

CHAPTER 2B. REGULATORY SIGNS

Section 2B.01 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.08).

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

Section 2B.02 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-3 and 2A-4, respectively. Exceptions are specifically noted in the following Sections.

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

Section 2B.03 Size of Regulatory Signs

Support:

The "Standard Highway Signs" book contains sign sizes and letter heights for regulatory signs used on conventional roads, expressways, freeways, low-volume roads, and under special conditions.

Standard:

The sizes for regulatory signs shall be as shown in Table 2B-1.

Table 2B-1. Regulatory Sign Sizes (Sheet 1 of 4)

Sign	MUTCD Code	Section	Conventional Roads	Expressways	Freeways	Minimum	Oversized
Stop	R1-1	2B.04	750 x 750 (30 x 30)	900 x 900 (36 x 36)	—	600 x 600 (24 x 24)	1200 x 1200 (48 x 48)
Yield	R1-2	2B.08	900 x 900 x 900 (36 x 36 x 36)	1200 x 1200 x 1200 (48 x 48 x 48)	1500 x 1500 x 1500 (60 x 60 x 60)	750 x 750 x 750 (30 x 30 x 30)	—
4-Way	R1-3	2B.04	300 x 150 (12 x 6)	—	—	—	—
All Way	R1-4	2B.04	450 x 150 (18 x 6)	—	—	—	—
Speed Limit	R2-1	2B.11	600 x 750 (24 x 30)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	—	—
Truck Speed Limit	R2-2	2B.12	600 x 600 (24 x 24)	900 x 900 (36 x 36)	1200 x 1200 (48 x 48)	—	—
Night Speed Limit	R2-3	2B.13	600 x 600 (24 x 24)	900 x 900 (36 x 36)	1200 x 1200 (48 x 48)	—	—
Minimum Speed Limit	R2-4	2B.14	600 x 750 (24 x 30)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	—	—
Combined Speed Limit	R2-4a	2B.14	600 x 1200 (24 x 48)	900 x 1800 (36 x 72)	1200 x 2400 (48 x 96)	—	—
Reduced Speed Ahead	R2-5 series	2B.16	600 x 750 (24 x 30)	—	—	—	—
Turn Prohibition	R3-1,2,3,4	2B.17	600 x 600 (24 x 24)	900 x 900 (36 x 36)	—	—	1200 x 1200 (48 x 48)
Mandatory Movement Lane Control	R3-5 series	2B.19	750 x 900 (30 x 36)	—	—	—	—
Optional Movement Lane Control	R3-6	2B.20	750 x 900 (30 x 36)	—	—	—	—
Mandatory Movement Lane Control	R3-7	2B.19	750 x 750 (30 x 30)	—	—	—	—
Advance Intersection Lane Control	R3-8,8a,8b	2B.21	variable x 750 (variable x 30)	—	—	—	—
Two-Way Left Turn Only (overhead mounted)	R3-9a	2B.22	750 x 900 (30 x 36)	—	—	—	—
Two-Way Left Turn Only (ground mounted)	R3-9b	2B.22	600 x 900 (24 x 36)	—	—	—	900 x 1200 (36 x 48)
Reversible Lane Control (symbol)	R3-9c,9d	2B.23	2700 x 1200 (108 x 48)	—	—	—	—
Reversible Lane Control	R3-9e	2B.23	3000 x 1500 (120 x 60)	—	—	—	—
Reversible Lane Control (ground mounted)	R3-9f	2B.23	750 x 1050 (30 x 42)	—	—	—	—
Advance Reversible Lane Control Transition Signing	R3-9g,9h	2B.23	2700 x 900 (108 x 36)	—	—	—	—
End Reverse Lane	R3-9i	2B.23	2700 x 1200 (108 x 48)	—	—	—	—
HOV 2+ Lane Ahead (ground mounted)	R3-10 series	2B.48	750 x 1050 (30 x 42)	900 x 1500 (36 x 60)	1200 x 1100 (48 x 84)	—	—
Center Lane HOV 2+ Only (post mounted)	R3-11 series	2B.48	750 x 1050 (30 x 42)	—	1400 x 1100 (54 x 84)	—	—
HOV 2+ Lane Ends (post mounted)	R3-12	2B.48	750 x 1050 (30 x 42)	900 x 1500 (36 x 60)	1200 x 1100 (48 x 84)	—	—
HOV 2+ Lane Ahead (overhead mounted)	R3-13	2B.48	1650 x 900 (66 x 36)	2100 x 1200 (84 x 48)	2550 x 1500 (102 x 60)	—	—
HOV 2+ Only (overhead mounted)	R3-14 series	2B.48	1800 x 1500 (72 x 60)	2400 x 1800 (96 x 72)	2700 x 1100 (108 x 84)	—	—
HOV 2+ Lane Ends (overhead mounted)	R3-15	2B.48	1650 x 900 (66 x 36)	2100 x 1200 (84 x 48)	2550 x 1500 (102 x 60)	—	—

Table 2B-1. Regulatory Sign Sizes (Sheet 2 of 4)

Sign	MUTCD Code	Section	Conventional Roads	Expressways	Freeways	Minimum	Oversized
Bicycle Lane Ahead (symbol)	R3-16	9B.04	600 x 750 (24 x 30)	—	—	—	—
Bicycle Lane Ends (symbol)	R3-16a	9B.04	600 x 750 (24 x 30)	—	—	—	—
Right Lane Bicycle Only (symbol)	R3-17	9B.04	600 x 750 (24 x 30)	—	—	—	—
Bicycle Lane with Vehicle Parking (symbol)	R3-17a	9B.04	600 x 750 (24 x 30)	—	—	—	—
Do Not Pass	R4-1	2B.24	600 x 750 (24 x 30)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	450 x 600 (18 x 24)	—
Pass With Care	R4-2	2B.25	600 x 750 (24 x 30)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	450 x 600 (18 x 24)	—
Slower Traffic Keep Right	R4-3	2B.26	600 x 750 (24 x 30)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	—	—
Trucks Use Right Lane	R4-5	2B.27	600 x 750 (24 x 30)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	—	—
Truck Lane 500 Feet	R4-6	2B.27	600 x 750 (24 x 30)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	—	—
Keep Right	R4-7,7a,7b	2B.28	600 x 750 (24 x 30)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	450 x 600 (18 x 24)	—
Keep Left	R4-8	2B.28	600 x 750 (24 x 30)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	450 x 600 (18 x 24)	—
Do Not Enter	R5-1	2B.29	750 x 750 (30 x 30)	900 x 900 (36 x 36)	1200 x 1200 (48 x 48)	—	—
Wrong Way	R5-1a	2B.30	900 x 600 (36 x 24)	900 x 600 (36 x 24)	1050 x 750 (42 x 30)	—	—
No Trucks	R5-2	2B.31	600 x 600 (24 x 24)	750 x 750 (30 x 30)	900 x 900 (36 x 36)	—	1200 x 1200 (48 x 48)
Motor Vehicle Prohibition	R5-3	2B.31	600 x 600 (24 x 24)	—	—	—	—
Commercial Vehicles Excluded	R5-4	2B.31	600 x 750 (24 x 30)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	—	—
Vehicles with Lugs Prohibited	R5-5	2B.31	600 x 750 (24 x 24)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	—	—
No Bicycles	R5-6	2B.31	600 x 600 (24 x 24)	750 x 750 (30 x 30)	900 x 900 (36 x 36)	—	1200 x 1200 (48 x 48)
Non-Motorized Traffic Prohibited	R5-7	2B.31	750 x 600 (30 x 24)	1050 x 600 (42 x 24)	1200 x 750 (48 x 30)	—	—
Motor Driven Cycles Prohibited	R5-8	2B.31	750 x 600 (30 x 24)	1050 x 600 (42 x 24)	1200 x 750 (48 x 30)	—	—
Pedestrians, Bicycles, Motor Driven Cycles Prohibited	R5-10a	2B.31	750 x 900 (30 x 36)	—	—	—	—
Pedestrians and Bicycles Prohibited	R5-10b	2B.31	750 x 450 (30 x 18)	—	—	—	—
Pedestrians Prohibited	R5-10c	2B.31	600 x 300 (24 x 12)	—	—	—	—
One Way	R6-1	2B.32	900 x 300 (36 x 12)	—	—	—	—
One Way	R6-2	2B.32	450 x 600 (18 x 24)	—	—	—	600 x 750 (24 x 30)
Divided Highway Crossing	R6-3,3a	2B.33	600 x 450 (24 x 18)	—	—	—	—
No Parking	R7-1,2,2a,3,4,5,6,7,8,8a,9,9a,107,108	2B.34	300 x 450 (12 x 18)	—	—	—	—
No Parking (with transit logo)	R7-107a	2B.34	300 x 750 (12 x 30)	—	—	—	—

