ATTACHMENT NO. 5

Approved by NCUTCD Council January 12, 2008

REVIEW OF NPA PUBLISHED JANUARY 2, 2008
VERSION OF MUTCD WITH CHANGES SHOWN IN BLUE AND STRIKEOUTS SHOWN IN RED
PART 2B APPROVED BY RWSTC 1-11-08, EXCEPT THOSE NOTED AS TABLED
PART 2B SECTIONS APPROVED BY NCUTCD COUNCIL and REASONS FOR CHANGE ARE SO NOTED BELOW IN PURPLE
Approved January 12, 2008
Updated 2-3-08 to include "rationale" for Council changes to NPA

TECHNICAL COMMITTEE: NCUTCD Regulatory/Warning Signs Technical Committee

DATE OF ACTION: (TASK FORCE) 1-8-08, Tom Heydel Chair, Doug Bartlett, Herman Hill, Scott Kuznicki, Rich Meredith, Mike Moule, Randy McCourt (ITE Liaison. Revised 1-9-08
RWSTC APPROVAL DATE:1-11-08
COUNCIL APPROVAL DATE: 1-12-08 for sections so noted.

TOPIC: Part 2B – Review of NPA - MUTCD

AFFECTED PORTIONS OF MUTCD: Part 2B

DISCUSSION:

The NPA for the 2009 MUTCD was published on January 2, 2008 in the Federal Register. A review of the NPA for Part 2B with comments are noted below.

RECOMMENDATION:

The following is the actual complete text as published by FHWA in the NPA for the MUTCD. Blue text is new text. ~~Strikeout red~~ is text eliminated. Green highlight are FHWA editorial comments.

RWSTC comments to the NPA MUTCD are shown in YELLOW HIGHLIGHT.
RWSTC proposed changed MUTCD language is shown in YELLOW HIGHLIGHT underlined.

Items tabled by RWSTC shown in blue highlight

THE FOLLOWING IS THE NPA TEXT FOR PART 2B AS PUBLISHED BY FHWA

2007 NOTICE OF PROPOSED AMENDMENTS
MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

LIST OF PARTS, CHAPTERS, AND SECTIONS

CHAPTER 2B. REGULATORY SIGNS

Section 2B.70 Miscellaneous Regulatory Signs

CHAPTER 2B. REGULATORY SIGNS

Section 2B.01 Application of Regulatory Signs –

Approved by Council 1-12-08

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 (see Section 2A.07) 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.07)~~.

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

Section 2B.02 Design of Regulatory Signs.

Approved by Council 1-12-08

~~Support~~ Standard:

~~Most~~ **Regulatory signs ~~are~~ shall be rectangular~~, with the longer dimension vertical~~ unless specifically designated otherwise. ~~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.~~ Regulatory signs shall be designed in accordance with the sizes, shapes, colors, and legends contained in the "Standard Highway Signs and Markings" book (see Section 1A.11).**

Option: these two paragraphs were relocated from Section 2B.54

Regulatory word message signs other than those classified and specified in this Manual and the "Standard Highways Signs and Markings" book (see Section 1A.11) may be developed to aid the enforcement of other laws or regulations.

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

Support:

The use of educational plaques to supplement symbol signs is described in Section 2A.12.

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.

Section 2B.03 Size of Regulatory Signs

This section 2B.03 tabled by RWSTC until June 2008

Standard:

Except as noted in Section 2A.11, the sizes for regulatory signs shall be as shown in Table 2B-1.

~~Guidance:~~

~~The Freeway and Expressway 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 the 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 Table 2B-1 may be used (see Section 2A.11).~~

Support:

Section 2A.11 contains information regarding the applicability of the various columns in Table 2B-1.

Standard:

The minimum sizes for certain regulatory signs facing traffic on multi-lane conventional roads shall be as shown in Table 2B-2.

A minimum size of 900 x 900 mm (36 x 36 in) shall be used for STOP signs that face multi-lane approaches.

Section 2B.04 Right-of-Way at Intersections.

Approved by Council 1-12-08

Support:

The "Uniform Vehicle Code" (see Section 1A.11) establishes the right-of-way rule at intersections having no regulatory traffic control signs such that the driver of a vehicle approaching an intersection must yield the right-of-way to any vehicle or pedestrian already in the intersection. When two vehicles approach an intersection from different streets or highways at approximately the same time, the right-of-way rule requires the driver of the vehicle on the left to yield the right-of-way to the vehicle on the right. The right-of-way can be modified at through streets or highways by placing STOP (R1-1) signs (see Sections 2B.05 through 2B.07) or YIELD (R1-2) signs (see Sections 2B.08 and 2B.09) on one or more approaches.

Guidance:

Engineering judgment should be used to establish intersection control. The following factors should be considered:

A. Vehicular, bicycle, and pedestrian traffic volumes on all approaches;
B. Number and angle of approaches;
C. Approach speeds;
D. Sight distance available on each approach; and
C. Reported crash experience.

STOP or YIELD signs should be used at an intersection if ~~engineering judgment indicates that~~ one or more of the following conditions exist: relocated from Section 2B.05

A. An 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. A street entering a designated through highway or street; and/or
C. An unsignalized intersection in a signalized area. ~~and/or~~

~~D. High speeds, restricted view, or crash records indicate a need for control by the STOP sign.~~

In addition, the use of STOP or YIELD signs should be considered at the intersection of two minor streets or local roads where the intersection has more than three approaches and where one or more of the following conditions exist:

A. Approach speeds are above 30 mph on any approach;
B. The combined vehicular, bicycle, and pedestrian volume entering the intersection from all approaches averages more than 2,000 units per day;
C. The ability to see conflicting traffic on an approach is not sufficient to allow a road user to stop or yield in compliance with the normal right-of-way rule if such stopping or yielding is necessary; and/or
D. Crash records indicate that 5 or more crashes that involve the failure to yield the right-of-way at the intersection under the normal right-of-way rule have been reported within a 3-year period, or that 3 or more such crashes have been reported within a 2-year period.

STOP or YIELD signs should not be used for speed control. relocated from Section 2B.05

Once the decision has been made to ~~install two-way stop~~ control an intersection, the decision regarding the appropriate ~~street to stop~~ roadway to control should be based on engineering judgment. In most cases, the ~~street~~ roadway carrying the lowest volume of traffic should be ~~stopped~~ controlled. relocated from Section 2B.05

A STOP or YIELD sign should not be installed on the ~~major street~~ higher volume roadway unless justified by an ~~traffic~~ engineering study. relocated from Section 2B.05

Support:

The following are considerations that might influence the decision regarding the appropriate ~~street~~ roadway upon which to install a STOP or YIELD sign where two ~~streets~~ roadways with relatively equal volumes and/or characteristics intersect: relocated from Section 2B.05

A. ~~Stopping~~ Controlling the direction that conflicts the most with established pedestrian crossing activity or school walking routes;
B. ~~Stopping~~ Controlling 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; and~~
C. ~~Stopping~~ Controlling the direction that has the best sight distance from a controlled position to observe conflicting traffic.

Standard:

Because the potential for conflicting commands could create driver confusion, STOP or YIELD signs shall not be ~~installed at intersections where~~ used in conjunction with any traffic control signal~~s are installed and operating~~ operation, except ~~as noted in Section 4D.01.~~ in the following cases: relocated from Section 2B.05

A. If the signal indication for an approach is a flashing red at all times;
B. If a minor street or driveway is located within or adjacent to the area controlled by the traffic control signal, but does not require separate traffic signal control because an extremely low potential for conflict exists; or
C. If a channelized turn lane is separated from the adjacent travel lanes by an island and the channelized turn lane is not controlled by a traffic control signal.

Except as noted in Section 2B.09, STOP signs and YIELD signs shall not be installed on different approaches to the same unsignalized intersection if those approaches conflict with or oppose each other.

Portable or part-time STOP or YIELD signs shall not be used except for emergency and temporary traffic control zone purposes. **relocated from Section 2B.05**

A portable or part-time (folding) STOP sign that is manually installed and manually retrieved shall not be used during a power outage to control a signalized approach unless the maintaining agency can ensure that the signal indication that will first be displayed upon restoration of power is a flashing red signal indication and that the portable STOP sign will be manually retrieved prior to stop-and-go operation of the traffic control signal.

Option:

A portable or part-time (folding) STOP sign that is operated automatically such that it only displays the STOP message during a power outage and automatically ceases to display the STOP message upon restoration of power may be used during a power outage to control a signalized approach.

Section 2B.04 – Right-of-way at Intersections. This section is written as approved by Council in June 2004 with the exception of the standard and statements related to portable or folding stop signs.

Section ~~2B.04~~ 2B.05 STOP Sign (R1-1) and ALL WAY Plaque (R1-3P)

Approved by Council 1-12-08

Standard:

When ~~a sign is used to indicate that traffic is~~ it is determined that a full stop is always required ~~to stop~~ on an approach to an intersection, a STOP (R1-1) sign (see Figure 2B-1) 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. 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), an ALL WAY supplemental plaque (R1-3P ~~or R1-4~~) shall be mounted below each STOP sign. ~~Such~~ The ALL WAY plaque~~s~~ (see Figure 2B-1) shall have a white legend and border on a red background. **the 2nd sentence was relocated from the previous paragraph**

The ALL WAY plaque shall only be used if all intersection approaches are controlled by STOP signs.

Supplemental plaques with legends such as 2-WAY, 3-WAY, 4-WAY, or other numbers of ways shall not be used with STOP signs.

~~Option:~~

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

Support:

The use of the CROSS TRAFFIC DOES NOT STOP (W4-4P) plaque (and other plaques with variations of this word message) is described in Section 2C.62.

Guidance:

Plaques with the appropriate alternative messages of TRAFFIC FROM LEFT (RIGHT) DOES NOT STOP (W4-4aP) or ONCOMING TRAFFIC DOES NOT STOP (W4-4bP) should be used at intersections where STOP signs control all but one approach to the intersection, unless the only non-stopped approach is from a one-way street.

Option:

An EXCEPT RIGHT TURN (R1-10P) plaque (see Figure 2B-1) may be mounted below the STOP sign if an engineering study determines that a special combination of geometry and traffic volumes is present that makes it possible for right-turning traffic on the approach to be permitted to enter the intersection without stopping.

The design and application of Stop Beacons are described in Section 4L.05.

Section ~~2B.05~~ 2B.06 STOP Sign Applications many paragraphs have been relocated to the new Section 2B.04

Approved by Council 1-12-08 with modifications shown in yellow

Guidance:

~~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 first be given to using less restrictive measures such as YIELD signs (see Sections 2B.08 and 2B.09).

The use of STOP signs on the minor-street approaches should be considered if engineering judgment indicates that a stop is always required because of one or more of the following conditions:

A. The vehicular traffic volumes on the through street or highway exceed 6,000 vehicles per day;
B. A restricted view exists that requires road users ~~on the minor-street approach~~ to stop in order to adequately observe conflicting traffic on the through street or highway; and/or
C. Crash records indicate that 3 or more crashes that are susceptible to correction by the installation of a STOP sign have been reported within a 12-month period, or that 5 or more such crashes have been reported within a 2-year period. Such crashes include right-angle collisions involving road users on the minor-street approach failing to yield the right-of-way to traffic on the through street or highway.

Support:

The use of the STOP sign at highway-rail~~road~~ grade crossings is described in Sections 8B.04 and 8B.05. The use of the STOP sign at highway-light rail transit grade crossings is described in Section 10C.04.

Reasons for change in new 2B.06: Eliminates duplication of language in second paragraph of guidance.

~~Section 2B.06 STOP Sign Placement~~ most of the text from this Section has been incorporated into Section 2B.10

Approved by Council 1-12-08

~~**Standard:**~~

~~**The STOP sign shall be installed on the right side of the approach 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:~~

~~Other than a DO NOT ENTER sign, no sign should be mounted back-to-back with a STOP sign in a manner that obscures the shape of the STOP sign.~~

~~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 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.~~

Section 2B.07 Multiway Stop Applications

Approved by Council 1-12-08

Support:

Multiway stop control can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multiway stops include pedestrians, bicyclists, and all road users expecting other road users to stop. Multiway 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.04 also apply to multiway stop applications.

Guidance:

The decision to install multiway stop control should be based on an engineering study.

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

A. Where traffic control signals are justified, the multiway 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~~ Five or more reported crashes in a 12-month period that are susceptible to correction by a multiway stop installation. Such crashes include

right-turn edited to increase clarity 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 or 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 multiway stop control would improve traffic operational characteristics of the intersection.

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

Approved by Council 1-12-08

Standard:

The YIELD (R1-2) sign (see Figure 2B-1) 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 to a speed that is reasonable for the existing conditions or stop when necessary to avoid interfering with conflicting traffic.

Section 2B.09 YIELD Sign Applications

Approved by Council 1-12-08

Option:

YIELD signs may be ~~used instead of STOP signs if engineering judgment indicates that one or more of the following conditions exist~~ 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 reasonably safe manner~~ On the approaches to a through street or highway where conditions are such that a stop is not always required.

~~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.~~

B. At the second crossroad of a divided highway, where the median width at the intersection is 9 m (30 ft) or greater. In this case, a STOP or YIELD 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.

C. On a channelized turn lane that is separated from the adjacent travel lanes by an island, even if the adjacent lanes at the intersection are controlled by a highway traffic control signal or by a STOP sign.

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.

E. Facing the entering roadway for a merge-type movement if engineering judgment indicates that control is needed because acceleration geometry and/or sight distance is not adequate for merging traffic operation.

Standard:

A YIELD (R1-2) sign shall be used to assign right-of-way at the entrance to a roundabout ~~intersection~~. YIELD signs at roundabouts shall be used to control the approach roadways and shall not be used to control the circulatory roadway.

Section 2B.10 STOP Sign or YIELD Sign Placement this Section was edited to include the STOP sign provisions from Section 2B.06

Approved by Council 1-12-08

Standard:

The STOP or YIELD sign shall be installed on the near side of the intersection on the right-hand edited to increase clarity 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 STOP or YIELD sign is installed at this required location and the sign visibility is restricted, a Stop Ahead sign shall be installed in advance of the STOP sign or a Yield Ahead sign (see Section 2C.35) shall be installed in advance of the YIELD sign ~~(see Section 2C.35)~~.

The STOP or 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.

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

No items other than retroreflective strips on the supports (see Section 2A.21), official traffic control signs, sign installation dates, inventory stickers, anti-vandalism stickers, and bar codes shall be mounted on the fronts or backs of STOP or YIELD signs or on their supports.

Guidance:

~~Other than a DO NOT ENTER sign, no sign should be~~ A sign that is mounted back-to-back with a STOP or YIELD sign ~~in a manner that obscures the shape~~ should stay within the edges of the STOP or YIELD sign. If necessary, the size of the STOP or YIELD sign should be increased so that any other sign installed back-to-back with a STOP or YIELD sign remains within the edges of the STOP or YIELD sign.

