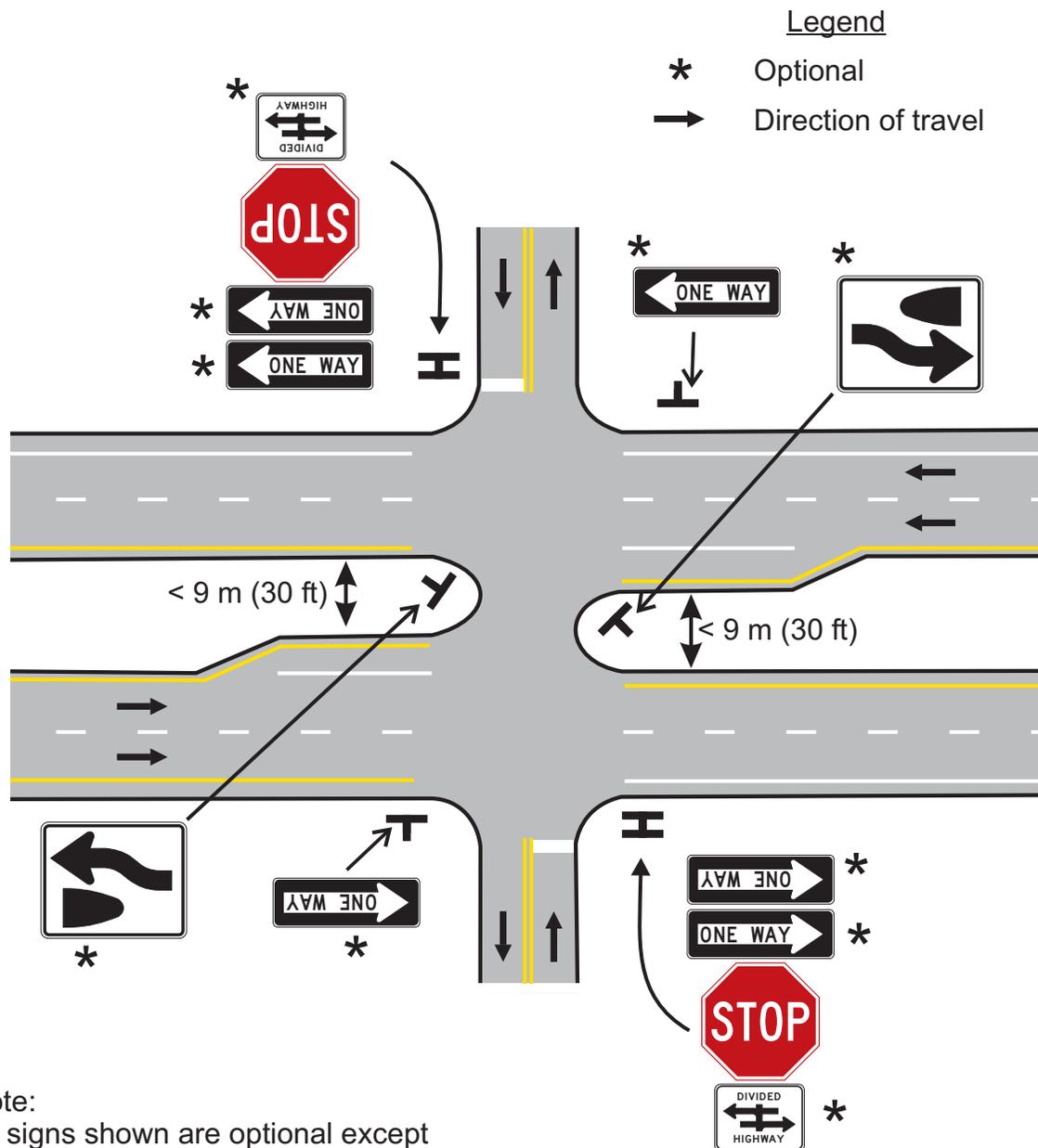
Figure 2B-13. Examples of ONE WAY Signing for Divided Highways with Medians of 9 m (30 ft) or Greater
(Sheet 1 of 2)



Note: See Figure 2B-10 for examples of placing DO NOT ENTER and WRONG WAY signing