Table 2B-1. Regulatory Sign Sizes (Sheet 3 of 4)

Sign	MUTCD Code	Section	Conventional Roads	Expressways	Freeways	Minimum	Oversized
No Parking / Restricted Parking (combined sign)	R7-200	2B.34	500 x 450 (20 x 18)	—	—	—	—
Tow Away Zone	R7-201,201a	2B.34	300 x 150 (12 x 6)	—	—	—	—
This Side of Sign	R7-202	2B.34	300 x 165 (12 x 6.5)	—	—	—	—
No Parking on Pavement	R8-1	2B.34	600 x 750 (24 x 30)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	—	—
No Parking Except on Shoulder	R8-2	2B.34	600 x 750 (24 x 30)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	—	—
No Parking	R8-3	2B.34	600 x 750 (24 x 30)	900 x 900 (36 x 36)	1200 x 1200 (48 x 48)	450 x 600 (18 x 24)	—
No Parking (symbol)	R8-3a	2B.34	600 x 600 (24 x 24)	900 x 900 (36 x 36)	1200 x 1200 (48 x 48)	300 x 300 (12 x 12)	—
Emergency Parking Only	R8-4	2B.37	750 x 600 (30 x 24)	750 x 600 (30 x 24)	1200 x 900 (48 x 36)	—	—
No Stopping on Pavement	R8-5	2B.34	600 x 750 (24 x 30)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	—	—
No Stopping Except on Shoulder	R8-6	2B.34	600 x 750 (24 x 30)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	—	—
Emergency Stopping Only	R8-7	2B.37	750 x 600 (24 x 30)	1200 x 900 (48 x 36)	—	—	—
Do Not Stop on Tracks	R8-8	2B.37	750 x 600 (24 x 30)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	—	—
Walk on Left Facing Traffic	R9-1	2B.38	450 x 600 (18 x 24)	—	—	—	—
Cross Only At Crosswalks	R9-2	2B.39	300 x 450 (12 x 18)	—	—	—	—
Pedestrians Prohibited	R9-3	2B.39	300 x 450 (12 x 18)	—	—	—	—
Pedestrian Prohibition (symbol)	R9-3a	2B.39	450 x 450 (18 x 18)	600 x 600 (24 x 24)	750 x 750 (30 x 30)	—	—
Use Crosswalk	R9-3b	2B.39	450 x 300 (18 x 12)	—	—	—	—
No Hitch Hiking	R9-4	2B.38	450 x 600 (18 x 24)	—	—	450 x 450 (18 x 18)	—
Hitch Hiking Prohibition (symbol)	R9-4a	2B.38	450 x 450 (18 x 18)	—	—	—	—
Bicyclists (symbol) Use Ped Signal	R9-5	9B.09	300 x 450 (12 x 18)	—	—	—	—
Bicyclists (symbol) Yield to Peds	R9-6	9B.09	300 x 450 (12 x 18)	—	—	—	—
Keep Left/Right to Pedestrians & Bicyclists (symbols) – Travel-path Restriction	R9-7	9B.10	300 x 450 (12 x 18)	—	—	—	—
Pedestrian Crosswalk	R9-8	6F.12	600 x 300 (24 x 12)	—	—	—	—
Sidewalk Closed	R9-9	6F.13	600 x 300 (24 x 12)	—	—	—	—
Sidewalk Closed, Use Other Side	R9-10	6F.13	600 x 300 (24 x 12)	—	—	—	—
Sidewalk Closed Ahead, Cross Here	R9-11	6F.13	600 x 300 (24 x 12)	—	—	—	—
Pedestrian Traffic Signal Signs	R10-1	2B.40	300 x 450 (12 x 18)	—	—	—	—

Table 2B-1. Regulatory Sign Sizes (Sheet 4 of 4)

Sign	MUTCD Code	Section	Conventional Roads	Expressways	Freeways	Minimum	Oversized
Pedestrian Traffic Signal Signs	R10-2, 2a,3,3a,3b 3c,4,4a,4b	2B.40	225 x 300 (9 x 12)	—	—	—	—
Left on Green Arrow Only	R10-5	2B.40	600 x 750 (24 x 30)	—	—	—	1200 x 1500 (48 x 60)
Stop Here on Red	R10-6,6a	2B.40	600 x 900 (24 x 36)	—	—	600 x 750 (24 x 30)	—
Do Not Block Intersection	10-7	2B.40	600 x 750 (24 x 30)	—	—	—	—
Use Lane With Green Arrow	R10-8	2B.40	600 x 750 (24 x 30)	900 x 1050 (36 x 42)	—	—	1500 x 1800 (60 x 72)
Left (Right) Turn Signal	R10-10	2B.40	600 x 750 (24 x 30)	—	—	—	—
No Turn on Red	R10-11a, 11c,11d	2B.40	600 x 750 (24 x 30)	—	—	—	1200 x 1200 (48 x 48)
No Turn on Red	R10-11b	2B.40	600 x 600 (24 x 24)	—	—	—	750 x 750 (30 x 30)
Left Turn Yield On (symbolic green ball)	R10-12	2B.40	600 x 750 (24 x 30)	—	—	—	—
Emergency Signal	R10-13	2B.40	900 x 600 (36 x 24)	—	—	—	—
Keep Off Median	R11-1	2B.41	600 x 750 (24 x 30)	—	—	—	—
Road Closed	R11-2	2B.42	1200 x 750 (48 x 30)	—	—	—	—
Road Closed - Local Traffic Only	R11-3a,3b,4	2B.42	1500 x 750 (60 x 30)	—	—	—	—
Weight Limit	R12-1,2	2B.43	600 x 750 (24 x 30)	—	—	—	900 x 1200 (36 x 48)
Weight Limit	R12-3	2B.43	600 x 900 (24 x 36)	—	—	—	—
Weight Limit	R12-4	2B.43	750 x 600 (30 x 24)	—	—	—	—
Weight Limit	R12-5	2B.43	600 x 900 (24 x 36)	900 x 1200 (36 x 48)	1200 x 1500 (48 x 60)	—	—
Weigh Station	R13-1	2B.44	1800 x 1200 (72 x 48)	2400 x 1650 (96 x 66)	3000 x 1100 (120 x 84)	—	—
Truck Route	R14-1	2B.45	600 x 450 (24 x 18)	—	—	—	—
Hazardous Cargo	R14-2,3	2B.46	600 x 600 (24 x 24)	750 x 750 (30 x 30)	900 x 900 (36 x 36)	—	1050 x 1050 (42 x 42)
National Network	R14-4,5	2B.47	600 x 600 (24 x 24)	750 x 750 (30 x 30)	900 x 900 (36 x 36)	—	1050 x 1050 (42 x 42)
Seat Belt Symbol	R16-1	2B.51	375 x 500 (15 x 20)	—	—	—	—