Option:

Where drivers proceeding straight ahead must yield to traffic approaching from the opposite direction, such as at a one-lane bridge, a TO ONCOMING TRAFFIC (R1-2aP) plaque may be mounted below the YIELD sign.

Support:

Figure 2A-3 shows examples of some typical placements of STOP signs and YIELD signs.

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

Guidance:

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

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.

Except at roundabouts ~~intersections~~, deleted to increase consistency 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. this paragraph and the next paragraph were switched to provide better continuity

Where two roads intersect at an acute angle, the STOP or 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.

~~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.~~ deleted because it is covered by the previous paragraph

If a raised splitter island is available on the left-hand side of a multi-lane roundabout approach, an additional YIELD sign should be placed on the left-hand side of the approach.

Option:

If a raised splitter island is available on the left-hand side of a single lane roundabout approach, an additional YIELD sign may be placed on the left-hand side of the approach.

At wide-throat intersections or where two or more approach lanes of traffic exist on the signed approach, observance of the ~~yield~~ right-of-way control may be improved by the installation of an additional STOP or YIELD sign on the left-hand edited to increase clarity side of the road and/or the use of a stop or yield line. At channelized intersections or at divided roadways separated by a median, the additional STOP or YIELD sign may be ~~effectively~~ placed on a channelizing island or in the median. An additional STOP or YIELD sign may also be placed overhead facing the approach at the intersection to improve observance of the right-of-way control.

Standard:

Two STOP signs or two YIELD signs shall not be placed on the same support facing in the same direction to provide extra emphasis.

Support:

Section 2C.39 contains information regarding the use of a NO MERGE AREA (W4-5P) supplemental plaque in conjunction with a YIELD sign.

Section 2B.11 Yield Here To Pedestrians Signs and Stop Here For Pedestrians Signs (R1-5~~, R1-5a~~ Series)

Approved by Council 1-12-08 with modifications shown in yellow.

Standard:

Yield Here To (Stop Here For) Pedestrians (R1-5, R1-5a, R1-5b, or R1-5c) signs (see Figure 2B-2) shall be used if yield (stop) lines are used in advance of ~~an unsignalized marked midblock~~ a crosswalk that crosses an uncontrolled multi-lane approach~~, Yield Here To Pedestrians (R1-5 or R1-5a) signs (see Figure 2B-2) shall be~~.

The Stop Here for Pedestrians shall only be used where the law specifically requires that a driver must stop for a pedestrian in a crosswalk.

Guidance:

If yield (stop) lines and Yield Here To (Stop Here For) Pedestrians signs are used in advance of a crosswalk that crosses an uncontrolled multi-lane approach, they should be placed 6.1 to 15 m (20 to 50 ft) in advance of the nearest crosswalk line (see Section 3B.16 and Figure 3B-16), and parking should be prohibited in the area between the yield (stop) line and the crosswalk.

Yield (stop) lines and Yield Here To (Stop Here For) Pedestrians signs should not be used in advance of crosswalks that cross an approach to or departure from a roundabout.

Option:

Yield Here To (Stop Here For) Pedestrians signs may be used in advance of a crosswalk that crosses an uncontrolled multi-lane approach to indicate to road users where to yield (stop) even if yield (stop) lines are not used.

Standard:

A Pedestrian Crossing (W11-2) warning sign shall not be post-mounted at a crosswalk location where Yield Here To (Stop Here For) Pedestrians signs have been installed in advance of the crosswalk.

Standard:

If the R1-5 series regulatory sign (Stop or Yield to Pedestrians) is used, it shall not block the motorist's view of the W11-2 pedestrian warning sign nor shall it be placed on the same post.

Option:

A Pedestrian Crossing (W11-2) warning sign may be mounted overhead at the crosswalk location where Yield Here To (Stop Here For) Pedestrians signs have been installed in advance of the crosswalk.

An advance Pedestrian Crossing (W11-2) warning sign with an AHEAD or a distance supplemental plaque may be used in conjunction with a Yield Here To (Stop Here For) Pedestrians sign on the approach to the same crosswalk.

In-Street Pedestrian Crossing signs and Yield Here To (Stop Here For) Pedestrians signs may be used together at the same crosswalk.

Reason for change in 2B.11 - SSR # 3 synthesis of signs was approved by RWSTC in June 2007 ready for sponsors. Language is consistent with that approved by RWSTC. Provides clarification for the use of STOP versus YIELD based on state laws as appropriate. Avoids warning sign blocking the regulatory sign when both are used.

Section 2B.12 In-Street and Overhead Pedestrian Crossing Signs (R1-6, R1-6a, R1-9, and R1-9a)

Approved by Council 1-12-08 with modifications shown in yellow.

Option:

The In-Street Pedestrian Crossing (R1-6 or R1-6a) sign or the Overhead Pedestrian Crossing (R1-9 or R1-9a) sign (see Figure 2B-2) may be used to remind road users of laws regarding right-

of-way at an unsignalized pedestrian ~~crossing~~ crosswalk. The legend STATE LAW may be ~~shown~~ displayed edited to increase consistency at the top of the R1-6 and R1-6a signs, if applicable. On the R1-6 and R1-6a signs, the legends STOP ~~FOR~~ or YIELD ~~TO~~ may be used ~~in conjunction with~~ instead of edited to increase clarity the appropriate STOP sign or YIELD sign symbol.

~~Guidance:~~

~~In-Street Pedestrian Crossing signs should be used if engineering judgment or an engineering study indicates that one or more of the following conditions exists at an unsignalized location:~~

~~A. There is a need to remind drivers of the normal right-of-way rule that requires them to stop for or yield to pedestrians within the crosswalk;~~

~~B. The application of other measures has not achieved reasonable compliance with the law on the part of drivers; or~~

~~C. The pedestrian volume crossing the roadway at an intersection or midblock location during an average day is 25 or more during any 1 hour.~~

Option:

~~In addition to the conditions listed in the previous paragraph, other~~ Criteria may be developed and applied by highway agencies in determining the applicability of In-Street Pedestrian Crossing signs.

Standard:

If used, the In-Street Pedestrian Crossing sign shall be placed in the roadway at the crosswalk location on the center line, on a lane line, or on a median island. The In-Street Pedestrian Crossing sign shall not be post-mounted on the left-hand or right-hand side of the roadway.

If used, the Overhead Pedestrian Crossing sign shall be placed over the roadway at the crosswalk location.

An In-Street or Overhead Pedestrian Crossing sign shall ~~be~~ not be placed in advance of the crosswalk to educate road users about the State law prior to reaching the crosswalk, nor shall it be installed as an educational display that is not near any crosswalk.

Guidance:

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

Option:

If a Pedestrian Crossing (W11-2) warning sign is used in combination with an In-Street or an Overhead Pedestrian Crossing sign, the W11-2 sign with a Downward Diagonal Arrow (W16-7P) plaque may be post-mounted on the right-hand side of the roadway at the crosswalk location.

Standard:

The In-Street Pedestrian Crossing sign and the Overhead Pedestrian Crossing sign shall not be used at signalized locations.

The STOP FOR legend shall only be used in States where the State law specifically requires that a driver must stop for a pedestrian in a crosswalk.

~~If used,~~ The In-Street Pedestrian Crossing sign shall have a black legend (except for the red STOP or YIELD sign symbols) and border on ~~either~~ a white ~~and/or fluorescent yellow-green~~ background, surrounded by an outer fluorescent yellow-green background area, as illustrated in Figure 2B-2, or by an outer fluorescent yellow background area. edited to increase clarity The Overhead Pedestrian Crossing sign shall have a black legend and border on a fluorescent yellow or fluorescent yellow-green background at the top of the sign

and a black legend and border on a white background at the bottom of the sign, as illustrated in Figure 2B-2.

~~If~~ Unless the In-Street Pedestrian Crossing sign is placed ~~in the roadway~~ on a physical island, the sign support shall ~~comply with the breakaway requirements of the latest edition of AASHTO's "Specification for Structural Supports for Highway Signs, Luminaires, and Traffic Signals" (see Page i)~~ be designed to bend over and then bounce back to its normal vertical position when struck by a vehicle.

Support:

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

Standard:

The top of an In-Street Pedestrian Crossing sign shall be no more than 1.2 m (4 ft) above the pavement surface. The top of an In-Street Pedestrian Crossing sign placed in an island shall be no more than 1.2 m (4 ft) above the island surface.

Option:

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.

In-Street or Overhead Pedestrian Crossing signs and Yield Here To (Stop Here For) Pedestrians signs may be used together at the same crosswalk.

In-Street and Overhead Pedestrian Crossing signs may be used together at the same crosswalk.

Reason for change in 2B.12 – Eliminating the guidance statement for use of the in street sign allows for engineering judgement and avoids overuse of the sign that could occur for a should condition. Avoids a fixed amount for pedestrian volumes which could lead to overuse of the sign. Eliminating the word "be" is editorial.

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

Section 2B.13 Tabled until June 2008 by RWSTC

Standard:

~~After~~ Speed zones (other than statutory speed limits) shall only be established on the basis of an engineering study that has been ~~made~~ performed in accordance with ~~established~~ traffic engineering practices. The engineering study shall include an analysis of the current speed distribution of free-flowing vehicles.

The Speed Limit (R2-1) sign (see Figure 2B-1) shall display the limit established by law, ordinance, regulation, or as adopted by the authorized agency based on the engineering study. The speed limits ~~shown~~ displayed edited to increase consistency shall be in multiples of 10 km/h or 5 mph.

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. relocated from Section 2B.18

At the downstream 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. relocated from Section 2B.18

Speed Limit signs indicating the statutory speed limits shall be installed at entrances to the State and, where appropriate, at jurisdictional boundaries ~~of metropolitan~~ in urban areas. relocated from Section 2B.18

Support:

In general, the maximum speed limits applicable to rural and urban roads are established:

A. Statutorily – a maximum speed limit applicable to a particular class of road, such as freeways or city streets, that is established by State law; or
B. As altered speed zones – based on engineering speed studies.

State statutory limits might restrict the maximum speed limit that can be established on a particular road, notwithstanding what an engineering study might indicate.

Option:

If a jurisdiction has a policy of installing Speed Limit signs only on the streets that enter a city, neighborhood, or residential area to indicate the speed limit that is applicable to the entire city, neighborhood, or residential area unless otherwise posted, a CITYWIDE (R2-5aP), NEIGHBORHOOD (R2-5bP), or RESIDENTIAL (R2-5cP) plaque may be mounted above the Speed Limit sign and an UNLESS OTHERWISE POSTED (R2-5P) plaque may be mounted below the Speed Limit sign (see Figure 2B-1).

Guidance:

A Reduced Speed Limit Ahead (W3-5 or W3-5a) sign (see Section 2C.37) should be used to inform road users of a reduced speed zone where the speed limit is being reduced by more than 20 km/h or by more than 10 mph, or where engineering judgment indicates the need for advance notice to comply with the posted speed limit ahead.

85th Percentile task force: Recommend changing the language as proposed by task force December 2007 and approved by RWSTC on Jan 9, 2008. Language to read as shown in the yellow text above

At least once every 5 years, States and local agencies should conduct an engineering study to reevaluate non-statutory speed limits on segments of their roadways that have undergone ~~a~~ significant ~~change~~ changes since the last review; such as the addition or elimination of parking, change in the number of travel lanes, addition of a bicycle lane or signal coordination or removal. ~~in roadway characteristics or surrounding land use since the last review.~~

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

When a speed limit within a speed zone is posted ~~is to be posted~~, it should be within 10 km/h or 5 mph of the 85th-percentile speed ~~or the upper limit of the 16 km/h or 10 MPH pace~~ of free-flowing traffic.

Speed limit signs should not be used to warn of an advisory speed for a roadway condition. Section 2C.46 covers advisory speed plaques for these roadway conditions.

Efforts should be made to coordinate the implementation of speed zones with and the enforcement policies of enforcement agency

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
D. Reported crash experience for at least a 12-month period.

Guidance:

If used to justify a speed limit that is less than the 85th percentile speed, the list of factors above should not be used to set the speed limit below the 67th percentile speed.

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 the speed limit for traffic and ambient conditions may be installed provided that the appropriate speed limit is ~~shown~~ displayed edited to increase consistency 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 km/h (MPH) or such similar legend should be ~~shown~~ displayed. edited to increase consistency The color of the changeable message legend should be a yellow legend on a black background or the reverse of these colors.

Support:

Advisory Speed signs are discussed in Sections 2C.08 and 2C.14 and Temporary Traffic Control Zone Speed signs are discussed in Part 6. School speed limit signs are discussed in Section 7B.11 for school speed limits.

Section 2B.13 – Speed Limit Sign (R2-1) – Changes were made as approved by Council January 2007. FHWA added text related to Altered speed zones but doesn't define it in Section 1A.13 definitions.

The work zone speed limit sign should be referenced as follows: Add the following sentence to 2B.13:

Support: The WORK ZONE plaque that can be mounted above a Speed limit sign (R2-1) is discussed in Section 6F-12.

Section 2B.13 is tabled until June.

Section 2B.14 Truck Speed Limit ~~Sign~~ Plaque (R2-2P)

Approved by Council 1-12-08

Standard:

Where a special speed limit applies to trucks or other vehicles, the legend TRUCKS XX or such similar legend shall be ~~shown~~ displayed edited to increase consistency ~~on the same panel as~~ below the legend SPEED LIMIT XX on the same sign or on a separate R2-2P ~~sign~~ plaque (see Figure 2B-1) below the standard legend. edited to increase clarity

Section 2B.15 Night Speed Limit ~~Sign~~ Plaque (R2-3P)

Approved by Council 1-12-08

Standard:

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

Guidance:

A Night Speed Limit (R2-3P) ~~sign~~ plaque (see Figure 2B-1) should be reversed using a white retroreflectorized legend and border on a black background.

Option:

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

Section 2B.16 Minimum Speed Limit ~~Sign~~ Plaque (R2-4P)

Approved by Council 1-12-08

Standard:

A Minimum Speed Limit (R2-4P) ~~sign~~ plaque (see Figure 2B-3) 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~~ plaque may be installed below a Speed Limit (R2-1) sign to indicate the minimum legal speed. If desired, ~~these two signs~~ the Speed Limit sign and the Minimum Speed Limit plaque may be combined on the R2-4a sign (see Figure 2B-3).

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

Approved by Council 1-12-08

Option:

The FINES HIGHER (R2-6P) plaque (see Figure 2B-1) 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 S4-1P 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 S4-4P 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 (R2-6aP) ~~or FINES TRIPLE~~, ~~or by a specific value such as $150~~ $XX FINE (R2-6bP), or another legend appropriate to the specific regulation (see Figure 2B-1).

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 S4-3P plaque described in Section 7B.14). The WORK ZONE supplemental plaque (see Section 6F.12) 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.

Support:

Section 6F.12 contains information regarding other signs associated with increased fines for traffic violations in temporary traffic control zones.