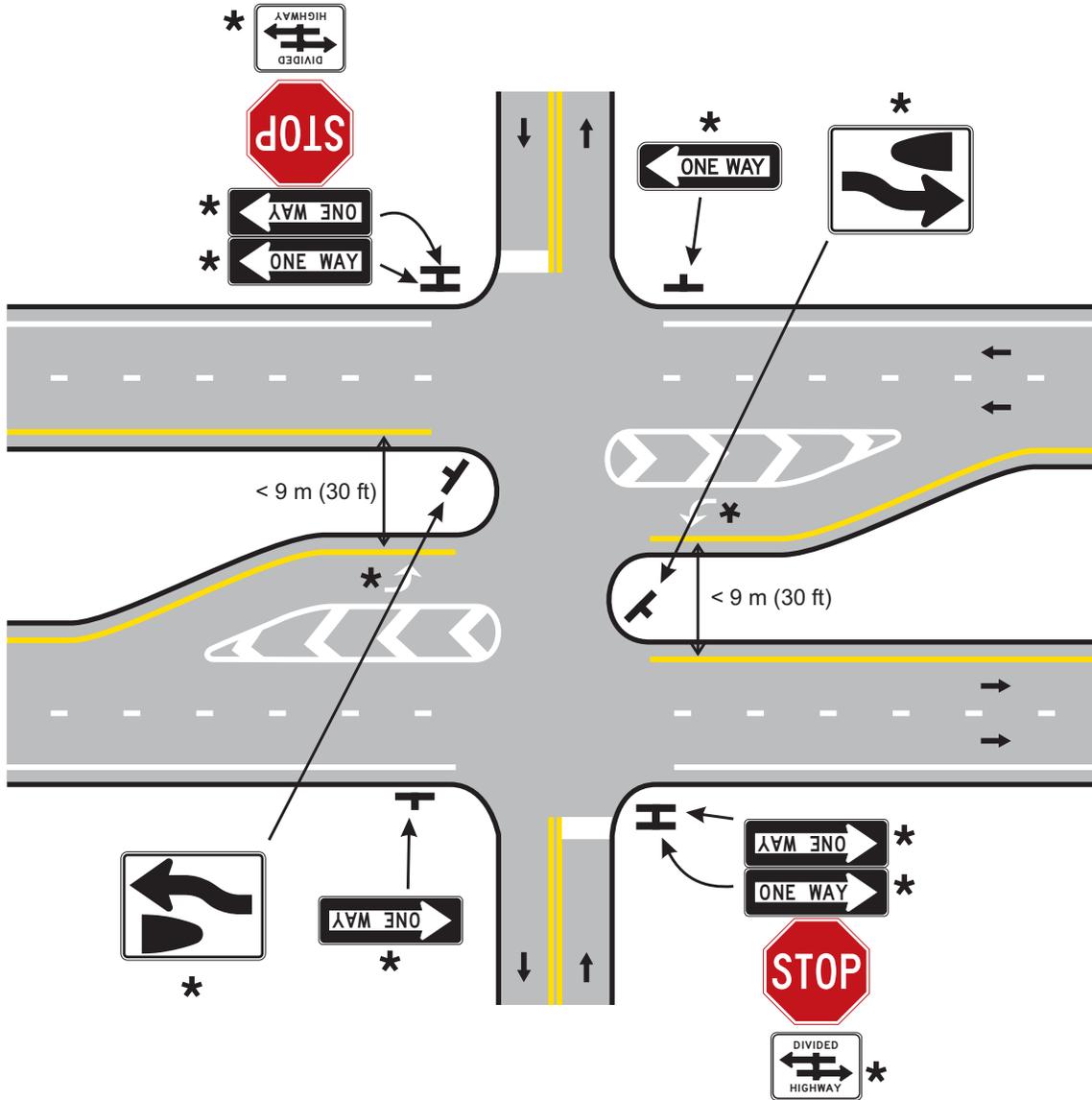
Figure 2B-13. Examples of ONE WAY Signing for Divided Highways with Medians of 9 m (30 ft) or Greater

(Sheet 2 of 2)



Note:
 All signs shown are optional except the STOP signs.
 See Figure 2B-10 for examples of placing
 DO NOT ENTER and WRONG WAY signing.

**Figure 2B-14. Examples of ONE WAY Signing for Divided Highways
 with Medians Less than 9 m (30 ft)**

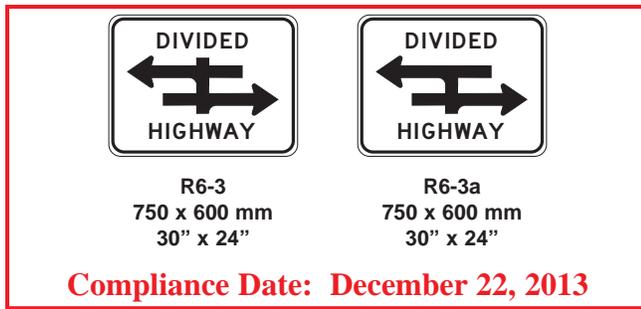


Notes:
 All signs shown are optional except the STOP signs.
 See Figure 2B-10 for examples of placing DO NOT ENTER and WRONG WAY signing.

Legend
 → Direction of travel
 * Optional

Figure 2B-15. Examples of ONE WAY Signing for Divided Highways with Medians Less than 9 m (30 ft) and Separated Left Turn Lanes

2B.38 Divided Highway Crossing Signs (R6-3, R6-3a)



OPTION:

The Divided Highway Crossing (R6-3 or R6-3a) sign may be used to advise road users that they are approaching an intersection with a divided highway.

STANDARD:

When the Divided Highway Crossing sign is used at a four-legged intersection, the R6-3 sign shall be used. When used at a T-intersection, the R6-3a sign shall be used.

OPTION:

The Divided Highway Crossing sign may be located on the near right corner of the intersection and may be mounted beneath a STOP or YIELD sign or on a separate support.

2B.39 Parking, Standing, and Stopping Signs (R7 and R8 Series)

SUPPORT:

Signs governing the parking, stopping, and standing of vehicles cover a wide variety of regulations, and only general guidance can be provided here. The word "standing" when used on the R7 and R8 series of signs refers to the practice of a driver keeping the vehicle in a stationary position while continuing to occupy the vehicle. Typical examples of parking, stopping, and standing signs are as follows:

- A. NO PARKING ANY TIME (R7-1);
- B. NO PARKING 8:30 AM TO 5:30 PM (R7-2);
- C. NO PARKING EXCEPT SUNDAYS AND HOLIDAYS (R7-3);
- D. NO STANDING ANY TIME (R7-4);
- E. ONE HOUR PARKING 9 AM-7 PM (R7-5);
- F. NO PARKING LOADING ZONE (R7-6);
- G. NO PARKING BUS STOP (R7-7, R7-107, R7-107a);
- H. RESERVED PARKING for persons with disabilities (R7-8);
- I. NO PARKING ON PAVEMENT (R8-1);
- J. NO PARKING EXCEPT ON SHOULDER (R8-2);
- K. NO PARKING (R8-3);
- L. NO PARKING (R8-3a); and
- M. NO STOPPING ON PAVEMENT (R8-5).