- Notes: 1. Larger signs may be used when appropriate
2. Dimensions are shown in millimeters followed by inches in parentheses and are shown as width x height

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 that require increased emphasis, improved recognition, or increased legibility.

Section 2B.04 STOP Sign (R1-1)**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.07), a supplemental plaque (R1-3 or R1-4) shall be mounted below each STOP sign.

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.05.



R1-1



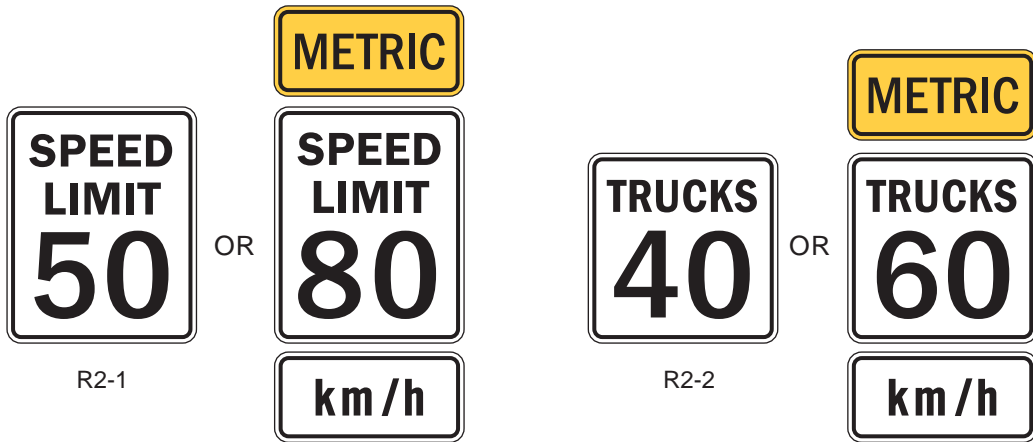
R1-3



R1-4

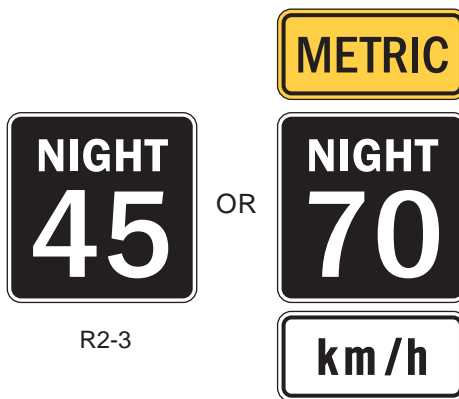


R1-2



R2-1

R2-2



R2-3

Section 2B.05 STOP Sign Applications**Guidance:**

STOP signs should not be used unless 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 reasonably safe operation.
- B. Street entering a through highway or street.
- C. Unsignalized intersection in a signalized area.
- D. High speeds, restricted view, or crash records indicate a need for control by the STOP sign.

Standard:

STOP signs shall not be installed at intersections where traffic control signals are installed and operating because the potential for conflicting commands could create driver confusion.

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.08).

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; and
- C. Stopping the direction that has the longest distance of uninterrupted flow approaching the intersection.
- 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.07.

Section 2B.06 STOP Sign Placement**Standard:**

The STOP sign shall be installed on the right side of the traffic 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.26) 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:

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 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 some typical placements of STOP signs.

Section 2B.07 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.05 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 five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right- 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 65 km/h (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 safely negotiate the intersection unless conflicting cross traffic is also required to stop.
- D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.

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

Standard:

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.

Section 2B.09 YIELD Sign Applications

Option:

YIELD signs may be installed:

- 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 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.

Section 2B.10 YIELD Sign Placement

Standard:

The YIELD sign shall be installed on the right side of the traffic lane to which it applies. When the YIELD sign is installed at this required location and the sign visibility is restricted, a Yield Ahead sign (see Section 2C.26) 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:

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.

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.

Section 2B.11 Speed Limit Sign (R2-1)**Standard:**

After an engineering study has been made in accordance with established traffic engineering practices, 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).

If a metric speed limit is displayed, the METRIC supplemental plaque shall be placed above the sign and the km/h supplemental plaque shall be placed below.

Support:

The METRIC supplemental plaque, which has a yellow background with a black legend and border, indicates to road users that the metric system is being used.

Guidance:

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

When a speed limit is to be posted, it should be the 85th-percentile speed of free-flowing traffic, rounded up to the nearest 10 km/h (5 mph) increment.

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.
- 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.

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

Support:

Advisory Speed signs are discussed in Sections 2C.33 and 2C.42 and Temporary Traffic Control Zone Speed signs are discussed in Part 6.

Section 2B.12 Truck Speed Limit Sign (R2-2)

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 standard legend.

Section 2B.13 Night Speed Limit Sign (R2-3)

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:

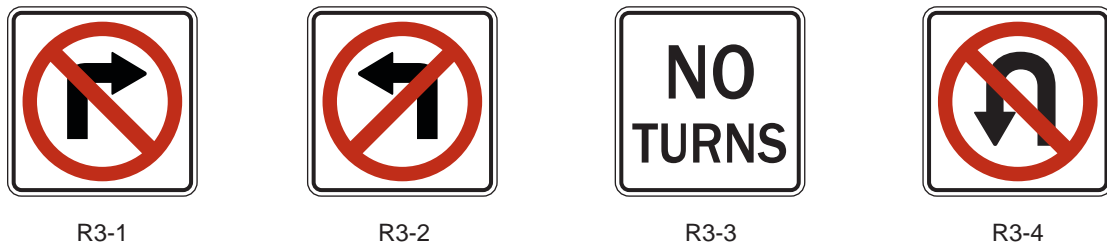
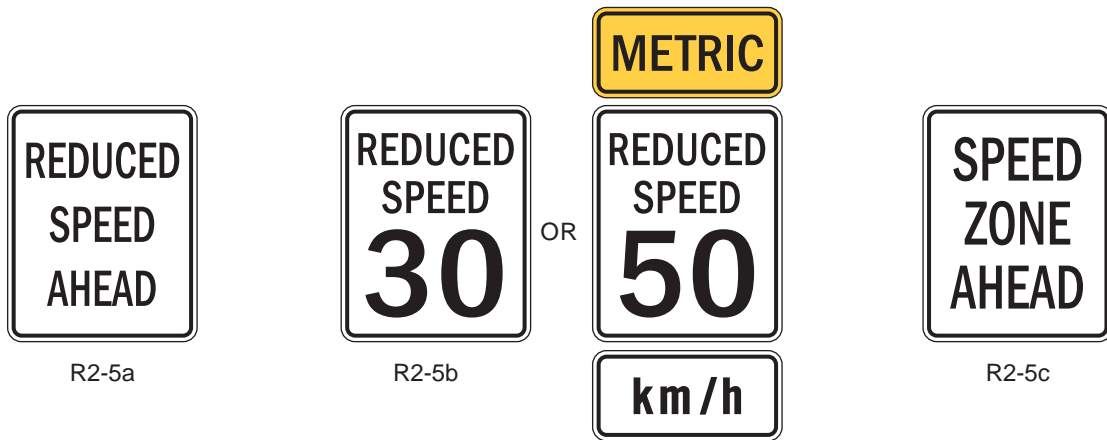
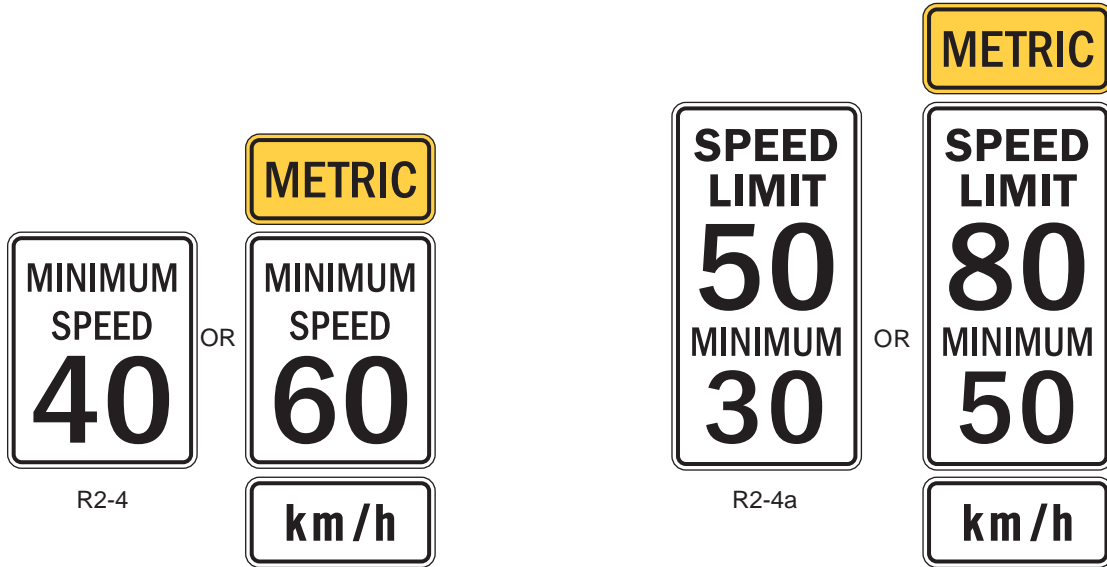
Posting day and night speed limits may be done in any of the following ways:

- A. A Night Speed Limit sign may be combined with or installed below the standard Speed Limit (R2-1) sign.
- B. A changeable message sign may be used for day/night speed limits provided that the appropriate speed limit is shown at the proper times.

Section 2B.14 Minimum Speed Limit Sign (R2-4)

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 R2-4a sign.

Section 2B.15 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.

Section 2B.16 Reduced Speed Ahead Signs (R2-5 Series)

Guidance:

The Reduced Speed Ahead (R2-5 series) signs should be used to inform road users of a reduced speed zone when engineering judgment indicates the need for advance notice to comply with the speed limit posted ahead.

Guidance:

This sign should not be used in urban areas where speeds are relatively low.

Standard:

The Reduced Speed Ahead (R2-5 series) signs shall be followed by a Speed Limit (R2-1) sign installed at the beginning of the zone where the speed limit applies.

Option:

The following methods may be used to provide road users with advance notice of a change in the speed limit:

- A. Any of the R2-5 series of signs may be displayed.
- B. An assembly consisting of the Speed Limit (R2-1) sign with a supplemental legend plaque BEGIN mounted above the R2-1 sign and a supplemental distance plaque, such as 1/6 km or 1/4 mi, mounted below the R2-1 sign may be displayed.

Guidance:

When used with Speed Limit assemblies, the supplemental plaques should have a white background with a black legend and border, except for the METRIC plaque (see Section 2B.11).

Section 2B.17 Turn Prohibition Signs (R3-1 through R3-4)

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 a 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 used 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) 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.32).

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.

Section 2B.18 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:

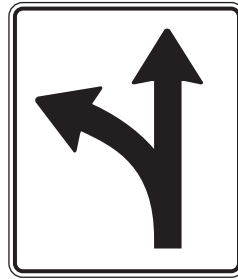
- A. Mandatory Movement Lane Control (R3-5, R3-5a, and R3-7) signs**
- B. Optional Movement Lane Control (R3-6) sign**
- C. Advance Intersection Lane Control (R3-8 series) signs**



R3-5



R3-5a



R3-6



R3-7



R3-5b
Supplemental Plaque



*R3-5c
Supplemental Plaque

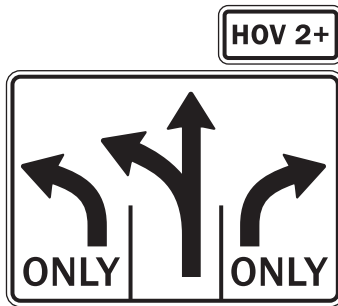


R3-5d
Supplemental Plaque

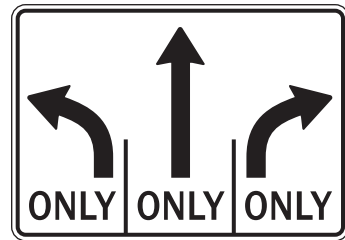
* - The diamond symbol may be used instead of the word message "HOV."
The minimum vehicle occupancy level may vary, such as 2+, 3+, 4+.
The words "LANE" or "ONLY" may be used with this sign when appropriate.



R3-8



R3-8a



R3-8b

Guidance:

When used, Intersection Lane Control signs should be mounted overhead, and each sign should be placed over 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.

Section 2B.19 Mandatory Movement Lane Control Signs (R3-5, R3-5a, and R3-7)**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:

If used, Mandatory Movement Lane Control signs should be accompanied by lane control pavement 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.

Section 2B.20 Optional Movement Lane Control Sign (R3-6)**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 at 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.

Section 2B.21 Advance Intersection Lane Control Signs (R3-8 Series)**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.

Section 2B.22 Two-Way Left Turn Only Signs (R3-9a, R3-9b)**Guidance:**

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

Option:

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 peripheral streets with two-way left turn only lanes leading to an extensive system of routes with two-way left turn only lanes.