~~**Section 2B.18 Location of Speed Limit Signs**~~ **these three paragraphs were incorporated into Section 2B.13**

Tabled by RWSTC until June 2008.~~l~~

~~**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.19~~ 2B.18 ~~Turn~~ Movement Prohibition Signs (R3-1 through R3-4, ~~and~~ R3-18, and R3-27)

Approved by Council 1-12-08 with modifications shown in yellow.

Standard:

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

Guidance:

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

If No Right Turn (R3-1) signs (see Figure 2B-3) are used, at least one should be placed either over the roadway or at a right-hand edited to increase clarity corner of the intersection.

If No Left Turn (R3-2) signs (see Figure 2B-3) are used, at least one should be placed ~~either~~ grammar – more than two choices over the roadway, at the far left-hand corner of the intersection, on a median, or in conjunction with the STOP sign or YIELD sign located on the near right-hand corner.

Except as noted in the ~~Option~~ Guidance below for signalized locations, edited to maintain accuracy if NO TURNS (R3-3) signs (see Figure 2B-3) 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 (see Figure 2B-3) or combination No U-Turn/No Left Turn (R3-18) signs (see Figure 2B-3) are used, at least one should be used at a location specified for No Left Turn signs. this paragraph and the next paragraph were combined

~~If combination No U-Turn/No Left Turn (R3-18) signs (see Figure 2B-3) are used, at least one should be used at a location specified for No Left Turn signs.~~

Option:

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. this paragraph was relocated to increase continuity

Guidance:

~~If No Straight Through (R3-27) signs (see Figure 2B-3) are used, at least one should be placed either over the roadway or at a location where it can be seen by road users who might be intending to travel straight through the intersection.~~

If turn prohibition signs are installed in conjunction with traffic signals:

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

Option:

If signals are present, an additional ~~Turn~~ Movement Prohibition sign may be ~~ground~~ post-mounted edited to increase consistency to supplement the sign mounted overhead.

Where ONE WAY signs are used (see Section 2B.47), ~~Turn Prohibition~~ No Left Turn and No Right Turn signs may be omitted.

When the movement restriction applies during certain time periods only, the following ~~Turn~~ Movement 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~~ movement prohibition is applicable.

~~Turn~~ Movement 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.

Standard:

The No Left Turn (R3-2) sign, the No U-Turn (R3-4) sign, and the combination No U-Turn/No Left Turn (R3-18) sign shall not be used at approaches to roundabouts to prohibit drivers from turning left onto the circulatory roadway of a roundabout.

Support:

At roundabouts, the use of R3-2, R3-4, or R3-18 signs to prohibit left turns onto the circulatory roadway might confuse drivers about the possible legal turning movements around the roundabout. ONE WAY (R6-1R or R6-2R) signs and/or Roundabout Directional Arrow (R6-4 series) signs (see Section 2B.50) are the appropriate signs to indicate the travel direction within a roundabout.

Reasons for changes in 2B.18 – Language for the R3-27, NO STRAIGHT THROUGH sign language should be deleted. Other signs such as DO NOT ENTER or two way traffic warning signs could be used.

The language that states "If turn prohibition signs are installed in conjunction with traffic signals" is added to clarify the use of turn prohibition signs.

Under the support statement, the ONE WAY sign for roundabouts is changed to R6-1R and R6-2R since the proper direction is right. Change Figure 2B-16 to show the ONE WAY sign pointing right.

Section ~~2B.20~~ 2B.19 Intersection Lane Control Signs (R3-5 through R3-8)

Approved by Council 1-12-08 with modification note to figure shown in yellow.

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 (see Figure 2B-4) 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.

On signalized approaches where lane drops, multiple-lane turns involving shared through-and-turn lanes, or other lane-use regulations that would be unexpected by unfamiliar road users

are present, overhead lane control signs should be installed at the signalized location over the appropriate lanes or projections thereof and in advance of the intersection over the appropriate lanes. Where overhead mounting on the approach is impractical for the advance and/or intersection lane-use signs, post-mounted R3-8 series signs should be installed in prominent locations in advance of the intersection and oversized versions should be considered.

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~~ post-mounted. edited to increase consistency

Intersection Lane Control signs may be omitted where:

A. ~~Turning bays have~~ A turn bay has been provided by physical construction or pavement markings, and
B. Only the road users using such turn~~ing~~ bays are permitted to make a ~~similar~~ turn in that direction.

At roundabouts, Intersection Lane Control (R3-5, R3-6, and R3-8 series) signs may display any of the arrow symbol options shown in Figure 2B-5.

Figure 2B-5 – change the label on the arrow from "Normal" to say "Standard".

Reason for change to Figure 2B-5 – to be consistent with Part 3 terminology for arrows.

Section ~~2B.21~~ 2B.20 Mandatory Movement Lane Control Signs (R3-5, R3-5a, ~~and~~ R3-7, and R3-20)

Section 2B.20 TABLED BY RWSTC UNTIL JUNE 2008.

Standard:

If used, the Mandatory Movement Lane Control (R3-5, R3-5a, and R3-7) sign~~s~~ (see Figure 2B-4) shall indicate only ~~those~~ the single vehicle movement~~s~~ that ~~are~~ is required from ~~each~~ the lane. If used, the Mandatory Movement Lane Control sign ~~and~~ shall be located in advance of the intersection, such as near the upstream end of the mandatory movement lane, and/or at the intersection where the regulation applies. When the mandatory movement applies to lanes exclusively designated for HOV traffic, the R3-5cP 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 R3-5dP and/or R3-5gP supplemental plaques shall be used.

Where the number of lanes available to through traffic on an approach is three or more, Mandatory Movement Lane Control (R3-5 and R3-5a) symbol signs, if used, shall be mounted overhead (see Section 2B.19). The R3-7 word message sign shall be for ~~ground~~ post-mounting edited to increase consistency only.

If the R3-5 or R3-5a edited to increase consistency sign is ~~ground~~ post-mounted edited to increase consistency on a ~~multi-lane~~ two-lane edited to increase consistency approach, a supplemental plaque (see Figure 2B-4), such as LEFT LANE (R3-5bP), HOV 2+ (R3-5cP), TAXI LANE (R3-5dP), CENTER LANE (R3-5eP), RIGHT LANE (R3-5fP), BUS LANE (R3-5gP), or ~~LEFT 2~~ BOTH edited to increase consistency 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) symbol signs edited to increase consistency 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.~~ replaced by new 2nd paragraph of Standard above

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

The BEGIN RIGHT TURN LANE (R3-20R) sign (see Figure 2B-4) may be post-mounted on the right-hand side of the roadway at the upstream end of a mandatory right-turn lane for enforcement purposes. The BEGIN LEFT TURN LANE (R3-20L) sign (see Figure 2B-4) may be post-mounted on a median (or on the left-hand side of the roadway for a one-way street) at the upstream end of a mandatory left-turn lane for enforcement purposes.

Section ~~2B.22~~ 2B.21 Optional Movement Lane Control Sign (R3-6)

Section 2B.21Tabled by RWSTC until June 2008

Standard:

If used, the Optional Movement Lane Control (R3-6) sign (see Figure 2B-4) 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 in advance of the intersection, such as near the upstream end of an adjacent mandatory movement lane, and/or added to increase clarity at the intersection where the regulation applies.

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.

Where the number of lanes available to through traffic on an approach is three or more, Optional Movement Lane Control (R3-6) signs, if used, shall be mounted overhead (see Section 2B.19).

If the Optional Movement Lane Control sign is post-mounted on a two-lane approach, a supplemental plaque (see Figure 2B-4), such as LEFT LANE (R3-5bP), HOV 2+ (R3-5cP),

TAXI LANE (R3-5dP), CENTER LANE (R3-5eP), RIGHT LANE (R3-5fP), or BUS LANE (R3-5gP), indicating the lane with the appropriate movements shall be added below.

Option:

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

Standard:

Because more than one movement is permitted from the lane, the word message ONLY shall not be used on an Optional Movement Lane Control sign.

Section ~~2B.23~~ 2B.22 Advance Intersection Lane Control Signs (R3-8 Series)

Section 2B.22 Tabled until June 2008 by RWSTC

Option:

Advance Intersection Lane Control (R3-8, R3-8a, and R3-8b) signs (see Figure 2B-4) 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+ (R3-5cP) 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.

Option:

An Advance Intersection Lane Control sign may be repeated closer to the intersection for additional emphasis.

Standard:

Where the number of lanes available to through traffic on an approach is three or more, Advance Intersection Lane Control signs, if used, shall not be mounted overhead (see Section 2B.19).

Section 2B.23 RIGHT (LEFT) LANE MUST EXIT Sign (R3-33) .

Approved by Council 1-12-08

Option:

A RIGHT (LEFT) LANE MUST EXIT (R3-33) sign (see Figure 2B-4) may be used to inform road users that traffic in the right-hand (left-hand) lane of a roadway that is approaching a grade-separated interchange is required to depart the roadway on the exit ramp at the next interchange.

Support:

Section 2C.42 contains information regarding a warning sign that can be used in advance of lane drops at grade-separated interchanges.

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

Approved by Council 1-12-08

Guidance:

Two-Way Left Turn Only (R3-9a or R3-9b) signs (see Figure 2B-6) 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-~~ post-mounted edited to increase consistency R3-9b sign may be used as an alternate to or a supplement to the overhead ~~-mounted~~ edited to increase consistency R3-9a sign. The legend BEGIN or END may be used within the border of the main sign itself, or on ~~a plaque~~ an M4-6 or M4-14 auxiliary sign (see Sections 2D.22 and 2D.23) 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.

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

Approved by Council 1-12-08

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 (R3-9d, R3-9f through R3-9i) signs (see Figure 2B-6) may either be static type or changeable message type. These signs may be either ~~ground~~ post-mounted or overhead ~~mounted~~. edited to increase consistency

Standard:

~~Ground-~~ Post-mounted edited to increase consistency Reversible Lane Control signs shall be used only as a supplement to overhead signs or signals. ~~Ground-~~ Post-mounted edited to increase consistency 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 physical barriers are not necessary, the lane shall be controlled by overhead Reversible Lane Control signs (see Figure 2B-7).

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 an acceptable level of safety and efficiency, and
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-3.

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. 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~~ displayed edited to increase consistency as the second legend, and

C. The OTHER TIMES message shall be ~~shown~~ displayed edited to increase consistency 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 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 4L.

When used in conjunction with Reversible Lane Control signs, the Turn Prohibition signs (R3-1 to R3-4, R3-18) 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.18.

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 400 m (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).

Because editorial revision to increase consistency 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.26 Regulatory Signs for Preferential ~~Only~~ Lanes – General ~~Signs (R3-10 through R3-15)~~ existing Sections 2B.26 through 2B.28 have been edited; paragraphs have been relocated within and between these Sections and the text has been reorganized into five Sections

Section 2B.26 Tabled until June 2008 by RWSTC

Support:

Preferential ~~only~~ lanes are lanes designated exclusively for special traffic uses such as high-occupancy vehicles (HOVs), vehicles equipped with electronic toll collection (ETC) transponders, 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.

~~HOV~~ Preferential lanes ~~may take many forms depending on the level of usage and the design of the facility. They may~~ might be barrier-separated (on a separate alignment or physically separated from the other travel lanes by a barrier or median), ~~or they may be concurrent with other travel lanes and be~~ buffer-separated (separated from the adjacent general purpose lanes only by a narrow buffer area created with longitudinal pavement markings), or contiguous (separated from the adjacent general purpose lanes only by a lane line). ~~Physically separated HOV~~ Preferential lanes ~~may~~ might be operated in a constant direction or ~~may be~~ operated as reversible lanes. Some reversible preferential lanes on a divided highway might be operated counter-flow to the direction of traffic on the immediately adjacent general purpose lanes. this paragraph was relocated from Section 2B.27

~~HOV~~ Preferential lanes ~~may~~ might 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. this paragraph was relocated from Section 2B.27

A managed lane operated on a real-time basis in response to changing conditions might be operated as an HOV lane, with or without other requirements such as tolling or vehicle type, for a period of time as needed. Additional information regarding signs for managed lanes is contained in Sections 2B.32 and 2E.61.

Information regarding Preferential ~~Only~~ Lane signs for bicycle lanes is contained in Section 9B.04.

Sections 2E.51 through 2E.54 contains additional provisions regarding ~~signing~~ signs for preferential ~~only~~ lanes on freeway and expressway facilities. Figures 2E-35 through 2E-43 show

application and placement examples for Preferential ~~Only~~ Lane signs for a variety of preferential ~~only~~ lane situations. this paragraph was relocated from Section 2B.28

~~Option:~~

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

Standard:

When a preferential ~~only~~ lane is established, the Preferential ~~Only~~ Lane regulatory signs (see Figure 2B-8) and pavement markings (see Sections 3B.24 and 3B.25) for these lanes shall be used to advise road users.

Support:

Preferential Lane (R3-10 series through R3-15 series) regulatory signs consist of several different general types of regulatory signs as follows (see Figure 2B-8):

A. Vehicle Occupancy Definition signs define the vehicle occupancy requirements applicable to an HOV lane (such as "2 OR MORE PERSONS PER VEHICLE") or types of single-occupant vehicles (such as motorcycles or ILEVs) that are allowed to use an HOV lane (see Section 2B.27).

B. Periods of Operation signs notify road users of the days and hours during which the preferential restrictions are in effect (see Section 2B.28).

C. Preferential Lane Advance signs notify road users that a preferential lane restriction begins ahead (see Section 2B.29).

D. Preferential Lane Ends signs notify users of the termination point of the preferential lane restrictions (see Section 2B.30).

Standard:

Regulatory signs applicable only to a preferential lane shall be distinguished from regulatory signs applicable to general purpose lanes by the inclusion of the applicable symbol(s) and/or word(s) (see Figure 2B-8).

Support:

The symbol and word message that appears on a particular Preferential ~~Only~~ Lane regulatory 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, or an ETC only 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.~~ Sections 2B.32, 2D.26, and 2E.51 through 2E.61 contain additional provisions regarding signs and pictographs used with ETC only lanes.

~~**Standard:**~~

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

Option:

Changeable message signs may ~~be used to~~ supplement, substitute for, or be used in combination with static Preferential Lane regulatory 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, or on a real-time basis, to manage the use of, control of, or access to preferential ~~only~~ lanes.

Support:

Figure 2B-8 illustrates examples of changeable messages in combination with static Preferential Lane regulatory signs.

Standard:

When changeable message signs (see ~~Section 2A.07~~ Chapter 2M) 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.