R7-1
300 x 450 mm
12" x 18"



R7-2
300 x 450 mm
12" x 18"



R7-2a
300 x 450 mm
12" x 18"



R7-3
300 x 450 mm
12" x 18"



R7-4
300 x 450 mm
12" x 18"



R7-5
300 x 450 mm
12" x 18"



R7-6
300 x 450 mm
12" x 18"



R7-7
300 x 450 mm
12" x 18"



R7-107a
300 x 750 mm
12" x 30"



R7-8m
300 x 450 mm
12" x 18"



R7-8a
450 x 225 mm
18" x 9"



R7-8b
300 x 150 mm
12" x 6"



R7-107
300 x 450 mm
12" x 18"



R7-108
300 x 450 mm
12" x 18"



R7-203
450 x 600 mm
18" x 24"



R7-201
300 x 150 mm
12" x 6"



R7-201a
300 x 150 mm
12" x 6"



R7-202
300 x 150 mm
12" x 6"



R8-1
600 x 750 mm
24" x 30"



R8-2
600 x 750 mm
24" x 30"



R8-3
600 x 750 mm
24" x 30"



R8-3a
600 x 600 mm
24" x 24"



R8-5
600 x 750 mm
24" x 30"



R8-6
600 x 750 mm
24" x 30"



R8-3c
600 x 450 mm
24" x 18"



R8-3d
600 x 450 mm
24" x 18"



R8-3ap
600 x 300 mm
24" x 12"

2B.40 Design of Parking, Standing, and Stopping Signs

SUPPORT:

Discussions of parking signs and parking regulations in this Section apply not only to parking, but also to standing and stopping.

STANDARD:

The legend on parking signs shall state applicable regulations. Parking signs shall conform to the standards of shape, color, and location.

Where parking is prohibited at all times or at specific times, the basic design for parking signs shall have a red legend and border on a white background (Parking Prohibition signs). Where only limited-time parking or parking in a particular manner are permitted, the signs shall have a green legend and border on a white background (Permissive Parking signs).

GUIDANCE:

Parking signs should display the following information from top to bottom of the sign, in the order listed:

- A. The restriction or prohibition;
- B. The times of the day that it is applicable, if not at all hours; and
- C. The days of the week that it is applicable, if not every day.

If the parking restriction applies to a limited area or zone, the limits of the restriction should be shown by arrows or supplemental plaques. If arrows are used and if the sign is at the end of a parking zone, there should be a single-headed arrow pointing in the direction that the regulation is in effect. If the sign is at an intermediate point in a zone, there should be a double-headed arrow pointing both ways. When a single sign is used at the transition point between two parking zones, it should display a right and left arrow pointing in the direction that the respective restrictions apply.

Where special parking restrictions are imposed during heavy snowfall, Snow Emergency signs should be installed. The legend will vary according to the regulations, but the signs should be vertical rectangles, having a white background with the upper part of the plate a red background.

When used to direct drivers to van-accessible parking facilities, a VAN ACCESSIBLE (R7-8b) plaque should be mounted below the (D4-1) sign.

STANDARD:

Where parking spaces that are reserved for persons with disabilities are designated to accommodate wheelchair vans, a VAN ACCESSIBLE (R7-8b) plaque shall be mounted below the R7-8m sign.

OPTION:

To minimize the number of parking signs, blanket regulations that apply to a given district may, if legal, be posted at district boundary lines.

As an alternate to the use of arrows to show designated restriction zones, word messages such as BEGIN, END, HERE TO CORNER, HERE TO ALLEY, THIS SIDE OF SIGN, or BETWEEN SIGNS may be used.

Where parking is prohibited during certain hours and time-limited parking or parking in a particular manner is permitted during certain other time periods, the red Parking Prohibition and green Permissive Parking signs may be designed as follows:

- A. Two 300 x 450 mm (12 x 18 in) parking signs may be used with the red Parking Prohibition sign installed above or to the left of the green Permissive Parking sign; or
- B. The red Parking Prohibition sign and the green Permissive Parking sign may be combined to form an R7-200 sign on a single 600 x 450 mm (24 x 18 in) sign, or on a single 300 x 750 mm (12 x 30 in) sign.

At the transition point between two parking zones, a single sign or two signs mounted side by side may be used.

The words NO PARKING may be used as an alternative to the No Parking symbol. The supplemental educational plaque, NO PARKING, with a red legend and border on a white background, may be used above signs incorporating the No Parking symbol.

Alternate designs for the R7-107 sign may be developed such as the R7-107a sign. Alternate designs may include, on a single panel, a transit logo, an approved bus symbol, a parking prohibition, the words BUS STOP, and an arrow. The preferred bus symbol color is black, but other dark colors may be used. Additionally, the transit logo may be shown on the bus face in the appropriate colors instead of placing the logo separately. The reverse side of the sign may contain bus routing information.

To make the parking regulations more effective and to improve public relations by giving a definite warning, a sign reading TOW-AWAY ZONE (R7-201) may be appended to, or incorporated in, any parking prohibition sign. The Tow-Away Zone (R7-201a) symbol sign may be used instead of the R7-201 word message sign. The R7-201a sign may have either a black or red legend and border on a white background.