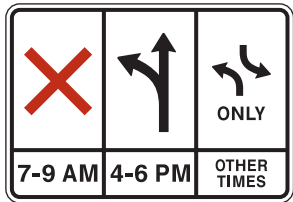
R3-9a



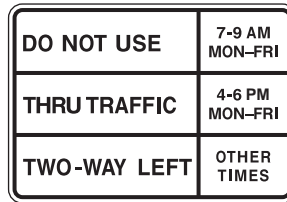
R3-9b



R3-9c



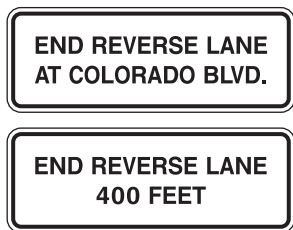
R3-9d



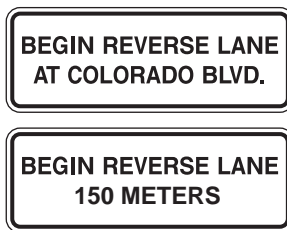
R3-9e



R3-9f



R3-9g



R3-9h



R3-9i

Section 2B.23 Reversible Lane Control Signs (R3-9c through R3-9i)**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-1).

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 sign operation 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 R3-9c and R3-9d signs where the color red is used.

Symbol signs, such as the R3-9c or R3-9d signs, shall consist of the appropriate symbol in the upper portion of the sign with the appropriate times of the day and

Figure 2B-1. Location of Reversible Two-Way Left-Turn Signs

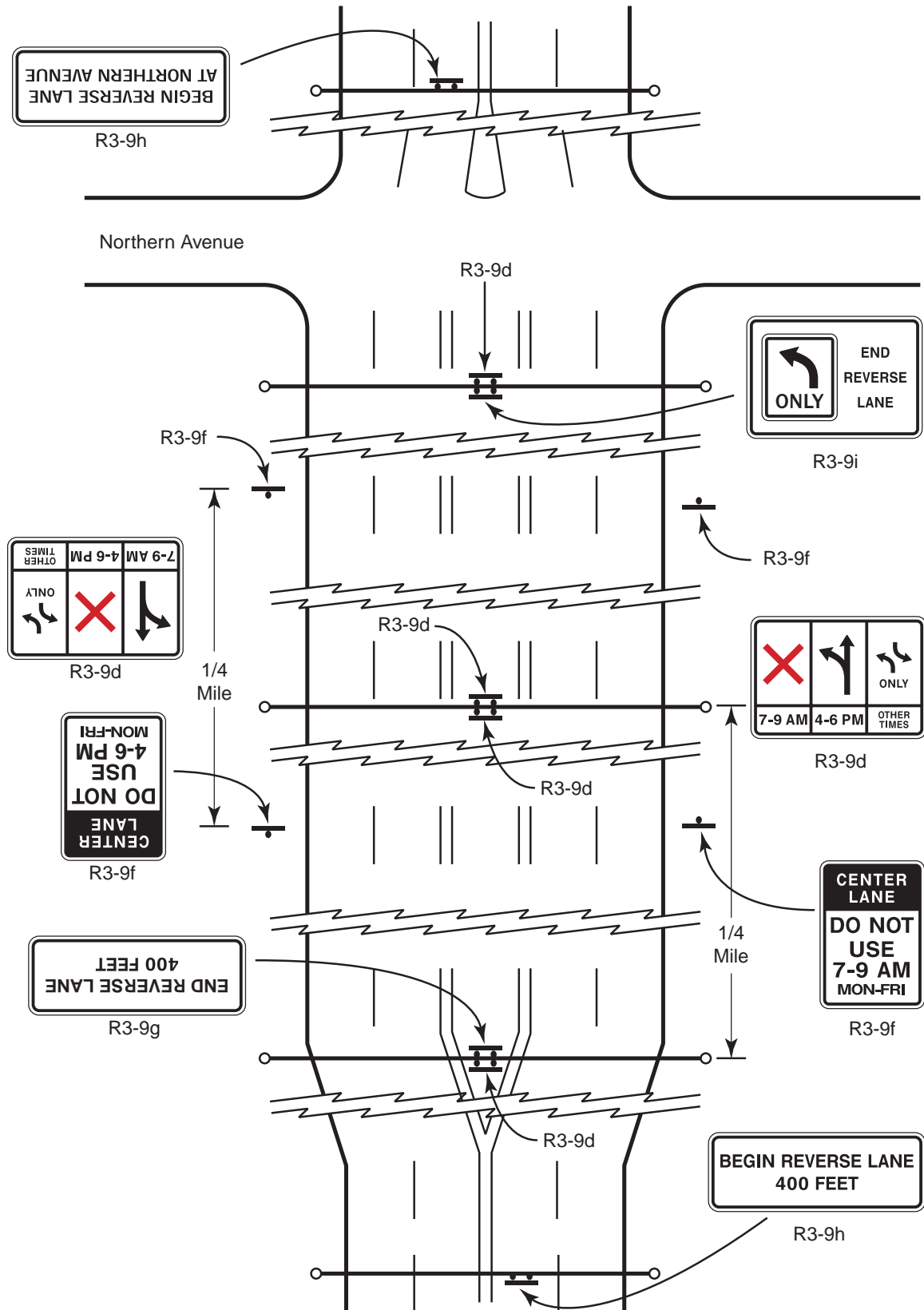


Table 2B-2. Meanings of Symbols and Legends on Reversible Lane Control Signs

Symbol / Word Message	Meaning
Red X on white background or symbolic DO NOT ENTER sign.	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 thru travel and any turns not otherwise prohibited.
Black two-way left turn arrows on white background and legend ONLY.	Lane may be used only for left turns in either direction (i.e. as a two-way left turn lane).
Black single left turn arrow on white background and legend ONLY.	Lane may be used only for left turns in one direction (without opposing left turns in the same lane).

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 or R3-9e signs, 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.

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 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 1.6 KM (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 60 km/h (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.

Section 2B.24 DO NOT PASS Sign (R4-1)

Option:

The DO NOT PASS (R4-1) sign may be used in addition to pavement markings (see Section 3B.02) 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.

If signing is needed on the left side of the roadway for additional emphasis, NO PASSING ZONE (W14-3) signs may be used (see Section 2C.32).

Support:

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

Section 2B.25 PASS WITH CARE Sign (R4-2)

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.

Section 2B.26 SLOWER TRAFFIC KEEP RIGHT Sign (R4-3)

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.



R4-1



R4-2



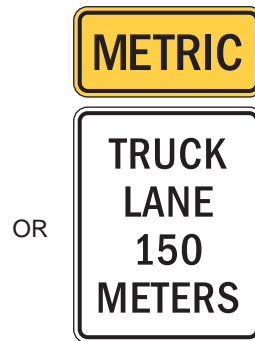
R4-3



R4-5



R4-6



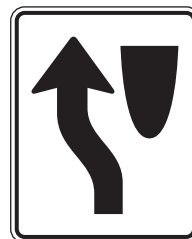
R4-7



R4-7a



R4-7b



R4-8

Section 2B.27 Slow Moving Traffic Lane Signs (R4-5, R4-6)**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.09 and Figure 3B-12).

Section 2B.28 Keep Right and Keep Left Signs (R4-7, R4-8)**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.

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.

Option:

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

The word message KEEP RIGHT (LEFT) with an arrow (R4-7a or R4-7b) may be used instead of the R4-7 symbol sign.

Where appropriate, a Keep Left (R4-8) symbol sign may be used.

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

Section 2B.29 DO NOT ENTER Sign (R5-1)

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 at the point where a road user could wrongly enter a one-way roadway or ramp. 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 Figures 2A-3 and 2B-2).

Section 2B.30 WRONG WAY Sign (R5-1a)

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 Figures 2A-3 and 2B-2).

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).