Guidance:

When Preferential ~~Only~~ Lane regulatory signs are used on conventional roads, the decision regarding whether to use a ~~specific ground~~ post-mounted edited to increase consistency or overhead version of a particular type of sign should be based on an engineering study that considers the available space, the existing signs for the ~~adjoining~~ adjacent general purpose traffic lanes, roadway and traffic characteristics, the proximity to existing overhead ~~signing~~ signs, the ability to install overhead signs, and any other unique local factors. this paragraph was relocated from Section 2B.28

~~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.~~

~~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.~~

If overhead regulatory signs applicable only to a preferential lane are located in approximately the same longitudinal position along the highway as overhead signs applicable only to the general purpose lanes, the signs for the preferential lane should be separated laterally from the signs for the general purpose lanes to the maximum extent practical to minimize conflicting information.

Standard:

If used, overhead Preferential ~~Only~~ Lane (R3-13 series, R3-14 series, and R3-15 series) regulatory signs shall ~~only be installed along preferential only lanes on freeways and expressways. These overhead signs shall~~ be installed on the side of the roadway 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 Table 2B-1 to reflect the different design speeds for each type of roadway.~~ this paragraph was relocated from Section 2B.28

Option:

Where a median of sufficient width is available, the R3-13 series and R3-15 series signs may be post-mounted.

Support:

The sizes for Preferential ~~Only~~ Lane regulatory signs will differ to reflect the design speeds for each type of roadway facility. Table 2B-1 provides sizes for each type of roadway facility.

Guidance:

The edges of Preferential Lane regulatory signs that are post-mounted on a median barrier should not project beyond the outer edges of the barrier, including in areas where lateral clearance is limited.

Option:

Where lateral clearance is limited, Preferential Lane regulatory signs that are post-mounted on a median barrier and that are 1800 mm (72 in) or less in width may be skewed up to 45 degrees in order to fit within the barrier width or may be mounted with a vertical clearance of not less than 4.3 m (14 ft) to the sign over the entire width of the pavement and shoulders.

Guidance:

Where lateral clearance is limited, Preferential Lane regulatory signs that are post-mounted on a median barrier and that are wider than 1800 mm (72 in) should be mounted with a vertical clearance of not less than 4.3 m (14 ft) to the sign over the entire width of the pavement and shoulders.

On conventional roadways, Preferential ~~Only~~ Lane regulatory sign spacing should be determined by engineering judgment based on prevailing speed, block length, distances from adjacent intersections, and other site-specific considerations.

Support:

Sections 2B.27 and 2B.28 contain provisions regarding the placement of Preferential Lane regulatory signs on freeways and expressways.

Standard:

The ~~R3-10, R3-11, R3-11a, R3-11c, R3-13, R3-13a, R3-14, and R3-14a~~ signs illustrated in Figure 2B-8 that incorporate the diamond symbol shall be used exclusively with preferential ~~only~~ lanes for high-occupancy vehicles to indicate the particular occupancy requirement and time restrictions applying to that lane. The ~~R3-10a, R3-11b, and R3-14b~~ signs illustrated in Figure 2B-8 that do not have a diamond symbol shall be used ~~in situations where a~~ with preferential ~~only~~ lanes ~~is~~ that are not ~~an~~ HOV lanes, but ~~is~~ are designated for use by other types of vehicles (such as bus and/or taxi use).

Option:

Agencies may select from either the HOV abbreviation or the diamond symbol, or use both, to reference the HOV lane designation. this paragraph was relocated from Section 2B.27

~~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-~~ post-mounted edited to increase consistency Preferential ~~Only~~ Lane (R3-10 series, R3-11 series, and R3-12 series) regulatory 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-~~ post-mounted edited to increase consistency Preferential ~~Only~~ Lane (R3-10 series, R3-11 series, and R3-12 series) regulatory 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) regulatory signs, it shall appear in the top left quadrant. The diamond symbol for the R3-15, ~~and~~ R3-15a, R3-15b, and R3-15c signs shall appear on the left side of the sign. The diamond symbol shall not be used on the bus, taxi, or bicycle Preferential ~~Only~~ Lane signs. the sequence of the last two sentences was reversed

~~The~~ Vehicle Occupancy Definition, Periods of Operation, and Preferential Lane Advance regulatory signs for **HOV** ~~signs (see Section 2B.26)~~ lanes **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~~ displayed **immediately after the word message HOV or the diamond symbol.** ~~The diamond symbol shall be restricted for use with HOV lanes only.~~ **this paragraph is a combination of two paragraphs that were relocated from Section 2B.27**

Support:

The agencies that own and operate ~~preferential only~~ HOV 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.~~ Information about federal requirements for certain types of single-occupant vehicles to be eligible to use HOV lanes that receive Federal-aid program funding and about requirements associated with proposed significant changes to the operation of an existing HOV lane and certain vehicles are contained in the "Federal-Aid Highway Program Guidance on High Occupancy Vehicle (HOV) Lanes" (see Section 1A.11). **this paragraph was relocated from Section 2B.27**

~~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.~~

~~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.~~

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

Vehicle Occupancy Definition Signs (R3-10 Series and R3-13 Series)

Section 2B.27 Tabled until June 2008 by RWSTC

Standard:

The R3-10, ~~R3-10b,~~ R3-13, and R3-13a Vehicle Occupancy Definition signs shall be used ~~in situations~~ where agencies determine that 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~~ allowed to use ~~a preferential only~~ an HOV or managed lane. this paragraph was relocated from Section 2B.26

Guidance:

The Inherently Low Emission Vehicle (ILEV) (~~R3-10b~~ R3-10a) sign should be used ~~to indicate that~~ when it is permissible for a properly labeled and certified ILEV, regardless of the number of occupants, to use an HOV lane. When used, the ILEV signs should be ~~ground-~~ post-mounted edited to increase consistency in advance of and at intervals along the HOV lane based upon engineering judgment and the placement of other Preferential Lane regulatory signs. The ~~R3-10b~~ R3-10a sign is only applicable to HOV lanes and should not to be used with other preferential ~~only~~ lane applications. this paragraph was relocated from Section 2B.26

Support:

~~Inherently low emission vehicles~~ ILEVs are defined by the Environmental Protection Agency (EPA) as vehicles having no fuel vapor (hydrocarbon) emissions~~. These vehicles must~~ and are 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). this paragraph was relocated from Section 2B.26

Guidance:

The legend format of the R3-10 and R3-13 signs should have ~~this~~ the following sequence: this paragraph was relocated from Section 2B.26

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)

The legend format of the R3-13a sign should have the following sequence:

A. Top Line: "HOV 2+ ONLY" (or 3+ or 4+ if appropriate)
B. Middle Lines: "2 OR MORE PERSONS PER VEHICLE" (or 3 or 4 if appropriate)
C. Bottom Lines: Times and days the occupancy restriction is in effect

Support:

Section 2B.32 contains information regarding modifications of the legends of Vehicle Occupancy Definition signs when single-occupant ETC-equipped vehicles are allowed to use an HOV lane by paying a toll fee.

Standard:

For barrier- or buffer-separated preferential lanes, an overhead Vehicle Occupancy Definition (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 of or initial entry point to an HOV lane. These signs shall only be displayed in advance of the beginning of or initial entry point to HOV lanes. this paragraph was relocated from Section 2B.28

Option:

For barrier-separated ~~preferential only~~ HOV lanes, the sequence of a post-mounted Periods of Operation (R3-11a) sign followed by a ~~ground-~~ post-mounted edited to increase consistency Vehicle Occupancy Definition (R3-10) sign~~s 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~~ 800 m (~~0.6~~ 0.5 mi) along the length of the ~~preferential only~~ HOV lane, at intermediate entry points, and at designated enforcement areas as defined by the operating agency. this paragraph was relocated from Section 2B.28

Standard:

For buffer-separated HOV lanes, the sequence of a post-mounted Periods of Operation (R3-11a) sign followed by a ~~Ground-~~ post-mounted edited to increase consistency Vehicle Occupancy Definition (R3-10) sign~~s 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~~ 800 m (~~0.6~~ 0.5 mi) along the length of the ~~preferential only~~ buffer-separated HOV lane, at designated gaps in the buffer where vehicles are allowed to legally access the ~~preferential only~~ HOV lane, and within designated enforcement areas as defined by the operating agency. this sentence came from a paragraph in Section 2B.28

For ~~concurrent flow preferential only~~ contiguous HOV lanes, the sequence of a post-mounted Periods of Operation (R3-11a) sign followed by a ~~ground-~~ post-mounted edited to

increase consistency Vehicle Occupancy Definition (R3-10) signs ~~defining the occupancy requirement~~, and ILEV (R3-10a) signs if appropriate, shall be located ~~and alternated with Preferential Only Lane Operational (R3-11 series) signs in series~~ at intervals not greater than ~~1 km~~ 800 m (~~0.6~~ 0.5 mi) along the length of the ~~preferential only~~ HOV lane. this paragraph was relocated from Section 2B.28

Guidance:

The signs within each Preferential Lane regulatory sign sequence should be separated by a distance of not less than 245 m (800 ft) and not more than 300 m (1,000 ft).

Standard:

For all types of direct access ramps that provide access to or lead to ~~preferential only~~ HOV lanes, a ~~ground-~~ post-mounted edited to increase consistency Vehicle Occupancy Definition (R3-10) sign ~~defining the occupancy requirement~~, and an ILEV (R3-10a) sign if appropriate, ~~and a Preferential Only Lane Operational (R3-11 series) sign~~ shall be used at the beginning or initial entry point for ~~all types of~~ the direct access ramps ~~that provide access or lead to preferential only lanes~~. this paragraph was relocated from Section 2B.28

~~Standard:~~

~~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 Federal Highway Administration (FHWA) shall be consulted if a significant operational change is proposed that could reasonably be 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, regional, 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 (U.S.C), 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 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. Also in accordance with the Federal-Aid Highway Program Guidance on HOV lanes, any proposal to significantly change the operation of an HOV lane shall require some form of Federal review, which might require potential action.~~

~~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 CFR, Part 771, in project agreements, transportation planning requirements, and transportation conformity requirements under the Clean Air Act (40 CFR, 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.~~

~~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 these 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.~~

~~**Standard:**~~

~~**Agencies shall 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").**~~

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

Section 2B.28 Preferential ~~Only~~ Lane Periods of Operation Signs ~~Applications and Placement~~ (R3-11 Series and R3-14 Series)

Section 2B.28 Tabled by RWSTC until June 2008

Guidance:

The sizes of ~~the ground~~ post-mounted edited to increase consistency ~~Preferential Only Lane Operational~~ Periods of Operation (R3-11 series) signs should remain consistent to accommodate any manual addition or ~~subtraction~~ removal of a single line of text for each sign. this paragraph was relocated from Section 2B.26

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. this paragraph was relocated from Section 2B.26

Standard:

When used, the ~~ground-~~ post-mounted edited to increase consistency ~~Preferential Only Lane Operational~~ Periods of Operation (R3-11 series) signs shall be located adjacent to the preferential ~~only~~ lane, and the overhead ~~Preferential Only Lane Operational~~ Periods of Operation (R3-14 series) signs shall be mounted directly over the lane. this paragraph was relocated from Section 2B.26

The legend format of the ~~ground-~~ post-mounted edited to increase consistency ~~Preferential Only Lane Operational~~ Periods of Operation (R3-11 series) signs shall have the following sequence: this paragraph was relocated from Section 2B.26

A. **Top Lines: Lanes applicable, such as "RIGHT LANE" or "2 RIGHT ~~2~~ LANES" or "THIS LANE"**
B. **Middle Lines: Eligible uses, such as "HOV 2+ ONLY" (or 3+ or 4+ if appropriate) or "BUSES ONLY" or other applicable uses or eligible turning movements**
C. **Bottom Lines: Applicable times and days, such as "7 AM – 9 AM" or "6:30 AM – 9:30 AM, MON-FRI"**

The legend format of the overhead ~~Preferential Only Lane Operational~~ Periods of Operation (R3-14 series) signs shall have the following sequence: this paragraph was relocated from Section 2B.26

A. **Top Line: Eligible uses, such as "HOV 2+ ONLY" (or 3+ or 4+ if appropriate) or "BUSES ONLY" or other ~~types of vehicles~~ applicable uses or eligible turning movements**
B. **Bottom Lines: Applicable times and days, with the time and day placed above the down arrow, such as "7 AM – 9 AM" or "6:30 AM – 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 in Figure 2B-8.)**

Option:

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-~~ post-mounted edited to increase consistency ~~Preferential Only Lane Operational~~ Periods of Operation (R3-11 series) signs and on the top line of the overhead ~~Preferential Only Lane Operational~~ Periods of Operation (R3-14 series) signs may be modified to accommodate the permitted movements (such as "HOV 2+ AND RIGHT TURNS ONLY"). this paragraph was relocated from Section 2B.26

A MOTORCYCLES ALLOWED (R3-11P) plaque may be used where motorcycles, regardless of the number of occupants, are allowed to use an HOV lane.

Standard:

If used, the MOTORCYCLES ALLOWED plaque shall be mounted below a post-mounted Preferential Lane Periods of Operation (R3-11, R3-11a, or R3-11c) sign.

For all barrier-separated and buffer-separated preferential ~~only~~ lanes, an overhead ~~Preferential Only Lane Operational~~ Periods of Operation (R3-14 series) sign shall be used at the beginning or initial entry point, and at any intermediate ~~access~~ entry points or gaps in the barrier where vehicles are allowed to legally access the barrier-separated or buffer-

separated preferential ~~only~~ lanes. For all barrier-separated and buffer-separated preferential lanes, ~~Ground-~~ post-mounted edited to increase consistency ~~Preferential Only Lane Operational~~ Periods of Operation (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~~ entry points or gaps in the barrier or buffer.

~~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.~~ this paragraph was incorporated into the previous paragraph

For contiguous preferential lanes, including those where a preferential lane is added to the roadway (see Figure 2E-39 for HOV lanes) and those where a general purpose lane transitions into a preferential lane (see Figure 2E-40 for HOV lanes), an overhead Periods of Operation (R3-14 Series) sign shall be used at the beginning or initial entry point of the preferential lane.

Guidance:

Overhead (R3-14 series) or post-mounted (R3-11 series) Periods of Operation signs should be installed at periodic intervals along the length of a contiguous preferential lane.

Option:

Additional overhead (R3-14 series) or post-mounted (R3-11 series) Periods of Operation signs may be provided along the length of any type of preferential lane.

On conventional roads, the overhead Periods of Operation (R3-14 series) signs may be installed at the beginning or entry points and/or at intermediate points along preferential lanes in any geometric configuration.

Standard:

For all types of direct access ramps that provide access to or lead to preferential lanes, a post-mounted Periods of Operation (R3-11 series) sign shall be used at the beginning or initial entry point of the direct access ramp.

Option:

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

Lane-use control signals (see Chapter 4M) may be used at access points to preferential lanes to indicate that a ramp or access roadway leading to the preferential lane or facility, or one or more specific lanes of the facility, are open or closed.