In rural areas, the legend NO PARKING ON PAVEMENT (R8-1) is generally suitable and may be used. If a roadway has paved shoulders, the NO PARKING

EXCEPT ON SHOULDER sign (R8-2) may be used as it is less likely to cause confusion. The R8-3a symbol sign or the word message NO PARKING (R8-3) sign may be used to prohibit any parking along a given highway. Word message supplemental plaques, such as ON PAVEMENT (R8-3c) or ON BRIDGE (R8-3d), may be mounted below the R8-3 or R8-3a sign.

2B.41 Placement of Parking, Stopping, and Standing Signs

GUIDANCE:

When signs with arrows are used to indicate the extent of the restricted zones, the signs should be set at an angle of not less than 30 degrees nor more than 45 degrees with the line of traffic flow in order to be visible to approaching traffic.

Spacing of signs should be based on legibility and sign orientation.

If the zone is unusually long, signs showing a double arrow should be used at intermediate points within the zone.

STANDARD:

If the signs are mounted at an angle of 90 degrees to the curb line, two signs shall be mounted back to back at the transition point between two parking zones, each with the appended message THIS SIDE OF SIGN.

GUIDANCE:

At intermediate points within a zone, a single sign without any arrow or appended plaque should be used, facing in the direction of approaching traffic. Otherwise the standards of placement should be the same as for signs using directional arrows.

2B.41.1 Disabled Parking Signs (R7-8m)



R7-8m
300 x 450 mm
12" x 18"



R7-8b
300 x 150 mm
12" x 6"

STANDARD:

Where parking spaces are designated to accommodate handicapped drivers, the Disabled Parking sign (R7-8m) shall be installed as required in Minnesota Statute 169.346 which reads in part as follows:

A sign posted for the purpose of this section must be visible from inside a vehicle parked in the space, be kept clear of snow or other obstructions which block its visibility, and be non-movable or only movable by authorized persons.

Where parking spaces are designated to accommodate wheelchair vans, the Van Accessible plaque (R7-8b) shall be installed below the Disabled Parking sign (R-8m). Both signs as well as any additional supplemental plaques shall have a white legend and border on a blue background.

GUIDANCE:

Where a guide sign is needed to direct motorists to van-accessible parking facilities, an appropriate arrow should be installed below the Disabled Parking assembly.

2B.42 Emergency Restriction Signs (R8-4, R8-7, R8-8, R16-X4)



R8-4
750 x 6050 mm
30" x 24"



R8-7
600 x 750 mm
24" x 30"



R8-8
600 x 750 mm
24" x 30"



R16-X4
900 x 900 mm
36" x 36"

OPTION:

The EMERGENCY PARKING ONLY (R8-4) sign or the EMERGENCY STOPPING ONLY (R8-7) sign may be used to discourage or prohibit shoulder parking, particularly where scenic or other attractions create a tendency for road users to stop temporarily, even though turnout or rest areas have not been provided.

The DO NOT STOP ON TRACKS (R8-8) sign may be used to discourage or prohibit parking or stopping on railroad tracks (see Section 8B.7).

The Freeway Entrance Ramp Information sign (R16-X4) may be used as an alternate for or to supplement the EMERGENCY STOPPING ONLY sign.

STANDARD:

Emergency Restriction signs shall be rectangular and shall have a red or black legend and border on a white background.

The Freeway Entrance Ramp Information sign (R16-X4) shall be installed on all freeway entrance ramps near the beginning of the ramp facing traffic entering the freeway.

2B.43 WALK ON LEFT FACING TRAFFIC and No Hitchhiking Signs (R9-1, R9-4, R9-4a)



R9-1
450 x 600 mm
18" x 24"



R9-4
450 x 600 mm
18" x 24"



R9-4a
450 x 450 mm
18" x 18"

OPTION:

The WALK ON LEFT FACING TRAFFIC (R9-1) sign may be used on highways where no sidewalks are provided.

STANDARD:

If used, the WALK ON LEFT FACING TRAFFIC sign shall be installed on the right side of the road where pedestrians walk on the pavement or shoulder in the absence of pedestrian pathways or sidewalks.

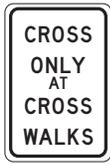
OPTION:

The No Hitchhiking (R9-4a) sign may be used to prohibit standing in or adjacent to the roadway for the purpose of soliciting a ride. The R9-4 word message sign may be used as an alternate to the R9-4a symbol sign.

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2B.44 Pedestrian Crossing Signs (R9-2, R9-3)



R9-2
300 x 450 mm
12" x 18"



R9-3
300 x 450 mm
12" x 18"



R9-3a
450 x 450 mm
18" x 18"



R9-3b
450 x 300 mm
18" x 12"

OPTION:

Pedestrian Crossing signs may be used to limit pedestrian crossing to specific locations.

STANDARD:

If used, Pedestrian Crossing signs shall be installed to face pedestrian approaches.

OPTION:

Where crosswalks are clearly defined, the CROSS ONLY AT CROSSWALKS (R9-2) sign may be used to discourage jaywalking or unauthorized crossing.

The No Pedestrian Crossing (R9-3a) sign may be used to prohibit pedestrians from crossing a roadway at an undesirable location or in front of a school or other public building where a crossing is not designated.

The No Pedestrian Crossing (R9-3) word message sign may be used as an alternate to the R9-3a symbol sign. The USE CROSSWALK (R9-3b) supplemental panel USE CROSSWALK (R9-3b), along with an arrow, may be installed below either sign to designate the direction of the crossing.

SUPPORT:

One of the most frequent uses of the Pedestrian Crossing signs is at signalized intersections that have three crossings that can be used and one leg that cannot be crossed.

GUIDANCE:

The R9-3b sign should not be installed in combination with educational plaques.