R5-1



R5-1a



R5-2



R5-3



R5-4



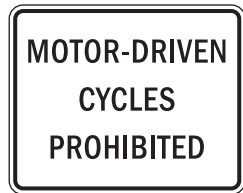
R5-5



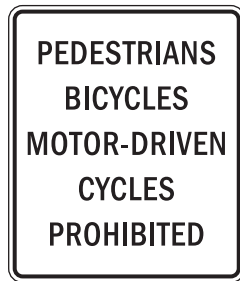
R5-6



R5-7



R5-8



R5-10a

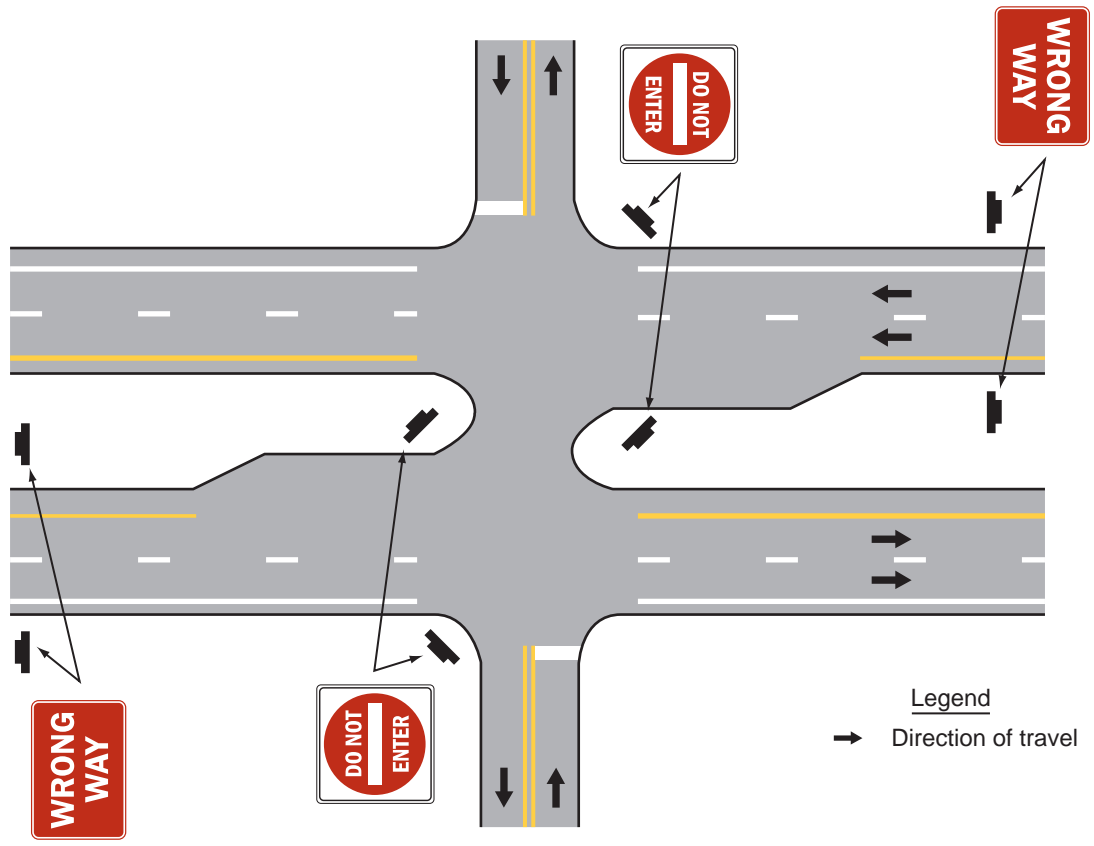


R5-10b



R5-10c

Figure 2B-2. Typical Wrong-Way Signing for Divided Highways



Section 2B.31 Selective Exclusion Signs

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:

No Trucks (R5-2),
NO MOTOR VEHICLES (R5-3),
COMMERCIAL VEHICLES EXCLUDED (R5-4),
TRUCKS (VEHICLES) WITH LUGS PROHIBITED (R5-5),
No Bicycles (R5-6),
NON-MOTORIZED TRAFFIC PROHIBITED (R5-7),
MOTOR-DRIVEN CYCLES PROHIBITED (R5-8), and
Hazardous Cargo Prohibited (R14-3).

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.

Guidance:

If an exclusion is governed by vehicle weight, a Weight Limit sign (see Section 2B.43) 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 or 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 word message NO TRUCKS may be used as an alternate to the No Trucks (R5-2) symbol sign.

The PEDESTRIAN PROHIBITED (R5-10c or R9-3a) sign may also be used at underpasses or elsewhere where pedestrian facilities are not provided.

Section 2B.32 ONE WAY Signs (R6-1, R6-2)

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.

Guidance:

Where divided highways are separated by median widths of 9 m (30 ft) or more, ONE WAY signs (see Section 2B.32) should be placed and visible to each crossroad approach on the near right and far left corners of each intersection with the directional roadways as shown in Figures 2A-4 and 2A-5.

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 at intersections with divided highways that have median widths of less than 9 m (30 ft).

Support:

Figures 2A-3, 2A-4, 2A-5, and 2A-6 show examples of the application of ONE WAY signs.

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.



R6-1



R6-2



R6-3



R6-3a

Section 2B.33 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.

Section 2B.34 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. Typical examples of parking, stopping, and standing signs are as follows:

NO PARKING ANY TIME (R7-1),
 NO PARKING 8:30 AM to 5:30 PM (R7-2),
 NO PARKING EXCEPT SUNDAYS AND HOLIDAYS (R7-3),
 NO STANDING ANY TIME (R7-4),
 ONE HOUR PARKING 9 AM-7 PM (R7-5),
 NO PARKING LOADING ZONE (R7-6),
 NO PARKING BUS STOP (R7-7, R7-107, R7-107a),
 RESERVED PARKING for persons with disabilities (R7-8),
 NO PARKING ON PAVEMENT (R8-1),
 NO PARKING EXCEPT ON SHOULDER (R8-2),
 NO PARKING (R8-3),
 NO PARKING (R8-3a), and
 NO STOPPING ON PAVEMENT (R8-5).

Section 2B.35 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:



R7-1



R7-2



R7-2a



R7-3



R7-4



R7-5



R7-6



R7-7



R7-8



R7-107



R7-107a



R7-108



R7-201



R7-201a



R8-1



R8-2



R8-3



R8-3a



R8-4



R8-5



R8-6



R8-7



R8-3c
Supplemental Plaque



R8-3d
Supplemental Plaque

- A. The restriction or prohibition.
- B. The times of the day that it is applicable, if not at all hours.
- 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.

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 on a single 600 x 450 mm (24 x 18 in) sign, or on a single 300 x 900 mm (12 x 36 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.

Section 2B.36 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.

Section 2B.37 Emergency Restriction Signs (R8-4, R8-7, R8-8)

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.06).

Standard:

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

Section 2B.38 WALK ON LEFT FACING TRAFFIC and No Hitchhiking Signs (R9-1, R9-4, R9-4a)

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 should 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.