~~**Standard:**~~

~~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.~~

~~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.~~

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

~~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.~~

~~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.~~

~~Support:~~

~~Section 2B.26 contains provisions regarding the use of changeable message signs for preferential only lanes.~~

Section 2B.29 Preferential Lane Advance Signs (R3-12, R3-12e, R3-12f, R3-15 R3-15a, and R3-15d)

Section 2B.29 Tabled by RWSTC until June 2008

Guidance:

The Preferential ~~Only~~ Lane ~~Ahead~~ Advance (~~R3-10a,~~ R3-12, R3-12e, R3-12f, ~~and~~ R3-15, R3-15a, and R3-15d) signs should be used for advance notification of a general purpose lane that becomes a preferential ~~only~~ lane~~s~~ (see Figure 2E-40). this paragraph was relocated from Section 2B.26

The Preferential Lane Advance (R3-12, R3-12f, R3-15, and R3-15d) signs should be used for advance notification of a barrier-separated, buffer-separated, or contiguous preferential lane that is added to the general purpose lanes.

Option:

The legends on the R3-12f and R3-15d signs may be modified to suit the type of preferential 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.~~ this paragraph was relocated from Section 2B.28

~~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.~~ this paragraph was relocated from Section 2B.28

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.~~ this paragraph was relocated from Section 2B.28

On conventional roads, for general purpose lanes that become preferential lanes, a post-mounted (R3-12e) or overhead (R3-15a) Preferential Lane Advance sign should be installed in advance of the beginning of or initial entry point to the preferential lane at a distance determined by engineering judgment based on prevailing speed, traffic characteristics, and other site-specific considerations. The distance selected should provide adequate opportunity for ineligible vehicles to vacate the lane prior to the beginning of the restriction.

On freeways and expressways, for general purpose lanes that become preferential lanes, an overhead Preferential Lane Advance (R3-15a) sign should be installed at least 1.6 km (1 mi) in advance of the beginning of the preferential lane restriction.

Option:

Additional post-mounted or overhead Preferential Lane Advance signs may be placed farther in advance of or closer to the beginning or initial entry points to a preferential lane.

Section 2B.30 Preferential Lane Ends Signs (R3-12a, R3-12b, R3-12c, R3-12d, R3-12g, R3-12h, R3-15b, R3-15c, and R3-15e)

Section 2B.30 Tabled by RWSTC until June 2008

Standard:

~~The~~ A ~~ground-~~ post-mounted edited to increase consistency Preferential ~~Only~~ Lane Ends ~~800 m (1/2 Mile)~~ (R3-12b or R3-12h) sign shall be installed at least 800 m (0.5 mi) in advance of the termination of ~~an HOV~~ a preferential lane. this paragraph was relocated from Section 2B.28

Except as noted in the Option below, ~~The~~ a ~~ground-~~ post-mounted edited to increase consistency Preferential ~~Only~~ Lane Ends (R3-12a or R3-12g) sign shall be installed at the point where ~~the~~ a preferential ~~only~~ lane and restriction end~~s~~ and traffic must merge into the general purpose lanes.

~~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.~~ this deleted sentence is now covered in Chapter 3B

A post-mounted Preferential Lane Ends (R3-12d) sign shall be installed at least 800 m (0.5 mi) in advance of the point where a preferential lane restriction ends and the lane becomes a general purpose lane.

Except as noted in the Option below, a post-mounted Preferential Lane Ends (R3-12c) sign shall be installed at the point where a preferential lane restriction ends and the lane becomes a general purpose lane.

Option:

An overhead Preferential Lane Ends (R3-15b or R3-15e) sign may be installed instead of or in addition to a post-mounted R3-12a or R3-12g sign at the point where a preferential lane and restriction ends and traffic must merge into the general purpose lanes.

An overhead Preferential Lane Ends (R3-15c) sign may be installed instead of or in addition to a post-mounted R3-12c sign at the point where the preferential lane restriction ends and the lane becomes a general purpose lane.

Section 2B.31 Regulatory Signs for Toll Plazas

Section 2B.31 Tabled by RWSTC until June 2008

Support:

Toll plaza operations often include lane-specific restrictions on vehicle type, forms of payment accepted, and speed limits or required stops. Vehicles are typically required to come to a stop to pay the toll in the cash payment and exact change lanes. Electronic toll collection (ETC) lanes with favorable geometrics typically allow vehicles to move through the toll plaza without stopping, but usually within a set regulatory speed limit or advisory speed. In some ETC lanes,

vehicles might be required to stop while their ETC payment is processed due to geometric or other conditions.

Guidance:

Regulatory signs applicable only to a particular lane or lanes should be located in a position that makes their applicability clear to road users approaching the toll plaza.

Regulatory signs, or regulatory panels within guide signs, indicating any restrictions on vehicle type and forms of toll payment accepted at a specific toll plaza lane should be installed over the applicable lane either on the toll plaza canopy or on a separate structure immediately in advance of the canopy.

Support:

Section 2E.55 contains information regarding the incorporation of regulatory messages into guide signs for toll plazas.

Standard:

For lanes approaching, within, or adjacent to a toll plaza that are reserved exclusively for vehicles equipped with electronic toll collection (ETC) transponders, the ETC (pictograph) ONLY – NO CASH (R3-16) regulatory lane-use sign (see Figure 2B-9) shall be installed over the approach lane(s) with a down arrow located directly over the approximate center of each such lane. This sign shall also be installed over the Open Road ETC Only lanes on an approach to a divergence for a separate alignment on which a toll plaza for cash toll payments is located (see Section 2E.57 and Figure 2E-52).

The ETC (pictograph) ONLY – NO CASH (R3-16) sign shall incorporate a top header panel with a purple background and white border. Within the header panel, the pictograph adopted by the toll facility's ETC payment system (such as E-Z Pass or SunPass) shall be on a white rectangular or square underlay panel and the black legend ONLY shall be on a separate rectangular white panel. The bottom portion of the sign shall have a white background and black border with the black legend NO CASH and one black down arrow for each applicable lane.

The ETC (pictograph) ONLY – NO CASH (R3-16) sign for an ETC only facility that accepts nationally interoperable transponders shall also incorporate the nationally interoperable ETC symbol (M8-3) shown in Figure 2E-50. The M8-3 symbol shall only be used on signs for ETC facilities that accept electronic payment from any toll operator's ETC transponder.

Guidance:

One or more Speed Limit (R2-1) signs (see Section 2B.13) should be installed in appropriate locations for an ETC Only lane at a toll plaza in which an enforceable regulatory speed limit is established for a lane in which it is intended that vehicles move through the toll plaza without stopping while toll fee payment processing occurs in other lanes at the toll plaza. The speed limit displayed on the signs should be based on an engineering study taking into account the geometry of the plaza and the lanes and other appropriate safety and operational factors.

A Speed Limit (R2-1) sign should not be installed for a toll plaza lane for which a STOP (R1-1) sign is used or for which a stop is required.

Option:

Speed limit signs may be installed over the applicable lane on the toll plaza canopy, on the approach end of the toll booth island, on the toll booth itself, or on a vertical element of the canopy structure. Downward or diagonally downward pointing arrows may be used to supplement the speed limit signs if an engineering study or engineering judgment indicates that the arrow is needed to clarify the applicability of the signs or to improve compliance.

Standard:

A STOP (R1-1) sign shall not be installed for a toll plaza lane that is operated as an ETC Only lane and that is designed for tolls to be collected while vehicles continue moving.

Option:

A STOP (R1-1) sign may be installed to require vehicles to come to a complete stop to pay a toll in an attended or exact change lane, even if that lane is also available for optional use by vehicles with an ETC transponder. A PAY TOLL (R3-29P) or TAKE TICKET (R3-30P) plaque (see Figure 2B-9), as appropriate to the operation, may be installed directly under the STOP (R1-1) sign for a toll plaza cash lane, if needed.

The mounting height of the STOP sign and any supplemental plaque may be less than the normal mounting height requirements if constrained by the physical features of the toll island or toll plaza.

The lateral offset of a STOP or other regulatory sign located within a toll plaza island may be reduced to a minimum of 0.3 m (1 ft) from the face of the toll island or raised barrier to the nearest edge of the sign.

Guidance:

If used, a STOP (R1-1) sign for a toll plaza cash payment lane should be located in a longitudinal position as near as practical to the point where a vehicle is expected to stop to pay the toll or take a ticket.

Option:

A Toll Rate Schedule (R3-28) sign (see Figure 2B-9) may be installed a short distance in advance of the toll plaza to indicate the toll fees applicable to the various vehicle types.

Guidance:

If used, the Toll Rate Schedule (R3-28) sign should be located approximately 30 to 60 m (100 to 200 ft) in advance of the toll plaza.

The R3-28 sign should not contain more than three lines of text.

Section 2B.32 Regulatory Signs for Managed Lanes and ETC Only Lanes

Section 2B.32 Tabled by RWSTC until June 2008

Support:

A managed lane is a highway lane (or set of lanes) or a highway facility for which one or more variable operational strategies, such as tolling, pricing, vehicle type and/or occupancy requirements, and direction of travel, are implemented and managed in real time in response to changing conditions.

A managed lane might be on a separate alignment, might be barrier-separated or buffer-separated from the general purpose lanes, or might be contiguous with the general purpose lanes.

Under certain operational strategies, a managed lane is a special type of Preferential lane (see Sections 2B.26 through 2B.30).

Standard:

The provisions of Sections 2B.26 through 2B.30 regarding regulatory signs for Preferential lanes shall apply to managed lanes operated at all times or at certain times with fixed or variable vehicle occupancy requirements (HOV), vehicle type restrictions, and/or a toll fee payment requirement to use the lane(s). Such managed lanes shall use changeable

message signs or changeable message elements within static signs to display the appropriate regulatory sign messages only when they are in effect.

When a single-occupant vehicle equipped with an ETC transponder is allowed to use an HOV lane by paying a toll fee, the Vehicle Occupancy Definition (R3-13 or R3-13a) signs (see Section 2B.27) shall be modified to include the pictograph adopted by the facility's ETC payment system (such as E-Z Pass or SunPass) to indicate the allowable use (see Figure 2B-10). Also in this case, regulatory signs shall be used to indicate the toll fee charged for such vehicles. If the toll fee varies, regulatory signs that include changeable message elements, such as the R3-31 and R3-32 signs that are illustrated in Figure 2B-10, shall be used to display the actual toll amount or rate in effect at any given time.

When only vehicles equipped with an ETC transponder are allowed to use a managed lane or any tolled facility, regulatory signs to indicate such a restriction shall be provided and shall incorporate the pictograph adopted by the toll facility's ETC payment system and the word ONLY. If incorporated within the white background of a regulatory sign or within the green background of a guide sign, the ETC pictograph shall be on a white rectangular or square panel set on a purple backplate with a white border as shown in Figures 2B-10 and 2E-54. If used on a header panel within a regulatory or guide sign, the ETC pictograph shall have a white border and the header panel shall have a purple background with a white border as shown on the R3-16 signs in Figure 2B-9.

When certain types of vehicles (such as trucks or motorcycles) are prohibited from using a managed lane or when a managed lane is restricted to use by only certain types of vehicles during certain operational strategies, regulatory signs or regulatory panels within the appropriate guide signs that include changeable message elements shall be used to display the open/closed status of the managed lane for such vehicle types.

When the vehicle occupancy required for use of an HOV lane is varied as a part of a managed lane operational strategy, regulatory signs that include changeable message elements shall be used to display the required vehicle occupancy in effect.

Section 2B.33 Jughandle Signs (R3-23, R3-24, R3-25, and R3-26 Series)

SECTION 2B.33 TABLED by RWSTC until June 2008

Support:

A jughandle turn is a left-turn or U-turn that because of special geometry is made by initially making a right turn. This type of turn can increase the operational efficiency of a roadway by eliminating the need for exclusive left-turn lanes and can increase the operational efficiency of a traffic control signal by eliminating the need for protected left-turn phases. A jughandle turn can also provide an opportunity for trucks and commercial vehicles to make a U-turn where the median and roadway are not of sufficient width to accommodate a traditional U-turn by these vehicles.

Figure 2B-12 shows examples of regulatory and destination guide signing for various types of jughandle turns.

Standard:

On multi-lane roadways, since road users generally anticipate that they need to be in the left-hand lane when approaching a location where they desire to turn left or make a U-turn, an ALL TURNS FROM RIGHT LANE (R3-23) or a U TURN FROM RIGHT LANE

(R3-23a) sign (see Figure 2B-11) shall be installed in advance of the location to inform drivers that left turns and/or U-turns will be made from the right-hand lane.

Option:

Where a median of sufficient width is available, supplemental regulatory or guide signs may also be placed on the left-hand side of the roadway.

Standard:

An R3-24 series sign (see Figure 2B-11) with an upward diagonal arrow pointing to the right if the jughandle entrance is designed as an exit ramp or an R3-25 series sign (see Figure 2B-11) with a horizontal arrow pointing to the right if the jughandle entrance is designed as an intersection shall be installed on the right-hand side of the roadway at the entrance to the jughandle. The legend on the sign shall be ALL TURNS, U TURN, or U AND LEFT TURNS, as appropriate.

If the jughandle is designed such that the jughandle entrance is downstream of the location where the turn would normally have been made (see Drawing C of Figure 2B-11), an R3-26 series sign (see Figure 2B-11) with an arrow pointing straight upward shall be installed on the right-hand side of the roadway at the intersection to inform road users that they need to proceed straight through the intersection in order to make a left turn or U-turn. The legend on the sign shall be U TURN or U AND LEFT TURNS, as appropriate.

Support:

The R3-24, R3-25, and R3-26 series of signs are designed to be mounted below conventional guide signs.

Section 2C.14 contains information regarding the use of advisory exit and ramp speed signs for exit ramps.

Section ~~2B.29~~ 2B.34 Do Not Pass Sign (R4-1)

Approved by Council 1-12-08

Option:

The Do Not Pass (R4-1) sign (see Figure 2B-13) 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.

A DO NOT PASS (R4-1P) educational plaque (see Figure 2B-13) may be mounted below the R4-1 symbol sign.

A DO NOT PASS (R4-1a) word message sign (see Figure 2B-13) may be used instead of the symbol sign.

If signing is needed on the left-hand added for increased clarity side of the roadway for additional emphasis, NO PASSING ZONE (W14-3) signs may be used (see Section 2C.47).

Support:

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

~~Section 2B.35 DO NOT PASS WHEN SOLID LINE IS ON YOUR SIDE Sign (R4-15)~~

Approved by Council 1-12-08 to delete Section 2B.35 in it's entirety as shown in yellow. Reason for deleting Section 2B.35 – The No Passing Pennant W14-3

warning sign may be installed for this situation to warn drivers when they should not pass. State Statutes typically indicate that solid yellow line on their side means DO NOT PASS. Part 3 of MUTCD also indicates this already.