2B.45 Traffic Signal Signs (R10-1 through R10-21)

OPTION:

To supplement traffic signal control, Traffic Signal signs R10-1 through R10-21 may be used to regulate road users.

GUIDANCE:

When used, Traffic Signal signs should be located adjacent to the signal face to which they apply.

STANDARD:

Traffic signal signs applicable to pedestrian actuation shall be mounted immediately above or incorporated in pedestrian pushbutton units (see Section 4E.8). Traffic Signal signs applicable to pedestrians include:

- A. CROSS ON GREEN LIGHT ONLY (R10-1);
- B. CROSS ON WALK SIGNAL ONLY (R10-2);
- C. PUSH BUTTON FOR GREEN LIGHT (R10-3); and
- D. PUSH BUTTON FOR WALK SIGNAL (R10-4).



R10-1
300 x 450 mm
14" x 18"



R10-2a
225 x 300 mm
9" x 12"



R10-3
225 x 300 mm
9" x 12"



R10-3a
225 x 300 mm
9" x 12"



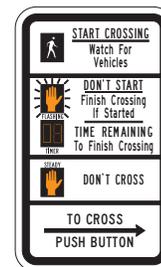
R10-3b
225 x 300 mm
9" x 12"



R10-3c
225 x 300 mm
9" x 12"



R10-3d
225 x 300 mm
9" x 12"



R10-3e
225 x 380 mm
9 x 15"



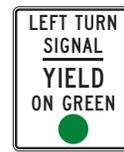
R10-4
225 x 300 mm
9" x 12"



R10-4a
225 x 300 mm
9" x 12"



R10-4b
225 x 300 mm
9" x 12"



R10-21
750 x 900 mm
30" x 36"

OPTION:

The following signs may be used as an alternate for the R10-3 and R10-4 signs:

- A. TO CROSS STREET (arrow), PUSH BUTTON WAIT FOR GREEN LIGHT (R10-3a); and
- B. TO CROSS STREET (arrow) PUSH BUTTON WAIT FOR WALK SIGNAL (R10-4a).

The symbol sign R10-2a may be used as an alternate to sign R10-2. Where symbol-type pedestrian signal indications are used, an educational sign (R10-3b) may be used to improve pedestrian understanding of pedestrian indications at signalized intersections. Where word-type pedestrian signal indications are being retained for the remainder of their useful service life, the legends WALK/DON'T WALK may be substituted for the symbols on the educational sign R10-3b, thus creating sign R10-3c. The R10-3d sign may be used if the pedestrian clearance time is sufficient only for the pedestrian to cross to the median. The diagrammatic sign R10-4b may also be used as an alternate to sign R10-4. At intersections where pedestrians cross in two stages using a median refuge island, the word message "CROSS TO MEDIAN" may be placed on the near corner of the refuge island along with the educational plaque.

Traffic Signal signs may be installed at certain locations to clarify signal control. Among the legends for this purpose are LEFT ON GREEN ARROW ONLY (R10-5), STOP HERE ON RED (R10-6 or R10-6a) for observance of stop lines, DO NOT BLOCK INTERSECTION (R10-7) and DO NOT BLOCK CROSSWALK (R10-7a) for avoidance of traffic obstructions, USE LANE(S) WITH GREEN ARROW (R10-8) for obedience to Lane Control signals, LEFT TURN YIELD ON GREEN (symbolic green ball) (R10-12) and LEFT TURN SIGNAL YIELD ON GREEN (symbolic green ball) (R10-21) (see Section 4D.6)

In situations where traffic control signals are coordinated for progressive timing, the Traffic Signal Speed (I1-1) sign may be used (see Section 2D.47).



R10-11
600 x 750 mm
24" x 30"



R10-11a
600 x 750 mm
24" x 30"



R10-5
600 x 750 mm
24" x 30"

R10-6
600 x 900 mm
24" x 36"

R10-7
750 x 750 mm
30" x 30"



R10-11b
600 x 600 mm
24" x 24"

R10-12
600 x 750 mm
24" x 30"



R10-7a
750 x 750 mm
30" x 30"

R10-8
600 x 750 mm
24" x 30"

R10-10
600 x 750 mm
24" x 30"

STANDARD:

The NO TURN ON RED sign (R10-11a, R10-11b) shall be used to prohibit a right turn on red (or a left turn on red from a one-way street to a one-way street).

A symbolic NO TURN ON RED sign (R10-11) may be used as an alternative to the R10-11a and R10-11b signs.

GUIDANCE:

If used, the NO TURN ON RED sign should be installed near the appropriate signal head.

A NO TURN ON RED sign should be considered when an engineering study finds that one or more of the following conditions exists:

- A. Inadequate sight distance to vehicles approaching from the left (or right, if applicable);
- B. Geometrics or operational characteristics of the intersection that might result in unexpected conflicts;
- C. An exclusive pedestrian phase;
- D. An unacceptable number of pedestrian conflicts with right-turn-on-red maneuvers, especially involving children, older pedestrians, or persons with disabilities; and
- E. More than three right-turn-on-red accidents reported in a 12-month period for the particular approach.



R10-15m
750 x 900 mm
30" x 36"



R10-17a
750 x 900 mm
30" x 36"



R10-20a
600 x 600 mm
24" x 24"



R10-20a
600 x 450 mm
24" x 18"

OPTION:

Where turns on red are permitted and the signal indication is a RED ARROW, the RIGHT (LEFT) ON RED ARROW AFTER STOP (R10-17a) sign should be installed adjacent to the RED ARROW signal indication.

In order to remind drivers who are making turns to stop for pedestrians, especially at intersections where right turn on red is permitted and at free right turn (channelized right turn) locations, a TURNING TRAFFIC MUST STOP FOR PEDESTRIANS (R10-15m) sign may be used.