Section 2B.39 Pedestrian Crossing Signs (R9-2, R9-3)

Option:

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



R9-1



R9-2



R9-3a



R9-3b



R9-4



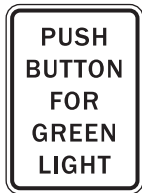
R9-4a



R10-1



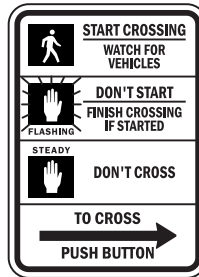
R10-2a



R10-3



R10-3a



R10-3b



R10-3c



R10-4



R10-4a



R10-4b



R10-5

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 jay-walking 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 PEDESTRIANS PROHIBITED (R9-3) word message sign may be used as an alternate to the R9-3a symbol sign. The 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.

Section 2B.40 Traffic Signal Signs (R10-1 through R10-13)

Option:

To supplement traffic signal control, Traffic Signal signs R10-1 through R10-13 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.07). 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).**

Option:

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

- A. TO CROSS STREET (arrow),
- B. PUSH BUTTON WAIT FOR GREEN LIGHT (R10-3a), and
- C. 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 plaque (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/DONT WALK may be substituted for the symbols on the educational plaque R10-3b, thus creating sign R10-3c. 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) for avoidance of traffic obstructions, USE LANE(S) WITH GREEN ARROW (R10-8) for obedience to Lane Control signals, and LEFT TURN YIELD ON GREEN (symbolic green ball) (R10-12).

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).

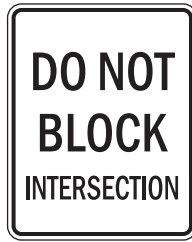
Guidance:

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:



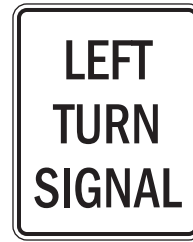
R10-6



R10-7



R10-8



R10-10



R10-11a



R10-11b



R10-11c



R10-11d



R10-12



R10-13

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

When right turn on red is permitted and pedestrian crosswalks are marked, the word message TURNING TRAFFIC MUST YIELD TO PEDESTRIANS should be used.

Option:

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

In situations where traffic signals are coordinated for progressive timing, the Traffic Signal Speed sign (I1-1) may be used (see Section 2D.46).

Standard:

The EMERGENCY SIGNAL (R10-13) sign shall be used in conjunction with emergency-vehicle traffic control signals (see Section 4F.02).

Section 2B.41 KEEP OFF MEDIAN Sign (R11-1)

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.



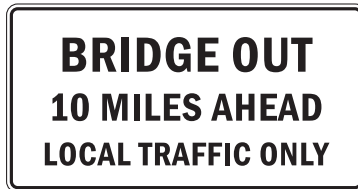
R11-1



R11-2



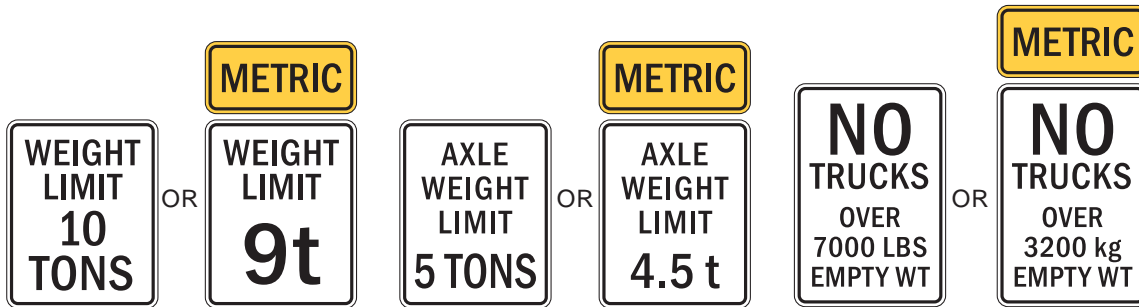
R11-3a



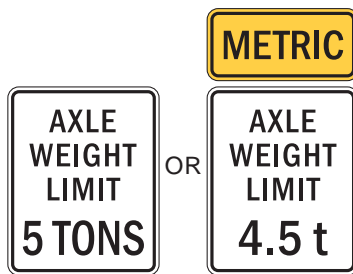
R11-3b



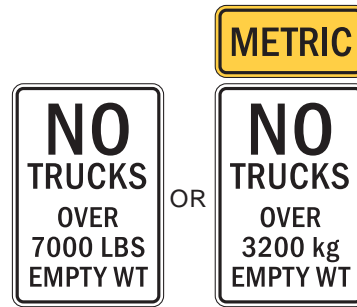
R11-4



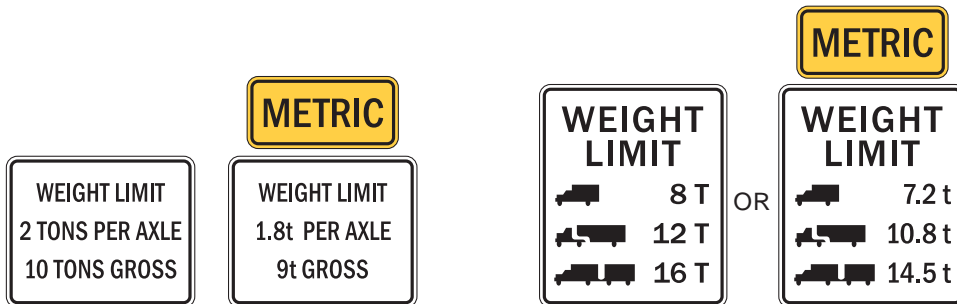
R12-1



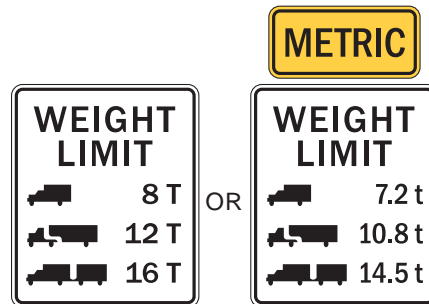
R12-2



R12-3



R12-4



R12-5

Section 2B.42 ROAD CLOSED Sign (R11-2) and LOCAL TRAFFIC ONLY Signs (R11-3 Series, R11-4)

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, 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.19).

Option:

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

Section 2B.43 Weight Limit Signs (R12-1 through R12-5)

Option:

The Weight Limit (R12-1) sign carrying the legend WEIGHT LIMIT X t (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 X t (XX TONS) or AXLE WEIGHT LIMIT XXXX kg (XXXX LBS) (R12-2).

To restrict trucks of certain sizes by reference to empty weight in residential districts, the legend may be NO TRUCKS OVER X t (XX TONS) EMPTY WT or NO TRUCKS OVER XXXX kg (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 X t (XX TONS) PER AXLE, X t (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 X t (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.

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.

Section 2B.44 Weigh Station Signs (R13 Series)

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.43).

Option:

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

Section 2B.45 Truck Route Sign (R14-1)

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 auxiliary TRUCK marker may be used (see Section 2D.20).



R13-1



R14-1



R14-2



R14-3



R14-4



14-5



R16-1

Section 2B.46 Hazardous Cargo Signs (R14-2, R14-3)**Option:**

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

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

Guidance:

If used, the Hazardous Cargo 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.

Section 2B.47 National Network Signs (R14-4, R14-5)**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.