~~Option:~~

~~The DO NOT PASS WHEN SOLID LINE IS ON YOUR SIDE (R4-15) sign (see Figure 2B-13) may be installed to remind road users of the meaning of the solid yellow center line for no-passing zones.~~

Section 2B.36 DO NOT DRIVE ON SHOULDER Sign (R4-17) and DO NOT PASS ON SHOULDER Sign (R4-18)

Approved by Council 1-12-08

Option:

The DO NOT DRIVE ON SHOULDER (R4-17) sign (see Figure 2B-13) may be installed to inform road users that using the shoulder of a roadway as a travel lane is prohibited.

The DO NOT PASS ON SHOULDER (R4-18) sign (see Figure 2B-13) may be installed to inform road users that using the shoulder of a roadway to pass other vehicles is prohibited.

Section ~~2B.30~~ 2B.37 PASS WITH CARE Sign (R4-2)

Approved by Council 1-12-08

Guidance:

The PASS WITH CARE (R4-2) sign (see Figure 2B-13) should be installed at the downstream end of a no-passing zone if a Do Not Pass sign has been installed at the ~~beginning~~ upstream end of the zone.

Section ~~2B.31~~ 2B.38 SLOWER TRAFFIC KEEP RIGHT Sign (R4-3) and KEEP RIGHT EXCEPT TO PASS Sign (R4-16)

Section 2B.38 Tabled until June 2008 by RWSTC

Option:

The SLOWER TRAFFIC KEEP RIGHT (R4-3) sign (see Figure 2B-13) or the KEEP RIGHT EXCEPT TO PASS (R4-16) sign (see Figure 2B-13) may be used on multi-lane roadways to reduce unnecessary lane changing.

Guidance:

If used, the SLOWER TRAFFIC KEEP RIGHT or the KEEP RIGHT EXCEPT TO PASS 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-hand 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.

Section ~~2B.32~~ 2B.39 ~~Slow-Moving Traffic~~ TRUCKS USE RIGHT LANE Sign~~s~~ (R4-5~~, R4-6~~)

Approved by Council 1-12-08

~~Support:~~

~~The Slow-Moving Traffic Lane signs (see Figure 2B-8) are used to direct vehicles into an extra lane that has been provided for slow-moving vehicles.~~

Guidance:

If an extra lane has been provided for trucks and other slow-moving traffic, a SLOWER TRAFFIC KEEP RIGHT (R4-3) sign (see Figure 2B-13), TRUCKS USE RIGHT LANE (R4-5) sign (see Figure 2B-13), 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 sign. Both signs may be used on multi-lane roadways to improve capacity and reduce lane changing.

The TRUCKS USE RIGHT LANE (R4-5) sign may be used on multi-lane roadways to reduce unnecessary lane changing.

Guidance:

If an extra lane has been provided for trucks and other slow-moving traffic, a Lane Ends sign (see Section 2C.41) should be installed in advance of the point where the extra lane ends. Appropriate pavement markings should be installed at both the ~~beginning~~ upstream and ~~the~~ downstream ends of the extra lane (see Section 3B.09 and Figure 3B-13).

Support:

Section 2D.53 contains information regarding advance information signs for extra lanes that have been provided for trucks and other slow-moving traffic.

Section ~~2B.33~~ 2B.40 Keep Right and Keep Left Signs (R4-7, R4-8)

Approved by Council 1-12-08

Option:

The Keep Right (R4-7) sign (see Figure 2B-13) may be used at locations where it is necessary for traffic to pass only to the right-hand side edited to increase clarity of a roadway feature or obstruction. The Keep Left (R4-8) sign (see Figure 2B-13) may be used at locations where it is necessary for traffic to pass only to the left-hand side edited to increase clarity of a roadway feature or obstruction.

Guidance:

At locations where it is not readily apparent that traffic is required to keep to the right, a Keep Right sign should be used.

If used, the Keep Right sign should be installed as close as practical to approach ends of raised medians, parkways, islands, and 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-hand side edited to increase clarity of the sign.

Standard:

The Keep Right sign shall not be installed on the right-hand edited to increase clarity side of the roadway in a position where traffic must pass to the left-hand side edited to increase clarity 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 (see Figure 2B-13) 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.

A narrow Keep Right (R4-7c) sign (see Figure 2B-13) may be installed on the nose of a median island where the median width is too narrow to accommodate an R4-7 sign that is 600 mm (24 in) wide.

Standard:

A narrow Keep Right (R4-7c) sign shall not be installed on a median island that has a width of 1.8 m (6 ft) or more at the point where the sign is to be located.

Section 2B.41 STAY IN LANE Sign (R4-9)

Approved by Council 1-12-08 with modifications shown in yellow

Option:

A STAY IN LANE (R4-9) sign (see Figure 2B-13) may be used on multi-lane highways to direct road users to stay in their lane until conditions permit shifting to another lane.

Guidance:

If a STAY IN LANE sign is used, it should be accompanied by a double solid white lane line(s) to prohibit lane changing. ~~or a single solid white lane line(s) to discourage lane changing in that section of roadway.~~

Reason for change to Section 2B.41 – The STAY IN LANE sign is regulatory (mandatory); therefore a single solid white line would not be appropriate since it only discourages lane changing rather than prohibiting lane changing.

Section 2B.42 RUNAWAY VEHICLES ONLY Sign (R4-10)

Section 2B.42 Tabled by RWSTC until June 2008

Guidance:

A RUNAWAY VEHICLES ONLY (R4-10) sign (see Figure 2B-13) should be installed near a truck escape (or runaway truck) ramp entrance to discourage other road users from entering the ramp.

Section 2B.43 Slow Vehicle Turn-Out Signs (R4-12, R4-13, and R4-14)

Section 2B.43 Tabled until June 2008 by RWSTC

Support:

On two-lane highways in areas where traffic volumes and/or vertical or horizontal curvature make passing difficult, turn-out areas are sometimes provided for the purpose of giving a group of faster vehicles an opportunity to pass a slow-moving vehicle.

Option:

A SLOW VEHICLES WITH XX OR MORE FOLLOWING VEHICLES MUST USE TURN-OUT (R4-12) sign (see Figure 2B-13) may be installed in advance of a turn-out area to inform drivers who are driving so slow that they have accumulated a specific number of vehicles behind them that they are required to use the turn-out to allow the vehicles following them to pass.

Support:

The specific number of vehicles displayed on the R4-12 sign provides law enforcement personnel with the information they need to enforce this regulation.

Option:

If an R4-12 sign has been installed in advance of a turn-out area, a SLOW VEHICLES MUST USE TURN-OUT AHEAD (R4-13) sign (see Figure 2B-13) may also be installed downstream from the R4-12 sign, but upstream from the turn-out area, to remind slow drivers that they are required to use a turn-out that is a short distance ahead.

Standard:

If an R4-12 sign has been installed in advance of a turn-out area, a SLOW VEHICLES MUST TURN OUT (with arrow) (R4-14) sign (see Figure 2B-13) shall be installed at the entry point of the turn-out area.

Support:

Section 2D.54 contains information regarding advance information signs for slow vehicle turn-out areas.

Section ~~2B.34~~ 2B.44 DO NOT ENTER Sign (R5-1)

Approved by Council 1-12-08

Standard:

The DO NOT ENTER (R5-1) sign (see Figure 2B-14) 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-15). The sign should be mounted on the right-hand edited to increase clarity 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-15).

Support:

Section 2B.48 contains information regarding an optional lower mounting height for DO NOT ENTER signs that are located along the exit ramp facing a road user who is traveling in the wrong direction.

Section ~~2B.35~~ 2B.45 WRONG WAY Sign (R5-1a)

Approved by Council 1-12-08

Option:

The WRONG WAY (R5-1a) sign (see Figure 2B-14) 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-15).

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.49).

Support:

Section 2B.48 contains information regarding an optional lower mounting height for WRONG WAY signs that are located along the exit ramp facing a road user who is traveling in the wrong direction.

Section ~~2B.36~~ 2B.46 Selective Exclusion Signs

Approved by Council 1-12-08 with modification shown in yellow.

Support:

Selective Exclusion signs (see Figure 2B-14) 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. NO COMMERCIAL VEHICLES ~~EXCLUDED~~ (R5-4),
D. NO TRUCKS (VEHICLES) WITH LUGS ~~PROHIBITED~~ (R5-5),
E. No Bicycles (R5-6),
F. NO NON-MOTORIZED TRAFFIC ~~PROHIBITED~~ (R5-7),
G. NO MOTOR-DRIVEN CYCLES ~~PROHIBITED~~ (R5-8), and
H. No Hazardous Material ~~Prohibited~~ (R14-3) (see Section 2B.67).

Option:

Appropriate combinations or groupings of these legends into a single sign, such as NO PEDESTRIANS BICYCLES MOTOR-DRIVEN CYCLES ~~PROHIBITED~~ (R5-10a), or NO PEDESTRIANS ~~AND~~ OR BICYCLES ~~PROHIBITED~~ (R5-10b) may be used.

Guidance:

If an exclusion is governed by vehicle weight, a Weight Limit sign (see Section 2B.64) should be used instead of a Selective Exclusion sign.

The Selective Exclusion sign should be placed on the right-hand edited to increase clarity 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 NO PEDESTRIANS ~~PROHIBITED~~ (R5-10c) or No Pedestrian Crossing (R9-3~~a~~) sign (see Section 2B.58) added to assist the reader 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 NO PEDESTRIANS ~~PROHIBITED~~ (R5-10c) or No Pedestrian Crossing (R9-3~~a~~) sign may also be used at underpasses or elsewhere where pedestrian facilities are not provided.

The AUTHORIZED VEHICLES ONLY (R5-13) or the FOR OFFICIAL USE ONLY (R5-14) sign may be used at median openings and other locations to prohibit vehicles from using the median opening or facility unless they have special permission (such as law enforcement vehicles or emergency vehicles) or are performing official business (such as highway agency ~~maintenance~~ vehicles).

Reason for change to 2B.46 – other highway agency vehicles other than maintenance could be authorized.

Section ~~2B.37~~ 2B.47 ONE WAY Signs (R6-1, R6-2)

Approved by Council 1-12-08 with modifications shown in yellow.

Standard:

Except as noted in the Option, the ONE WAY (R6-1 or R6-2) sign (see Figure 2B-16) 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-17 through 2B-20.

~~Guidance:~~

~~Where~~ At intersections with divided highways ~~are separated by median widths at the intersection itself of 9 m (30 ft) or more~~, ONE WAY signs ~~should~~ shall be placed, visible to each crossroad approach, on the near right, ~~and~~ far left, and far right corners of each intersection with the directional roadways as shown in Figures ~~2B-12 and~~ 2B-18 through 2B-20.

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 on the medians (see Figures 2B-19 and 2B-20) at intersections with divided highways that have median widths at the intersection itself of less than 9 m (30 ft).

A BEGIN ONE WAY (R6-XX) sign may be used to denote the start point of one-way traffic regulations along a street or roadway. An END ONE WAY (R6-XY) sign may be used to denote the end point of one-way traffic regulations along a street or roadway. The R6-XY END ONE WAY sign may be used in addition to the W6-3 Two-Way Traffic sign (Section 2C.34).

Support:

Typically, the END ONE WAY (R6-XY) sign is placed on the near side of the intersection or location where the one way street ends.

ADD BEGIN ONE WAY and END ONE WAY signs to Figure 2B-16.

Reason for change to Figure 2B-16 – To provide a sign detail to correspond with Section 2B.47.

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 (see Figure 2B-17, Sheet 1 of 2).

At signalized intersections, ONE WAY signs shall be placed ~~either~~ grammar – more than two choices 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.

At unsignalized T-intersections where the roadway at the top of the T-intersection is a one-way roadway, ONE WAY signs shall be placed on the near right and the far side of the intersection facing traffic on the stem approach (see Figure 2B-17, Sheet 2 of 2).

At signalized T-intersections where the roadway at the top of the T-intersection is a one-way roadway, ONE WAY signs shall be placed near the appropriate signal faces, on the poles holding the traffic signals or on the mast arm or span wire holding the signals, or at the locations specified for unsignalized intersections.

Option:

Where the central island of a roundabout allows for the installation of signs, ONE WAY signs may be used instead of or in addition to Roundabout Directional Arrow (R6-4 series) signs (see Section 2B.50) to direct traffic counter-clockwise around the central island.

Guidance:

Where used on the central island of a roundabout, the mounting height of a ONE WAY sign should be at least 1.2 m (4 ft), measured vertically from the bottom of the sign to the elevation of the near edge of the traveled way.

Support:

Using ONE WAY signs on the central island of a roundabout might result in some drivers incorrectly concluding that the cross street is a one-way street. Using Roundabout Directional Arrow signs might reduce this confusion. However, using ONE WAY signs might be necessary in States that have defined a roundabout as a series of T-intersections.

Reason for change to 2B.47 – Editorial.

Section 2B.48 Wrong-Way Traffic Control at Interchange Ramps text was relocated from Section 2E.50 because it relates more to regulatory signs rather than guide signs

Approved by Council 1-12-08

Standard:

At interchange exit ramp terminals where the ramp intersects a crossroad in such a manner that wrong-way entry could inadvertently be made, the following signs shall be used (see Figure 2B-21):

A. At least one ONE WAY sign for each direction of travel on the crossroad shall be placed where the exit ramp intersects the crossroad.

B. At least one DO NOT ENTER sign shall be conspicuously placed near the downstream end of the exit ramp in positions appropriate for full view of a road user starting to enter wrongly from the crossroad.

C. At least one WRONG WAY sign shall be placed on the exit ramp facing a road user traveling in the wrong direction.

Guidance:

In addition, the following pavement markings should be used (see Figure 2B-21):

A. On two-lane paved crossroads at interchanges, double solid yellow lines should be used as a ~~centerline~~ center line for an adequate distance on both sides approaching the ramp intersections.
B. Where crossroad channelization or ramp geometrics do not make wrong-way movements difficult, a lane-use arrow should be placed in each lane of an exit ramp near the crossroad terminal where it will be clearly visible to a potential wrong-way road user.

Option:

The following traffic control devices may be used to supplement the above signs and pavement markings:

A. Additional ONE WAY signs may be placed, especially on two-lane rural crossroads, appropriately in advance of the ramp intersection to supplement the required ONE WAY sign(s).
B. Additional WRONG WAY signs may be used.
C. Slender, elongated wrong-way arrow pavement markings (see Figure 3B-24) intended primarily to warn wrong-way road users that they are traveling in the wrong direction may be placed upstream from the ramp terminus (see Figure 2B-21) to indicate the correct direction of traffic flow. Wrong-way arrow pavement markings may also be placed on the exit ramp at appropriate locations near the crossroad junction to indicate wrong-way movement. The wrong-way arrow markings may consist of pavement markings or bidirectional red-and-white raised pavement markers or other units that show red to wrong-way road users and white to other road users (see Figure 3B-24).
D. Lane-use arrow pavement markings may be placed on the exit ramp and crossroad near their intersection to indicate the permissive direction of flow.
~~E. Guide signs or may be used on entrance ramps near the crossroad to inform road users of the freeway or expressway entrance, as appropriate (see Figure 2E-37).~~ relocated to Section 2D.48
E. Freeway entrance signs (see Section 2D.48) may be used.