A supplemental R10-20a plaque showing times of day (similar to the S4-1 plaque shown in Figure 7B-1) with a black legend and border on a white background may be mounted below a NO TURN ON RED sign to indicate that the restriction is in place only during certain times.



R1-X1
600 x 750 mm
24" x 30"

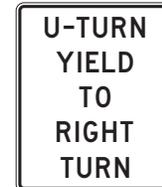
When right turn on red is permitted, the word message STOP FOR PEDESTRIAN IN CROSSWALK (R1-X1) may be used.

STANDARD:

The EMERGENCY SIGNAL (R10-13) sign shall be used in conjunction with emergency-vehicle traffic control signals (see Section 4F.2).



R10-13
900 x 600 mm
36" x 24"



R10-16
750 x 900 mm
30" x 36"

OPTION:

A U-TURN YIELD TO RIGHT TURN (R10-16) sign may be installed near the left-turn signal face if U-turns are allowed on a protected left-turn movement on an approach from which drivers making a right turn from the conflicting approach to their left are simultaneously being shown a right-turn GREEN ARROW signal indication.

**2B.45.1 Ramp Control Signal Signs
(R10-X4, R10-X6, and R10-X7)**



R10-X4
600 x 750 mm
24" x 30"

R10-X6
600 x 450 mm
24" x 18"

R10-X7
600 x 750 mm
24" x 30"

STANDARD:

These signs shall be installed at freeway entrance ramps which are controlled by traffic signals in order to place space between entering vehicles.

SUPPORT:

They are used to inform and regulate the motorist with respect to the operation of the traffic signal.

These signs include:

- RAMP METERING BEGINS date (R10-X4)
- 1 CAR ON GREEN (R10-X6)
- FORM 2 LANES WHEN METERED (R10-X7)

**2B.46 Photo Enforced Signs
(R10-18, R10-19)**



R10-18
900 x 450 mm
36" x 18"



R10-19
600 x 450 mm
24" x 18"

Compliance Date: December 22, 2013

OPTION:

A TRAFFIC LAWS PHOTO ENFORCED (R10-18) sign may be installed at a jurisdictional boundary to advise road users that some of the traffic regulations within that jurisdiction are being enforced by photographic equipment.

A PHOTO ENFORCED (R10-19) sign may be mounted below a regulatory sign to advise road users that the regulation is being enforced by photographic equipment.

STANDARD:

If used below a regulatory sign, the PHOTO ENFORCED (R10-19) sign shall be a rectangle with a black legend and border on a white background.

2B.47 KEEP OFF MEDIAN Sign (R11-1)

R11-1
600 x 750 mm
24" x 30"

OPTION:

The KEEP OFF MEDIAN (R11-1) sign may be used to prohibit driving into or parking on the median.

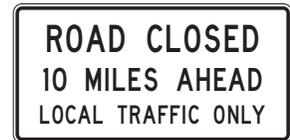
GUIDANCE:

The KEEP OFF MEDIAN sign should be installed on the left of the roadway within the median at random intervals as needed wherever there is a tendency for encroachment.

**2B.48 ROAD CLOSED Sign (R11-2) and
LOCAL TRAFFIC ONLY Signs
(R11-3 Series, R11-4)**



R11-2
1200 x 750 mm
48" x 30"



R11-3A
1500 x 750 mm
60" x 30"



R11-4
1500 x 750 mm
60" x 30"

GUIDANCE:

The ROAD CLOSED (R11-2) sign should be installed where roads have been closed to all traffic (except authorized vehicles).

ROAD CLOSED - LOCAL TRAFFIC ONLY (R11-3) and ROAD CLOSED TO THRU TRAFFIC (R11-4) signs should be used where through traffic is not permitted, or for a closure some distance beyond the sign, but where the highway is open for local traffic up to the point of closure.

STANDARD:

The Road Closed (R11-2, R11-3 series, and R11-4) signs shall be designed as horizontal rectangles. These signs shall be preceded by the applicable Advance Road Closed warning sign with the secondary legend AHEAD and, if applicable, an Advance Detour warning sign (see Section 6F.18).

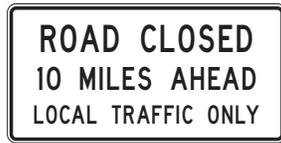
OPTION:

The word message BRIDGE OUT may be substituted for the ROAD CLOSED message where applicable.

**2B.48.1 Bridge Closed Signs
(R11-2a and R11-3c)**



R11-2a
1200 x 750 mm
48" x 30"



R11-3c
1800 x 750 mm
72" x 30"

GUIDANCE:

The BRIDGE CLOSED (R11-2a) sign should be installed where a bridge has been closed to all traffic.

BRIDGE CLOSED - LOCAL TRAFFIC ONLY (R11-3c) sign should be used where through traffic is not permitted, or for a closure some distance beyond the sign, but where the highway is open for local traffic up to the point of closure.

STANDARD:

These signs shall be designed as horizontal rectangles. These signs shall be preceded by the applicable Advance Bridge Closed warning sign with the secondary legend AHEAD and, if applicable, an Advance Detour warning sign (see Section 6F.19).

**2B.48.2 Sidewalk Closed Signs
(R9-9, R9-10)**



R9-9
750 x 450 mm
30" x 18"



R9-10
1200 x 600 mm
48" x 24"

GUIDANCE:

The Sidewalk Closed signs should be used where pedestrian flow is restricted or rerouted due to road work. The SIDEWALK CLOSED sign (R9-9) should be installed at the beginning of the closed sidewalk section and elsewhere along the closed section as needed. The SIDEWALK CLOSED USE OTHER SIDE sign (R9-10) should be installed at the beginning of the restricted sidewalk section when a parallel sidewalk exists on the other side of the roadway.