Section 2B.48 Preferential Lane Signs (R3-10 through R3-17)**Support:**

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

GROUND-MOUNTED PREFERENTIAL LANE SIGNS



R3-10



R3-10a



R3-11a



R3-11b



R3-12



R3-12a

Note:

- The diamond symbol may be used instead of the word message HOV.
- The minimum vehicle occupancy requirement may vary for each facility (such as 2+, 3+, 4+).
- The occupancy requirement may be added to the first line of the R3-12, R3-12a, and R3-15a signs.

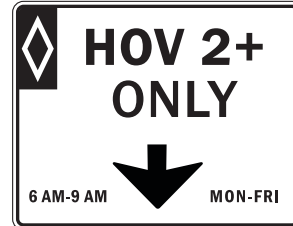
OVERHEAD PREFERENTIAL LANE SIGNS



R3-11



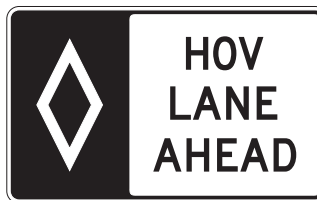
R3-13



R3-14



R3-14a



R3-15



R3-15a

GROUND-MOUNTED BICYCLE LANE SIGNS



R3-16



R3-16a



R3-17



R3-17a

Option:

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

Guidance:

Preferential 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 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.

Standard:

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

At the end of a preferential lane, a Lane Ends (R3-12a, R3-15a, or R3-16a) sign shall be used.

Guidance:

The R3-11 and R3-11a (ground-mounted) and R3-14 (overhead) signs should be used exclusively with preferential lanes for high-occupancy vehicles to indicate the particular vehicle occupancy requirement and time restrictions applying to that lane. The R3-11b (ground mounted) or R3-14a (overhead) word message signs should be used in situations where a preferential lane is not an HOV lane, but is designated exclusively for bus and/or taxi use.

When used, the R3-11, R3-11a, and R3-11b signs should be located adjacent to the preferential lane, and the R3-14 and R3-14a signs should be mounted directly over the lane.

The legend format of the ground-mounted High-Occupancy Vehicle Only (R3-11 series) signs should have the following sequence:

- A. Top Lines: Lanes applicable (for example, CENTER LANE, CURB LANE, RIGHT 2 LANES, THIS LANE)
- B. Middle Lines: HOV 2+ ONLY (lane occupancy requirement such as 2+, 3+, or 4+, or other applicable turning movements)

- C. Bottom Lines: Applicable time and day (for example, 7-9 AM, 4-6 PM, MON-FRI)

The legend format of the overhead High Occupancy Vehicle Only (R3-14) sign should have this sequence:

- A. Top Line: HOV 2+ (lane occupancy requirement such as 2+, 3+, or 4+, or other applicable turning movements)
- B. Bottom Lines: Applicable time and day, with the time and day separated by a down arrow (for example, 7-9 AM, 4-6 PM, MON-FRI)

Option:

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

Guidance:

The diamond symbol on the HOV preferential lane signs (R3-11, R3-13, and R3-14) should appear in the top left quadrant. The diamond symbol should not be used on the bus, taxi, or bicycle preferential lane signs.

The Lane Ahead signs, R3-10, R3-10a, R3-12, R3-13, R3-15 and R3-16 should be used for advance notification of preferential lanes.

The R3-10 and R3-13 signs should be used in situations where agencies determine it is appropriate to provide a sign that defines the minimum occupancy requirement for a vehicle to use an HOV lane.

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

- A. Top Line: HOV 2+ ONLY
- B. Bottom Lines: 2 OR MORE PERSONS PER VEHICLE

Changeable message signs serving as HOV signs should be the required sign size, and should display the required letter height and legend format that corresponds to the type of facility and design speed (see Section 2A.07).

Option:

Signs R3-11, R3-11a, R3-14, and R3-14a may be used to supplement overhead lane control signals or changeable message signs that are used to convey preferential lane restrictions.

Where additional movements are permitted from an HOV lane on an approach to an intersection, the middle line legend format may be modified to accommodate the permitted movements (for example, RIGHT TURNS ONLY) on the R3-11 and R3-14 signs.

Section 2B.49 High-Occupancy Vehicle (HOV) Lanes

Standard:

The agencies that own and operate High-Occupancy Vehicle (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 HOV signs 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.

Motorcycles shall be eligible to use HOV lanes that received Federal-aid highway program funding.

The Federal Highway Administration (FHWA) shall be consulted if a significant operational change is proposed to specific HOV lane segments or to the entire HOV system, when it can be reasonably expected that the proposed change could affect HOV lane segments 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 changes shall be reviewed to determine if any Federal approval is required.

Support:

FHWA Division Offices, with input 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 considered significant operational changes and do not require an explicit Federal review or approval.

Any proposal to significantly adjust the hours of operation or to convert an HOV lane to a general purpose lane is considered a significant change in the original project design concept or scope and does require a Federal review. Similarly, if the HOV lane is operational only during one peak travel period, any significant reduction in the hours of operation would be considered a significant change to the original project design concept or scope. Also, if an HOV lane is being managed and operated in a manner that renders it functionally inoperable or obsolete (for example, if no enforcement of occupancy requirement is provided), FHWA will consider that significant changes to the original project design concept or scope have occurred.

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.

Section 2B.50 High-Occupancy Vehicle Sign Applications and Placement

Standard:

Overhead HOV signs shall be located in advance of and at all entry points to barrier-separated HOV lanes. The overhead advance regulatory sign (R3-13 or R3-15) shall be used in advance of all barrier-separated HOV lanes. The overhead HOV sign (R3-14) shall be used at the beginning or entry point to all barrier-separated HOV lanes. Ground-mounted HOV regulatory signs (R3-10, R3-11 and R3-12) shall be used only as a supplement to overhead HOV signs (R3-13 and R3-14) in advance of and at the entry to barrier-separated HOV lanes.

For barrier-separated HOV lanes, the overhead HOV sign (R3-14) shall be used at all intermediate entry points or gaps in the barrier where vehicles are allowed to legally access the HOV lane. Ground-mounted HOV signs (R3-11) shall be located at intervals not greater than 400 m (0.25 mi) when intermediate entry points or gaps in the barrier exist to allow ingress or egress to the HOV lane.

For buffer-separated HOV lanes (painted buffer of 1.2 m (4 ft) or more), the overhead HOV sign (R3-14) shall be used at the initial and intermediate entry points or gaps in the buffer, where vehicles are allowed to legally access the HOV lane. Ground-mounted HOV signs (R3-11) shall be located at intervals not greater than 400 m (0.25 mi) between entry points. Overhead signs (R3-14) shall be used to supplement the ground-mounted HOV signs (R3-11) at intervals based on an engineering study.

For concurrent-flow HOV lanes, ground-mounted HOV signs (R3-11) shall be located at intervals not greater than 400 m (0.25 mi). Overhead HOV signs (R3-14) shall be used to supplement the ground-mounted HOV signs (R3-11) at intervals based on an engineering study.

For direct access ramps to HOV lanes, overhead HOV signs (R3-14) shall be used at the entry point to the ramp. Ground-mounted HOV signs (R3-11) shall be used only as a supplement to overhead HOV signs at direct access ramps.

Guidance:

For barrier-separated reversible-flow HOV lanes, HOV signs may be either static or changeable message type.

Section 2B.51 Other Regulatory Signs

Option:

Regulatory word message signs other than those classified and specified in this Manual and the "Standard Highways Sign" book 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.