Guidance:

On interchange entrance ramps where the ramp merges with the through roadway and the design of the interchange does not clearly make evident the direction of traffic on the separate roadways or ramps, a ONE WAY sign visible to traffic on the entrance ramp and through roadway should be placed on each side of the through roadway near the entrance ramp merging point as illustrated in Figure 2B-22.

Option:

At locations where engineering judgment determines that a special need exists, other standard warning or prohibitive methods and devices may be used as a deterrent to the wrong-way movement.

Where there are no parked cars, pedestrian activity or other obstructions such as snow or vegetation, and if an engineering study indicates that a lower mounting height would address wrong-way movements on freeway or expressway exit ramps, a DO NOT ENTER sign(s) and/or a WRONG WAY sign(s) that is located along the exit ramp facing a road user who is traveling in the wrong direction may be installed at a minimum mounting height of 0.9 m (3 ft), measured vertically from the bottom of the sign to the elevation of the near edge of the pavement.

Support:

Section 2B.49 contains further information on signing to avoid wrong-way movements at at-grade intersections on expressways.

Section ~~2B.38~~ 2B.49 Divided Highway Crossing Signs (R6-3, R6-3a)

SECTION 2B-49 TABLED by RWSTC until June 2008

~~Option~~ Standard:

On unsignalized minor-street approaches from which both left turns and right turns are permitted onto a divided highway, except as noted in the Option below, a ~~The~~ Divided Highway Crossing (R6-3 or R6-3a) sign (see Figure 2B-16) ~~may~~ shall be used to advise road users that they are approaching an intersection with a divided highway.

Option:

If the divided highway has a traffic volume of less than 400 AADT and a speed limit of 40 km/h (25 mph) or less, the Divided Highway Crossing signs facing the minor-street approaches may be omitted.

A Divided Highway Crossing sign may be used on signalized minor-street approaches from which both left turns and right turns are permitted onto a divided highway to advise road users that they are approaching an intersection with a divided highway.

Standard:

~~When the~~ If a edited to increase accuracy **Divided Highway Crossing sign is used at a four-legged intersection, the R6-3 sign shall be used.** ~~When~~ If edited to increase accuracy **used at a T-intersection, the R6-3a sign shall be used.**

~~Option:~~

The Divided Highway Crossing sign ~~may~~ shall 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.

Option:

An additional Divided Highway Crossing sign may be installed on the left-hand side of the approach to supplement the Divided Highway Crossing sign on the near right corner of the intersection.

Section 2B.50 Roundabout Directional Arrow Signs (R6-4, R6-4a, and R6-4b)

Approved by Council 1-12-08 with modifications shown in yellow

Guidance:

Where the central island of a roundabout allows for the installation of signs, Roundabout Directional Arrow (R6-4 series) signs should be used in the central island to direct traffic counter-clockwise around the central island, except as noted in the Option in Section 2B.47 and as noted in the Option below.

Standard:

The R6-4 sign (see Figure 2B-23) shall be a horizontal rectangle with two black chevrons pointing to the right on a white background. The R6-4a sign (see Figure 2B-23) shall be a horizontal rectangle with three black chevrons pointing to the right on a white background. The R6-4b sign (see Figure 2B-23) shall be a horizontal rectangle with four black chevrons pointing to the right on a white background. No border shall be used on the Roundabout Directional Arrow signs.

Roundabout Directional Arrow signs shall be used only at roundabouts and other circular intersections.

Guidance:

When used on the central island of a roundabout, the mounting height of a Roundabout Directional Arrow sign should be at least 1.2 m (4 ft), measured vertically from the bottom of the sign to the elevation of the near edge of the traveled way.

Option:

~~Wider chevrons within the Roundabout Directional Arrow sign.~~ More than one Roundabout Directional Arrow sign~~.~~ and/or R6-4a or R6-4b signs may be used facing high-speed approaches, facing approaches with limited visibility, or in other circumstances as determined by engineering judgment where increased sign visibility would be appropriate.

Reason for change to 2B.50 – Not clear what Wider chevrons means. Is it wider sign or wider black portion of sign? Rather, change to "more" so it is clear what it means.

Section 2B.51 Roundabout Circulation Plaque (R6-5P)

Approved by Council 1-12-08

Guidance:

Where the central island of a roundabout does not provide a reasonable place to install a sign, Roundabout Circulation (R6-5P) plaques (see Figure 2B-23) should be placed below the YIELD signs on each approach.

Option:

At roundabouts where Roundabout Directional Arrow signs and/or ONE WAY signs have been installed in the central island, Roundabout Circulation plaques may be placed below the YIELD signs on approaches to roundabouts to supplement the central island signs.

The Roundabout Circulation plaque may be used at any type of circular intersection.

Section 2B.52 Examples of Roundabout Signing

Approved by Council 1-12-08 with modifications shown in yellow

Support:

Figures 2B-24 through 2B-26 illustrate examples of regulatory and warning signing for roundabouts of various configurations.

Chapter 2D contains information regarding guide signing at roundabouts and Chapter 3C contains information regarding pavement markings at roundabouts.

Roundabout task force 1-9-08 recommended that Figure 2B-24 increase the size of the plaque that says 7th ave. It is hard to read this.. Change figure 2B-23 and 2B-25 also.

The figures 2B-25 and 26 dropped the use of the KEEP RIGHT sign as optional - under the left side YIELD sign. Roundabout task force recommended that this be adding back in to what was approved by Council in January 2007.

Figure 2B-26 label the roundabout warning sign as optional to be consistent with figure2B-25. along with the plaque under it.

Figure 2C-10 – label as optional W16-12P and W16-17P so consistent with other plaques like the one in figure 7B-1 and others.

Reasons for change to figures are noted above.

Section ~~2B.39~~ 2B.53 Parking, Standing, and Stopping Signs (R7 and R8 Series)

Approved by Council 1-12-08

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 and plaques added to increase accuracy (see Figures 2B-27 and 2B-28) are as follows: signs and plaques added to list in order to provide a complete list of the signs and plaques shown in previous Figures 2B-16 and 2B-17

1. NO PARKING ANY TIME (R7-1);
2. NO PARKING ~~8:30~~ X:XX AM TO ~~5:30~~ X:XX PM (R7-2, R7-2a);
3. NO PARKING EXCEPT SUNDAYS AND HOLIDAYS (R7-3);
4. NO STANDING ANY TIME (R7-4);
5. ~~ONE~~ XX HOUR PARKING ~~9~~ X:XX AM-~~7~~ X:XX PM (R7-5);
6. NO PARKING LOADING ZONE (R7-6);
7. NO PARKING BUS STOP (R7-7, R7-107, R7-107a);
8. RESERVED PARKING for persons with disabilities (R7-8);
9. VAN ACCESSIBLE (R7-8aP, R7-8bP);
10. Pay Station (R7-20);
11. Pay Parking or Pay to Park (R7-21, R7-21a, R7-22, R7-22a);
12. Parking Permitted X:XX AM TO X:XX PM (R7-23);
13. Parking Permitted XX HOUR(S) XX AM – XX PM (R7-23a);
14. XX HR PARKING X:XX AM TO X:XX PM (R7-108);
15. NO PARKING ANYTIME /XX HOUR PARKING X:XX AM – X:XX PM (R7-200, R7-200a);
16. TOW-AWAY ZONE (R7-201P, R7-201aP);
17. THIS SIDE OF SIGN (R7-202P);
18. EMERGENCY SNOW ROUTE NO PARKING IF OVER XX mm (INCHES) (R7-203);
19. NO PARKING ON PAVEMENT (R8-1);
20. NO PARKING EXCEPT ON SHOULDER (R8-2);
21. NO PARKING (R8-3, R8-3a);

~~L. No Parking (R8-3a), and~~

22. EXCEPT SUNDAYS & HOLIDAYS (R8-3bP);
23. ON PAVEMENT (R8-3cP);
24. ON BRIDGE (R8-3dP);
25. ON TRACKS (R8-3eP);
26. EXCEPT ON SHOULDER (R8-3fP);
27. LOADING ZONE (R8-3gP);
28. X:XX AM TO X:XX PM (R8-3hP);
29. EMERGENCY PARKING ONLY (R8-4);
30. NO STOPPING ON PAVEMENT (R8-5);
31. NO STOPPING EXCEPT ON SHOULDER (R8-6); and
32. EMERGENCY STOPPING ONLY (R8-7).

Section ~~2B.40~~ 2B.54 Design of Parking, Standing, and Stopping Signs

Approved by Council 1-12-08 with modifications shown in yellow

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 (see Figures 2B-27 and 2B-28) shall ~~conform to~~ comply with 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), except that the R8-4 and R8-7 signs and the alternate design for the R7-201aP plaque shall have a black legend and border on a white background, and the R8-3a sign shall have a black legend and border and a red circle and slash on a white background.

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 Snow Route (R7-203) signs (see Figure 2B-27) 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.

Standard:

Where parking spaces that are reserved for persons with disabilities are designated to accommodate wheelchair vans, a VAN ACCESSIBLE (~~R7-8b~~ R7-8aP) from errata list for 2003 MUTCD plaque (see Figure 2B-27) ~~should~~ shall be mounted below the R7-8 sign. relocated and changed to Standard

Guidance:

When used to direct drivers to van-accessible parking facilities, a VAN ACCESSIBLE (~~R7-8a~~ R7-8bP) plaque (see Figure 2B-27) should be mounted below the ~~D4-1~~ D9-6 sign. from errata list for 2003 MUTCD

Standard:

The R7-8 sign (see Figure 2B-27) shall have a green legend and border and a white wheelchair symbol on a square blue panel, all on a white background. The R7-8aP plaque shall have a green legend and border on a white background. The R7-8bP plaque shall have a white legend and border on a blue background.

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 an R7-200a sign 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 (see Figure 2B-27). Alternate designs may include, on a single ~~panel~~ sign, edited to increase accuracy 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~~ displayed edited to increase consistency 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 TOW-AWAY ZONE (R7-201P) ~~sign~~ plaque (see Figure 2B-27) ~~reading TOW-AWAY ZONE (R7-201)~~ may be appended to, or incorporated in, any parking prohibition sign. The Tow-Away Zone (R7-201aP) symbol ~~sign~~ plaque may be used instead of the R7-201P word message ~~sign~~ plaque. The R7-201aP ~~sign~~ plaque may have either a black or red legend and border on a white background.

Guidance:

If a fee is charged for parking and a midblock pay station is used instead of individual parking meters for each parking space, pay parking signs should be used. Pay Parking (R7-22 or R7-22a) signs (see Figure 2B-27) should be used to define the area where the pay station parking applies. Pay Station (R7-20) signs (see Figure 2B-27) should be used at the pay station or to direct road users to the pay station.

Option:

Color-coding of time limits may be used if the colors are in conformance with Section 2A.10.

Standard:

If the pay parking is subject to a maximum time limit, the appropriate time limit (number of hours or minutes) shall be displayed on the Pay Parking (R7-21 or R7-21a) and Pay Station (R7-20) signs.

Option:

In rural areas, the legends NO PARKING ON PAVEMENT (R8-1) or NO STOPPING ON PAVEMENT (R8-5) ~~is~~ are generally suitable and may be used. If a roadway has paved shoulders, the NO PARKING EXCEPT ON SHOULDER sign (R8-2) or the NO STOPPING EXCEPT ON SHOULDER sign (R8-6) may be used as ~~it is~~ these signs would be 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 (see Figure 2B-28)~~, such as ON PAVEMENT (R8-3c) or ON BRIDGE (R8-3d),~~ may be mounted below the R8-3 or R8-3a sign. These word message supplemental plaques may include legends such as EXCEPT SUNDAYS & HOLIDAYS (R8-3bP), ON PAVEMENT (R8-3cP), ON BRIDGE (R8-3dP), ON TRACKS (R8-3eP), EXCEPT ON SHOULDERS (R8-3fP), LOADING ZONE (with arrow) (R8-3gP), and X:XX AM TO X:XX PM (with arrow) (R8-3hP).

Reasons for change to 2B.54 – Council approved color coding language in 2007. It provides for clearer and quicker recognition by the driver for different hours.

Section ~~2B.41~~ 2B.55 Placement of Parking, Stopping, and Standing Signs

Approved by Council 1-12-08 with modifications shown in yellow

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 or 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~~ an appended ~~message~~ THIS SIDE OF SIGN (R7-202P) supplemental plaque.

Guidance:

If the signs are mounted at an angle of 90 degrees to the curb line, ~~At intermediate points within a zone,~~ ~~a~~ ~~single~~ signs without any arrows or appended plaques should be used at intermediate points within a zone, facing in the direction of approaching traffic. Otherwise the standards of placement should be the same as for signs using directional arrows.

Reason for change to 2B.55 – Consistent with approved language by Council in January 2007. Allows for installing more than one sign at intermediate points for longer blocks.

Section ~~2B.42~~ 2B.56 Emergency Restriction Signs (R8-4, R8-7, R8-8)

Approved by Council 1-12-08

Option:

The EMERGENCY PARKING ONLY (R8-4) sign (see Figure 2B-28) or the EMERGENCY STOPPING ONLY (R8-7) sign (see Figure 2B-28) 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~~ on the shoulder because a turnout or rest area~~s~~ ~~have~~ has not been provided.

The DO NOT STOP ON TRACKS (R8-8) sign (see Figure 8B-4) may be used to discourage or prohibit parking or stopping on railroad tracks (see Section 8B.09).

Standard:

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

Section ~~2B.43~~ 2B.57 WALK ON LEFT FACING TRAFFIC and No Hitchhiking Signs (R9-1, R9-4, R9-4a)

Approved by Council 1-12-08

Option:

The WALK ON LEFT FACING TRAFFIC (R9-1) sign (see Figure 2B-29) 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-hand edited to increase clarity side of the road where pedestrians walk on the pavement or shoulder in the absence of pedestrian pathways or sidewalks.

Option:

The No Hitchhiking (R9-4~~a~~) sign (see Figure 2B-29) may be used to prohibit standing in or adjacent to the roadway for the purpose of soliciting a ride. The R9-4a word message sign (see Figure 2B-29) may be used as an alternate to the R9-4~~a~~ symbol sign.

Section ~~2B.44~~ 2B.58 Pedestrian Crossing Signs (R9-2, R9-3)

Approved by Council 1-12-08

Option:

Pedestrian Crossing signs (see Figure 2B-29) 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 (R9-3~~a~~) 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 (R9-3a) word message sign may be used as an alternate to the R9-3~~a~~ symbol sign. The USE CROSSWALK (R9-3bP) supplemental plaque, 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 R9-3bP ~~sign~~ plaque should not be installed in combination with educational plaques.

Because pedestrians who have visual disabilities typically need additional guidance as to where not to cross, No Pedestrian Crossing (R9-3 and R9-3a) signs should be supplemented with detectable guidance, such as grass strips, landscaping, planters, fencing, rails, or barriers.