These signs are typically installed on a barricade device to act as a reminding message to encourage compliance.

**2B.49 Weight Limit Signs
(R12-1 through R12-5)**

OPTION:

The Weight Limit (R12-1) sign carrying the legend WEIGHT LIMIT XX TONS may be used to indicate vehicle weight restrictions including load.

Where the restriction applies to axle weight rather than gross load, the legend may be AXLE WEIGHT LIMIT XX TONS or AXLE WEIGHT LIMIT XXXX LBS (R12-2).



R12-1
600 x 750 mm
24" x 30"



R12-2
600 x 750 mm
24" x 30"



R12-4
600 x 750 mm
30" x 24"

**2B.49.1 Bridge and Structure Weight, Width and Height Restriction Signs
(R12-1A, R12-5 Supplement, R12.X2, R12-X4, and R12-X4A)**



R12-3
600 x 900 mm
24" x 36"



R12-5
750 x 900 mm
30" x 36"

To restrict trucks of certain sizes by reference to empty weight in residential districts, the legend may be NO TRUCKS OVER XX TONS EMPTY WT or NO TRUCKS OVER XXXX LBS EMPTY WT (R12-3).

In areas where multiple regulations of the type described above are applicable, a sign combining the necessary messages on a single panel may be used, such as WEIGHT LIMIT XX TONS) PER AXLE, XX TONS GROSS (R12-4).

Posting of specific load limits may be accomplished by use of the Weight Limit symbol sign (R12-5). A sign containing the legend WEIGHT LIMIT on the top two lines, and showing three different truck symbols and their respective weight limits for which restrictions apply may be used, with the weight limits shown to the right of each symbol as XX T. A bottom line of legend stating GROSS WT may be included if needed for enforcement purposes.

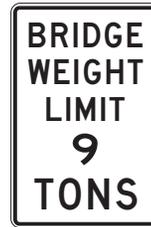
STANDARD:

If used, the Weight Limit sign shall be located in advance of the applicable section of highway or structure.

If used, the Bridge Weight Limit sign (R12-5) shall be installed on or immediately in advance of bridges or bridge structures where it is necessary to limit the load permitted on that structure. The proper weights to display on the sign shall be based on an engineering study.

GUIDANCE:

If used, the Weight Limit sign with an advisory distance ahead legend should be placed at approach road intersections or other points where prohibited vehicles can detour or turn around.



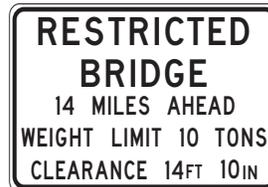
R12-1A
600 x 900 mm
24" x 36"



**R12-5
Supplements**
750 x 225 mm
30" x 9"



R12-X2
1500 x 900 mm
60" x 36"



R12-X4
1500 x 1050 mm
60" x 42"



R12-X4A
1500 x 900 mm
60" x 36"

STANDARD:

These signs shall be installed in advance of bridges or structures where it is necessary to limit the weight permitted on the bridge or structure and/or to show the clearance available on or below the bridge or structure:

1. BRIDGE WEIGHT LIMIT (x) TONS (R12-1A)
2. BRIDGE - WEIGHT LIMIT (w/symbols) - xx MILES (R12-5 Supplement)
3. RESTRICTED BRIDGE (xx) MILES AHEAD WEIGHT LIMIT (X) TONS (R12-X4)

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- 4. RESTRICTED BRIDGE (xx) MILES AHEAD WEIGHT LIMIT (X) TONS - CLEARANCE (xx) FT. (XX) IN. (R12-X4)
- 5. RESTRICTED BRIDGE (xx) MILES AHEAD CLEARANCE (xx) FT. (xx) IN. (R12-X4A)

The weights to display on the sign shall be the same weights displayed on the Bridge Weight Limit sign (see Section 2B.49).

GUIDANCE:

These signs should be placed at the nearest intersecting roadway where a motorist can detour around the restriction or at wide point in the roadway so that the motorist can turn around to avoid the restriction.

STANDARD:

When a bridge is restricted for specific load limits, the Weight Limit symbol sign (R12-5) shall be installed immediately in advance of the bridge.

The R12-5 Supplement combination sign consists of a BRIDGE plaque installed above and a (xx) MILES plaque installed below the Weight Limit symbol sign to present a message to the motorist that is consistent with the advance warning sign assembly.

Both plaques shall have a black legend on a yellow reflectorized background. The plaques lengths shall match that of the Weight Limit symbol sign.

When a restriction on a bridge applies to the gross load of a vehicle, the BRIDGE WEIGHT LIMIT sign (R12-1A) shall be installed immediately in advance of the bridge. If an advance warning sign is to be used, the (xx) MILES plaque of the R12-5 Supplement sign combination shall be installed below the R12-1A sign. The plaque shall have a black legend on a yellow reflectorized background and shall match the length of the R12-1A sign.



R12-X3
900 x 600 mm
36" x 24"



R12-X3A
1050 x 600 mm
42" x 24"

GUIDANCE:

The TRUCKS MUST NOT MEET ON BRIDGE sign (R12-X3) should be installed on two-way roadways in advance of bridges or structures:

- 1. Where the clear opening width is greater than 5.5 m (18 feet) and less than 6 m (20 feet), the approach

alignment is poor and the structure type is such that commercial vehicles cannot pass safely on the structure, or

- 2. Where a restriction on the meeting or passing of commercial vehicles would provide increased load capacity upon the structure.