Section ~~2B.45~~ 2B.59 Traffic Signal Signs (R10-1 through ~~R10-21~~ R10-32P)

Section 2B.59 Tabled until June 2008 by RWSTC

Option:

To supplement traffic signal control, Traffic Signal signs R10-1 through ~~R10-21~~ R10-32P 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.~~ deleted as locations near signal faces are now specifically specified where appropriate

Standard:

Traffic Signal signs applicable to pedestrian actuation (see Figure 2B-29) or bicyclist actuation (see Figure 9B-2) shall be mounted immediately above or incorporated into the ~~pedestrian~~ pushbutton detector units (see Section 4E.08).

Support:

Traffic Signal signs applicable to pedestrians include:

A. CROSS ONLY ON GREEN ~~LIGHT ONLY~~ (symbolic circular green) (R10-1);
B. CROSS ONLY ON ~~WALK~~ (symbolic walk indication) SIGNAL ~~ONLY~~ (R10-2);
C. Push Button for ~~GREEN LIGHT~~ Walk Signal (R10-3); and
D. Push Button for ~~WALK SIGNAL~~ Green Signal (R10-4).

Option:

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

A. Push Button to Cross Street ~~(arrow), PUSH BUTTON~~ Wait for ~~GREEN LIGHT~~ Walk Signal (R10-3a); or
B. Push Button to Cross Street ~~(arrow), PUSH BUTTON~~ ~~WALK SIGNAL~~ Wait for Green Signal (R10-4a).

The name of the street to be crossed may be substituted for the word STREET in the legends on the R10-3a and R10-4a signs.

~~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 instead of the R10-3 sign 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 sign R10-3b, thus creating educational sign R10-3c. The R10-3d educational sign may be used ~~if~~ to inform pedestrians that the pedestrian clearance time is sufficient only for the pedestrian to cross to the median at locations where pedestrians cross in two stages using a median refuge island. ~~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.~~ The R10-3e educational sign may be used where countdown pedestrian signals have been provided. In order to assist the pedestrian in understanding which pushbutton to push, the R10-3f to R10-3i educational signs that provide the name of the street to be crossed may be used instead of the R10-b to R10-3e educational signs.

The R10-24 or R10-26 sign (see Section 9B.11) may be used where a pushbutton detector has been installed exclusively for bicyclists to actuate a special bicycle phase or a concurrent vehicular green phase.

The R10-25 sign (see Figure 2B-29) may be used where a pushbutton detector has been installed for pedestrians to activate In-Roadway Warning Lights (see Chapter 4N) or flashing beacons that have been added to the pedestrian warning signs.

Traffic Signal signs (see Figure 2B-30) may be installed at certain locations to clarify signal control. Among the legends that may be used for this purpose are LEFT ON GREEN ARROW ONLY (R10-5) (see Section 4D.19), 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~~ lane-use control edited for consistency signals (see Chapter 4M), added to assist reader LEFT TURN YIELD ON GREEN (symbolic circular green ~~ball~~) (R10-12), ~~and~~ LEFT TURN SIGNAL YIELD ON GREEN (symbolic circular green ~~ball~~) (R10-21) ~~(see Sections 4D.18 and 4D.20)~~, and LEFT TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27).

Guidance:

If used, the LEFT ON GREEN ARROW ONLY (R10-5) sign, the LEFT TURN YIELD ON GREEN (symbolic circular green) (R10-12) sign, the LEFT TURN SIGNAL YIELD ON GREEN (symbolic circular green) (R10-21) sign, or the LEFT TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27) sign should be located adjacent to the left-turn signal face.

Option:

If needed for additional emphasis, an additional LEFT TURN YIELD ON GREEN (symbolic circular green) (R10-12) sign with an AT SIGNAL (R10-31P) supplemental plaque (see Figure 2B-30) may be installed in advance of the intersection.

In situations where traffic control signals are coordinated for progressive timing, the Traffic Signal Speed (I1-1) sign may be used (see Section 2I.04).

Standard:

~~**The NO TURN ON RED (R10-11a, R10-11b) sign (see Figure 2B-19) shall be used to prohibit**~~ **Where a right turn on red (or a left turn on red from a one-way street to a one-way street) is to be prohibited, a symbolic NO TURN ON RED (symbolic circular red) (R10-11) sign (see Figure 2B-30) or a NO TURN ON RED (R10-11a, R10-11b) word message sign (see Figure 2B-30) shall be used.**

~~Option:~~

~~A symbolic NO TURN ON RED (R10-11) sign (see Figure 2B-19) may be used as an alternate to the R10-11a and R10-11b signs.~~ incorporated into previous paragraph

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;
E. More than three right-turn-on-red accidents reported in a 12-month period for the particular approach; or
F. The skew angle of the intersecting roadways creates difficulty for older drivers to see traffic approaching from their left.

Where turns on red are permitted and the signal indication is a steady added to increase accuracy RED ARROW, the RIGHT (LEFT) ON RED ARROW AFTER STOP (R10-17a) sign (see Figure 2B-30) should be installed adjacent to the RED ARROW signal indication.

Option:

A supplemental R10-20a plaque (see Figure 2B-30) showing times of day (similar to the S4-1P 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.

Alternatively, a blank-out sign may be used instead of a static NO TURN ON RED sign, to display either the NO TURN ON RED legend or the No Right Turn symbol or word message, as appropriate, only at certain times during the day or during one or more portion(s) of a particular cycle of the traffic signal.

On signalized approaches with more than one right-turn lane, a NO TURN ON RED EXCEPT FROM RIGHT LANE (R10-11c) sign (see Figure 2B-30) may be post-mounted at the intersection or a NO TURN ON RED FROM THIS LANE (with down arrow) (R10-11d) sign may be mounted directly over the center of the lane from which turns on red are prohibited.

Standard:

The CROSSWALK STOP ON RED (symbolic circular red) (R10-23) sign (see Figure 2B-30) shall be used in conjunction with pedestrian hybrid signals (see Section 4F.02).

The EMERGENCY SIGNAL (R10-13) sign (see Figure 2B-30) shall be used in conjunction with emergency-vehicle traffic control signals (see Section 4G.02).

The EMERGENCY SIGNAL—STOP WHEN FLASHING RED (R10-14 or R10-14a) sign (see Figure 2B-30) shall be used in conjunction with emergency-vehicle hybrid signals (see Section 4G.04).

Option:

In order to remind drivers who are making turns to yield to pedestrians, especially at intersections where right turn on red is permitted and pedestrian crosswalks are marked, a ~~TURNING TRAFFIC MUST YIELD TO PEDESTRIANS~~ Turning Vehicles Yield to Pedestrians (R10-15) sign (see Figure 2B-30) may be used. this paragraph was relocated within this section to improve continuity

A U-TURN YIELD TO RIGHT TURN (R10-16) sign (see Figure 2B-30) 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~~ a right-turn GREEN ARROW signal indication is simultaneously being ~~shown~~ displayed ~~a right-turn GREEN ARROW signal indication~~ to drivers making a right turn from the conflicting approach to their left.

A RIGHT TURN ON RED MUST YIELD TO U-TURN (R10-30) sign (see Figure 2B-30) may be installed to remind road users that they must yield to conflicting U-turn traffic on the street or highway onto which they are turning right on a red signal after stopping.

Section ~~2B.46~~ 2B.60 Photo Enforced Signs and Plaques (R10-18, R10-19P, R10-19aP)

Approved by Council 1-12-08

Option:

A TRAFFIC LAWS PHOTO ENFORCED (R10-18) sign (see Figure 2B-1) 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 (R10-19P) plaque or a PHOTO ENFORCED (R10-19aP) word message ~~sign~~ plaque (see Figure 2B-1) 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 (R10-19P or R10-19aP) ~~sign~~ plaque shall be a rectangle with a black legend and border on a white background.

Section 2B.61 Ramp Metering Signs (R10-28 and R10-29)

Approved by Council 1-12-08 with modifications shown in yellow

Option ~~Guidance~~:

When ramp control signals (see Chapter 4I) are used to meter traffic on a freeway or expressway entrance ramp, regulatory signs with legends appropriate to the control ~~should~~ may be installed adjacent to the ramp control signal faces.

For entrance ramps with only one controlled lane, an XX VEHICLE(S) PER GREEN (R10-28) sign (see Figure 2B-31) ~~should~~ may be used to inform road users of the number of vehicles that are permitted to proceed during each short display of the green signal indication. For entrance ramps with more than one controlled lane, an XX VEHICLE(S) PER GREEN EACH LANE (R10-29) (see Figure 2B-31) sign ~~should~~ may be used to inform road users of the number of vehicles that are permitted to proceed from each lane during each short display of the green signal indication.

Reason for changes to 2B.61 – As approved by RWSTC. Ramp Metering signs should not be a guidance but rather optional for use depending on enforcement experiences in various states. Regulatory signs of this nature may not be needed to enforce ramp metering signals. It is a violation to proceed on a red indication. It is not mandatory to sign for this regulation.

Section ~~2B.47~~ 2B.62 KEEP OFF MEDIAN Sign (R11-1)

NPA had no changes to this text.

Option:

The KEEP OFF MEDIAN (R11-1) sign (see Figure 2B-32) 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.

Section ~~2B.48~~ 2B.63 ROAD CLOSED Sign (R11-2) and LOCAL TRAFFIC ONLY Signs (R11-3 Series, R11-4)

NPA had no changes to this text.

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) or 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 (see Figure 2B-32) 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.49~~ 2B.64 Weight Limit Signs (R12-1 through R12-5)

Approved by Council 1-12-08

Option:

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

To restrict trucks of certain sizes by reference to empty weight in residential ~~districts~~ areas, edited to increase consistency the legend may be NO TRUCKS OVER XX t (~~XX~~ TONS) EMPTY WT or NO TRUCKS OVER ~~XX~~XX 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~~ sign edited to increase accuracy may be used, such as WEIGHT LIMIT XX t (~~XX~~ TONS) PER AXLE, XX 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~~ displayed edited to increase consistency to the right of each symbol as XX 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 (see Figure 2B-32) 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.

A METRIC (W14-16P) plaque should be mounted above a Weight Limit sign that shows the load limits in metric units.

Section ~~2B.50~~ 2B.65 Weigh Station Signs (R13 Series)

Approved by Council 1-12-08

Guidance:

~~An ALL TRUCKS/COMMERCIAL VEHICLES NEXT RIGHT~~ A TRUCKS OVER XX TONS MUST ENTER WEIGH STATION NEXT RIGHT (R13-1) sign (see Figure 2B-33) 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.51).

Option:

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

Section ~~2B.51~~ 2B.66 TRUCK ROUTE Sign (R14-1)

Approved by Council 1-12-08

Guidance:

The TRUCK ROUTE (R14-1) sign (see Figure 2B-33) should be used to mark a route that has been designated to allow truck traffic.

Option:

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

Section ~~2B.52~~ 2B.67 Hazardous Material Signs (R14-2, R14-3)

NPA had no changes to this section.

Option:

The Hazardous Material Route (R14-2) sign (see Figure 2B-33) 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 (see Figure 2B-33) 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 material have the opportunity to take an alternate route.

Section ~~2B.53~~ 2B.68 National Network Signs (R14-4, R14-5)

NPA had no changes to this section.

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 (see Figure 2B-33) shall be used.

Option:

The National Network Prohibition (R14-5) sign (see Figure 2B-33) 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.69 Headlight Use Signs (R16-5 through R16-12)

Section 2B.69 Tabled by RWSTC until June 2008

Support:

Some States require road users to turn on their vehicle headlights under certain weather conditions, as a safety improvement measure on roadways experiencing high crash rates, or in special situations such as when driving through a tunnel.

Option:

A LIGHTS ON WHEN USING WIPERS (R16-5) sign (see Figure 2B-34) or a LIGHTS ON WHEN RAINING (R16-6) sign (see Figure 2B-34) may be installed to inform road users of State laws regarding headlight use. Although these signs are typically installed facing traffic entering the State just inside the State border, they also may be installed at other locations within the State.

Guidance:

If a particular section of roadway has been designated as a safety improvement zone within which headlight use is required, a TURN ON HEADLIGHTS NEXT XX km (MILES) (R16-7) sign (see Figure 2B-34) or a BEGIN DAYTIME HEADLIGHT SECTION (R16-11) sign (see Figure 2B-34) should be installed at the upstream end of the section, and a END DAYTIME HEADLIGHT SECTION (R16-12) sign (see Figure 2B-34) should be installed at the downstream end of the section.

Option:

A TURN ON HEADLIGHTS (R16-8) sign (see Figure 2B-34) may be installed to require road users to turn on their headlights in special situations such as when driving through a tunnel. A TURN OFF HEADLIGHTS (R16-9) sign (see Figure 2B-34) or a CHECK HEADLIGHTS (R16-10) sign (see Figure 2B-34) may be installed downstream from the special situation to inform drivers that the using their headlights is no longer required.

Section ~~2B.54~~ 2B.70 ~~Other~~ Miscellaneous Regulatory Signs

Approved by Council 1-12-08 with modifications shown in yellow.

~~Option:~~ these two paragraphs were relocated to Section 2B.02

~~Regulatory word message signs other than those classified and specified in this Manual and the "Standard Highways Sign" book (see Section 1A.11) 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.~~

Option:

~~A FENDER BENDER MOVE VEHICLES FROM TRAVEL LANES (R16-4) sign (see Figure 2B-35) may be installed to inform road users of State laws that require them to move their vehicles to the shoulder of the roadway to minimize the resulting effect on roadway congestion if they have been involved in a minor non-injury crash.~~

A FENDER BENDER, MOVE VEHICLES FROM TRAVEL LANES (R16-4) sign (See Figure 2B-35) may be used to require motorists to move accident vehicles from the travel lane.

MODIFY FIGURE 2B-35 TO INCLUDE RWSTC SELECTED SIGN DESIGN (all black-on-white, far right of RWSTC approval).

Reasons for change to Section 2B.70 – Consistent with RWSTC approved language through the task force for RWSTC proposal SSR # 42 (Dec 07). Approved by RWSTC on Jan 9, 2008. Sign to read FENDER BENDER, MOVE VEHICLES FROM TRAVEL LANES. Often there is no shoulder and therefore it is more appropriate to state to move from travel lane rather to move to the shoulder. Also, the sign message without the symbol is used by more states than the sign with the symbol.

Standard:

When a seat belt symbol is used, the symbol shown in Figure 2B-35 shall be used.

Guidance:

The seat belt symbol should not be used alone ~~but in connection with mandatory seat belt regulatory messages~~. If used, the seat belt symbol should be incorporated into regulatory sign messages for mandatory seat belt use.

VOTE: For:
Opposed:
Abstentions:

u: 2009 NPA - RWSTC Approval part 2B to Bob Garrett. Approved by Council 1-12-08 updated 2-3-08