The VEHICLES MUST NOT MEET ON BRIDGE sign (R12-X3A) should be installed on two-way roadways in advance of one-lane bridges or structures where the clear opening width is 5.5 m (18 feet) or less. The WEIGHT RESTRICTION AHEAD sign (W14-X3) should be installed in advance of the bridge weight limit signs.

2B.50 Weigh Station Signs (R13 Series)



R13-1a
1800 x 1200 mm
72" x 48"

GUIDANCE:

An ALL TRUCKS/COMMERCIAL VEHICLES NEXT RIGHT (R13-1) sign should be used to direct appropriate traffic into a weigh station.

The R13-1 sign should be supplemented by the D8 series of guide signs (see Section 2D.44).

OPTION:

The reverse color combination, a white legend and border on a black background, may be used for the R13-1 sign.

2B.51 Truck Route Sign (R14-1)



R14-1
600 x 450 mm
24" x 18"



M4-4
600 x 300 mm
24" x 12"

GUIDANCE:

The TRUCK ROUTE (R14-1) sign should be used to mark a route that has been designated to allow truck traffic.

OPTION:

On a numbered highway, the TRUCK auxiliary (M4-4) sign may be used (see Section 2D.20).

**2B.52 Hazardous Material Signs
(R14-2, R14-3)**



R14-2
600 x 600 mm
24" x 24"



R14-3
600 x 600 mm
24" x 24"

OPTION:

The Hazardous Material Route (R14-2) sign may be used to identify routes that have been designated by proper authority for vehicles transporting hazardous material.

On routes where the transporting of hazardous material is prohibited, the Hazardous Material Prohibition (R14-3) sign may be used.

GUIDANCE:

If used, the Hazardous Material Prohibition sign should be installed on a street or roadway at a point where vehicles transporting hazardous cargo have the opportunity to take an alternate route.

Compliance Date: December 22, 2013

**2B.53 National Network Signs
(R14-4, R14-5)**



R14-4
600 x 600 mm
24" x 24"



R14-5
600 x 600 mm
24" x 24"

SUPPORT:

The signing of the National Network routes for trucking is optional.

STANDARD:

When a National Network route is signed, the National Network (R14-4) sign shall be used.

OPTION:

The National Network Prohibition (R14-5) sign may be used to identify routes, portions of routes, and ramps where trucks are prohibited. The R14-5 sign may also be used to mark the ends of designated routes.

2B.54 Other Regulatory Signs



R16-X6
750 x 750 mm
30" x 30"



R16-X10
450 x 600 mm
18" x 24"



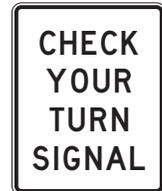
R16-X12
450 x 450 mm
18" x 18"



R16-X8
750 x 450 mm
30" x 18"



R16-X13
600 x 600 mm
24" x 24"



R16-X33
600 x 750 mm
24" x 30"

OPTION:

Regulatory word message signs other than those classified and specified in this Manual, the Mn/DOT "Standard Signs Manual" (see Map & Manual Sales Unit, page ii) and the Federal "Standard Highways Sign" book (see Government Printing Office, page ii) may be developed to aid the enforcement of other laws or regulations.

Except for symbols on regulatory signs, minor modifications in the design may be permitted provided that the essential appearance characteristics are met.

STANDARD:

When a seat belt symbol is used, the R16-1 symbol shall be used.

GUIDANCE:

The seat belt symbol should not be used alone but in connection with mandatory seat belt regulatory messages.

The Seat Belts Fastened sign (R16-X12) should be used wherever it is determined that the need exists to remind motorists to fasten their seat belts.

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**2B.55 State Law Signs
(R16-X1, X2, X3, X9, X11, and X12)**

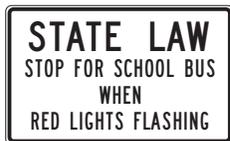
GUIDANCE:

These signs should be installed along State Highways following the State Entrance signs.

Their intent is to inform motorists entering into Minnesota of some of the common motor vehicle laws.

These signs include:

1. STATE LAW STOP FOR SCHOOL BUS WHEN RED LIGHTS FLASHING (R16-X1)
2. STATE LAW TRUCKS AND VEHICLES MUST MAINTAIN 500 FOOT INTERVAL (R16-X2)
3. UP TO \$700 FINE FOR LITTERING HIGHWAY (R16-X3)
4. STATE LAW UNLAWFUL TO PASS ON SHOULDER (R16-X9)
5. STATE LAW SEAT BELT USE REQUIRED (R16-X11)



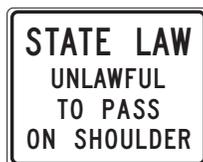
R16-X1
1800 x 1200 mm
72" x 48"



R16-X2
1950 x 1200 mm
78" x 48"



R16-X3
1200 x 750 mm
48" x 30"



R16-X9
1500 x 1200 mm
60" x 48"



R16-X11
1800 x 900 mm
72" x 36"

**2B.56 Stop for Pedestrian in Crosswalk
(R1-X1)**



R1-X1
600 x 750 mm
24" x 30"

OPTION:

The STOP FOR PEDESTRIAN IN CROSSWALK sign may be used at locations with significant vehicle/pedestrian conflicts. These locations include unmarked pedestrian crosswalks at intersections and all marked pedestrian crosswalks. When used, it should be installed in a conspicuous location in advance of the crosswalk to remind motorists of the law (Minnesota Statutes, section 169).

GUIDANCE:

The need for this type of sign should be determined by an engineering study.